Before/After

Transformation, Change, and Abandonment in the Roman and Late Antique Mediterranean

edited by

Paolo Cimadomo, Rocco Palermo, Raffaella Pappalardo and Raffaella Pierobon Benoit

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Introduction

Paolo Cimadomo, Rocco Palermo, Raffaella Pappalardo, Raffaella Pierobon Benoit

Rome's impact on its territories generated a wide array of transformation and re-configuration, both on the physical and socio-cultural landscapes. The strengthening of the Empire, at the end of the last centuries BCE, coincided with a moment of political turmoil in the Mediterranean basin, one that contributed to the success of Rome over its conquered territories. Large cities, wealthy and productive countryside and large-scale infrastructures were commonly used as proxies for the imperial expansion and cultural change. Such intense urbanization fuelled continuous re-shaping processes in both major cities and the rural world, whose economic success was mutually tied to the regional and global context.

And yet, while some areas underwent cycles of transformation and cultural renaissance, some other regions/cities experienced periods of abandonment and demographic decrease. In addition, environmental phenomena, natural disasters, and epidemic outbreaks might have contributed to the success and failure of one place over another (Harper 2017).

Transformation, however, intrinsically implies a kinetic system in which a current state is not destined to stay the same, and this is certainly true of the ancient world and the Roman Empire in particular.

Indeed, on a micro-level, the abandonment of cities and urban centres and their successive re-occupation are usually testified by multiple architectural and functional reconfigurations and processes of space (re)adaptation. On a regional scale, however, this transformation is witnessed by multiple factors such as reduction in number of settlements, occupational change (i.e. from sedentary to pastoralists or vice versa) and abandonment of natural and resource exploitation areas. These phenomena generated socio-economic outcomes and, more importantly, demographic change and increase/decrease in population.

Past and modern studies have constantly focused on themes such as collapse, crisis and reconfiguration in the Roman world, broadly defined from Britain to the Near East, with an emphasis on historical, long-term dynamics, rather than on specific archaeological contexts.

Indeed, as already outlined by Helen Dawson, 'there is a distinctive shortage of studies relating to abandonment, at least in the Mediterranean' (Dawson 2014, 181). This is due to the difficulty archaeologists have in identifying precise markers of abandonment on a house or a site. There are indeed several challenges in defining abandonment and its effects on the site contents, especially in the archaeological field, and not all of them are approachable and comprehensible (Nelson 2000).

In recent decades, abandonment has been usually considered as a direct consequence of decline, decay or destruction. The common image of an abandonment, in example, related mostly to catastrophes or mass migrations. The works of Michael Brian Schiffer in the 1970s were particularly focused on this view, linking abandonment to the production of *de facto* refuse, considered as usable cultural material left behind when a site was abandoned (Schiffer 1972, 160; 1976, 33-34). In this period, ethnoarchaeology substantially influenced research on site formation processes, focusing on the effects of abandonment behaviour on archaeological patterns.

Although natural and human-driven disasters, as well as environmental crises, did indeed occur, movements of people and mass migration phenomena were not necessarily caused by natural failure. In example, some scholars started to consider abandonment as the outcome of a strategy for using landscapes (Nelson 2000, 52). Inés Gordillo and Bruno Vindrola-Padrós have recently considered destruction as 'a part of a dynamic process that is constituted in time according to the agents' dispositions, and integrated within a network along with other practices. Thus, any proposed definition is necessarily an arbitrary delimitation of the dynamic network of social practices' (Gordillo and Vindrola-Padrós 2017, 156). This view, influenced by the works of Bourdieu (1977), Miller (1987) and Chapman (2000), implies that destruction or abandonment do not constitute an opposition to life or production, but rather that it is strictly related to other practices, as part of a complex system. From this perspective, we can understand Margaret Nelson, who considers abandonment as 'an aspect of ongoing social change and reorganisation' (Nelson 2000, 55). In this way, we recognize its intentional quality, whereby leaving places and things constitutes another way in which a society constructs itself and allows the archaeologist to interpret aspects of ancient lives that are practically imperceptible from a production-based approach. In other words, studying abandonment as a strategy can help to understand the manner in which objects acquire value and how that value is manifested when they are destroyed or left.

The scale of the abandonment is also a critical aspect to take into consideration, as such processes do indeed take place in small (sites) and large areas (Cameron 1993, 4). Understanding transformation and changes requires detailed information on site or regional-level processes of growth and decline. Thus, it is very hard, if not impossible to distinguish between the effects of abandonment processes and the post-depositional disturbance that naturally might have occurred. If a site is abandoned over a long period of time, items may be mined by the residual occupants, who reused them for the same or different purposes in other areas.

In this specific contest, one must distinguish two types of abandonment: the abandonment of settlements and the abandonment of structures or isolated areas within the same settlement. The former type is usually a gradual process, sometimes due to catastrophes or natural disasters. It can have a seasonal trait, and it seems to be more evident among earlier societies. Indeed, if not caused by natural events, such transformation processes were perhaps part of a larger land-use pattern which involved different lifestyles, including pastoralists, hunter-gatherers and swidden agriculturalists. Therefore, human groups rotated among a series of settlements, periodically occupying or re-occupying specific areas. It is possible to have a clue of this behaviour among semi-sedentary societies, whose occupational history is usually reflected by seasonality, while the abandonment of a site is less predictable in a fully sedentary system. In this case, it is more likely that a second type of abandonment occurs. In architecturally structured settlements, abandonment processes and the sub-sequent re-occupation of the space are far more evident in the archaeological record. This has generated an extensive literature of micro-level histories of abandonment in urban centres and/or major cities (Gerritsen 1999).

Both types of abandonment suggest that most of the interpretations of the archaeologists necessarily refer to the last occupation phase before the definitive abandonment of the site (Carrer 2015, 325). A single-event abandonment without a subsequent reuse of materials or reoccupation of the area is very rare. Therefore, the abandonment process and its effects upon artefacts, architectures and landscape does not stop with the end of a continuous occupation of the site (Tomka and Stevenson 1993, 192). Transformation, re-organization and re-adaptation define the post-abandonment moment, and this is why the present book seeks to explore these phenomena, rather than the exact moment of collapse.

The volume is the result of a workshop titled 'Filling the Gap: Investigating Abandonment in the Roman Empire', which was organised in the framework of the Theoretical Roman Archaeology Conference

held in Rome in March 2016 (http://trac.org.uk/events/conferences/trac2016/sessions/investigating-abandonment-in-the-roman-empire/). This session aimed to analyse traces of abandonment, re-use, reconfiguration, and the possible subsequent re-organization as they are perceivable in different archaeological contexts from all over the Roman Empire. Our purpose was to define a model for the understanding of abandonment through the analysis of the archaeological record, but also to emphasize abandonment processes and post-abandonment re-organization not as unrelated phenomena, but rather as a critical aspect of cycles of evolution in past societies. Among the investigated characteristics, the response of specific areas to imperial abandonment, the change in human landscape and the response of material culture accordingly are central to the investigation of the topic. Particularly welcome were those papers focusing on the transitional periods between a firm occupation and abandonment, the causes of abandonment and post-abandonment processes and the human and social perception of a distinct power hiatus.

Six papers and two posters were presented at the conference, most of which have been included in the present volume. Furthermore, two papers were added later. Therefore, the volume consists of seven contributions written by: Marco Cavalieri (Université Catholique de Louvain-la-Neuve, Belgium), Alessandra Esposito (King's College London, UK), Tyler Franconi (Brown University, USA), Joan Oller Guzmán (Universitat Autònoma de Barcelona, Spain), Dario Nappo (Università di Napoli Federico II, Italy), Giorgos Papantoniou (University of Cyprus), and Athanasios Vionis (University of Cyprus). The contributions have been organized according to a thematic division within the volume. The primary goal was to investigate the dynamics that led to the collapse or abandonment of a site or region and what caused a later re-occupation or the definitive disuse of specific buildings, urban centres, or larger areas. This is the main research avenue that connects all the contributions together. The articles are arranged following specific criteria. The first two articles deal mainly with the 3rd c. CE crisis, focusing the analysis on the political and economic aspects that led (or not) to abandon some areas. The first paper is titled "Crisis or transformation: the effects of the 'third century crisis' in the Layetania Interior. An example from the Hispania Citerior Tarraconensis', written by Joan Oller Guzmán. In this paper, the author analyzes both urban and rural areas of the north-eastern Iberian Peninsula during the third century. Several cities seem to preserve their previous role with very few changes connected with the 'Christianization' of the settlement and without decreasing power.

In the contribution 'The Abandonment of Myos Hormos', Dario Nappo focuses on the development and decline of the site of Myos Hormos. Many scholars tried to explain this decline with the general crisis of the period, but the author gives another hypothesis connected to a voluntary abandonment by Roman traders, who gradually shifted toward other ports, like Clysma.

In his chapter, titled 'Hydrological change and settlement dislocation along the later Roman Rhine', Tyler Franconi explores the strict connection between physical and cultural transformation in a borderland area. The author focuses on the impact of climatic changes and the role of humans in modifying the urban and rural landscape, outlining the connection between the period of political upheavals and the hydrological crisis

Another important aspect often analysed is the abandonment of religious practices. The contribution 'Abandoned but not forgotten. Dynamics of authority negotiation in the British sacred landscape' by Alessandra Esposito offers an overview of the ritual practices in the area of east and south-east Britain between the second and the fourth century CE. The study of the deposits of headdresses from Hockwold-cum-Wilton, Cavenham Heath, and Deeping-St-James allows us to explore the dynamics of changes in rituals connected with a modified world.

Giorgos Papantoniou's paper, titled 'Contesting Sacred Landscapes: Continuity and Abandonment in Roman Cyprus', instead, focuses on the abandonment or the loss of power by extra-urban sanctuaries of Roman Cyprus, which probably started with the Roman annexation of the island during the second century BCE. Papantoniou shows how the shift of the political and administrative power modify the sacred space and the social perception of the landscape.

The last two articles show two cases of changes and revivals of apparently abandoned sites. 'Abandonment and Revival between Late Antiquity and the Early Middle Ages: Facts and Fiction' by Athanasios Vionis re-evaluates archaeological evidence of Late Antique Cyprus, outlining that the changes of that period did not lead to a pauperisation of the area, but to the emergence of new actors in the political and economic scene. Marco Cavalieri's 'Investigating Transformation through Archaeological Records in the Heart of Tuscany. The Roman Villa at Aiano between Late Antiquity and the Early Middle Ages (4th-7th c. AD)' focuses on a case-study, a Roman villa near Siena, in Italy. The villa is characterised by phases of abandonment and re-use, changing its functions, but preserving its economic power.

All these contributions do not want to represent a comprehensive and ultimate overlook on aspects and phenomena of abandonment in the archaeological record. They rather aim at the precise analysis of specific case studies, mostly related to the Western Mediterranean world, which represented an outlier in the literature panorama. The inclusion of a wide chronological framework that embraces the post-imperial period up to and including the early Medieval phases serves the goal of presenting long-term processes of re-organization and landscape adaptation, but also different societal and urban responses to collapse/transformation. In addition, the combination of single-site studies (Cavalieri, Nappo) and regional approaches (Franconi, Guzman, Esposito, Vionis, Papantoniou) aims to cover a more complete spectrum of evidence. Within the regional studies, environmental (Franconi), religious (Esposito), economic (Vionis and Papantoniou), and societal change (Cavalieri, Guzman), or lack thereof, are explored as triggers – among other phenomena – of significant and of minor or major impact abandonment processes.

Naples and Groningen, March 2020

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Crisis or Transformation: the Effects of the 'Third Century Crisis' in the Layetania Interior. An Example from the Hispania Citerior Tarraconensis

Joan Oller Guzmán[1]

Abstract

This paper focuses on the study of the third century period in an area of Hispania Citerior Tarraconensis*: the Layetania Interior. Our main goal is to try to determine whether the effects of the so-called 'Crisis of the third century' really affected this region during Roman times or not, shedding some light on a controversial period which study has been deeply conditioned in Roman Spain by the traditional historiography. As we will see, both the characteristics of this territory and the archaeological data available will allow us to offer an interesting case study regarding this complex question.*

The so-called 'Crisis of the third century' is one of the major historical paradigms around the study of Roman Spain. Until recent times, the main theory about the evolution of this area of the Empire during the third century implied a general regression in many ways, including politics, economy, society, culture, etc. This hypothesis, based on the ancient literary sources but also on the evolution of the epigraphic habit, had a great impact on the different researchers that had worked on this matter during the 90s. In a vicious circle, the archaeological data seemed to confirm this idea, mainly because several excavations tried to identify the evidence of this crisis in the findings they made. So, basically every level of destruction or abandonment that was posterior to the second century was immediately related to the events of the crisis, especially to the 'Barbarian invasions' that supposedly affected Roman Spain during the second half of the third century AD, focusing the attention particularly in the Frank looting of ca. 260 AD. Thus, the idea that remained was that during the third century Roman Spain suffered a strong crisis on every level that led to a Late Antique period marked by the impoverishment of the whole Iberian Peninsula. The main factors or consequences related to this crisis were the decadence of the cities and the subsequent ruralisation of the territory, implying that the urban elites fled to their residential villae in the *territorium* of the *civitates*, which experienced an unprecedented growth which continued into the fourth century.[2]

This model has been strongly revisited during the last three decades, thanks to an accurate revision of the literary and epigraphic sources, but especially to the exponential growing of archaeological data.[3] Thus, at this point, it is impossible to maintain the idea of a major 'third century crisis' in Roman Spain based on the previous assumptions. However, it is still a debated question how the different areas of this territory evolved during this century, considering there has been more attention focused on periods like the Late Republic or the Early Empire. There is still a lot of work to do in order to understand the changes that happened in this territory during this century (because, obviously, there were changes);

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2 Regarding the historiographical evolution of this model of the 'crisis of the third century' in Roman Spain, see: Cepas 1997, 13-27. More generally about the historiographical interpretation of the phenomenon in the Roman Empire: Liebeschuetz 2007, 11-16.

3 Without the intention of being exhaustive, for the revision of this model see: Arce 1982, Arce 1993, García de Castro 1995, Cepas 1997, Ariño *et* Diaz 2002, Kulikowski 2004, Kulikowski 2005, Witschel 2009.

changes that led to another moment of great stability and general prosperity in Roman Spain as it was the fourth century. Therefore, by making a humble contribution to the debate, we will focus our interest in a small region in the *Hispania Citerior Tarraconensis*, the Layetania Interior, which we think can provide a good case study about the evolution and changes related to this third century in *Hispania*.

The Layetania Interior as a case of study

Located in the Iberian Peninsula, within the Catalan territory, and corresponding roughly to the current administrative regions of *Vallès Occidental* and *Vallès Oriental* (north of Barcelona), this territory would be the interior area of the 'Iberian region' inhabited by the Layetan people, well known and identified by classical literary sources.[4] Some of these sources allow us to place this area between the natural boundaries of the *Llobregat* River in the west, the mountain range of *Serralada Prelitoral* in the north, the river *Tordera* in the east and the Mediterranean Sea to the south. Therefore, it is especially important the mention of the Alexandrian author Ptolemy (2.6.72), who refers to the Layetan people and, while describing the structure of its territory, he speaks of an 'interior Layetania', which differs from the 'coastal Layetania'. Thus, following the descriptive logic of the geographer, this 'Layetania Interior' region should, at least, correspond to the current *Vallès* area. So, we are in front of a coherent territory on a historical and geographical level.

Since ancient times, this territory has been basically determined by two main features that have defined its evolution over the centuries: its role as a key road point and its productive capacity. On the one hand, it is an area that acts as a natural pass between the regions of *Girona* and *Camp de Tarragona*, two important zones in ancient times with cities as *Gerunda* or *Tarraco*. But also between the central Catalan coast and interior Catalonia, allowing the passage towards the Pyrenees. In fact, this role is well documented in ancient times through a variety of archaeological and epigraphic evidence that clearly prove this point, especially with the documentation of the passage of *via Augusta* across this territory.[5] On the other hand, regarding the productive aspect, this area has traditionally been a cereal producing zone and, in fact, until very recent times that was its main economic activity. During antiquity, this fact is quite evident in the Iberian period, with the presence of abundant fields of silos and even settlements specifically dedicated to agricultural production.[6] To this we can also add evidence from literary sources that speak of the importance of Layetan wine production during the Early Empire.[7] All these elements provide a whole view of a densely inhabited and exploited territory since the seventh century BC, which become, during the Roman period, a key point for the control and exploitation of the central coast of the northeast area of Roman Spain. (**Fig. 1**).

Despite all these characteristics, we must also consider that we have a huge amount of data related to this territory from ancient times, comprising literary, epigraphic and numismatic sources, medieval documentation and, especially, archaeological information (Oller 2012a, 41-98). To sum up, the Layetania Interior is a region where the ideal characteristics for the development of a romanised society and the

4 Basically, the references of Strabo (3.4.8), Pliny the Elder (Nat.3.3.21), Ptolemy (2.6.18; 2.6.72) and, to a lesser extent, Pomponius Mela (De Chor.2.90) and Avienus (Ora Marítima.519 – 522).

5 In fact, the different ancient itineraries preserved talk about four possible *mansiones* located in the Layetania Interior territory. Nevertheless, its importance as a communication axis well documented even before, with the presence of one *miliarius* of proconsul Manius Sergius (120-110 BC) in the town of *Santa Eulàlia de Ronçana* (*Vallès Oriental*), confirming a Roman territorial intervention in this area already in second century BC. For all these questions, see: Oller 2015, 130-137 and 231-246.

6 We can quote just one of the best examples of this situation like the Iberian settlement of Montjuïc, in Barcelona, with the documentation of several silos with an impressive storage capacity (thousands of litres of cereal) and clearly related with the Mediterranean commerce through the mouth of the *Llobregat* river (Asensio *et al.* 2009).

7 With authors like Martial (*Ep*.1.26.9-20; 7.53.1-10) or Pliny the Elder (*Nat*.14.71). On this matter: Oller 2015, 250-271.

existence of enough data to draw a quite precise picture of its evolution during Roman times converge. That is why we want to approach its territorial structure during the third century, since we think it can provide an interesting example of the possible changes and/or continuities experienced in the northeastern area of the Iberian Peninsula.

The Layetania Interior during the third century

Before talking about the situation in the Layetan territory in the third century, we have to give a brief insight on the previous evolution of this area.[8] In fact, this is a region in which Rome had an immediate interest shortly after the landing on *Emporion* in 218 BC during the Second Punic War. As a key point for the troop's movements between the area of *Emporion* and *Tarraco,* its control was probably fundamental for Rome from the beginning. In addition, we have already mentioned the important productive capacity of this region, especially related with the cereal production, which was of course of great importance for the Roman military logistics. Thus, Rome quickly extended its control in this area, a fact well documented by archaeology with the contraction of the previous Iberian territorial model and the progressive introduction of elements related with the Roman's way of controlling and exploiting provincial territories during Republican times. This process experiences a huge acceleration from the last quarter of the second century BC and during all the first century, when we can see the implementation of elements as the *civitas* or the productive system of the *villa* (Oller 2015, 119-193).

These elements were first introduced into the coastal Layetan area, but during Augustan times also extended to the interior region. We consider that, as it happened in almost the whole Iberian Peninsula, the government of Augustus implied the definitive consolidation and integration of the Layetania Interior into the Roman Empire on a social, political, economic and cultural level. This is the period that saw the birth of the first *civitates* of the area (*Egara* and the Roman settlement of *Caldes de Montbui*) and also the exponential growth of the Layetan *villae,* both related with a territorial intervention that supposed the creation of a new road system (with the *via Augusta* as a main axis) and, probably, the making of a cadaster.[9] This process arrived to a culmination at the end of the first century AD when the Flavian reforms meant the juridical integration of Roman Spain, provoking, for instance, the promotion of the Layetania Interior *civitates* into the municipal condition.[10] So, finally we arrive to the second century AD, the moment that has been considered the height of the history of Roman Layetania, with the maximum peak of the rural production and the existence of rich and romanised elites that are well represented both in their *villae* and in the epigraphic documents coming from the *municipii* (Oller 2012a, 533-554) (**Fig. 2**).

The question here is if we can identify different territorial patterns during the third century that allow us to determine substantial changes in the social, economic and political structure of the Layetania Interior. Basically, are there any traces of an actual crisis of the Roman territorial model in the Layetania Interior during the third century? Can we find evidence of abandonment or a general regression in the sites or mostly what we document is a general continuity? To answer these questions, we will approach the territorial structure and its changes from the second to the third century AD.

8 We will follow here our previous works on this matter: Oller 2012a, Oller 2015, Oller 2016.
9 For all these changes during Augustan times, see: Oller 2016.
10 A promotion which is certain for *Egara* and more problematic in the case of *Caldes de Montbui*: Oller 2015, 290 and following.

The cities

If we start with the basis of the Roman territorial structure, we can see that the cities' evolution was one of the main elements used for defending the idea of a great crisis in the Roman Spain during the third century. The basic hypothesis was that since the end of the second and during all the third century, Hispania saw a general involution in its urban configuration.[11] This situation was directly related with the Empire' own evolution, because the political crisis and the military problems, added to a general contraction of production and commerce, generated the breaking of the traditional model of the *civitas*. Thus, the urban elites, deeply affected by these problems, decided to massively abandon the cities, settling themselves in their rural *villae*. The entire process implied the progressive abandonment of the different cities, now deprived of the groups traditionally in charge with the conservation and maintenance of the urban institutions and public buildings, and also a general 'ruralisation' of the territory, especially represented by the luxurious villae appeared during the third century and onward (Witschel 2009, 474).

As we have seen before, this model is no longer sustainable for Roman Spain. Recent works on this question tend to diminish the importance of the involution of the *civitas* model during this century.[12] For example, evidence considered as fundamental for defending the urban crisis such as the reducing of the epigraphy related to the urban elites or the abandonment of some public buildings are now revised under new perspectives. So, the reduction of the inscriptions is probably more related to a change in the epigraphic habit, which shows a progressive translation of the evergetic actions from the municipal elites to the provincial or imperial administration (Cepas 1997, 109, Witschel 2009, 491). Regarding the public buildings, nowadays, researchers are more inclined to talk about an 'urban restructuration' than an 'urban crisis' (Arce 1993, 178; García Moreno 1999, 9-10; García de Castro 1995, 201; Arce 2002, 43; Kulikowski 2005, 57; Kulikowski 2006, 133; Witschel 2009, 494-495; Macias 2015, 29-34). Finally, the archaeological evidence shows that the increase of the existence of big *villae* during the third and fourth centuries does not have to be related with the abandonment of the cities; instead, what we can appreciate is that many of these *villae* are still deeply related in an economic sense with the cities of the Late Antique period.[13] Thus, what we can see is an evolution of the cities directly related to the social and political changes experienced in the Empire. For instance, those cities which were privileged due to Diocletian's reforms, lived a period of wealth increase and magnificence, as we can see in the case of *Emerita Augusta*, chosen as capital of the *diocesis Hispaniarum* (Arce 2002, 52; Witschel 2009, 494). Or the case of *Tarraco*, in the *Citerior*, which despite the references of the literary sources talking about the destruction provoked by the Franks, shows clear evidence of continuity, with the *forum* from the *colonia* working at least until the beginning of the fourth century and some public *thermae* built during the first half of the third century in the harbour area. Therefore, it seems that even if we can observe evidence of change and restructuration of the city, it will continue its activity during the following centuries, with different elements that still indicate the presence of some of the urban elites *in situ* (Macias 2015).[14]

On the other hand, we can see different cities that were clearly affected by the new socio-economic and political context of this period. Thus, we can identify several cases of small cities that appeared during

11 For this traditional vision with some bibliography, see: Arce 1993, 177; Sillières 1993, 151; Kulikowski 2004, 130-133; Chavarria 2004, 71; Kulikowski 2005, 50.

12 For these works, see Kuliowski 2006, Liebeschuetz 2007 and Witschel 2009, with abundant bibliography.

13 For example, archaeological works in these villae have showed that the material culture documented (imported materials, luxury objects, coins, etc.) seems to imply the maintenance of intense commercial contacts with the cities located in their hinterland. This situation has been well identified in the areas around cities like Emerita Augusta, Complutum, Tarraco or in the rich villae from the Castilian plateau (La Olmeda). Thus, the traditional idea of 'autarchic' villae working as isolated and independent socio-economic entities has to be relativised: Ariño, Díaz 2002, 79; Chavarría 2004, 71; Witschel 2009, 492.

14 For the case of *Tarraco*: Muñoz, Menchon, Macias 1994; Perich Roca 2014; Macias, Rodà 2015, 124-126; Macias 2015, 35-36 and 41-42.

the first and the second century, which developed huge monumental public complexes, that were no longer sustainable for the local elites during the third century and that were gradually abandoned during this period. This seems to be the case of cities like *Munigua* (Schattner 2003; Gutiérrez-Rodríguez *et al.* 2019, 52; Gómez 2013, 110), or *Baelo* (Sillières 1997, 57-63; Gozalbes 2014) in the *provincia Baetica* or *Emporiae* (Castanyer *et al.* 1993, 191) in the *Tarraconensis*. However, even if they had to face these difficulties, most of these cities continued to exist during the fourth century and beyond, showing that this process was not a decadence of the urban phenomenon, but rather a restructuration and adaptation to the new characteristics of the period (Witschel 2009, 492-495).[15]

In the Layetan territory, this situation is well documented, especially in the coastal region where in a relative small area three different Roman cities were concentrated: *Iluro* and *Baetulo*, founded during the first half of the first century BC and later obtaining the municipal condition, and *Barcino*, *colonia* created during the Augustan period. It is interesting to note that we have here a good example of the phenomena previously referred. This way, we have *Barcino* in which archaeological data and epigraphic and literary sources indicate a general transformation that supposed its progressive conversion in the main city of the Catalan area during fourth and fifth centuries.[16]

Regarding *Iluro* and *Baetulo*, both experienced some trouble during the third century if we consider the archaeological data. What is especially interesting for our study is the case of Baetulo, a city deeply related to the oriental area of Layetania Interior since it was the harbour where all the agricultural production obtained in this region went through. In *Baetulo* we can find a general process of expansion of the construction during the second century A.D. (for example, the construction of a theatre), followed by a urban contraction in the first half of the third century, when several public and private buildings where abandoned and led to show the partial or complete desertion of the southern area of the city. Nevertheless, this process does not imply the end of the urban vitality of *Baetulo* and, in fact, archaeology proves a rebirth of the constructive activity during the second half of the century, accompanied by the documentation of several honorific epigraphs dedicated to the imperial family by the *ordo decurionum baetulonensis* (Padrós, Sánchez Gil 2014).

Regarding the cities, Layetana Interior has certain characteristics that make it different from the coastal Layetan region. In fact, there is no evidence that allows us to talk about 'cities' in the classical sense. Nevertheless, the epigraphic documentation identifies two possible *municipii*: *Egara* (current *Terrassa*) and the Roman settlement of *Caldes de Montbui*. The explanation for this discordance between archaeological and epigraphic data can be explained because of an adaptation of the "*civitas* model" in this area. So, as we have seen before, the Layetania Interior is defined by its rural character and its importance as a strategic communication axis. Basically, the most of the population lived in the rural areas and, taking into account that the coast already had three urban centres, there was no need to establish part of this population in a city. However, Rome needed some central points that could act as a head of the administration of this area on a tributary, political, economic or religious level. That is why we can see from the different sources of information that the solution was to promote some previous Iberian settlements and convert them into these administrative heads of the territory. However, without the need of developing a classical urban fabric because it was not necessary to fulfil their functions which were: to control and administrate this territory and, at the same time, offer a

15 With some exceptions, as for instance the case of *Labitolosa*, in the *Hispania Citerior Tarraconensis*, which seems to be abandoned at the end of the second century (Magallón, Sillières 2013).

16 Maybe the best example of this transformation is the construction of an impressive walled enclosure with a castellum during the fourth century. In addition to that, archaeology has identified evidence of new thermae, several productive areas (*tinctoria, fullonica, tabernae*, wine and *garum* installations, etc.), the first Christian buildings or different rich domus. It is interesting to note that, already during the third century, these structures started to occupy streets or unbuilt areas, indicating the growth of the population and, in a general way, of the politic entity and economic importance of the city since this third century. Regarding *Barcino* during the Late Antique period, see: Gurt, Godoy 2000; Beltrán de Heredia 2008, Beltrán de Heredia 2013, 17-23.

space of public representation for the local elite's power. To do this, they only needed a small center with some public buildings that could be used by these local elites as a focus of Imperial power and for the representation of their own power. We have called this structure the model of the '*civitas sine urbe*'.[17]

As previously mentioned, in the Layetania Interior we can identify two of these types of *civitas.* In the first case, we can discuss the example of Egara. Archaeologically speaking, the different interventions have documented the remains of several structures with their origins in Iberian period, but with a turning point during the Augustan phase. From this moment, the area was reorganised with a general refection of its structure. Thus, we can identify several *dolia* and silos, wells, deposits and the remains of a small complex behind the apse of *Sant Pere*'s church. At the same time, the most recent archaeological works found a *domus* of some richness in the south area of the complex. Even if the chronology of this building cannot be totally specified, it seems clear it is before the construction of the Christian complex in the fourth century. The *domus* has an *impluvium* which dimensions (6 m long by 5 meters wide and 1,20 meters deep) are considered, by the archaeologists, to be too large for a normal *domus* of the region. Moreover, the recovery in this area of several elements, such as two fragments of friezes and a relief with a masculine bust and the set of inscriptions found in the churches of *Sant Pere* (including three imperial dedications) allow us to offer the hypothesis of the existence of some public building in this area from Augustan times (Garcia *et al.* 2009, 35-40). Of course, the most important piece of evidence is given by the recovery of these inscriptions that directly refer to the '*municipium flavii Egara*', evidencing a municipal promotion under the Flavian dynasty.[18]

Then, we have the Roman settlement of *Caldes de Montbui* (*Vallès Oriental*), a very interesting centre composed by a thermal complex raised above an Augustan settlement. The *thermae* are quite well preserved in the current town and are also linked to an important epigraphic corpus, indicating a probable promotion to municipal condition under the Flavians.[19] In any case, in spite of being two of the more well-known areas of Catalonia at an archaeological level, there is not a single evidence for thinking about the development of a urban structure around this small public centres.

In both cases, the study of their epigraphic corpus indicates that the majority of the documents were produced during the second century, showing a peak of the municipal activity from the local elites in *Egara* and *Caldes* (Mayer, Rodà 1984, 28-29; Fabré *et al.* 1984, 76-123; Oller 2012a, 55-82). What happened to these centres during the third century? It is not easy to answer this question because the data available are really scarce. The main source, archaeology, does not really help with this matter, since it is difficult to follow the evolution of both sites during the third century. Nevertheless, what is certain is that they clearly survived this period. In the case of the *thermae* of Caldes, we have evidence of materials from the fourth and fifth century that imply a continuity of the existence of this thermal point (Oller 2012b, 366). For instance, in one of the better known archaeological areas of the thermal complex, currently under the chapel of Santa Susanna, a continuity of the thermal space, used until the fourth century, has been identified, but showing a reduction of its dimensions due to the construction of a necropolis (Monleón 2002, 46; González, Matilla 2017, 538-539). Moreover, we can highlight the existence of another inscription, currently lost, consisting in an imperial dedication to Septimius Severus.[20] Finally, it is also noteworthy that some late coinage was recovered in the thermae, including a coin of Constantine I and another of Honorius (Abad Varela 1992, 149), as well as some late pottery like fragments of TSAD. So, evidence seems to show continuity in the existence of the thermal complex in the third century with a reduction of its dimensions during the fourth century.

17 A model that has been developed in several publications: Arrayás *et al.* 2001; Oller 2014; Oller 2015, 202-211.

18 For the case of *Egara*, with more bibliography, see: Oller 2009; Oller 2014, 98-102; Oller 2015, 290-296; Oller 2016, 150-151.

19 Although in this case it is not possible to be completely sure about this promotion because we do not have a specific reference to the *municipium* (in fact, we even do not know the actual name of the *civitas* in Roman times). However, we do have references to some municipal *cursus honorum* and also to a *res publica*, but they come from two discussed epigraphs. For this entire question, see: Oller 2014, 102-105; Oller 2015, 297-301; Oller 2016, 151-152.

20 Chronologically dated after the year 197 AD (Fabré *et al.* 1984, 86-88).

However, it is hard to determine whether the thermae had the same use during this late phase or were they maintained but changing their function. In this regard, the addition of a necropolis atop of some of the previous thermal structures (as we have seen in the area of Santa Susanna chapel) can be a good indicator; although this process cannot be detected until the beginning of the fourth century.

For Egara we have more evidence thanks to its conversion into a Christian cult zone at least from the fourth century. So, we know there is probably a continuity between the ancient Roman municipium and the Christian temples and this is especially clear from the fact that Egara will become an Episcopal See since the fifth century. Although it is hard to exactly determine the structures from the third century, it is interesting to see that the first religious buildings (mid fourth century) lay upon the previous Roman structures, confirming this continuity between the two centuries (Garcia *et al.* 2009, 40). If we try to see this process in more detail, we can observe that some of the Roman structures that we have identified during the imperial period (such as the so-called *domus*) were used as a base for the construction of the Christian complex. The main piece of evidence that we have to understand the transition between the 'public buildings' of the *municipium* to the Christian structures, is a levelling work documented between the churches of Sant Miquel and Santa Maria in this same area. This intervention directly affected the Roman structures, since they were partially destroyed. This process is dated in the mid-third century, within a 'pre-episcopal' phase when the first Christian structures, like the necropolises, appeared. The archaeologists emphasised the continuity between the two phases, without a clear intermediate abandonment period (Garcia *et al.* 2008, 40 and 191). This situation seems to be pointing out a process of transition between the municipal structures to the Christian (and later Episcopal) ones. Thus, it is an excellent example of the changes from the Roman administrative structures to the Christianised administration, typical from the Late Antique period.[21] Also, it is remarkable that the epigraphic evidence linked to these two settlements disappeared during the third century, being the latest identified inscription from the Severan period. Only in the case of Egara can we find later epigraphic documents of this period which are obviously related to the Christianised centre.

So, based on the evidence we have, it seems that we can talk about continuity during the third century in the existence of the *civitates* of Layetania Interior. Nevertheless, it also seems clear that there is a contraction or involution of theses *civitates*, if we consider the scarce archaeological data recovered and, especially, the lack of epigraphic documents related to this moment. It is really complicated to determine if this contraction implied a general abandonment of these areas at some point, as archaeology cannot provide any certainty regarding this. Anyway, if some abandonment existed, it did not last long and was followed by a new refection of the area, in the case of *Egara* marked by the creation of the Christian centre. We propose that, in general terms, both *Egara* and *Caldes* continued existing as an administrative head of the territory but probably experienced a reduction of the public buildings and of the acts of evergetism of the local elites. However, the main function of these small centres probably continued without change during the third and fourth century, which is showed with *Egara* by its conversion into a Christian cult area and posterior promotion into an Episcopal See.[22] This is evidence of the maintenance of its territorial importance at a socio-political, economic and cultural level. With regards to the thermal complex of *Caldes*, its continuity would fit well with a general process experienced in the *Tarraconensis*, where the *thermae* gradually became an area of encounter and representation for the local elites, sometimes even substituting spaces like the *fora* (Macias 2015, 37-38). In this context, the *thermae* of *Caldes* could have maintained their importance as a central point for the control and administration of the eastern part of the Layetania Interior beyond the third century.

21 In fact, we have some references in the medieval documentation and it is interesting to note that in some of these late mentions, Egara is still referred as 'municipium'. About this medieval documentation and the several references to Egara, see: Mundó 1992; Soler 2003.

22 This conversion into an Episcopal See is one the most usual ways in which small or medium Roman cities continued to maintain its vitality and importance as a territorial central point during Late Antiquity (Cantino 1995, 239).

The *territorium*: *villae* and other rural settlements

We have previously seen that the other aspect that was highlighted regarding the third century crisis in Roman Spain was an alleged process of 'ruralisation' of the territory, which basically implied the increase of the number and wealth of the *villae* due to the abandonment of the urban settlements by the local elites, which established themselves in their rural properties. In addition to that, the economic regression of this period was supposed to be related to a general crisis of the production that affected the rural settlements; that is, a turbulent period in the countryside caused by the barbarian invasions, the economic and commercial disruption and the socio-political crisis of the Empire. Obviously, just as it happened with the cities, this catastrophic view cannot resist the current state of research and several authors have offered data that allows us to diminish this idea of 'rural crisis'.[23] As we have seen before, although it is undeniable that some *villae* start at this moment to increase their wealth, this does not imply an abandonment of the cities by its owners, which still preferred to live in the urban settlements since they were the centers of the political, social and cultural life. On the other hand, it is really complicated to prove the existence of a general production crisis in the Empire and specifically in Roman Spain. Thus, the reduction of the number of rural settlements in different areas of the Spanish provinces can be more related to a restructuration of the land property, than with a disruption of the rural production (Chavarria 1996, 166). However, we still have issues getting a complete view of this process taking into account the lack of archaeological data regarding this matter. In fact, some studies conducted in recent years showed a different point of view of this problem, for example in the *territorium* of *Emerita Augusta*, where a general increase not only of the *villae*, but also of the other rural settlements was documented (Cordero 2013, 268). Finally, another element traditionally linked to this process is the isolation of the countryside from the city marked by the self-sufficiency and autarchy of these *villae*. This has also been reconsidered, as evidence showed that the commercial relationship between these rural settlements and the cities continued to be really intense during the third and following centuries (Ariño, Díaz 2002, 72; Chavarría 2004, 71; Cordero 2013, 269). So, it seems we should talk about a complex process of continuities and transformations rather than a situation of general crisis of the Roman Spain countryside in the third century (Cepas 1997, 249-253; Ariño, Díaz, 2002, 59).

As a territory eminently and traditionally related with the rural production, the processes and changes experienced in the Layetania Interior can provide an interesting vision of all these questions. If we start considering the previous period, this is an area that during the second century AD had its maximum peak of rural production, with a large number of *villae* and rural settlement identified. It was a period where there were some important changes. For instance, we can see the end of a process that implied the gradual abandonment or transformation of the rural sites focused in the wine production and the stabilization of a more diversified production that included especially cereals, but also wine, oil, etc.[24] A total of 75 sites for this century have been documented, from which 24 can be considered *villae*, 22 rural settlement with evidence of a productive orientation, 18 identified as rural settlements without more precisions, two necropolis and nine sites of undetermined characteristics.[25] From these sites, at least 24 do not survive the second century and 49 continued existing during the third century, from which 18 can be considered *villae*, 13 rural settlements with a productive orientation, 10 rural settlements

23 Regarding this traditional view and its revision, see: Cepas 1997, 23-27; Ariño, Díaz 2002, 69-70; Kulikowski 2004, 130-133; Sfameni 2004, 365; Chavarría 2004, 71; Chavarría 2005, 521; Arce 2006, 9-15; Witschel 2009, 492. Cf. Liebeschuetz 2007; Jongman 2007.

24 For the characteristics of the Layetan countryside during this century, see: Oller 2012a, 539-547.

25 The archaeological data related with these sites were obtained through the analysis of the reports made for the elaboration of the Archaeological Map of the region. In addition to that, some other information is linked with other survey projects conducted in the last years in the Vallès area, for example: Flórez 2010; Flórez, Palet 2012. All these data are compiled in Oller 2012b. Of course, we have to take into account the fact that the information offers several issues, as the different intensity of the surveying work in the western and eastern parts of Vallès, mainly due to a wider process of urbanisation and industrialisation in the western area.

without more precisions, two necropolis and six sites of undetermined characteristics. However, we can also highlight that we can document the creation of 14 new sites during this century, making a total of 63 sites identified in the Layetania Interior for the third century.[26] Now, the analysis of the evolution of some of these sites should allow us to determine if we can talk of a countryside crisis in this area during this period.

The first piece of evidence comes from the number of sites identified during the third century in comparison with the sites documented during the second. It is clear that we have a reduction in the number of sites but we think that this process is hard to relate to a general crisis situation, especially if we consider, as we have mentioned before, that these statistics are strongly conditioned by the archaeological research conducted in this area, with significant inequalities in the number of studies done in several parts of *Vallès* and with a huge number of sites only known by superficial survey. So, it is more interesting to try to look at the evolution of the different types of identified settlements (**Fig. 3**).

If we start with the main rural sites, the villae, we can see that most of them continued existing during the third century. Only six of them did not reach this moment. They were abandoned at some point during the second century and there is no evidence of violent destruction in none of the six villae. In fact, it seems more likely that these villae were abandoned due to the general process of productive transformation of the Layetan countryside during the second half of the first century and the second century. During this process, the main activity documented in the majority of these sites, the wine and amphora production, started to decrease after it peaked between the periods of 50 BC to 50 A.D. (Oller 2012a, 547-548).[27] Taking into account that three of these six *villae* were directly related with the wine production, it seems logical that their abandonment could be connected with this process of transformation and adaptation of the rural properties.[28] Therefore, we can see a general continuity of the processes and situations already identified during the previous century.

18 *villae* continue with their productive and residential activity in the third century and the analysis of their evolution is fundamental to trace possible evidences of a crisis. Regarding this, we can identify at least 6 *villae* that suffered a total or partial period of abandonment during the third century. For example, we can talk about the sites of Ca n'Oriol in *Rubí* (Belmonte *et al.* 2008) and Malhivern in *La Garriga* (Oller 2012b, 436-437). In other cases, there is evidence of the disablement of some of the structures in a site, as it occurs in the *villae* of Castellarnau in *Sabadell* (Artigues, Rigo 2002) and Can Bonvilà in *Terrassa* (Fernández *et al.* 1988), but these sites show a continuity in their settlement that overcomes the third century. In this group, the *villa* of Can Jaume (*Granollers*) represents an intriguing case. It is a big complex that occupies different areas of the current town of *Granollers*. Several elements have been identified, as productive areas, residential zones, necropolis, etc., that some authors consider that are related to a single big imperial *villa* (Uscatescu 2004). This *villa* has been related with some

26 We only include in this list the sites in which there are chronological data that allow us to situate them without doubts in the second and third century, but we have to note that there are a huge number of other sites in this area that have a general "Early Empire" or "Late Antique" chronology that could also be included there and that would increase exponentially these statistics. In any case, we prefer to keep a prudent position in this question.

27 This evolution is included in a more general process that affects the whole Catalan region since the middle of the first century AD. This phenomenon implied that several areas that were intensively dedicated to wine production drastically reduced this activity since the Flavian period. Traditionally, the most popular hypothesis for explaining this situation was related to an edict promulgated by the emperor Domitian that limited the wine production in the provinces. Nowadays this hypothesis is no longer considered as the main explanation for the phenomenon and it is proposed that this situation could be linked to a general process of commercial and economical transformations that forced to a reorientation of the main economic activity of these regions. This process would continue during the second century and the Layetanian area, as one of the most important wine exporting areas in Hispania, would be a paradigmatic example of it. In any case, the wine production continued in the region until the fourth and fifth century but in a lesser extent. For more details about this issue: Tchernia 1986, 223; Pereira 1987, 350-353; Carreras 2009, 170; Oller 2015, 303-305.

28 We talk about the *villae* of Can Pedrerol de Baix (*Castellbisbal*), La Salut (*Sabadell)* and Can Jofresa (*Terrassa*), being the other cases less known in an archaeological level.

of the greatest landowners from *Barcino* that held important *fundi* in the Layetania Interior territory, concretely with the *Licinii*, attested in this area both in the amphorical epigraphy and in the medieval toponymy (Berni *et al.* 2005, 168-169).[29] The richness of the *villa*'s owners is evident from the discovery of a great thermal complex decorated with some spectacular mosaics with a chronology from the end of first and beginning of second century AD. This important site suffered different changes during the third century, basically the abandonment of the thermal complex and of some of the productive structures and necropolis areas (Uscatescu 2004, 76-79). So, it seems evident that there is an important regression of the villa of Can Jaume but we have to note that we cannot talk about a general abandonment and, in fact, some parts of the site continued to be active until the fifth century at least, with different residential and productive buildings documented (Uscatescu 2004, 78-79).

We already noticed that the majority of the *villae* showed evidence of continuity through this period, and also some of them experienced an increase or recovering of their activities. This is the case of several sites identified in the area of *Terrassa*, like Can Jofresa, which was abandoned in the second century and now offers a small reoccupation that will continue until the fourth century (Casas *et al.* 1985; Casas *et al.* 1986). Another case is constituted by the *villa* of Can Fonollet, in which the archaeologists identified the increase of the site and the creation of a probable bath area in a previous residential zone (Oller 2012b, 287-288). Finally, another example in *Terrassa* is the *villa* of L'Aiguacuit, where spite of the disablement of some structures, we can see a general reorganization of the thermal complex that proves the vitality of the settlement and its inhabitants (Barrasetas *et al.* 1994). On the other hand, we can also identify a case of an *ex novo* foundation of a *villa* in the town of *Matadepera*, with the site of Can Solà del Racó, a remarkable rural settlement where the archaeologists documented residential buildings, important productive structures (silos, ovens, etc.) and funerary areas (Barrasetas, Vila 2004).

This situation is similar when we look into other rural settlements. For instance, in sites that show evidence of a mainly productive orientation (regarding cereals, wine, oil, etc.) we also have a significant reduction of settlements, from 22 in the second century to 13 in the third. Nevertheless, most of the abandoned sites did not overcome the second century, with a similar process as seen in the *villae*. Several of these sites were related with the wine production, so maybe they can be included in this general process in which these rural settlements specialized in the wine commerce suffered a reorganization and adaptation to the new economic circumstances.[30] In fact, from the rest of 13 rural productive sites only four of them show signs of a total abandonment during the third century (none of them with evidence of a violent destruction): Avinguda Castellbisbal – Can Fatjó Oest in *Rubí* (Oller 2012b, 160), Església parroquial de Sant Esteve in *Granollers* (Oller 2012b, 478-479), Can Feu in *Sant Quirze del Vallès* and Sant Joan Nord in *Sant Cugat del Vallès*. These last two cases are especially interesting because they are incredible examples of the general process we are discussing: important productive sites associated to the production of wine that, between the end of the first century and the beginning of the second, abandoned this type of production to readapt to other economic activities like cattle breading in Can Feu or oil production in Sant Joan Nord. In both cases, this late phase ended during the end of the second and the beginning of the third century.[31] Finally, we can also identify new rural productive sites that appear during this third century, implying vitality in the Layetan countryside, and for example we have the cases of Can Cardús in *Terrassa,* La Bastida in *Rubí* or Plaça de la Porxada in *Granollers*.

29 The Licinii were one of most important gentes that became powerful through the control of the wine production in the Layetanian area. The archaeology, amphoric epigraphy and medieval toponymy allowed identifying several of these gentes in this region, like the Porcii or the Cornelii (Berni *et al.* 1998; Olesti 2005; Olesti 2009; Oller 2015, 266-272).

30 For example, we can talk about sites as Can Gambús (*Sabadell*), Can Marcet, Can Ubach and Sitges Torreblanca (*Sant Cugat del Vallès*), Can Viladevall (*Caldes de Montbui*) and Can Cabot (*Santa Eulàlia de Ronçana*).

31 For the case of Can Feu, see: Carbonell, Folch 1987; Carbonell *et al.* 1995. For the case of Sant Joan Nord, see: Caballé 2003.

The last group of sites we can analyse is the one formed by the settlements identified in the countryside during the third century, but without enough evidence to talk about their main activities or functions. In that case, it is also clear a reduction of the number of sites, going from 18 documented in the second century to only 12 in the third. Obviously, it is difficult to determine the possible causes of this, as we do not have specific clues about the function of these sites. Nevertheless, it is important to remark that the gap between the two periods is mostly due to the abandonment of several sites during the second century.[32] Only two of them disappeared in the next century: Can Pòlit in *Rubí* (Folch 1992) and Can Boada Vell in *Palau-Solità i Plegamans*. Both of them are abandoned in the middle of the century and especially interesting is the case of Can Boada Vell, destroyed by a powerful fire, from which we cannot know the causes (Auladell 1992; Auladell 1995). However, we also have some new sites originated during the third century as Plaça del Dr. Guardiet (*Rubí*), Annex de la Torre Julià de les Fonts (*Sant Quirze del Vallès*) and Església de Sant Esteve de Palautordera.

We have, in addition, other types of sites identified and, for example, it is interesting to notice the increase of the number of funerary areas documented, arriving to up to seven necropolises in this region.[33] We can also consider a group of undetermined sites, of which we only know of their existence during this period but without any more evidence, as they were usually identified in a superficial survey. In this case we have a similar evolution, going from nine to six of these sites documented between the second and the third century.

It is evident that we have a general reduction in the number of identified sites but we have already seen that the majority of abandonments occurred during the second century, probably due to the transformation processes of the rural production system of this area. Thus, this difference in the number of rural sites between the two centuries seems more related to the internal economic evolution of the Layetania Interior than with a traumatic process of crisis in the countryside. In fact, the almost absolute lack of evidence of violent destructions would be an interesting point to support this hypothesis. Even if we take into consideration the abandonments suffered during the third century, they do not seem to follow a pattern of general disruption of the countryside population and activities. Instead, what we can see are different reactions to the social, economic and politic changes of the century, with areas like *Rubí* or *Sant Cugat* that suffered a certain regression in the rural sites, accompanied by the birth of new settlements or the restructuration of the ancient ones. Equally, we have big and rich *villae* that experienced important transformations in this period and the best example is the *villa* of Can Jaume, in *Granollers*. In other cases, such as the area around the *civitas* of *Egara*, we can detect only a transformation and the development of existing rural sites, including *villae* like L'Aiguacuit that had its most important phase during the fourth century (Chavarría 1996, 186). If we add to that situation the appearance of several new rural sites all along the Layetania Interior, the general picture is not one of a countryside in crisis but that of a transformation and adaptation to the new social, political and economic characteristics of the Empire that meant the entry to the Late Antiquity. This evolution could be related to a traditional hypothesis about a concentration of the rural property during this moment, implying the disappearance of a great number of small rural sites, which were absorbed by the big fundi directed by the great landowners from the local elites (Chavarría

32 We have seven sites that do not overcome the second century AD., again not having in any of them any evidence of violent destruction.

33 Most of these necropolises seem to be related with rural settlements, like the necropolis of the villa of Can Solà del Racó (Matadepera) or the funerary spaces located in the site of Ca n'Anglada (Terrassa). Especially interesting are the several necropolises documented in the area of Granollers. The most relevant case is Can Trullàs. In this site the archaeologists identified a trench with 19 bodies, including individuals from five years until senile ones, with a chronology of second half of second century/beginning of third century. The graves were built with tegulae and the dowry was mainly poor, implying that the buried were of humble class. However, another area of the site included evidence of ritual practices like a hydraulic deposit and combustion structures, maybe related with funerary banquets. Thus, the hypothesis regarding this site is that it was one of the funerary areas linked with the big villa that existed in Granollers in this period. Al these data help to increase the idea of a vital and active Layetan countryside in the third century. For more details of these necropolises, in the case of Can Solà del Racó: Barrasetas, Vila 2004; for Ca n'Anglada: Casanovas 1987; for Can Trullàs: Tenas 1993; Uscatescu 2004, 79-95.

1996, 166; Ariño, Díaz 2002, 68; Chavarría 2004, 87). This process cannot be easily detected in the Layetania Interior but it is not impossible to link the changes we have seen in some parts of this area (Rubí, Sant Cugat, Terrassa, etc) with some changes in the property system that, obviously, affected the local elites and that probably were initiated long before due to the end of the production and commercialisation boom of the Layetan wine. To sum up, the analysis of the Layetan countryside during this third century offers a situation that fits perfectly with the general evolution of the Roman Spain (Cepas 1997, 250-252; Ariño, Díaz 2002, 69-70; Cordero 2013, 268-269).

Conclusions

To conclude this study, we can summarise the main ideas presented. We have seen that the traditional view of the 'third century crisis' in Roman Spain has been played down in recent years, going from a catastrophic image that impinged on the consequences of external and internal problems that affected the Roman Empire during this period, to another that highlighted a process of adaptation and transformation to new socio-political and economic conditions of Late Antiquity. Therefore, the traditional view posed a progressive decline of cities due to the abandonment of them by local elites who took refuge in large *villae* initiating a general process of ruralisation. In general, a view of decline and decay of the foundations of the Roman imperial society that today cannot be maintained due to the contributions of archaeological evidence. In this sense, a territory as the Layetania Interior, both for its characteristics and the relative abundance of existing data, provides an interesting example to contrast these views and ask whether there was evidence to support the image of a crisis or of a transformation. Our territorial analysis has focused on two main groups: cities and their territory. In the first group, the third century Roman Spain represents the hinge between the classical model of *civitas* and the model of Christian or medieval town. This situation by no means led to a general decline of Hispanic cities and we can see the existence of various casuistries, with cities growing in importance, some that were reduced and changed but maintained their central role in the territory, and others that languished or even disappeared. The case of the Layetania Interior is certainly special because of the characteristics of its urban centres, the *civitates sine urbe* of *Egara* and *Caldes de Montbui*, but the archaeological and documentary data show a continuity throughout the period of Late Antiquity, for *Egara* connected to the Christianisation of the settlement and its subsequent conversion into Episcopal See and in *Caldes* with a continuity of the existence (and perhaps the use) of the thermal baths.

Regarding the countryside, the evolution in this area also fits perfectly into the overall picture of the Roman Hispania. Thus, some reduction in the number of rural settlements and some changes in *villae* are evident. However, these changes do not appear to be related to a contraction or serious crisis of the production and property model in the third century, but rather respond to continuity in the restructuration of this model that was already evident in the second century AD. Therefore, overall continuity is detected in the territorial structure of the Layetan countryside, with certain restructurings that would be linked with logical changes that had to take both the rural population and local elites to adapt to the socio-economic and political changes of third century. In any case, the study of Layetania Interior allows inferring an intermediate model that does not imply neither the existence of a generalized crisis in the territory in this period,[34]nor a static continuity without any evolution. What we found in this territory in the third century, and in general in Roman Spain, are a set of transformations and local adaptations to global changes undergone by the Roman Empire that supposed the entrance into a new historical period with its own characteristics: the Late Antiquity.

34 And, for instance, it allows diminishing the consequences of the supposed barbarian invasions in this territory (Ariño, Díaz 2002, 69; Witschel 2009, 478-482).

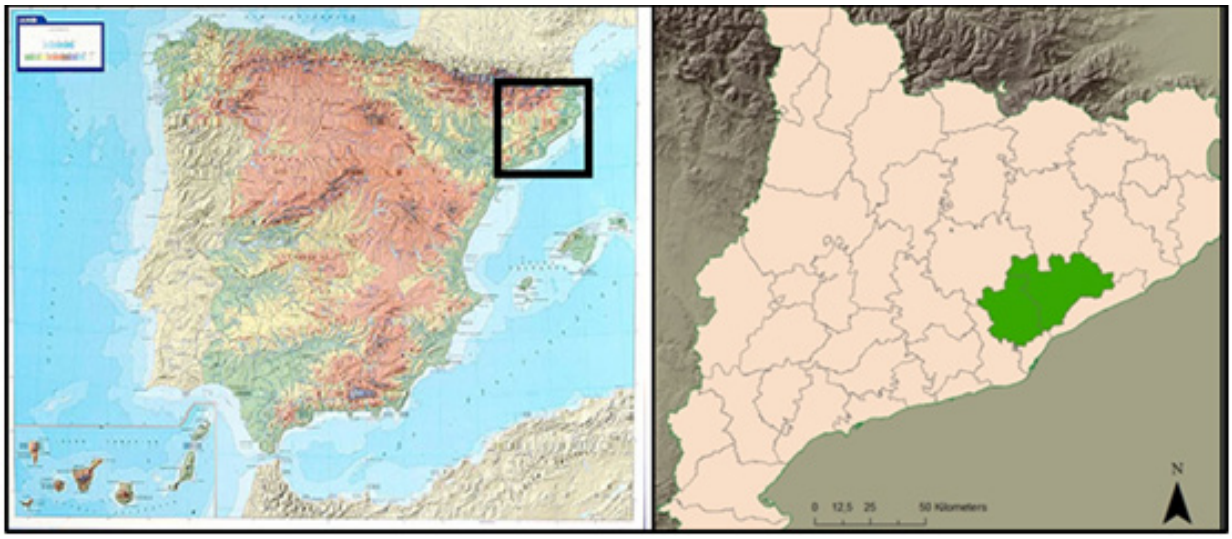

Fig. 1. Location of the ancient Layetania Interior in the current Spanish territory (map by the author).

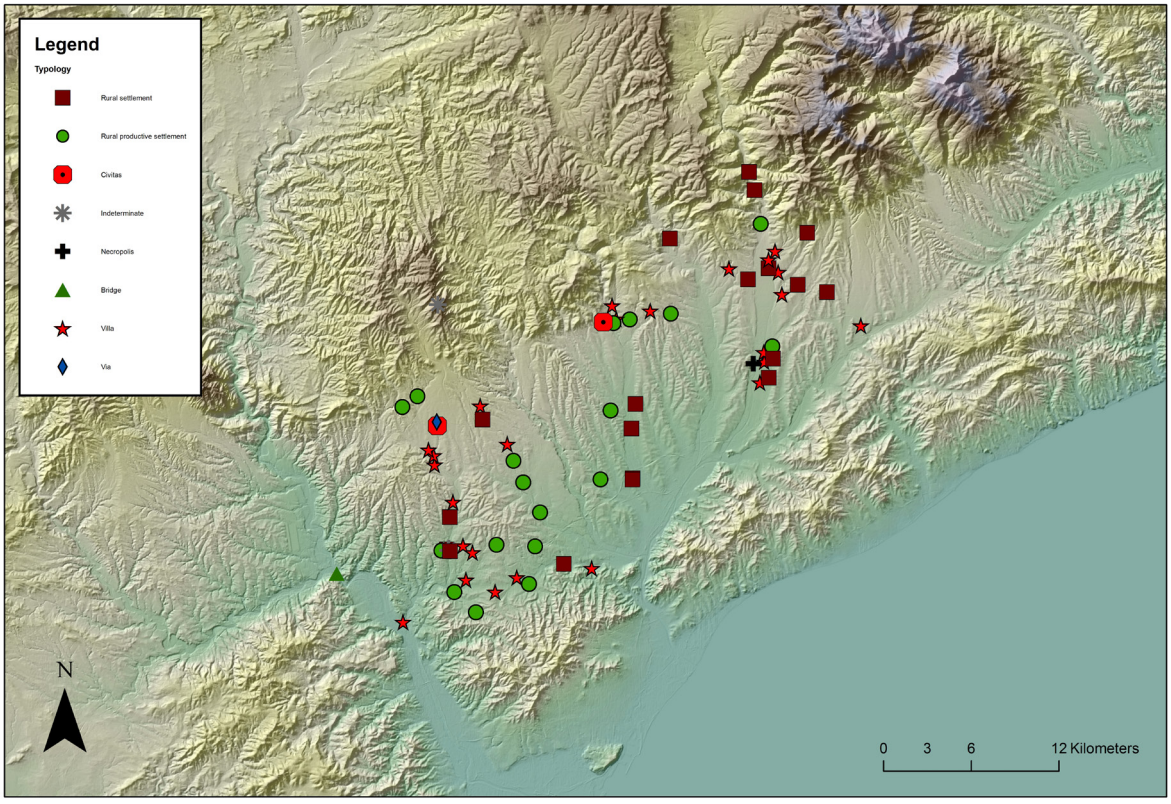

Fig. 2. Sites identified in the Layetania Interior in the second century AD (map by the author).

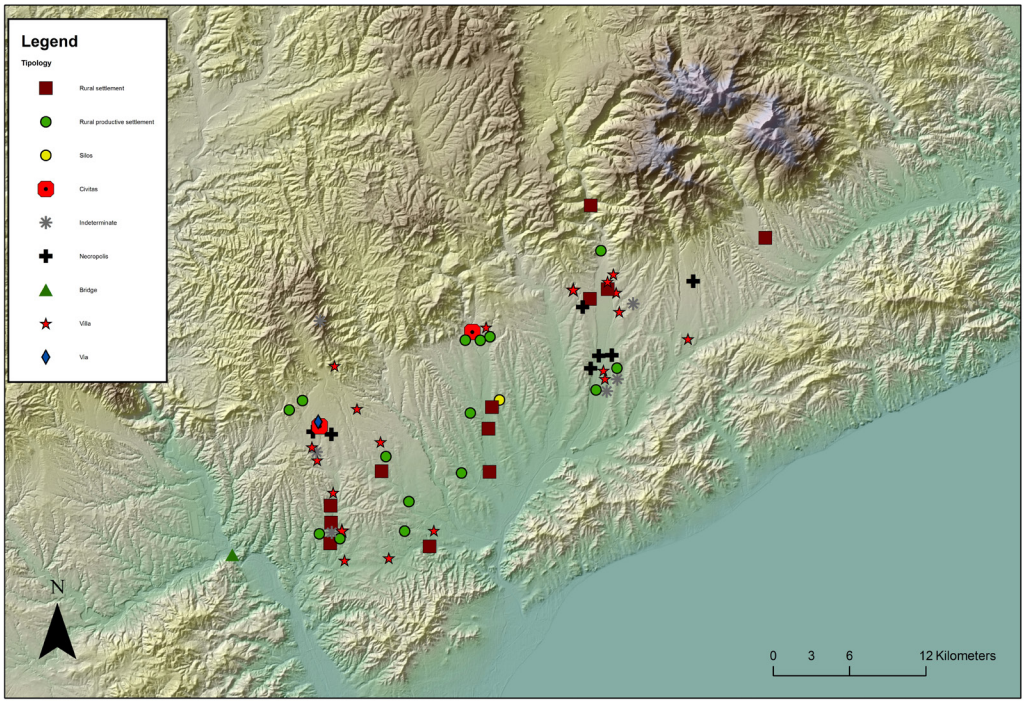

Fig. 3. Sites identified in the Layetania Interior during the third century AD (map by the author).

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The Abandonment of Myos Hormos

Dario Nappo[1]

Abstract

The paper focuses on the development and the decline of the ancient settlement of Myos Hormos, which was a prominent port on the Red Sea coast of Egypt. Many writers from the first centuries BCE and CE agree on describing it as one of the most important commercial hubs of the area, along the more southern port of Berenike. Still, while Berenike kept its functionality well into the late antique period, Myos Hormos was abandoned and fell out of use for no evident reason at some point along the third century CE. This decline has been explained by most scholars as a consequence of the third century crisis that stroke the Empire, and that triggered a steady regression of the Roman trading activities in the Red Sea. In this paper a different point of view is offered: the demise of Myos Hormos would not have anything to do with commercial decline nor with the shrinking of the trading horizon of the Romans, but it was rather the consequence of an adjustement of the organisation of the Red Sea area that started during the second century CE.

Introduction

The town of Myos Hormos[2] was a prominent port in the Red Sea basin, engaged in the international maritime trade connecting the Mediterranean World with India and Arabia (**Fig. 1**). First century writers on Roman rule over Egypt all recognise the important role of the port. Strabo writes about the town several times, first defining its geographical location:

'Next is Myos Hormos, which is also called Aphrodites Hormos; it is a large harbour with an oblique entrance. In front are three islands; two are covered with olive trees, and one (the third) is less shaded with trees, and abounds with guinea-fowls' (Strab. 16. 4. 5).[3]

He also makes it clear that along with Berenike, Myos Hormos is the most important port of trade on the Egyptian coast of the Red Sea:

'Not far from Berenike is Myos Hormos, a city with a naval station for vessels which navigate this sea; at no great distance from Coptos is the city of Apollo, so that two cities are the boundaries of the isthmus, one on each side. But at present Coptos and Myos Hormos are in repute, and they are frequented' (Strab. 17. 1. 45).

Strabo's most famous reference to Myos Hormos remains his comparison between the volume of trade passing through it in Roman times, and the levels recorded during the age of the Ptolemies, previous rulers of Egypt:

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2 On the etymology of the name, see De Romanis 1996, 147-150.

3 For the English version of Strabo's text, I have used Jones 1989.

'I was with Gallus at the time he was prefect of Egypt, and accompanied him as far as Syene and the frontiers of Ethiopia, and I found that about one hundred and twenty ships sail from Myos Hormos to India, although, in the time of the Ptolemies, scarcely any one would venture on this voyage and the commerce with the Indies' (*Strab. 2.5.12).*

Roughly a century later than Strabo, the anonymous author of the *Periplus of the Red Sea* appears to have shared Strabo's opinion regarding the importance to international trade of the two Egyptian ports:

'Of the designated harbours of the Erythrean Sea and the ports of trade on it, first comes Egypt's port of Myos Hormos and, beyond it, after a sail of 1800 stades to the right, Berenike. The ports of both are bays of the Red Sea on the edge of Egypt' (PME 1).

Despite these statements on the pivotal role that the port played in antiquity, most of its history is still unclear. The first issue to tackle is the dating of the foundation of the settlement. It is normally assumed that this happened during the Ptolemaic period. More precisely, on the ground of Strabo's report quoted above (and of Diod. Sic. 3.39.1-2), most scholars agree a dating of the foundation of the town to the reign of Ptolemy II Philadelphus (283 to 246 BCE), notwithstanding the dearth of archaeological evidence to endorse such a claim.[4]

The process of identifying the site of Myos Hormos has been a very long one. For decades, most scholars maintained that ancient Myos Hormos was the present-day town of 'Abu Sha'ar (Casson 1989, 96, and bibliography). However, this hypothesis proved to be inconsistent when archaeological investigations conducted in 'Abu Sha'ar demonstrated that this was founded at the beginning of the fourth century CE (Bongrani Fanfoni 1997, 53-59).

Archaeological excavations in Quseir al-Qadim had already began in 1978, i.e. before its final identification with the ancient Myos Hormos. Only in the year 1993, in fact, Peacock first suggested the identification of Myos Hormos with modern Quseir al-Qadim, basing his hypothesis on observation of aerial photographs of the area.

So far, three different teams have worked at the site: one from the USA (1978-1982. Whitcomb and Johnson 1979; 1982a; 1982b), one from France (1994-1997. Cuvigny 2003a; 2003b) and finally one from the UK (1999-2003. Peacock and Blue 2006; 2011). The three teams did not always interpret the data in a consistent way, but it is nevertheless possible to summarise some key points on which they all agreed. Quseir al-Qadim lies some 500 km south of Suez, and 8 km north of Quseir. The settlement is in a region hardly suitable for human habitation, difficult to reach and characterised by a very harsh climate,[5] but it has the advantage of standing at the closest point on the Red Sea to the Nile River (Peacock and Blue 2006, 1-3). This proximity significantly reduced the time and cost involved in transferring goods from the coast to Coptos (Jackson 2002, 81-82).

Despite the alleged Ptolemaic foundation of the town, the earliest levels to be found date to the first century BCE (Peacock and Blue 2006, 46-58). The Romans built a harbour there, but it tended to rapidly silt up. For this reason, maintenance work was frequent (Peacock and Blue 2006, 65-84).

The analysis of pottery shreds confirms the traditional chronology, dating the acme of the site to the first century CE. Two Tamil inscriptions dated to the same period add to the scenario of Myos Hormos

4 See Tarn 1929, 22; Sidebotham 1986, 2-3; Peacock 1993, 226. Whitcomb (1996, 759-761) has suggested that the Ptolemaic Myos Hormos might be identified with the modern town of Quseir (further south than Quseir al-Qadim). Such a hypothesis is accepted by Cuvigny (2003a and 2003b), while Peacock and Blue (2006, 5-7) oppose it.

5 It has been noted, anyway, that the extremely dry weather that nowadays characterises the area was somehow wetter in antiquity. See Littman and Meredith 1953, 27.

having been commercially connected to South India, particularly Arikamedu (Whitcomb and Johnson 1979, fig. 27j; 1982, 263; Whitcomb 1996, 749-52; Peacock and Blue 2011, 5-9). Based on the same evidence, some scholars have also suggested that Myos Hormos hosted some communities of foreign residents, who lived there on a permanent, or semi-permanent basis (Sidebotham 1986, 16-17; Whitcomb 1996, 753; Peacock and Blue 2011, 347). Apart from Tamil, other languages are also attested in the town, such as South Arabian, Nabataic, and Palmirene: evidence that strengthens the interpretation of Myos Hormos as a multi-ethnic community, and an important commercial hub in the Red Sea (Peacock and Blue 2011, 7-8).

Among the Greek and Latin texts, it is worth mentioning a group referring to a military presence in Myos Hormos: a garrison of 50-100 soldiers, under the command of a *curator praesidii* (Bagnall 1986, 5; Whitcomb 1996). These documents attest the presence of the army since the beginning of the first century CE until the first half of the second (Bagnall 1986, 4. See also Strabo, 16.4.24, who records the presence of the army in the town in the year 25 BCE). On the other hand, no unequivocal evidence for a military structure has so far emerged from the archaeological investigations (Peacock and Blue 2006, 176).[6]

As it is evident from this cursory and preliminary analysis of the available evidence, most of the information available on Myos Hormos dates to the first two centuries of the Roman power over Egypt. After that time span, the name of the settlement suddenly disappears from our sources, and coherently the archaeological excavations have yielded no material associable to a late phase of the life of the port. This leads us to the central question of this paper, the problem of the demise of Myos Hormos. Our written sources make absolutely no mention of it after the first century CE, and none of them makes any explicit reference to the abandonment of the town. Despite this dearth of our knowledge, there is some degree of agreement among scholars that the period of major development of the port was in the first century CE, and that it declined steadily from the third century, and then it was abandoned for 12 centuries (Jackson 2002, 81-83; Tomber 2016, 43; Cobb 2018, 296-298). In the harbour area, through the analysis of the available pottery, it was possible to reconstruct the chronology of the use of the settlement: pottery from the end of the first century BCE to the second century is available, but nothing dated to the later periods; also geophysical analyses of the area have confirmed such chronology (Peacock and Blue 2006, 80-81; 84; 94). Both the jetty and the workshop, which were used intensely during the late first century BCE and the first century CE, fell into disuse during the second century. In the town area, the situation is less clear-cut, but the available archaeological evidence has been interpreted as to fit the same chronological pattern. Many buildings had been constructed and used in the first century CE but were no longer inhabited during the second (Meyer 1982, 201-213; Copeland 2006, 121-126; Peacock and Blue 2006, 176; Tomber 2008, 61; Cobb 2015, 403-407).

Many reasons have been put forward to explain this demise. It has been noted that the port was prone to frequent silting up, which might have led to its abandonment. The event that has been more often associated with the demise of Myos Hormos is the so called 'third century crisis'. It is well known that the third century CE represented a difficult time for the Roman Empire on many levels: political, military and economic. The general agreement is that the economic crisis that struck the empire generated a number of phenomena that hampered international trade with India, causing the decline of several ports on the Red Sea. While some other ports eventually regained their role in such commerce (most notably Berenike), Myos Hormos never recovered from this decline and was consequently permanently abandoned.

6 A different interpretation is in Whitcomb 1996, 747-760; Whitcomb 1999, 658-660.

We can sum up the general consensus on the demise of Myos Hormos in a schematic way. We would have the following events, one relating to the others:

Event 1. The third century crisis. A general crisis of the Roman Empire that had dire repercussions for the political, social, and economic life of the Empire. Among its consequences, we find

Event 2. A severe debasement of the silver currency of the Empire, caused by the need for the emperors to produce more and more cash to cover the increased military expenses during the crisis. The debasement caused a loss of purchasing power of the silver currency, which led to

Event 3. Hyperinflation generated by the loss of confidence in the Roman currency. This would affect the purchasing power of Roman customers inside the empire, which therefore led to

Event 4. The decline of the international trade of expensive Indian items.

Event 5. Directly connected to event 1, there were riots in Egypt at the end of the third century that triggered a decisive response from the tetrarchs, causing the destruction of Coptos, a Nile port that functioned as a link between the River and the ports on the Red Sea. The decline of Coptos also affected the economic life of Myos Hormos and Berenike, the two main ports on the Egyptian coast of the Red Sea.

Most scholars who have dealt with the subject basically accept this reconstruction, but I would like to propose here a different interpretation. To do this, I first need to explain why I consider the traditional explanation to be faulty, and subsequently propose my own view. First I will go through the four points of the traditional explanation.

The so-called third century crisis

The subject of the crisis that struck the Empire during the third century is very complex. Over the decades, scholars have published a number of essays on the crisis, and the perception of it has changed considerably over time. Nowadays many scholars strongly reject the use of the word 'crisis' to describe the entire third century. Many have stressed the importance of the continuity of that period, and 'transformation' is now the term preferred when describing what happened at the time (De Blois 2002, 204-217). This is not the place to examine all the scholarship on the subject, but I will try to summarise some elements that are of interest for the present analysis.

The concept of 'crisis' associated with the third century CE has a long history, and the word was used for almost a century 'as a convenient, indeed obvious, word to describe a period filled with dangerous problems, irrespective of whether you think of the period as a single long crisis, or as a succession of many crises. [...] It was certainly not proposed as an explicatory model, a technique which ancient historians did not employ' (Liebeschuetz 2007, 11). In the last decades, especially in the Anglo-Saxon World, the word *crisis* started to progressively disappear from the scholarship, replaced by more neutral terms like *change, transformation* and *transition* (Bowersock 1996). Transition especially tends to be used in a weak sense, although it has been pointed out that "as a concept of Marxist political economy, transition refers to the decline and rise of socio-economic systems. [...] Transition is a strong concept, and not simply a synonym for transformation. Even in its most generic and limited sense, it implies the comparing of different forms" (Giardina 2007, 29). This tendency to soften the meaning of

definitions is still very much on in the recent scholarship,[7] although some scholars, even in the Anglo-Saxon World, have subsequently argued against it (Ward-Perkins 2005). There has been much debate about the length and the extent of the crisis. Many scholars have investigated how the crisis took place in different ways and at different times over the regions of the Empire, and some have even played down the real impact of the crisis on the Empire (Strobel 1993, 347). There is no official agreement as to the time span of the crisis, but recent scholarship prefers to place the end of the early imperial age to the 250s, therefore limiting the whole period of the crisis to the years 250-280 CE, up to the reign of Emperor Diocletian (Liebeschuetz 2007, 18). This last point is of crucial importance to understand the chronological argument of this work.

Debasement of the currency

There is little argument concerning the debasement of the Roman currency during the third century. Scholars generally agree about the history of the debasement of Roman coinage (though there is no agreement about the consequences of this debasement on prices and the economy of the Empire).

The silver coinage, the *denarius*, had been the spine of the Roman monetary system for over four centuries (late third century BCE – early third century CE) (**Fig. 2**). Its debasement began under Emperor Nero, who reduced its weight standard from 1/84 to 1/96 pound, and its purity from 98% to 93%. In the following century the purity fell to ca. 90%. The reduction continued over the following decades, and by the time of Caracalla the purity had dropped to ca. 50%. Caracalla also introduced a new silver coin, the so-called *antoninianus*, which initially had a purity of less than 50%. From 238 CE, this coinage became the new silver standard of Roman currency, replacing the *denarius*. However, in the 250s and 260s the silver content and weight of the *antoninianus* was rapidly reduced, until the coin was no more than 1-2% purity (Verboven 2007; Temin 2013).

Emperor Aurelian tried to restore the silver currency, introducing a new coinage of slightly better quality than the *antoninianius*. Aurelian's coin was heavier and purer than the *antoninianus*, with ca. 4% silver. This attempt to improve the quality of the coinage appears not to have been successful, however, as we know that the introduction of the new coinage into the marketplace encountered many problems (**Fig. 3**). A general restoration of Roman currency finally occurred only with the coinage reform promoted by the Emperor Diocletian at the end of the century.

Inflation

Calculating the level of inflation under the Roman Empire is not an easy task. Many scholars have attempted, though without complete agreement, to create at least a general scheme to describe the fluctuation in prices over the centuries. It is generally assumed that prices were stable from the late Republic through the second century CE. The great inflation only began during the third century crisis.

The conventional view on inflation is that it was the result of currency debasement, but some scholars (Howgego 1995, 123) have argued that we 'should be cautious about theories which imply a simple relationship between coin supply and prices'.

7 See e.g. the definition of transition provided by Halsall 1995: 'slow process from one pre-defined state of affairs to another, [useful to describe] a single line of development'.

In fact, most eminent scholars of the subject dispute such a direct relationship. 'Monetarist theory predicts that Gresham's law provokes inflation because sellers anticipate that they will be paid in bad money and raise their prices in response. However, it now seems almost certain that such monetary inflation did not occur before at least the second half of the century. Papyri show price stability until ca. 274 CE, while inscriptions indicate that at least until the 250s there was no structural inflation in the West. The presence in hoards until the 260s of denarii alongside *antoniniani* and Antonine and early Severan *denarii* alongside younger *denarii*, indicates that it was not worthwhile for private persons to melt down their coins and consequently that the price of silver bullion had not (yet) surged. The absence of inflation [...] indicates that price levels were little dependent on changes in the silver currency' (Verboven 2007, 252). A similar opinion was shared by Rathbone (2007, 713): 'The price bands for other goods and wages display a remarkable stability from the AD 70s to the 160s, and then again from the 190s to AD 274.'

Around 274 CE the papyrological documentation attests a sudden tenfold increase in prices in Egypt (Rathbone 1996, 335-338; Verboven 2007, 256). It is only at this moment that we clearly see the presence of real inflation in the Roman Empire, several decades after the beginning of the major debasement under the Severans. It is useful to remind ourselves here that the rise of inflation appears to coincide with the unfortunate reform by Aurelian, the first emperor in decades to have increased the purity of silver coinage.

From this brief outline I hope to have clarified some points. The crisis struck the Empire particularly in the second half of the third century CE; debasement occurred throughout the whole century, but only after 274 CE can we identify a real increase in prices, which could have led to a decline in purchasing power. All this means that the conditions that could have badly affected international trade occurred only in the late third century.

Destruction of Coptos

I will now move on to examine the last of the points normally considered when explaining the demise of Myos Hormos, i.e. the temporary decline of Coptos.

The story of Coptos from the third century CE is complex. From the early imperial time, the town had important status: it was the μητρόπολις of its own νομός. Its strategical position made it a pivotal hub in the region, and for this reason it was protected by the army.

From the end of the third century, the available information on Coptos decreases: papyri and inscriptions relating to the town become scarce, and the written sources do not fill the gap. This might be due to the complex political and military events in which Coptos and its region were entangled from the end of the third century (Fournet 2000, 196). Most of the troubles that Coptos experienced can be attributed to the two revolts against Rome happened in Egypt toward the end of the third century. The first revolt took place around 290 CE: Emperor Diocletian and his *caesar* Galerius decisively quashed the riots between 291 and 293/4. Coptos was involved in this revolt, and as it was its main centre, it was severely punished by the emperors (Barnes 1976, 174-193; Fournet 2000, 198; Leadbetter 2002, 85-88; Sidebotham 2011, 260).

A few years later, in 296/7, there was an attempt of secession led by L. Domitius Domitianus and by his accomplice, the *corrector* Aurelius Achilleus (Thomas 1976, 253-279). The revolt soon spread to the whole province of Egypt, and Domitianus proclaimed himself Emperor in Alexandria. Papyri attest the participation of Coptos in this revolt (P.Mich. III, 220), which was again suppressed by Diocletian. He

laid siege to Alexandria in 298 and later marched to Upper Egypt, residing for a while in Coptos. Written sources report the siege and destruction of Coptos at the hands of Galerius.[8]

The idea that Coptos was completely destroyed during this period was for some time accepted by scholarship, and this was also listed among the causes of the decline of Myos Hormos and Berenike (Sidebotham 2011, 260-261). Despite exaggeration in the written sources, which tell of the complete destruction of the town, there is no firm evidence that Coptos suffered significant structural damage as a result of the suppression. The town was certainly punished, but the nature of the punishment differs from that suggested by the sources. A papyrus from Panopolis dated to 300 CE gives a hint of what really happened to Coptos: the papyrus refers to κάστρα τῆς Ποτεκόπτου (P. Panop. Beatty 2, 162; 187; 193), a toponym nowhere else attested. The editor of the papyrus has suggested an interpretation as follows: 'Coptos was the centre of a revolt against Diocletian – either the rebellion of Domitianus or an earlier rising – and the city was taken and destroyed by the Emperor. I suggest that, as punishment for the city, it was proposed to abolish its name and substitute another, and that pending a decision on its new name it was referred to officially as ἡ ποτὲ Κόπτος, 'the former Coptos'.'[9]

If such an interpretation is sound, we have here a symbolic cancellation of the town, rather than its actual destruction as recorded in the written sources. As Bowman pointed out some 35 years ago, the account of the destruction of Coptos is the result of a rhetoric stereotypic exaggeration, whereas the town soon recovered from its troubles and once more became a prominent settlement in the region (Bowman 1984, 35). Although archaeological remains for investigation at Coptos are badly compromised, nevertheless most scholars now agree on the fact that the town recovered from the fourth century CE, as attested by a new burst in building activities, military presence and coin circulation in the area of the ancient settlement (Reinach 1910; Fournet 2000 and 2002; Herbert and Berlin 2003).

After the difficult years at the end of the third century, Coptos was at the centre of a military reorganization of the area, as attested by a number of sources. As well as the papyrus already quoted, we have archaeological evidence for the militarisation of the town (Fournet 2000, 199); an inscription dated to 316 CE reports the presence of a *vexillatio* of the *Legio III Gallica* and of the *Legio I Illyrica* (Bernard 1984, n. 91). The *Notitia Dignitatum* attests the presence of the *Legio I Valentiniana* along with *equites sagittarii indigenae* (*Not. Dig. Or.*, XXXI 18, 19, 26, 36). The last document referring to a military presence in Coptos is a dossier of *ostraka* from Aphroditos, mentioning some *buccellarii* in the town (Gascou and Worp 1990, 217-244, n. 16, 20, 21 and 25).

From the fourth century, Coptos regained its prominent role as a commercial hub in the region, connected to the Red Sea trade, and its recovery positively affected Berenike, which also experienced a regeneration of its trading activity. However, this recovery did not extend to Myos Hormos, and it is now time to offer a different hypothesis to explain its demise, other than as a casualty of the third century crisis. The hypothesis I would like to put forward is that Myos Hormos was intentionally abandoned for two reasons; because of events that took place in the second (not the third) century CE, and because of its geographical position.

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8 Jer. *Chronic.*, a.226: *Busiris et Coptus contra Romanos rebellantes ad solum usque subversae sunt*; Theoph., *Chronogr.*, p. 7, ll. 23-25 ed. De Boor (= anno Mundi 5782): Τούτῳ τῷ ἔτει Διοκλητιανὸς καὶ Μαξιμιανὸς ὁ Ἐρκούλιος Ὀβουσίριν καὶ Κόπτον, πόλεις ἐν Θήβαις τῆς Αἰγύπτου, εἰς ἔδαφος κατέσκαψαν ἀποστατησάσας τῆς Ῥωμαίων ἀρχῆς; Zonar., XII, 31: Βουσίρεως δὲ καὶ Κόπτου πολέων Αἰγυπτιακῶν περὶ τὰς ἐκεῖ Θήβας οἰκουμένων εἰς ἀποστασίαν ἐκκλινασῶν, ὁ Διοκλητιανὸς ἐκστρατεύσας κατ'αὐτῶν εἶλέ τε αὐτὰς καὶ κατέσκαψεν; Cedr., 266D: τῷ ζ ἔτει αὐτῶν τὴν Βουσίριν καὶ τὴν Κόπτον, πόλεις ἐν Θήβαις τῆς Αἰγύπτου, ἀποστατησάσας τῆς Ῥωμαίων ἀρχῆς, εἰς ἔδαφος κατέσκαψαν.

9 P.Panop.Beatty 2, 162, note 5. A slight different interpretation was provided by Fournet 2002, 53: "on peut aussi penser que Coptos s'est vue tout simplement privée de nom en signe de ce que j'appellerais une « *damnatio memoriae* toponimique », qui pourrait aller de pair avec la destruction qu'elle aurait subie d'après quelques sources litteraires – destruction probablement plus symbolique que réelle."

Archaeological investigation clearly shows signs of abandonment or disuse from the second century CE in many areas of Myos Hormos. The harbour area shows signs of substantial activity at the end of the first century CE, but the jetty and some of the workshops in the area seem to have already fallen into disuse in the second century CE (Peacock 2006, 67-94; Cobb 2015, 376).

If we analyse the chronology of the site area by area, we gain a clearer picture of the situation.[10] In the harbour area (trenches 7, 10, 12, 14, 15) there are strong signs of occupation between the first century BCE and the first CE, while its abandonment is dated at some point during the early-mid second century CE. In the town area (trenches 2, 8, 17) we find a civic building, abandoned by the end of first century CE, then a bakery built in the first century CE and partially abandoned before the third century, and finally a private structure built in the first century CE, later collapsed and never rebuilt. The rubbish dump (trench 6) yielded primarily materials dated to the first to the mid-second century CE. The general timeframe of the pottery is again between the first century BCE and the second CE. Written materials span a period between the first and third centuries CE, with a majority dating to the first and early second centuries. Finally, fewer than 200 coins were recovered in the site; the vast majority of them (around 63%) belong to the first century CE, and almost all the others are dated between the late Ptolemaic era and the beginning of the second century CE, with only one coin dated to the third century CE.

This analysis clearly shows that the chronologies of the demise of Myos Hormos and of the third century crisis are incompatible. I would point out that the demise of Myos Hormos coincides with two events: the beginning of the prominence of the northern Red Sea ports (Clysma and Aila) in the context of international trade, and the restoration of the so-called Nile canal, promoted by Emperor Trajan (**Fig. 4**). It is my opinion that this last fact is crucial for comprehending the transformations that occurred in the late antique Red Sea region. Trajan's canal was opened after 112 CE,[11] and it stayed open for centuries to come,[12] but there is no agreement among scholars as to why Trajan built it, or what was its use. Some have postulated that the channel was to be used in the forthcoming war against the Parthians, while others suggest that it was intended to foster trade in the northern Red Sea area. Equally unclear is whether or not the canal was actually navigable, or if it was only meant for irrigation in north-eastern Egypt (Faville 1902-03; Calderini 1920; Bourdon 1925; Posener 1938, 25-26; Sijpesteijn 1963, 70-83; Oertel 1964, 18-52; De Romanis 1996, 71-95; Aubert 2004, 219-252; Cooper 2009, 195-209; Cooper 2011; Aubert 2015). Often quoted against such a reductive interpretation is a passage of Lucian of Samosata, who in one of his works tells the story of a young man who sailed from Alexandria to Clysma, and then from there to India (Lucian, *Alexander sive Pseudomantis*, 44, 16-18). One must admit that the nature of the source, a fictional narrative by a Greek satirist, has limited the credit given to the information by scholars. On the other hand, it is also true that archaeological investigation in the area has confirmed the information provided by the ancient sources, which claim that the canal was wide enough for two triremes to row abreast (Cooper 2009, 204), a detail that makes it hard to believe that the canal's purpose was only to provide fresh water to north-eastern Egypt.

Another interesting detail is that there was a noticeable increase in activity at Clysma (modern Suez) right after the second century CE and the opening of the canal (Bruyère 1966; Ward 2007). It is safe to assume that the canal played a role in the economic development of an otherwise poorly

10 The following summary is largely based on data provided by: Copeland et al. 2006, 116-154; Peacock et al. 2006, 67-94; Blue 2011, 35-42; Copeland 2011, 89-120; Peacock 2011a, 47-56 and 2011b, 85-87; Thomas 2011a, 11-34; Thomas 2011b, 79-83; Blue, Whitewright, and Thomas 2011, 179-209; Van Rengan 2011, 335-338; Sidebotham 2011b, 353-360; van der Veen 2011, 31-34. I should also acknowledge Cobb 2015 for putting the data together and pointing to the correct dating of the demise of Myos Hormos.

11 As attested by SB VI, 9545 (32).

12 Papyri attest the regular recruitment of seasonal workers to clean the canal, between the second and the sixth century CE SB VI 9545 (32): 112 CE; P.Oxy. LX 4070: c. 208 CE; P.Bub 4.269: 221 CE; SB V 7676 (= P.Cair. Isidor. 81): 297 CE; P.Oxy. LV 3814: end of the third / beginning of the fourth century CE; P.Oxy XII 1462: 332 CE; SB V 7756 (=P.Lond. inv. 2574): 358/9 CE; PSI 689: 420/21 CE; Psi 87: 423 CE; P. Wash 7: fifth or sixth century CE.

connected region, opening a communication link between the port of Clysma and the hinterland, up to Alexandria. This increase in the involvement of the northern ports in the international trade indeed perfectly coincides with the progressive demise of Myos Hormos. Since the opening of the canal and the consequent rise of Clysma, Myos Hormos became less convenient as a port of trade, and this is easily understandable, when one thinks of the nature of the Red Sea and its ancient ports. In fact, the winds and the shallow waters make it very difficult for large ships to navigate in the northern part of the Red Sea. The limit for navigating northward in the Red sea is the 20th parallel North. While Berenike was not much further north than this, Myos Hormos was well beyond the limit, so that ships bound for the port faced a long trip upwind in shallow waters. The benefit for sailors who chose this route was to berth on a port relatively close to Coptos and the Nile, saving many days of the tiring journey overland through the Egyptian Eastern Desert. During the early imperial age, when Myos Hormos was still a prominent port in the area, only smaller, more manoeuvrable, ships could have reached it. We can trace an indirect proof of this from what the anonymous author of the *Periplus* (PME, 19) tells us regarding Leuke Kome, a port situated right in front of Myos Hormos, on the Arabian coast of the Red Sea (Nappo 2010). When northern ports such as Clysma were fully operational in the Red Sea, the option of Myos Hormos was no longer a convenient one.[13] In fact, Clysma would have benefitted from the same winds that allowed the vessels to reach Myos Hormos, but Clysma had the advantage to be far closer to the Nile river.

This means that during the second century CE Myos Hormos was progressively, but inexorably, abandoned by the Roman traders, who gradually shifted their business northward, to use more convenient ports such Clysma (**Fig. 4**). If this interpretation is sound, we need to further consider changing the way we think about Red Sea trade and trading activities in general under the Roman Empire. Cases such as Myos Hormos should prove, in my opinion, that, along with military and/or political necessities, the economy was a driving force in the organization of the territory.

13 One more indirect proof comes from the *via Hadriana*, built by the emperor Hadrian after 137 CE. This road in theory could provide a convenient access to Myos Hormos, improving the connection of the port with the hinterland. Despite the effort, the road was a failure and fell into disuse very quickly. See Paprocki 2019, 152-156; see also the view of Sidebotham and Gates-Foster 2019.

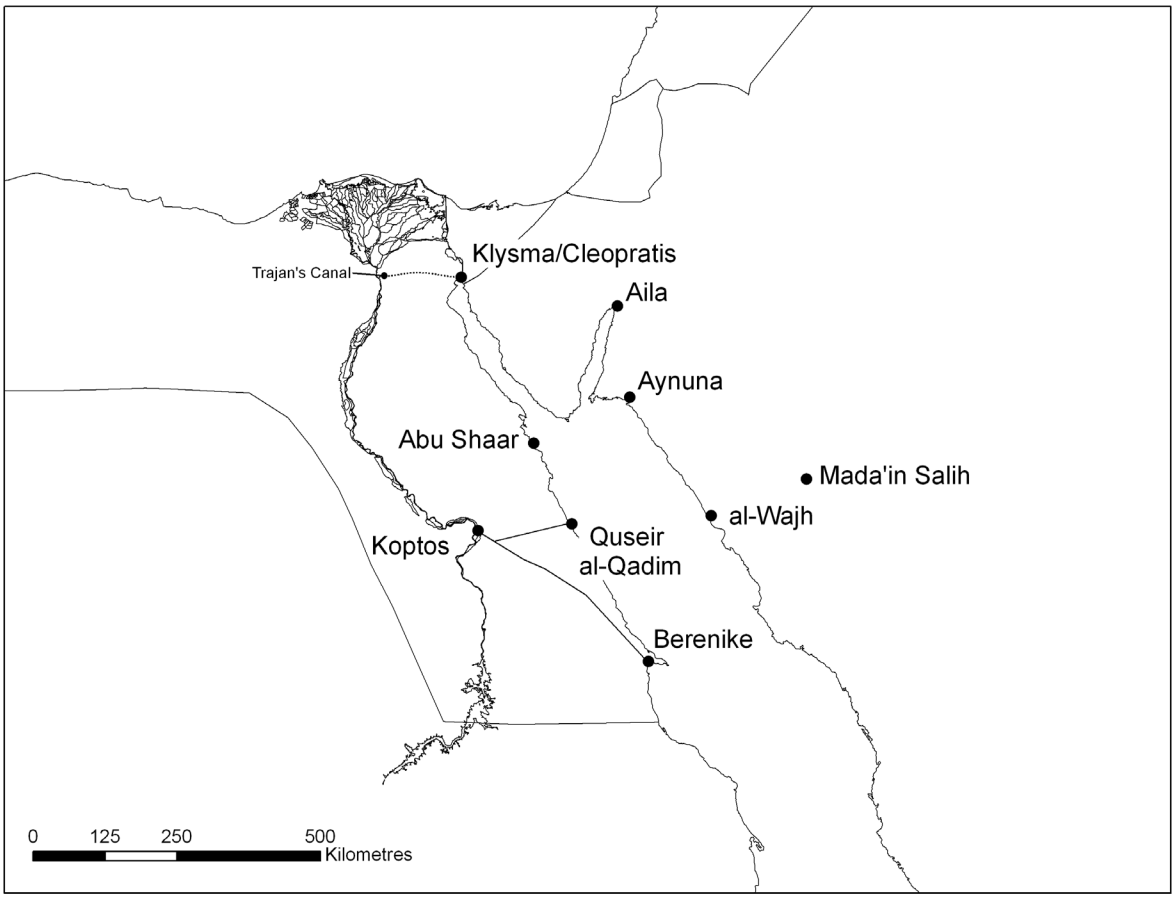

Fig. 1. Map of the Red Sea (map by the author)

Fig. 2. Denarius of Augustus of the CAIUS and LUCIUS CAESARES series, among the most common Roman coins found in India (taken from www.coinarchives.com).

Fig. 3. New currency introduced by Aurelian, which arguably triggered the inflation in late 3rd century CE (taken from www.coinarchives.com).

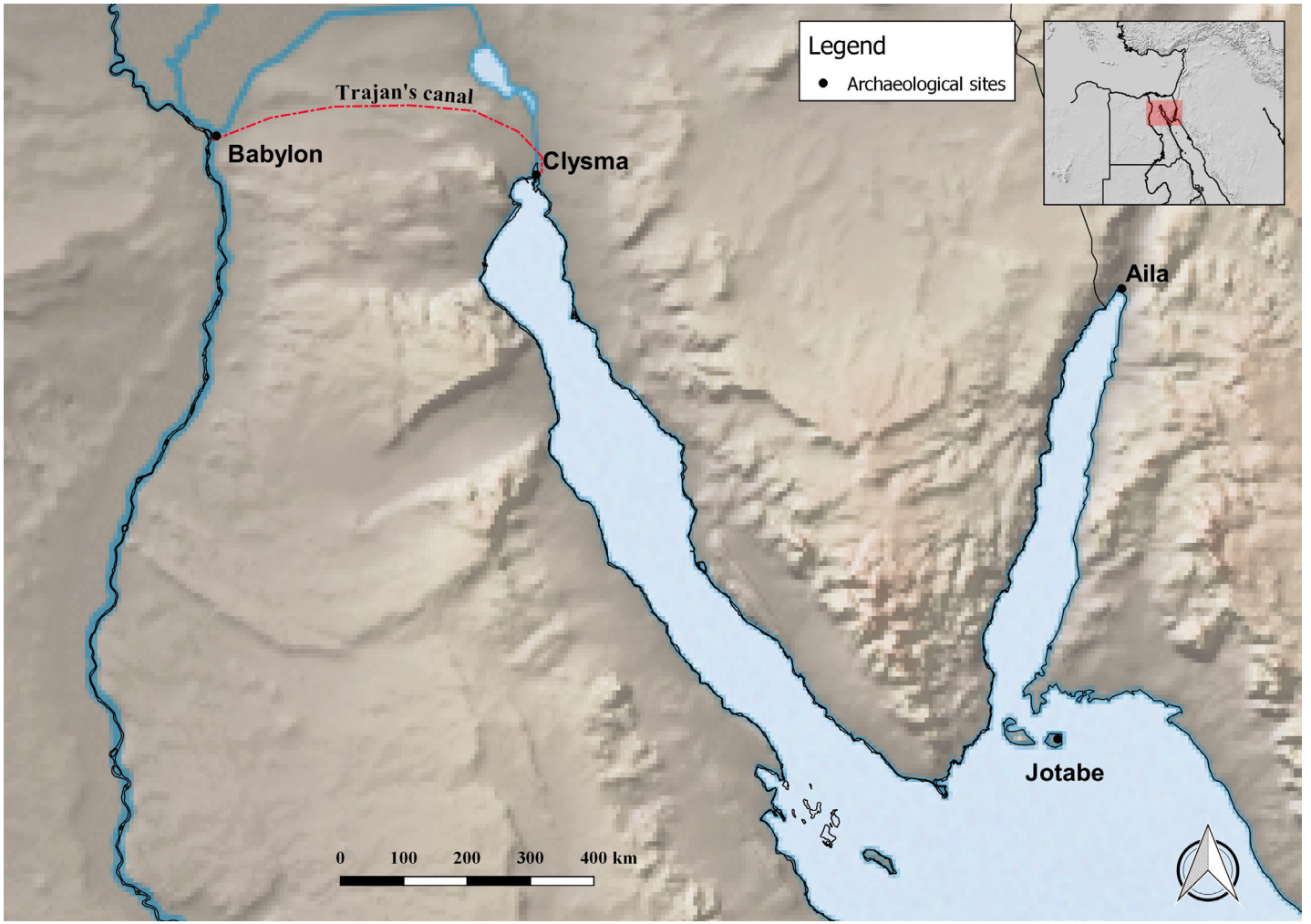

Fig. 4. Trajan's canal and the northern ports of the Red Sea (map produced by E. Cocca).

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Hydrological Change and Settlement Dislocation along the Later Roman Rhine

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Abstract

The Rhine River was the backbone of Roman provincial life along the German frontier for over four centuries. Over this time period, the Rhine went through significant hydrological changes as a result of both climatic and anthropogenic forcing throughout its basin, and these changes had important influences on the historical trajectory of life in the region. As many Roman settlements were built on or near the Rhine and its tributaries, these changes had a direct impact on the occupation of both urban and rural landscapes. A combination of flooding, channel movement, and sedimentation alongside increased political and military conflict from the third century AD onwards led to the movement and abandonment of many settlements throughout the region.

Introduction

The Roman Empire spanned numerous diverse environmental conditions across Europe, western Asia, and northern Africa, and it is only recently that the relationship between the Roman Empire and its landscape has come under serious scrutiny (Franconi (ed.) 2017; Harper 2017; Harris (ed.) 2013). The traditional approach has viewed Rome as the master of its landscape, an entity able to mould the environment to fit its needs through engineering projects such as roads, canals, aqueducts, centuriated fields, and extensive mineral and stone extractive enterprises (Campbell 2012; Purcell 2012; Drerup 1959). On the other hand, some scholars have seen the ancient environment as a serious determinant in societal development, exerting its influence through epidemics, climatic changes, and catastrophic events like tsunamis or volcanic eruptions (Harper 2017; Büntgen *et al.* 2016; Sigl *et al.* 2015; Büntgen *et al.* 2011). This dichotomy between two extremes, the human-exemptionalists on the one hand and the environmental determinists on the other, obscures the wide range of actual experience possible between society and its environment, and indeed creates an artificial division between 'nature' and 'society' (Cronon 1996; Messerli *et al.* 2000; Walsh 2008). The reality of the relationship between Rome and its environment was marked by dynamism and feedback, a system in which it is rarely possible to clearly identify causality but easy to spot cycles of cause-and-effect.

Rivers offer a particularly fruitful lens through which we can view past human-environment interactions because of the way that hydrological systems change and adapt to local and supra-local changes in climate and land use, recording these changes in a kind of environmental palimpsest. Hydrological events such as flooding, alluviation, lateral channel movement, channel incision, and delta progradation all leave geomorphological records that often overlap with archaeological sites. The geomorphological and archaeological evidence is bolstered by occasional mentions of hydrological activity in written sources, and when combined, these datasets can present a surprisingly complete history of the relationship between the Roman Empire and its diverse landscapes.[2]

1 Brown University, USA.
2 Franconi 2017a for a discussion of the diversity of Rome's fluvial landscapes across the Empire.

This paper examines these interactions in the context of the Rhine River basin in northwestern Europe in order to understand how the Roman Empire responded to hydrological changes such as floods, channel movements, and alluviation that were rarely a positive influence on provincial life (Franconi 2017b; Franconi 2016; Franconi 2014). These changes contributed, eventually, to a significantly different settlement pattern from the late third century onwards. This later period of settlement was characterised by notably fewer urban sites, and those that remained were often much reduced in size. The rural settlement of the region, particularly along the Lower Rhine and in the Delta, decreased and dispersed, avoiding the floodplains and river levees that had previously served as the focus of agricultural activity. The question becomes whether changes in the Rhine's activity were solely responsible for these changes, or whether the numerous abandoned or semi-abandoned landscapes of the later Roman period on the German frontier were the result of broader systemic changes.

The Rhine River and its environmental setting

Geography

The Rhine (**Fig. 1**) was the fourth largest river basin in the Roman Empire with a basin measuring 185,000 km^2, ranking only behind the Nile, Danube, and Euphrates in total area of drainage.[3] With a length of 1,230 km it was also the fourth longest, and the Rhine produced the third highest average volumetric discharge of water at its delta, with an annual mean of 2,600 cubic metres per second. The Rhine starts high in the Alps in the Swiss canton of Graubünden, flowing north along a steep and rocky path to eventually flow into Lake Constance. After again exiting the lake on the western side, the High Rhine flows west along the modern-day Swiss/German border to Basel where it then flows north between France and Germany. The Upper Rhine runs through a wide floodplain known as the Upper Rhine Graben, an area historically known for its steep, fast-moving flow strewn with obstacles and prone to flooding (Wickert 1903). After approximately 360 km, the Rhine enters into its middle course near Bingen, a transition marked by the steep slate cliffs of the Rhenish Massif, with the Hünsrück and Eifel hills to the west and the Wetterau, Siebengebirge, and Sauerland to the west. From Bonn, the Lower Rhine then enters a second wide floodplain known as the Lower Rhine Graben that extends to the Dutch border. Shortly after crossing this border, the river reaches its delta zone and splits into three main distributaries that flow into the North Sea. Along the course of the river, the Rhine is joined from the south by its major tributary the Aare River in Switzerland, in Germany it is joined from the east by the Neckar and Main and from the west the Moselle River.

The flow regimes of the Rhine and its tributaries fluctuate throughout the year, and show a strong distinction between north and south (Franconi 2017b, 86-87). The southern reaches of the basin are typified by peak flows between April and September as a result of snowmelt from the Alps. The northern reaches, on the other hand, tend to peak between November and March due to heavier winter rains. The lowest flows tend to occur between August and November, after the snowmelt flows taper off and before the rains start. These patterns are based on observed conditions over the last century or more, and are therefore inescapably modern. While there is no reason to expect that past conditions were significantly different than today, it would be a mistake to expect them to be the same. Changes in climatic conditions like temperature and precipitation had important influences on hydrological activity, affecting not only the seasonality of flow but also the overall volume of water in the basin and the amount of sediment that it transported. It is also important to recognise significantly variable anthropogenic influences that existed alongside climatic factors, resulting from actions such

3 Franconi 2017a and 2013 for a discussion of regional river basin characteristics.

as deforestation, an increase in land under cultivation, and animal grazing. There are also specific instances of Roman engineering projects that sought to alter the activity of the Rhine, with well-known examples in the modern-day Netherlands such as the Fossa Corbulonis, a canal cut to link the Rhine near Leiden to the Maas near Naaldwijk (Kort and Raczynski-Henk 2014).

Climate

Changes in climatic conditions can now be observed through two important studies based upon dendrochronological reconstruction of temperatures and precipitation since the Iron Age in Switzerland, France, Germany, and the Netherlands (Cook *et al.* 2015; Büntgen *et al.* 2011). These data have allowed for annually-resolved reconstructions of spring rains and summer temperatures for the entire Roman period in the study region (**Fig. 2**).

These data show significant fluctuation in climatic conditions over the 600-year period from 100 BC to AD 500. Temperatures fluctuated by as much as 4° C and precipitation fluctuated in a range of about 225 mm. The initial conquest of the region in the first c. BC occurred during a relatively warm and dry period known as the Roman Climatic Optimum which lasted until about AD 150, after which both temperatures and precipitation became more erratic and, from about AD 200-300, significantly dryer. From AD 300 until about 450 the region became cooler and wetter, with precipitation then dropping off again towards AD 500. The period of fluctuation from about AD 150 to 450 has been called the Late-Roman Transitional Period, preceding the Late Antique Ice Age that lasted until about AD 700 (Harper 2017; Büntgen *et al.* 2016; Sigl *et al.* 2015).These climatic records were subsequently converted into a measure of drought and wetness conditions known as the Old World Drought Atlas using the Palmer Drought Severity Index (PDSI) (**Fig. 3**).[4] This presentation of climatic data interprets both temperature and precipitation into annual conditions of drought or wetness (Alley 1984; Palmer 1965). Values below 0 represent drought conditions, and values below -4 represent extreme drought conditions. Positive values show wetter conditions, and those above 4 indicate severely wet conditions. The PDSI data show some 89 years that register maximum values that qualify as severely wet periods, while 201 years have minimum values that register below severe drought conditions, with the driest half century between AD 100-150 and the wettest between AD 400-450 (Franconi 2017a, 10-12).

These datasets make clear the variability of climatic conditions that influenced the hydrology and landscape of the Rhine basin throughout the Roman period. There was significant change at the seasonal, inter-annual, and centennial level and these changes would have had real and sustained influences not only on the river system, but on those people living within its bounds. How the river basin and its inhabitants responded to these changes is covered in the next sections.

Geomorphology

The Rhine and its tributaries changed along with the climatic conditions discussed above. These geomorphological conditions are recorded in alluvial sediments, old river channels, and oxbow lakes throughout the region, and add an important element to understanding the history of the river basin.

4 Cook *et al.* 2015 and supplementary data available online at https://www.ncdc.noaa.gov/paleo-search/study/19419 (last accessed 30 October 2017). The data are provided in a series of annual raster maps that show modeled spatial distribution of drought conditions. In order to create Figure 3 above, the maximum, minimum, and mean values were extracted from each raster set using ARC:GIS.

The floodplains of the Rhine deserve particular consideration. Floodplains form in geological regions where rivers in flood conditions are able to spread beyond their banks and deposit excess water and sediment rather than continue to carry these down stream. If floodplains did not exist within a basin, a constricted river system in flood condition would essentially turn into a highly-pressurised water cannon, and this constrained system would create violent conditions at river mouths. The Upper and Lower Rhine Graben systems thus acted as a sort of sponge, absorbing excess flows along the river course rather than directing them all out to sea. For these reasons, life along floodplains can be particularly difficult as their seasonal fluctuation is often not conducive to human settlement, requiring substantial engineering and constant threat of failure.

The modern Rhine thus differs considerably from the ancient, as the floodplains of the Rhine have been dramatically altered over the time since the Roman period; the Upper Rhine saw significant change from the early 19th century onwards, and the Lower Rhine and Rhine delta since the early and high middle ages. Much of the modern river is heavily constricted, and this alteration of the river's preferred activity occasionally results in devastating results, such as the exceptionally damaging floods of the 1990s (Disse and Engel 2001). However, with the understanding that what we see today is not what the Romans or any other past group would have seen, we can begin to recreate the past landscapes.

Indeed, the dynamic landscape of the Upper Rhine can be seen in comparisons of historic maps that show significant variation in channel location and channel structure through time (Ollive *et al.* 2009; Ollive *et al.* 2008). Similarly, historical documentation of river channels in the Lower Rhine and in the Delta show that channels have moved throughout much of the period prior to modern engineering (Klostermann 2008; Klostermann 2001). These cartographic resources can be compared to historical documents that, especially since the 13th c. AD provide a large amount of details of the changing river system (Wetter *et al.* 2011; Tol and Langen 2000).

Geomorphological evidence from excavations and borehole cores augment and amplify the narrative developed by historical sources. The Holocene history of hydrological development is exceptionally well known throughout the Rhine basin, as significant fieldwork has been carried out in France, Germany, and the Netherlands focusing on the history of sedimentation, channel avulsion, and both lateral and vertical channel movement.The floodplains of the basin show evidence of significant changes in sedimentation rates in the early first millennium AD, as the accumulation of sediment in the Upper and Lower Rhine Graben show an increase to as much as 3 mm per year that, when spread over these expansive floodplains, is a marked increase in deposition from the Iron Age or, indeed, any earlier period (Hoffmann *et al.* 2010; Hoffmann, Lang, and Dikau 2008). Similar changes in sedimentation during the Roman period are known from basins around the Empire, from the Rhône (Bravard 2017; Leveau 2017), Thames (Booth *et al.* 2007), Tiber (Goiran *et al.* 2017), and Guadalquivir (Baral-Munõz 2009). In each case, these hydrological changes correspond to an increase in settlement and agricultural exploitation, and the Rhine was clearly experiencing the same situation.

This increased sedimentation is the result of changes in land use strategies within the basin, corresponding to the start of the Roman conquest and a change in economic strategy that became focused on extensive agricultural surplus production (Franconi 2014). This change in economic strategy, alongside an increase in military and civilian settlement throughout the basin, led to increased deforestation, increased land under tillage or pasture, and an increase in soil erosion and surface runoff into the river system. The effects of this sedimentation are particularly notable along the Lower Rhine, where the river became choked by increased sediment and changed from a single, meandering channel to a series of smaller, braided channels that were shallower and filled with sand and gravel bars, evidenced in particular near Xanten in NW Germany (Klostermann 2008; Klostermann 2001). Changes in sedimentation rates and alluviation go hand-in-hand with changes in flood patterns, and borehole evidence from the Netherlands

strongly suggests that the third century AD saw a significant increase in floods of all magnitudes (Pierik and van Lanen 2019; Toonen 2013; Van Dinter *et al.* 2017). At the same time, the Rhine Delta also began a period of increased channel avulsion, resulting in rapid river channel movement throughout the region (Stoudthamer and Berendsen 2000). These changes in channel movement led to the siltation of the Old Rhine as the larger volume of water now flowed south through the Waal branch (Pierik and van Lanen 2019). These changes in floods and channel paths were also accompanied by a rising groundwater levels as a result of sediment accumulation in the delta (Pierik and van Lanen 2019), and the combination of these changes in river activity left a completely different deltaic arrangement than that which had existed in the early Roman period (Pierik and van Lanen 2019).

These deltaic changes were the end result of a process of hydrological change that began much farther south in the basin and extended throughout its reaches. These changes begin with the onset of Roman rule, and particularly intensify from the later second into the third century AD. The transition from middle to late Roman rule in the basin was accompanied by serious changes in flooding, channel movement, and sedimentation along its banks and especially in floodplains and deltaic regions. These changes in riverine activity lasted well into the early medieval period before changing again into a more stable system (Pierik and van Lanen 2019; Van Dinter *et al.* 2017).

The combination of climatic and geomorphological data shows significant levels of environmental change in the Rhine basin over the course of the Roman period. Changes in temperature and precipitation patterns would have had direct influences on hydrological activity, including the seasonality of high and low flows, but also the amount of soil eroded by rainfall and the subsequent deposition of this material along the river's course (Franconi 2017a). The geomorphological trends that we see resulting from both climatic and anthropogenic conditions tell a story of chronological change in environmental conditions. The early Roman period was relatively stable, but this changed over the course of the second century AD, and by the third century AD we see significant shifts well underway. The later Roman period is typified by climatic variation and increasingly colder and wetter conditions; the Rhine responded by flooding more often, creating more alluvium, and changing its channels more rapidly. These changes did not go unnoticed by the Romans living through them, and indeed we find repeated indications that society was forced to adapt to new environmental conditions.

Roman interaction with the Rhine

This discussion of hydrological change already hints at interaction between the river and Roman settlement throughout the region. The onset of Roman rule brought with it a change in population, settlement, and land use. Many cities and military sites were built along the Rhine and its tributaries, including major sites like Augst, Strasbourg, Mainz, Metz, Trier, Nida-Heddernheim, Köln, and Xanten. The landscape quickly filled in with rural settlements that ranged from modest farms to grand villas, and agricultural exploitation aimed to produce a surplus of products such as grain, livestock, and eventually even wine (Groot 2016; Seiler 2015; Groot *et al.* 2009; Kooistra 1996). The actual size of the provincial population is, of course, debated, but even modest estimates show a mid-Roman peak that is far higher than the prehistoric or early medieval periods (Wendt and Zimmermann 2008). The proximity of many of these settlements to the river system meant that they were able to rely, at least seasonally, on the rivers for regional integration in trade and communications (Franconi 2016). It also meant, however, that settlements were vulnerable to changes in riverine activity, and numerous individual sites produce evidence for specific instances of interaction between society and the river system. These sites have all been discussed in more detail elsewhere (Franconi 2017b), and so are here presented in tabular summary (**Fig. 4**).

At least a dozen sites from France to the Netherlands show signs of hydrological influence on settlement patterns. Evidence of flooding, sedimentation, and channel movement are evident in the Upper and Lower Rhine Graben as well as the Delta, and these changes generally cluster during the late second and third centuries AD. In each case, the activity of the Rhine necessitated a Roman response that ranged from engineering adjustments in harbour locations to partial or total abandonment of sites in favour of better or safer locations. Beyond individual sites, however, we can also point to broader patterns of settlement change at the regional level in the same time period, visible not only in the number of settlements inhabited, but also their changing size through time.

While exact population figures are difficult to estimate, the size and distribution of settlements is more straightforward, and we can use the physical area that a settlement occupies as a proxy measure for population growth.[5] For the Rhine frontier, a total of 40 major civilian settlements (cities and small towns) can be measured as they stood ca. AD 250, producing a roughly estimated 'settled area' of some 1,800 ha (**Fig. 5a**) (Franconi 2014, 82-85). For the entire region, this is only meant to represent a minimum figure, as many sites simply were not able to be estimated based on published plans. It is difficult to imagine, however, that this could be much lower, and thus gives a certain baseline of civilian settlement occupation for the period. If we measure the same sites a century later, we see that many of these settlements have reduced in size or been abandoned entirely, leaving roughly 625 ha occupied c. AD 350. This reduction of occupied space in major settlements equates to a total loss of 60% of space from a century earlier. Similar patterns of change can be seen in micro-regions of the Rhine basin as well. The hinterland of Köln in Lower Germany saw settlement reduction in a similar magnitude from roughly AD 200 to 400, and more than half of the settlements were already abandoned by the end of the third century (Gechter and Kunow 1986). The number of sites in the western Rhine Delta peaked by AD 200, and disappeared by AD 300 (**Fig. 5b**) (Heeren 2015). The rest of the Rhine Delta saw similar patterns, with the number of settlement sites peaking by AD 250 and then reducing by roughly 66% during the later third and fourth centuries (**Fig 5c**) (Pierik and van Lanen 2019, fig. 7a). The adjacent deltaic system of the Demer-Meuse-Scheldt estuary showed a similar pattern, where the number of occupied sites plummets after AD 300 (and well-dated sites already after AD 250) (**Fig. 5d**) (Heeren 2015). While it is true that these studies focus exclusively on the northern reaches of the Rhine (and the adjacent Meuse-Demer-Scheldt), the patterns are hinted at as well in French Alsace, where a number of sites listed above in **Fig. 4** show contemporary abandonment.

Taken together, both individual sites and broader regions show a pattern of settlement dislocation and abandonment during the later Roman period, especially during and after the third century AD. There is repeated evidence throughout the basin that hydrological change played a part in these changes, and the contemporaneous abandonment of many low-lying floodplains suggests that these problems were widespread. The combination of hydrological crisis with climatic change presented those people living along the German frontier with a new and dangerous environmental condition that was not easily countered. Thus, the shifting fluvial landscapes of the mid to late Roman periods had a direct impact upon settlement.

5 On using settlement size as a proxy for population size, see Wilson 2011, Marzano 2011, Hanson 2011.

Discussion

The question, then, is whether or not we can see an environmental motivation in all regions at the same time, and whether these were significant enough to convince the Roman Empire to abandon significant tracts of territory along the Rhine frontier from the third century onwards. It is, of course, important to recognise that, outside of hydrological activity, this period was one of great change in the administrative and defensive networks of the region: the territory across the Rhine in modern day Hessen and Baden-Württemberg was abandoned by the Roman state in AD 260 (Reuter 2012), and the entire region broke away from the central Roman government in the same year, forming the short-lived Gallic Empire from AD 260-274 (Fischer (ed.) 2012). The re-incorporation under Aurelian did not erase the scars of this separation, and the reforms of Diocletian and Constantine in the decades after permanently changed both provincial organisation and garrison deployment along the Rhine. The relative stability of the early 4th century AD was short lived, with the revolt of Silvanus in AD 355 and numerous conflicts with both the Franks and Alemanni throughout the century, including a brief period of rebuilding under Valentinian. The fall of the Rhine frontier in the winter of AD 406 severed Roman control of the river, even though later reclaimed, and the German provinces rapidly declined thereafter (Scharf 2005). Alongside these major challenges to the hegemony of the Roman Empire in the area, errant fluvial activity may seem inconsequential, but we should not forget that it would not have seemed inconsequential to those grappling with it on a daily basis. Indeed, the river offered a new challenge during the fourth century, as reports of winter freezing increase through the century (Franconi 2017b, 93). The river that once functioned as a key part of the frontier defences now invited invasion, echoing Tacitus' earlier concern that that the rivers that had so long provided defence were now deserting the Empire (*Hist.* 4.26. Campbell 2017, 27; Campbell 2012). Taken in conjunction with the floods, channel movements, and obstruction or destruction of infrastructure, the failure of the river as a defensive feature should not be overlooked. All of these factors taken together give a strong impression of a river system turning against its occupants, and having a direct influence on how the Romans used the land for settlement, agriculture and defence.

The fact that these environmental changes occurred alongside major political upheaval meant that the State was not able to address problematic landscapes as efficiently as they once had. Gone were the days of generals engineering dykes, dams and canals as they had during the first centuries BC and AD. The best that could be done now was to simply move and hope that a new location (often on higher and dryer ground) would mitigate the problem. The wide-scale abandonment of settlement both urban and rural throughout the region, especially in highly dynamic areas like floodplains and river deltas can thus be seen as the reaction of a society that was no longer able to mobilise the resources or manpower to counteract environmental processes.

Conclusions

Roman occupation of the Rhine basin from the first century BC to the fifth century AD enjoyed many benefits of the local landscape: fertile soils, abundant waters, and many resources able to be managed for local and inter-provincial trade. As this provincial society expanded, so too did its influence on the landscape. The chronology of settlement expansion correlates very well with the first indications of hydrological crisis brought about by increased soil erosion and surface runoff into the river system, occurring already by the end of the second century AD. These anthropogenic changes were then amplified by the destabilised climate of the later Roman period, and these factors combined to produce a rapidly changing river system that now largely lacked the benefits seen under the Early Empire.

The period of hydrological crisis coincided with a series of political upheavals that took the focus of the State off of local engineering projects, thus allowing the river to dictate local conditions. Without significant attention paid to the growing environmental issues, many settlements simply reached a point of no return and many of their inhabitants decided to leave. Some settlements were relocated, as seen at Oudenburg on the Upper Rhine in France, or at least adapted to the new circumstances as the inhabitants of Köln did with their relocated harbour. These were local initiatives, devoid of major institutional support, and the abandoned landscapes seen in the third through fifth centuries AD are thus the cumulative effect of these local decisions made in response to environmental change.

To return to the initial paradigms discussed in the introduction, does this case study present a scenario of environmental determinism, societal exemptionalism, or something in between? The answer depends on where and when you look, but the final outcome certainly suggests that there are limits that a society can reach in its ability to deal with dynamic environmental issues. Would the sturdy government of the early Imperial period have dealt with these issues in a different way? We will never know, but it is clear that the later Roman administration did not view these issues as a priority, and thus left it to local initiatives.

As a final note, though, we might also consider if it was politically expedient for the Roman government to ignore the plight of those living along the Rhine's banks. The deserted landscapes of northern Germany and Gaul provided political capital during the later periods, allowing for the resettlement of Frankish groups across the territory previously belonging to Lower Germany under Julian (Zosimus *Hist. Nov.* III.11.1). There was little cost to Rome to allow these groups to settle land previously abandoned, nor did the State feel overly compelled to address changing riverine conditions on behalf of these groups. Thus, the relationship between the Rhine and the Roman Empire is complex, and throughout its history presents a number of different interpretations of which side provided determinism. There is no simple answer to this, but a considered discussion of all the sides of the issue certainly allows for a much more nuanced appreciation for the range of interactions possible between society and environment, and the pronounced agency that the environment could sometimes exert on an Empire as powerful as Rome.

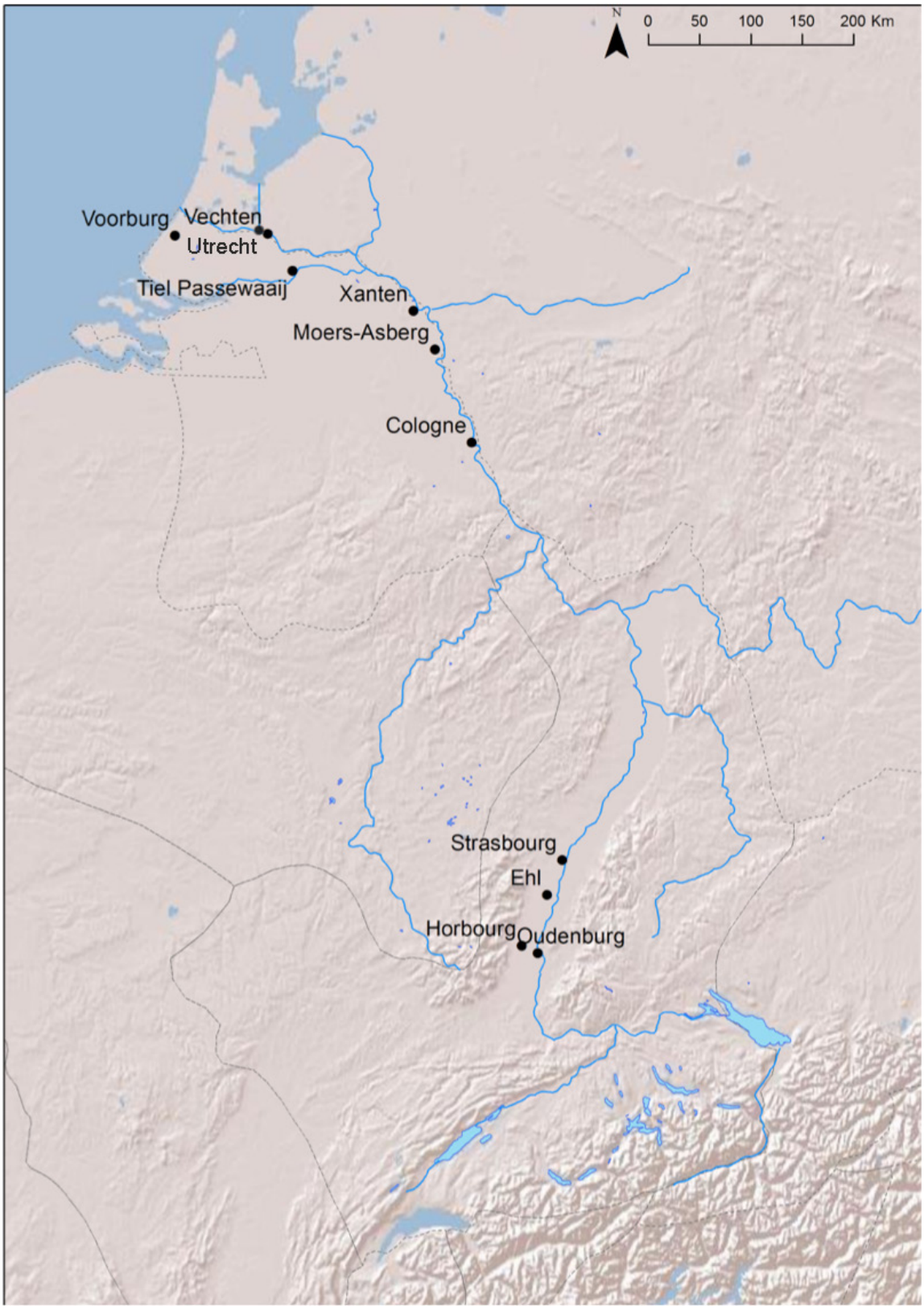

Fig. 1. The Rhine river basin with sites mentioned in the text (map by the author)

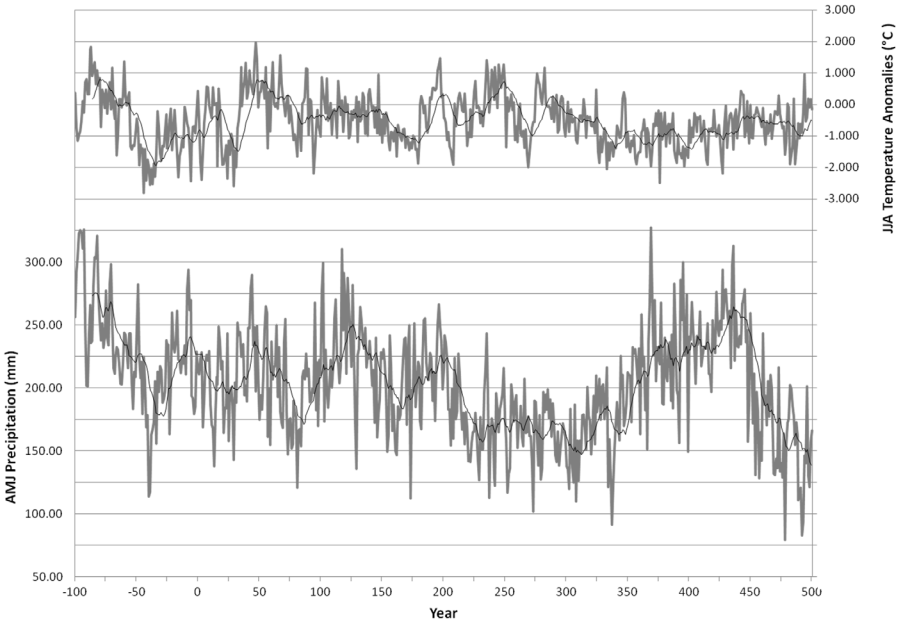

Fig. 2. Dendrochronological reconstruction of spring rain and summer temperature near Rhine basin from 100 BC to AD 500 (from Büntgen et al. *2011 - modified by the author)*

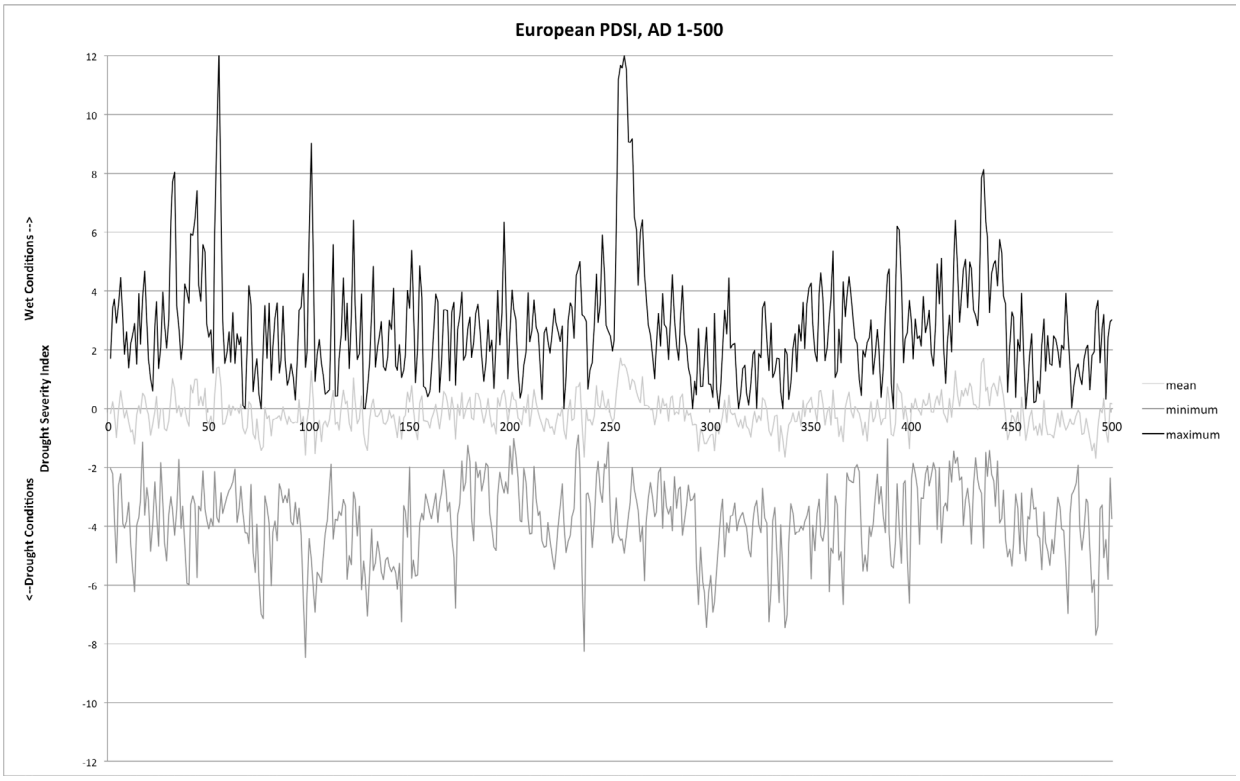

Fig. 3. Reconstruction of drought and wetness conditions in Europe from AD 1-500, showing maximum, minimum, and mean annual values. values registering above 4 indicate extremely wet conditions, values below 4 indicate extremely dry conditions, data from Cook et al. *2015 (author).*

Site	Type of change	Date	Result	Reference
Oedenburg, FR	Flooding	Late 3rd-early 4th	Relocation	Ollive et al. 2008
Horbourg, FR	Flooding	Late 2nd-early 3rd	Partial abandonment	Hatt 1966
Ehl, FR	Flooding	Late 2nd	Abandonment	Hatt 1966
Strasbourg, FR	Flooding	Late 2nd	Partial abandonment	Baudoux et al. 2002
Köln, DE	Sedimentation	Late 2nd	Harbour movement	Lauer et al. 2013; Schäfer 2014
Moers-Asberg, DE	Channel movement	Mid 2nd	Abandonment	Bechert 1989, Roggenkamp and Herget 2014
Xanten, DE	Channel movement	Late 2nd-early 3rd	Partial abandonment	Klostermann 2001; Gerlach and Meurers Balke 2014
Tiel-Passewaaij, NL	Flooding	Late 2nd	Abandonment	Heeren 2009
Vechten, NL	Channel movement	Early 3rd	Abandonment	Polak 2014
Utrecht Limes Road, NL	Flooding	Early-Mid 3rd	Reconstruction	Van Dinter 2013; Van der Kamp et al 2009
Utrecht	Channel avulsion	Mid 3rd	Partial abandonment	Van Dinter 2017
Voorburg, NL	Sedimentation	Early 3rd	Abandonment	Driessen et al 2014; Kort and Raczynski-Henk 2014

Fig. 4. Table of Roman sites with evidence of hydrological change in Rhine basin (author).

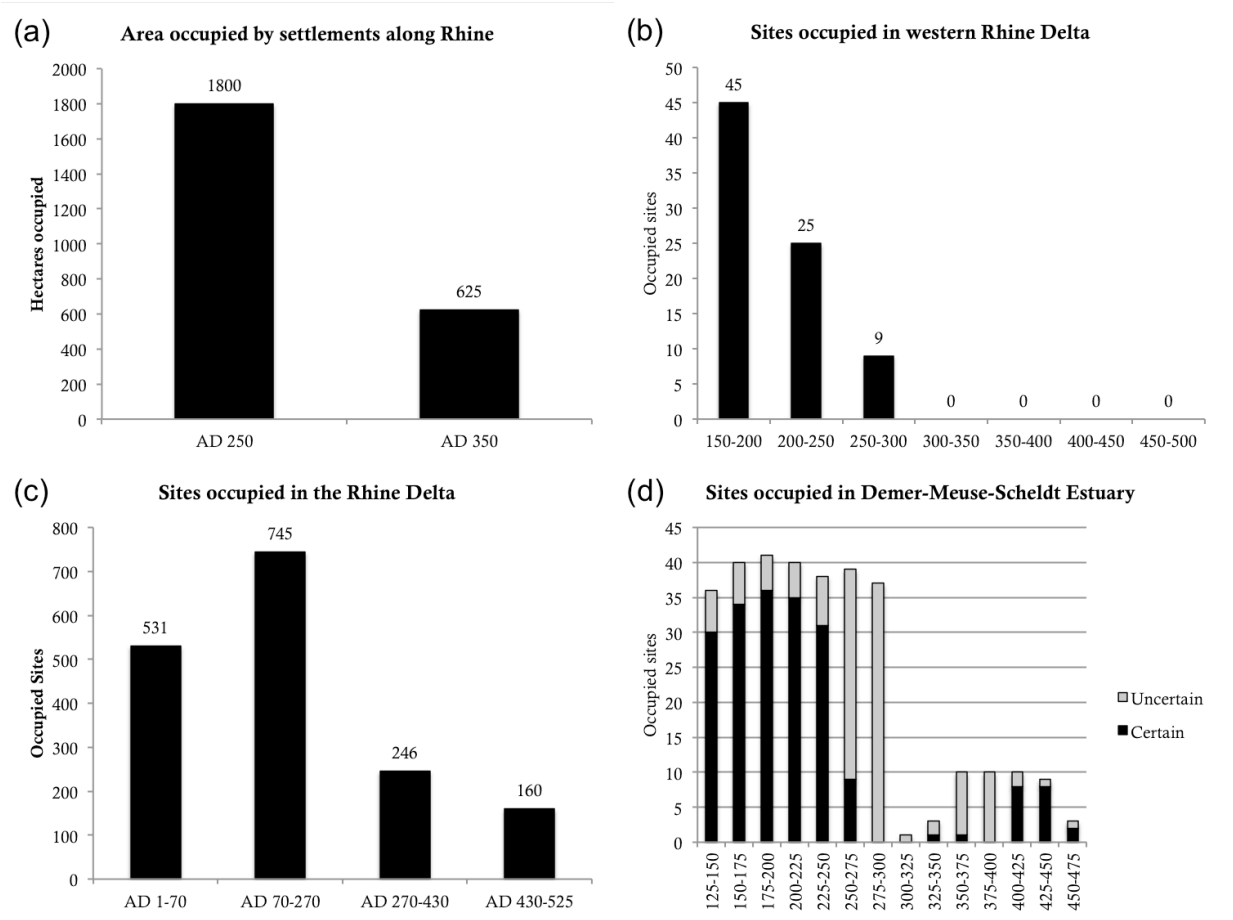

Fig. 5. (a) occupied settlement area between ad 250 and 350 (after Franconi 2014). (b) sites occupied in the western Rhine delta region (after Heeren 2015). (c) sites occupied in the Dutch river area (after Pierik and van Lanen 2019). (d) sites occupied in the Demer-Meuse-Scheldt estuary (after Heeren 2015).

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Abandoned but not forgotten. Dynamics of authority negotiation in the British sacred landscape.

Alessandra Esposito[1]

Abstract

Regalia connected to ceremonial performers and local ritual practices are found in deposits throughout east and south-east Britain in the Roman period. The evidence for their concealment points towards a possible interruption or change in the local practices that would have been carried out at these sites. This paper focuses on four deposits of regalia and discusses the variations and types of interruption and change of ritual practices by focussing on two aspects. The deposits of headdresses from Hockwold-cum-Wilton, Cavenham Heath, and Deeping-St-James illustrate the first point, namely, the connection between the careful deposition of headdresses and sceptres and the abandonment of the sites that marks the end of ritual activities. This depositional behaviour is further explored to address the second point. At the temple site of Wanborough, the concealment of ceremonial regalia is connected to an architectural change characterised by the construction of a Romano-Celtic temple. Linking the presence of these ceremonial items to the structural features at the site offers the opportunity to engage with recent theoretical discussions on mnemonic triggers associated with landscape markers.

Introduction[2]

In the late 2nd and throughout the 3rd and 4th centuries AD, items of ceremonial apparel (regalia) are deposited at temple sites and unstructured sacred places in the British landscape. At some of these locations, their depositions correspond to a re-configuration of the sacred area, while at others, they mark the end of local ritual activities. Muted by removing any connection to a deity and sometimes broken, these objects are nevertheless carefully buried.

This paper uses the different depositional contexts of these items of ceremonial apparel to address two main points. The first is related to ritual authority embodied by the individuals wearing the regalia. Burying these items marks a disruption, either as a change in how the ritual performances are carried out at that site, or as their conclusion. Consequently, the ritual authority signified by these objects is similarly changed or abandoned. Nonetheless, the care taken in disposing of these objects displays not only the adherence to the ritual habit of hoarding on a provincial level but also informs us on the characteristics of this shift in ritual practices.

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2 I wish to thank Paolo Cimadomo for extending me the invitation to participate in this volume and the reviewers for their comments: all faults remain my own. The images of the plan of the Wanborough site and the finds are reproduced with the kind permission of David Rudling and the Surrey Archaeological Society.

After acknowledging this disruption, the second point assesses the scope for a discussion about mnemonic responses triggered by the removal of items of ceremonial apparel from circulation at a temple site which is not abandoned but remains active. In these cases, the action of burying ceremonial regalia does not erase that ritual authority from communal memory as their special deposition is seen, instead, as a means to stress its absence.

Manifesting ritual authority through regalia

Whereas scholarly attention has often focused on Druidism and its historical narrative (Aldhouse-Green 2010; Marco Simón 2014), more recent considerations have also looked at the individuals that held official religious roles in Britain after the Roman conquest (Allason-Jones 2011; Esposito 2019). Britain offers compelling archaeological evidence to address the organisation of these figures, particularly as the local traditional priesthood was banned by imperial decrees and persecuted. Finds of priestly regalia and ceremonial tools at temple sites and at unstructured sacred spaces inform us of the presence and activities of these figures and, because of their very nature, on how these figures would mark their authority in public.

The most common types of priestly regalia from Britain are headdresses and sceptres. The former continue a stylistic tradition started in the Late Iron Age, when both chain-headdresses and crowns are attested (Stead 1995; Esposito 2019, 59-62), however there is little agreement on the type of authority these objects marked in this period (e.g. Druidic, Aldhouse-Green 2010, or kingship/chiefdom with religious roles, Stead 1995; Fitzpatrick 2007). Sceptres seem unattested in the Late Iron Age; however, it is interesting to note that the earliest deposits of priestly regalia dating to the second half of the 2nd century AD from Wanborough and Farley Heath in Surrey contain both chain-headdresses and sceptres (O'Connell and Bird 1994; Williams 2007; Poulton 2007).

It is unclear who the titular deities at these two sites were, but it is likely that they were local ones, for example Taranis at Wanborough (Williams 2008). In other instances, the connection between a ritual authority and the associated deity is clearer. This is the case for the Mars and Venus sceptre-heads from the area around Lincoln (Esposito 2019, 38-41) and the sceptre-heads reproducing emperors' portraits from Hadrian to Commodus that are found in south Britain (Walker 2014). Jupiter is also well-attested on priestly regalia, particularly in the deposits of Felmingham Hall (Gilbert 1978) and Hockwold-cum-Wilton (Wright 1957, 211). In the former, the copper-alloy head of Jupiter is matched to the bearded heads on the straps of the headdress and the eagle figurines. In the latter, a crown is decorated with bearded heads while one of the diadems' plaque reproduce him as a stylised Jupiter Conservator type (Esposito 2019, 63). Birds are also often attested as sceptre-heads (*id.*, 44-7) but given that they are companions of Celtic and Graeco-Roman deities alike, it is often difficult to associate them with a certain cult, unless the craftmanship of the objects allows for a more precise identification. This is the case of the bird sceptre-head from Bosworth Field, Leicestershire, identified as an eagle and associated with a possible near-by temple (PAS n. LEIC-9F3451; Pearce and Worrell 2016, 374, n. 11).

Overall, it appears clear that wearing a headdress and carrying a sceptre was not a prerogative of a certain cult (unlike the case of the regalia used by the *galli* or the *flamines*), but it was a way of marking ritual authority locally. This habit has also been noted in other areas of the Roman world, for example in Syria and Lebanon, where the traditional tall conical headdresses worn by priests of different cults continue to be worn in the Roman period (Blömer 2015).

Items of ceremonial regalia are found in eight deposits in the south-east and east regions of Britain (**Table 1**). Most of them are clustered around the Fen Edge, contributing to a well-known depositional habit attested here from the Bronze Age to the Late Roman period (Bradley 1990; Pendleton 1999; Hobbs 2016).

The dates of concealment of the deposits, when available, belong to the 3rd and 4th century AD, with only two earlier depositions, definitively at Wanborough and possibly at Deeping-St-James. However, the regalia were certainly older as some of them show signs of wear, e.g. repairs. This is evident on a headdress from Felmingham Hall, where a bird figurine topping a chain-headdress broke off at the feet and had to be replaced by a new one (Gilbert 1978, 172, fig. 5A). Similarly, a chain-headdress from Farley Heath was repaired when the ring connecting the central piece to its chain broke off and the rim of the central piece was pierced to allow the chain to be attached back (**Fig. 2**. Bird 1996: 87). Further evidence to this long life of the regalia before their final deposition is the fact that some of the headdresses were adjustable in size via a clasp, like in the cases of the diadems from Hockwold-cum-Wilton and Cavenham Heath, suggesting that they were used overtime by different individuals (Toynbee 1962, 178).

The composition of the deposits is varied. Those from Cavenham Heath, Deeping-St-James, Hockwold-cum-Wilton, and Wanborough contain exclusively or almost exclusively ceremonial regalia, while the ones found at Felmingham Hall, Stony Stratford, Willingham Fen, and West Stow also include other types of objects, mostly votive in nature, like figurines or leaf-plaques. Although it may be expected that these ceremonial items would be found at temple sites, this is only true in three cases. The other five deposits are in fact not associated with any built features of religious significance. Only at Stony Stratford, it can be speculated that the objects are from a nearby temple with a reasonable degree of confidence, as several votive leaf-plaques from this deposit are pierced as to be nailed to a wall (Jackson and Burleigh 2018, 74).

A final aspect to consider is that priestly regalia are represented by a limited number of exemplars overall, qualifying them as not everyday objects with a widespread use. These aspects characterise the authorities marked by these objects as regionally localised at rural cult *foci*.[3] Nevertheless, the strong connection between these objects, the authority they flag, and the communities they served, leads us to wonder what could have been the reason prompting their abandonment.

Abandoning ceremonial apparel: disruption and change

Scholarly discourse on structured deposition has moved away from a pan-ritual interpretation of 'odd' deposits (Bradley 1990; Millet 1994; Osborne 2004) as well as from highly sceptical positions on the possibility of ever knowing the reasons why objects were deposited in antiquity (Johns 1994; 1996). More recent theoretical approaches have explored interpretational methods based on a spectrum of reasons for deposition, ranging between ritual assemblages and everyday rubbish deposits, having the merit to highlight the high variability of the archaeological record (Chadwick 2012; Garrow 2012).[4] It seems thus more suitable, at least when considering deposits of regalia, to interpret them on a case-by-case basis (Haynes 2013; Esposito 2016).

1 Cult focus is considered here a place of ritual activity that could be marked in the landscape even by a single deposition. See similarly, the definition of 'shrine' in Smiths et *al.* 2018, 121-2.

4 See also the recent conference held at King's College London: Hoarding and deposition in Europe from later prehistory to the medieval period -finds in context. 12th-14th of June 2019 (https://tinyurl.com/t95agb6 Last accessed 17/11/2019).

The eight deposits of regalia clearly represent a voluntary action but understanding their abandonment can only be achieved considering their local spatial context. This paper will consider four case studies to help illustrate different causes behind what, at first glance, could appear as similar 'votive' depositional behaviours: Hockwold-cum-Wilton, Cavenham Heath, Deeping-St-James, and Wanborough.

The ritual site at **Hockwold-cum-Wilton, Norfolk** is only partially excavated and consists of a circular building of around 9 m in diameter characterised by a chalk floor, chalk walls coated with plaster and painted with a figurative decoration, and a thatched roof (Gurney 1986, 88). Activities on the site date from the mid-2nd century AD, when the building was constructed, to the late 4th century AD, when it was abandoned. The interpretation of the building is mostly based on the associated find: coins, votives, and the assemblage of a crown and five diadems.

The earliest coins date to mid-2nd century AD, however most of them belong to the mid-4th century onwards. Increased coin loss in the 4th century is a pattern attested at other temple sites like Lowbury, Nettleton, and Lydney and likely related to an increase in economic activities, as the temple site would have become a centre for local trading (Gurney 1986, 89). Continuity of ritual activities on the site is attested by the presence of brooches of the horse and rider and the *Adlocutio* types dating to the mid-2nd/early 3rd century AD while items of jewellery, particularly the bracelets, date to the 4th century AD. Given the predominance of votives among the finds, the building has been interpreted as a *favissa*, where votive objects and, in this case, regalia would be stored. This interpretation accounts for the wide chronological span of the votive objects, deposited at various stages between the 2nd and 4th century AD (*id.*, 91).

Although only one diadem was found *in situ*, deposited in a pit cut in the building's chalk floor, it is highly likely that the other headdresses had been originally deposited in a similar way. Uncertainty is due to the fact that these other headdresses, a crown and four diadems, had emerged during ploughing in 1956 (Wright 1957, 211) rather than being archaeologically excavated. However, the fact that all diadems are in the same style strongly suggests they were part of the same depositional action. No intrinsic dating of the headdresses nor of their deposition is available, although given that the pit in which at least one of diadems was found had been cut in the building's floor and that the date of the associated pottery material is the 4th century AD, it is highly likely that they were buried towards the end of the life of the complex.

Excavations at **Cavenham Heath, Suffolk** conducted in the 1980s revealed a timber structure with a central footing and clay floor walls, the latter covered in painted plaster (Martin *et al.* 1982; 1983). Votive material from this site includes fragments of votive leaf-plaques and brooches of the horse and rider, disc, and *Adlocutio* types. Not far from this area to the south-west, a deposit of ceremonial apparel had been found in the early 20th century and contained a chain-headdress and two diadems (Layard 1925; Lethbridge 1951). The area immediately around the headdresses' findspot was characterised by intense ritual activity attested from the Iron Age to the 4th century AD and it is difficult now to appreciate whether the deposition of the ceremonial apparel is related to any major change at the site or to its abandonment.

Cavenham Heath and Hockwold-cum-Wilton are very similar sites, with comparable votive activities and the presence of ritual authorities marked out in similar ways. Both sites are abandoned in the same period, prompting the concealment of the items of ceremonial apparel. That a certain care was taken when burying these objects is attested by the fact that none of them are broken and that only some of the silver plaques decorating the diadems were carefully removed. The dating of the abandonment of these sites in the mid-4th century AD evokes the contemporary affirmation of Christianity in late Roman Britain as a potential factor affecting the abandonment of some pagan cult *foci*. However, recent analyses of shrines and temples in the late Roman period have shown that many were still being built

in this period and that the reasons for abandoning pagan cult sites has more to do with the conditions affecting a particular site and its immediate vicinities (Smith 2008, 172; Smith *et al.* 2018, 136; 203-4).

Local trends in the areas of Cavenham Heath and Hockwold-cum-Wilton characterised by small farming settlements show that these start declining in the late Roman period (Smith *et al.* 2016, 240-1). As these small shrines would have relied on the contributions made by members of the local micro-elite for their functioning and maintenance, an economic change would have had tremendous consequences not only on the upkeep of the temples but also on the availability of these elite members in taking over financially demanding ritual offices. At the same time, a shift in interest of this micro-elite towards other, more private or collegial, cult expressions, could apply here, gravitating towards Christianity or pagan cults still active in this period (Henig 1984, 222-4) attested by the nearby deposits at Mildenhall (Hobbs 2016) and Thetford (Johns and Potter 1983).

Finally, the care taken in depositing these objects rather than recycling them fits well in a wider appreciation of depositional trends of pagan material in Britain. As noted for pieces of statuary selected to be deposited at some British temple sites, disposing of objects associated with pagan cults did not necessarily imply their destruction but often an almost reverent attitude, likely related to superstitious worries for the objects' perceived magical properties (Croxford 2003; Petts 2016).

If large, provincial-scale economic and social changes will trigger the abandonment of sites and the associated ritual authorities, the deposits of regalia can also alert us of smaller scale changes. The evidence that some rural sacred *foci* did not require a built structure has little to do with their status within their immediate community and more with the ritual function required by those communities. For example, the assemblage of ceremonial regalia of **Deeping St James, Lincolnshire** contained two crumpled copper-alloy crowns and a copper-alloy bowl, while a third fragmentary crown was found not far from the deposit (Painter 1971). The deposit can be dated to the late 2nd/early 3rd century AD, based on the presence of Samian pottery found next to the deposit's findspot. However, the assemblage itself did not contain any dating elements and was not excavated archaeologically, having been recovered during ploughing operations. Both a field survey and aerial photographs taken in the area confirm that no permanent structure had been erected on the site (Hayes and Lane 1992). Nonetheless, the deposit did not exist in isolation. Two coin deposits were also recovered nearby: one dating to before AD 272 and the other to the mid-3rd century AD (Painter 1971).

The findspots of the Deeping St James crowns are within an area spotted with small rural settlements around the river Welland, with evidence for both agricultural and pastoral activities (see for examples two farmsteads in Allen *et al.* 2015: DB n. 24097, 24074). There is clear evidence for arrangements to protect these settlements from the periodic floods of the river in the Roman period: ditches, artificial mounds, on which most of these settlements were built, and an artificial watercourse to canalise the river (Hayes and Lane 1992: 189-90). The settlements started to be abandoned from the late 3rd to the mid-5th century, and as the canalisation was not maintained, the area was again subjected to flooding until the post-medieval period (*id.*).

Considering the deposits at Deeping St James in the context of their specific landscape suggests that the local depositional behaviour could be an expression of dealing with the specific natural features of the area, where the flooding of the river was disruptive to the local life associated with agricultural activities and needed to be prevented. It is highly probable that individuals wearing the crowns found at Deeping could have performed seasonal ceremonies related to the agricultural and pastoral life of the area, and potentially, also specific ones related to the periodic flooding of the Welland. Considering the number of headdresses recovered, two or three individuals would have been involved in rituals taking place in this area: libations and possibly feasting at certain spots are marked by nine dense scatters of

Roman pottery (*id.*), but prayers and activities that do not have an archaeological trace, would have also taken place.

It is unclear why these crowns were not needed anymore around the late 2nd/early 3rd century AD, whether it had to do with the performances becoming obsolete because of the regimented canalisation of the river, or because responding to a culturally wide-spread period of renewed depositional habit (Smith *et al.* 2018, 189). They transitioned from being objects in active use to deposited votive objects whose character is suggested by two factors. One is the presence of the copper-alloy bowl deposited with the crowns, and the second is the depositional treatment of the crowns and the bowl, all subjected to the same ritual process of crumpling before deposition. The presence of the bowl suggests that a libation might have taken place before the deposition of the crowns, a behaviour also attested in another deposit from West Stow, Suffolk (Esposito 2019, 83). Crumpling the objects marks the end of their active use and yet they are carefully disposed of, a well-known behaviour in votive structured deposits, when the objects are metaphorically 'killed' (Woolf 2015).

The sites of Hockwold-cum-Wilton, Cavenham Heath, and Deeping St James provide instances of depositions of items of ceremonial apparel as an integral part of the abandonment process of a certain cult site or cult activities. Further scope for reflection is offered when considering the act of abandonment of regalia not within the termination, but rather, in the continuation of ritual activities at a sacred site, albeit in a changed setting. This is the case of the deposit of chain-headdresses and sceptres at the temple site at Wanborough, Surrey.

Out of sight, out of mind? Enhancing presence through absence

The five chain-headdresses and around 18 sceptres found at Wanborough, Surrey were deposited in one or possibly more hoards around AD 160/70 (**Fig. 2**. O'Connell and Bird 1994; Williams 2007). This deposit was placed under the Romano-Celtic temple that was then being built and it has thus been considered as a foundation deposit (*id.*, 97-8).

Ritual activities start at the site around the first-half of the 1st century AD, attested by minimal votive deposition of pottery and a rotary quern. The focus of this deposition is then connected to a wider grove area by a metalled trackway likely around the mid-1st century, which monumentalises a processional route (**Fig. 3.** Esposito *forthcoming*). In this period an area north of the eastern end of the trackway becomes the focus of votive activities, as attested by a small niched enclosure and a natural feature, likely a tree. In the first half of the 2nd century AD, the presence of pot-holes and a metalled platform suggests the multiplication of small structured sacred spaces, and the need for a more organised space leads to the building of a circular temple in the mid-2nd century AD. This temple was however short-lived, if ever finished, and soon abandoned due to structural failure. A Romano-Celtic square temple is then built in AD 160/70 avoiding the area of the circular temple.

The deposition of the headdresses and the sceptres under the square temple offers a *terminus post quem* for their production and use. They are to be associated with the phase of slow proliferation of small ritual *foci* starting at the end of the 1st century AD and culminating in the construction of the circular temple in mid-2nd century AD. The visual character of these objects, which were to be worn and paraded, fits nicely within the local ritual tradition of a processional route. This is especially meaningful when considering that the distance between the east end of the trackway and the cultic *focus* later marked by the circular temple is less than 100 m. It is not clear from the limited excavated portion of the trackway whether this was still in active use in the same period as the regalia, however, the ritual

memory of a processional route on the site would have been available. This is further suggested by the number of regalia retrieved at the site, the highest in any of the deposits from the province, evoking the significant scale of ritual activities at the site, due to the number of individuals involved. We are then left to wonder about the implications of removing such items from circulation as this would have significantly impacted the future ritual experiences at Wanborough.

Recent considerations on the active removal of objects from circulation have been explored in relation to memory. Stressing the significance of an object by removing it from its context of use has been interpreted as a way to build a mnemonic connection with that object or the practices that it embodied (Kamash 2016), for example by placing them in graves (see Garrow and Gosden 2012 on the Mill Hill burial). These considerations on memory are prompted by the assumption that the removal of an object from a community triggers within that community a response in the form of remembering (for example, nostalgia, Eckardt 2004).

Intrinsic characteristics of some of the regalia we have considered so far further contribute to our understanding of these mnemonic triggers. In fact, the burial of ceremonial regalia offers potential ground for the discussion of the creation of both retrospective and prospective memories (Holtford and Williams 2006; Kamash 2016). The former is concerned with remembering as a way of providing a cultural context for the past; the latter frames memory as a means of constructing a narrative for the future (*id.*).

We already noted how the diadems from Cavenham Heath and Hockwold-cum-Wilton were adjustable in size, while regalia from other sites show signs of repairs, suggesting that these objects were used over a long period of time. Moreover, as these headdresses were worn during public rituals, likely - but not limited to - processions, they certainly had an immediate visual impact on the audience, evoking an office rather than a specific individual. Both these features contributed to the construction and continuation of a retrospective memory of a ritual tradition enduring from the past and justified by its recollection.

Interesting is also the relation between the abandonment of the Wanborough headdresses and sceptres and the construction of the square Romano-Celtic temple. Here, the headdresses and the sceptres mark the ritual authorities active in the immediate post-conquest period. These authorities are renegotiated when the ceremonial items are buried under the new style of temple (on the adoption of the Romano-Celtic temple style. See Smith *et al.* 2018), becoming an intrinsic part of the history of this new building. From a prospective memory stand point, the construction of the Romano-Celtic temple, embodying the contemporary social renegotiation of changing trends in the use of sacred space also becomes the focus of a carefully crafted future memory.

Conclusions. The deposits of apparel inside and outside changing provincial trends of sacred space use

Deposits of ceremonial apparel aptly position themselves in the general discussion regarding trends of structured deposition within the province, both in terms of chronology (3rd and 4th century AD) and geography (south-east and east Britain). In terms of province-wide phenomena, the concealment of ceremonial apparel associated with the abandonment of temple sites is well suited in the more general trend of partial abandonment of structured cult sites in late Roman Britain, as in the cases of Cavenham Heath and Hockwold-cum-Wilton. Nevertheless, a further narrative is available, which is specific to these types of assemblages.

The deposits allow us to explore dynamics of changes in marking ritual authority: at Deeping St James, marked-out authorities become superfluous/obsolete in the second half of the 2nd century AD possibly in relation to a modified local agricultural landscape. Even more evocatively at Wanborough, the creation of short-lived ceremonial regalia could have provided a mnemonic bridge between the Late Iron Age activities and the later ones gravitating around the Romano-Celtic temple. This aspect remains of particular interest as regalia are not -so far- found in connection to any of the Romano-Celtic temples in Britain, although the spatial distribution of temples and regalia overlaps.

Whereas general discussions on the habit of hoarding and deposition in antiquity have often been concerned with the content of the deposits, for example the choice of certain material or objects used to identify the reasons for deposition, it is increasingly clear that any interpretation of ancient hoarding has to start from an analysis of the local context. This however does not mean that every deposit will become a unicum: general trends can successfully be identified for certain types of objects or materials (washing sets, Lundock 2015, and pewter-alloy vessels, Poulton and Scott 1993). Rather, the abandonment of items of ceremonial apparel in structured deposits provides a compelling argument to further explore interpretational approaches to hoarding and deposition. Considering these deposits exclusively as a type of votive deposition, could prevent us from understanding the more nuanced cultural and social dynamics that prompted that votive behaviour in the first place.

Findspot	County	Time of deposition	Context
Cavenham Heath	Suffolk	3rd century AD	Rural, shrine
Deeping-St-James	Lincolnshire	late 2nd/3rd century	Rural, unstructured
Felmingham Hall	Norfolk	*post* AD 253	Rural, unstructured
Hockwold-cum-Wilton	Norfolk	4th century AD	Rural, shrine
Stony Stratford	Northamptonshire	3rd century AD	Rural, (shrine)
Wanborough	Surrey	AD 160/170	Rural, temple
West Stow	Suffolk	Roman period	Rural, unstructured
Willingham Fen	Cambridgeshire	Roman period	Rural, unstructured

Tab. 1. Deposits of ceremonial regalia from Britain

Fig. 1. Location of the sites discussed in the text. Map by the author.

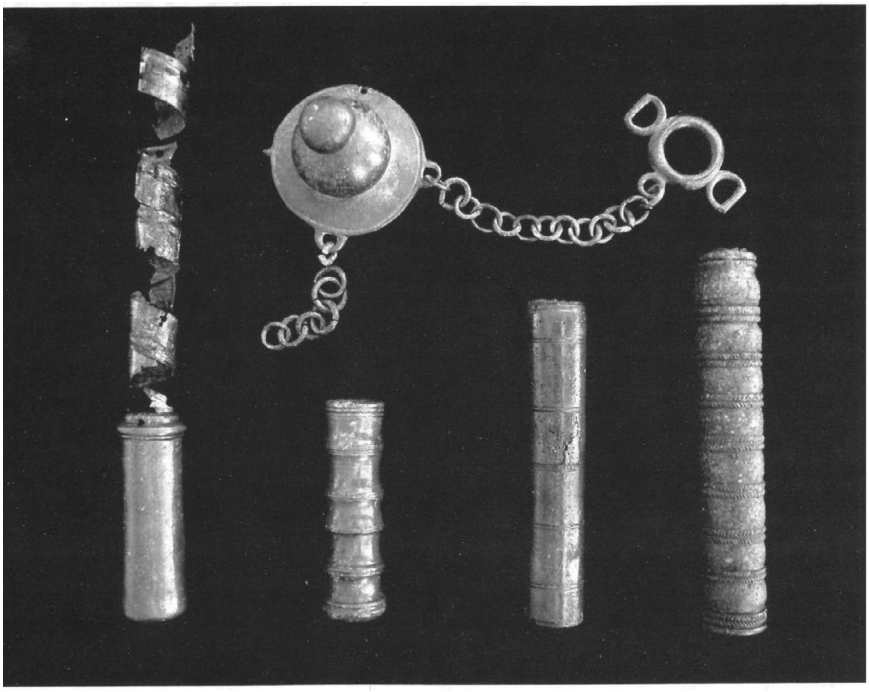

Fig. 2. Chain-headdress from Farley Heath, Surrey, showing the repair of the hole pierced on the rim (top). Selection of sceptres from Wanborough, Surrey. Length of the lower right sceptre-handle, 11.8cm. Photograph by Brian Wood reproduced with permission of the Surrey Archaeological Society.

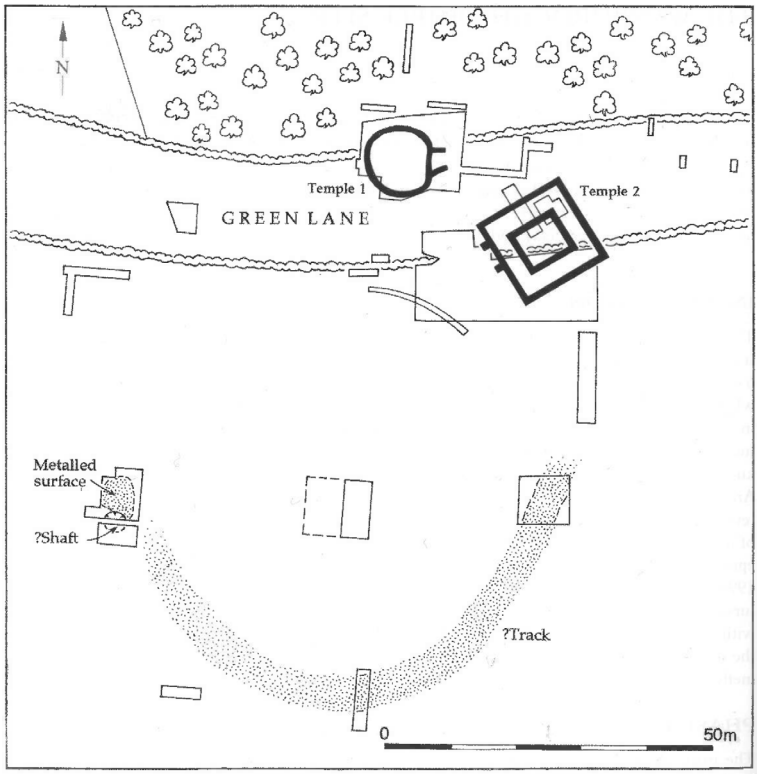

Fig. 3. Multiphase plan of the site of Wanborough, Surrey. Drawn by David Williams and reproduced with permission of the Surrey Archaeological Society.

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Contesting Sacred Landscapes: Continuity and Abandonment in Roman Cyprus[1]

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Abstract

By the Roman period many Cypriot extra-urban sanctuaries were deserted and only a few of them remodelled and enlarged; some of these sanctuaries, such as that of Apollo at Kourion and Aphrodite at Amathous, also received monumental podium temples. Excavation and survey activities confirm that ex novo foundation of sanctuaries is rare in the Roman period. Nevertheless, the use of pre-existing extra-urban sanctuary sites is visibly reduced. Only a limited number of sanctuaries (including urban and extra-urban sites) preserve evidence of a cult in the Roman period, and these sites include important 'time-honoured' sanctuaries in the environs of urban centres.

Taking on a long-term holistic approach, and drawing on sacred landscapes and its associated material and textual record (mainly epigraphic evidence, architecture, terracotta figurines and limestone sculpture), this contribution suggests that during the Roman period, official neglect of the extra-urban sacred space relates to fundamental transformations in the social perception of the lands. After the abolition of the Cypriot city-kingdoms, extra-urban sanctuaries seem to have lost their territorial significance, and they were greatly depended upon the local extra-urban population. The great majority of these extra-urban sanctuaries were 'dead' by the Roman period. When the social memory, elite or non-elite, that kept them alive 'dies', they 'die' with it. The Cypriot evidence reconfirms that what usually distinguishes the surviving sites is what the defunct sites lacked: political scale and significance. The annexation and 'provincialisation' of Cyprus, with all the consequent developments, were accompanied by transformations in patterns of memory, with less focus on regional structures, and more intense emphasis on stressing an ideology which created a more widely recognisable 'pan-Cypriot' myth-history and cultural identity, eventually related to the Roman imperial cult and ideology.

Introduction

Any attempt to understand continuity and abandonment in the Roman period needs to be within the framework of a macro-historic and geographically contextual approach. My personal research has so far focused on Cypriot sacred landscapes from the Late Bronze Age to the Hellenistic period, but considering the *longue dureé* approach that the Unlocking the Sacred Landscapes of Cyprus (UnSaLa-CY) project undertakes, I am currently turning into the study of Roman and Late Antique sacred landscapes. The work that will be presented below should be viewed as still in progress. Let us first see the historical context of the transition from the Hellenistic to the Roman period in Cyprus.

1 This research falls within the umbrella of a larger research network entitled 'Unlocking Sacred Landscapes' (for further information see http://www.ucy.ac.cy/unsala/, accessed on 29 May 2019), currently co-funded by the European Regional Development Fund and the Republic of Cyprus through the Research and Innovation Foundation (Project: EXCELLENCE/1216/0362).

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Roman intervention on the island is attested already by the second century BC. The antagonism among the members of the Ptolemaic dynasty and the wars between the Ptolemies and the Seleucids, gradually opened the doors of Cyprus to the Romans (Mehl 2000, 646-568; Michaelides 1990, 111). A formal resolution of the Senate, dated around 100 BC, advises Cyprus not to harbour pirates in order to get Rome more involved in the control of Cyprus. The excuse was soon to be found in an incident with Cilician pirates, where Cyprus was accused of being a 'stronghold' of piracy. In 58 BC, the Roman Tribune, P. Claudius Pulcher, a partisan of Julius Caesar, carried out a law, implemented by Cato, which reduced the island to the state of a praetorian province at first attached to the province of Cilicia (Badian 1965).

In 48 BC, during the civil wars of the Roman Republic, Cyprus was returned to Ptolemaic rule by Julius Caesar who, following the birth of his son Caesarion by queen Cleopatra VII *Philopator*, he presented the island to his mistress and his son. After the battle of Philippi in 42 BC, Cyprus came under the control of Marcus Antonius, who consolidated Cleopatra's – by now his mistress – possession of it, as the passage of Dio Cassius (49.41.1-2) describes. Antonius and Cleopatra were to play the endgame of the Ptolemaic rule on the island. In 31 BC, Octavian became the master of Alexandria. Cleopatra and Antonius committed suicide and Caesarion was murdered in the following year. Thus, Cyprus returned to Rome, and Cypriots were considered *dediticii*, i.e. people who had surrendered unconditionally and had no rights. Finally, in 22 BC, Octavian, now Emperor Augustus, transferred the island to the rule of the Senate. Cyprus became a Senatorial province, administered by a *proconsul*, a Roman senator who held the office for one year (Potter 2000).

By the Roman period, many Cypriot extra-urban sanctuaries were deserted and only a few of them remodelled and enlarged (**Fig. 1**). What I argue in this contribution is that, if we are going to understand this phenomenon, we have to move well beyond the Roman period (before and after) in order to insert the development of Cypriot sacred landscapes within their individual and contextual insular development.

Cypriot Sacred Landscapes in the *longue dureé*

Excavation of shrines of the Archaic and Classical periods has produced evidence which is also confirmed by more recent excavation activity (Smith 1997), and which highlights the role of specific Cypriot Iron Age sanctuaries as foci of wealth disposal and economic control in the community (cf. Beer 1992; Fischer 2001): we have evidence for the segmentation of space, consumption of food and drink, industrial activities, large-scale storage and display and disposal of votive images related to royal ideology. While urban sanctuaries become religious communal centres, where social, cultural and political identities are affirmed, an indication of the probable use of extra-urban sacred space in the political setting of the various city-kingdoms has usually been observed (Collombier 1991, 39; 2003, 144; Counts 2004, 175; Fourrier 2002; 2007; Hermary 1996, 42; 1998, 266; 2013; Masson and Hermary 1992, 26; Papantoniou 2008; 2012a; 2012b; 2013a; 2013b; Papantoniou *et al.* 2015; Papantoniou and Bourogiannis 2018; Papantoniou and Kyriakou 2018; Papantoniou and Vionis 2017; 2018; Ulbrich 2008). I have argued in several instances in the past that the distribution of these sanctuaries across the landscape served as a map for a socio-political system providing a mechanism for the centralised Archaic and Classical city-kingdom authorities to organise and control their peripheries. Environmental and Geographic Information System (GIS) analyses reinforce this argument about the territoriality of Iron Age Cypriot sanctuaries.

The transformation of Hellenistic political topographies, and the passing of Cyprus from segmented to unitary, colonial administration under a foreign general, the *strategos,* brought a marked urban and extra-urban change (Papantoniou 2012a; 2013b). In a unified state which offers unlimited access to inland resources, official emphasis was primarily on urbanised and strongly 'hellenised' coastal centres

for political, military and economic reasons. The coastal cities, such as Nea Paphos, Marion-Arsinoe, Kourion, Amathous, Soloi and Salamis, undoubtedly mirror Ptolemaic strategic interests in coastal port bases and settlements as well as maritime activity and power (Marquaille 2001, 139). Although Cyprus was 'hellenised' enough and ready to adapt Hellenic forms of administration, it was indeed Ptolemaic rule (and particularly that of the second and first centuries BC) that established city life and institutions, such as *boule*, gymnasia and theatres, in accordance with the rest of the Hellenic world (Bagnall 1976, 57-58; Mitford 1953). While we can usually assume the shape of the Hellenistic cities through the epigraphic record, the current remains of all the coastal urban centres date to the Roman period, and they fully adhere to the monumental character of a standard Roman city.

The gravitation of people towards these coastal cities was of greater historical significance. Several surface surveys on the island have noted a full Hellenistic and Roman countryside settlement pattern which was followed by a general contraction during the second through the fourth centuries AD (Rautman 2002). According to Rautman (2002), rural settlement began to decline around the second century AD; evidence of Severan prosperity, which often is taken to represent the apogee of Roman Cyprus, is overwhelmingly urban and may have come about at the expense of the countryside. The settlement patterns of the transitional phases, however, are not entirely consistent, and new regional survey field projects need to address those issues, exploring pastoral, agricultural and other economic activities and how these are related to the various political situations and to the siting of sanctuaries. I would preliminarily observe however, that the widespread abandonment of the extra-urban shrines, no less than the elaboration of public cults in the cities, set the stage for profound social and religious reassessments (Rautman 2002), that go back to the Hellenistic period and have to be studied within the context of the transition from segmented to unitary government and administration (Papantoniou and Vionis 2017).

Moving to continuity and abandonment in sacred landscapes, the importance of memory is a crucial factor (cf. Alcock 1993; Van Dyke and Alcock 2003). It is important to see sacred landscapes not simply as constructs but as a complex and dynamic reaction to Ptolemaic, and later to Roman incorporation and to investigate what was remembered, when, where and how. The continuity or discontinuity of the extra-urban cult activity should be keyed to multi-polar power relations and memory trends. Local and non-local elites, in their effort to define or redefine their relationships with the land for political and economic reasons, or in order to naturalise or legitimate authority, could have used sanctuaries to demonstrate their status. As the epigraphic evidence reveals, new social divisions and affiliations within Cypriot society as a whole, but also within individual communities, were promoted through the very agency of cult. However, during the Hellenistic and Roman periods, the need for political elites to define the link between territory and city, for reasons other than administrative or economic, should have become less and less important. If extra-urban sanctuaries played a 'frontier' or 'liminal' role in the perpetuation of city-kingdom identities, now, under a new unified political organisation, eventually lost their 'territorial' significance.

The dedication of monumental statues in many extra-urban sanctuaries by the Cypriot elite, imitating Ptolemaic prototypes but at the same time adhering to the long typological and ritual Cypriot traditions, also reveals continuity in cult activity and traditions. The insertion of 'hellenised' and portrait-like features into statues whose general format remained strongly Cypriot, might suggest a controversial ideological move (Papantoniou 2012a; 2012c; 2016): not only the incorporation of Ptolemaic ideas (and ideals) into the Cypriot mentality, but also the accommodation of Ptolemaic rule into a Cypriot context, i.e. the incorporation of Cypriot ideas (and ideals) into the Ptolemaic ideology. Within the material record, resistance could be expressed in a covert manner, involving the continuation of religious practices or the maintenance of a traditional material culture. Terms such as 'resistance accommodation' and 'resistance adaptation' have been widely used in contemporary archaeological literature to indicate

that resistance was not an either/or proposition, but rather an ongoing, subtle and usually muted process (Orser 2002, 477). In time, and when reaching the Roman period, many of the elites of the city-kingdoms would have disappeared or been suppressed. By the first century AD, therefore, when a more unified and centralised politico-religious system seems to have been well-established, the tradition of dedicating limestone portrait-like sculptures in extra-urban sanctuaries eventually dies out, along with the majority of the long-standing extra-urban sanctuaries. After the early Roman period, we find hardly any limestone 'portraits' in a Cypriot sanctuary; they all belong to the funerary sphere, carved on a number of grave reliefs (Connelly 1988, 9; Poyiadji-Richter 2009; Senff 1989, 189).

Religion represents a close linkage between local cult and local identity. Although we cannot simply speak of many cultural identities in Iron Age Cyprus, the shifting from many political city-identities to one had consequences, such as the interruption of promoting particular local cults. In addition, just as people move in the landscapes, creating, modifying, destroying or abandoning places or institutions, in the same way, their identity is defined, re-defined or restricted; such an embodiment could enable us to define how people transformed their identities through landscapes, and at the same time how landscapes themselves were transformed, adapting to the new socio-economic relations, as well as to the new socio-political identities and memory realities. Changes that occurred on different levels in Hellenistic and Roman societies influenced the religious sphere, cult practice and consequently the sacred landscapes.

The image of the 'Cypriot Goddess' is the paradigmatic example for illustrating the transformations which occurred as the island moved from segmented to unitary government and administration, and the complexity of that process. Her artistic representations on sculpture and terracotta figurines, for example, show how by the Hellenistic, and later by the Roman period was fully 'hellenised', conforming to the iconography of Greek Aphrodite (Papantoniou 2011; 2013b; Morris and Papantoniou 2015) (**Fig. 2**). Moving from stylistic to cultic analysis, however, is simply impossible without considering the fact that some local particularities in her cult survive well beyond the end of the Hellenistic period. The most illustrative example comes from the 'archaic' cult place of Aphrodite in Palaipaphos, which under Ptolemaic and Roman rule was developed into a pan-Cyprian sanctuary and where strong epigraphic evidence for the practice of the ruler and imperial cult exists (Mitford 1961): not only the architecture of the sanctuary remains close to the traditional Cypriot temenos from the Late Bronze Age to the end of the Roman period, but also the cult statue of the goddess keeps the aniconic shape of a *baetyl* (**Fig. 3**).

Such continuities should be viewed in relation to both the local cultural identity and the character of politico-religious agency and ideology, which through various accommodations and transformations, seems to reproduce the established socio-cultural norms. Nonetheless, as well documented evidence from epigraphy or the diachronic study of the cult in excavated sanctuaries such as those of Palaipaphos and Amathous reveal, a more unifying reorganisation of the cult can be noted during the Hellenistic and Roman periods (Papantoniou 2013a). Changing economic conditions within the Cypriot cities under a unitary government and administration also entailed some significant changes in financing, and as a result, in the sociological structure of their religion. In the Hellenistic, and especially in the Roman periods, financial management eventually shifted from the city-state to a more unified and centralised control. The most important bearer of a unifying ideology should have been played by the *Koinon Kyprion* (Union of Cypriots), dedicated to the promotion of the Ptolemaic, and later the imperial cult (Mitford 1953; 1961; Potter 2000).

Among the intensive distribution of settlements in the various published survey projects and in the Cyprus Survey Inventory, I have located 23 sites that might have functioned as a sanctuary *ex novo* in the Hellenistic period (Papantoniou 2012a). Next to the Ptolemaic official attention towards old traditional urban sanctuaries (Fourrier and Hermary 2006, 163-164; Hellmann and Hermary 1980, 268-272; Hermary

and Schmid 1987, 736-739; Mitford 1961), Greek-style temple architecture is added to the Cypriot sacred landscapes quite late in the Hellenistic period, not in the extra-urban environment of Cyprus, but in the direct environs of the major urban centres where Ptolemaic power and cult would have been practiced more markedly. On the other hand, during the early Hellenistic period, sanctuaries *ex novo*, such as that of Soloi-Cholades, with strong allusions to the Ptolemaic cult, are built following the traditional Cypriot architecture of the Iron Age Cypriot temenos, probably drawing on the existing religious sentiment and cult (Papantoniou 2009).

By the Roman period, many inland Iron Age extra-urban sanctuaries were deserted and only a few coastal sanctuaries remodelled and enlarged (**Fig. 1**); some of those sanctuaries, such as that of Apollo at Kourion and Aphrodite at Amathous, also received monumental podium temples (**Fig. 4**). Excavation and surface survey activities confirm that *ex novo* foundation of sanctuaries is rare in the Roman period (cf. Given and Knapp 2003, 313). Nevertheless, the use of pre-existing extra-urban sanctuary sites is visibly reduced. Only 40 possible sanctuary sites (including urban and extra-urban sites) preserve evidence of cult in the Roman period, and these sites include important 'time-honoured' sanctuaries in the environs of urban coastal centres, such as the sanctuaries of Apollo *Hylates* at Kourion, of Aphrodite at Palaipaphos and Amathous, and of Zeus at Salamis. It seems that the Romans invested in rebuilding and temple constructions, usually at those same primarily urban sites as their Ptolemaic predecessors.

Summarising the evidence presented above, it becomes clear that state revenues, financing for state festivals, and the building and upkeep of sanctuaries went towards more prestigious, 'high-status' urban sanctuaries, such as those of Aphrodite in Palaipaphos and Amathous, or of Zeus in Salamis; this helped to create a more unified 'national' politico-religious identity. The primacy of these sanctuaries by the Roman period is confirmed by Tacitus (*Annales* 3.62), who reminds us that the Senate confirmed their rights of amnesty in 22 AD. Over the next two hundred years, these cults increasingly became associated with the island's identity as a Roman territory. Images of the Palaipaphos sanctuary and the standing figure of Zeus Olympios appear both singly and paired on coins issued by the *Koinon Kyprion* for the first through the third century AD (**Fig. 3**). The heavy promotion of these primary shrines, together with temples of the imperial cult at Nea Paphos and Kourion, for example, may be seen as part of Roman efforts to unify and consolidate the island province (Rautman 2002).

Conclusions and a Step to Late Antiquity

Concluding, I hope that I have managed to successfully demonstrate how during the Hellenistic period, and the passing from segmented to unitary political administration, a process of ancient official neglect of the extra-urban sacred space may signal a fundamental (though slow and usually non-violent) transformation in the social perception of the lands. Many extra-urban sanctuaries lost their territorial significance after the abolition of the city-kingdoms. Apparently, the great majority of Hellenistic extra-urban sanctuaries are 'dead' by the Roman period. When the social memory, elite or non-elite, that kept them alive 'dies', they 'die' with it (cf. Alcock 1994, 255 (Fig.1)). As Alcock (1994, 259) observes in the Hellenistic and Roman sacred landscapes of Greece, the Cypriot evidence reconfirms that what usually distinguishes the surviving sites is what the defunct sites lacked: political scale and significance, and as the location of Roman sanctuary sites reveals, this is not to say that extra-urban sanctuaries did not exist anymore.

The transition from segmented to unitary administration is marked by the transition from 'full' to 'half-full' and later, 'half-empty' sacred landscapes (cf. Alcock 1994, 260-261). I have argued that the only way to interpret the transition of these landscapes is by not remaining narrowly fixed on the 'froth on

the crest of the waves' of the historical events that led the island from Ptolemaic to Roman rule, but by placing them within *their* individual macro-history. The above discussion suggests that during the first decades of the Ptolemaic rule on the island, Cypriot sacred landscapes functioned under the sign of continuity. While this might relate to various memory trends, at the same time it might relate to Ptolemaic ideological, political, economic and administrative agendas. This is in conjunction with other geographic contexts, where the main socio-economic and administrative structures function under continuity in the first years of the transition from the Classical to the Hellenistic period. The number of sanctuaries survived or built during the Roman period suggests that extra-urban sanctuaries, within a unified imperial system, eventually became 'insignificant' within the wider community, being primarily the concern of rural (not necessarily non-elite) audiences. The annexation and 'provincialisation' of Cyprus, with all the consequent developments, were accompanied not only by transformations in settlement patterns but also in patterns of memory, with less focus on regional or local structures, and more intense emphasis on stressing an ideology which created a more widely recognisable 'pan-Cypriot' myth-history, eventually to be related to the Ptolemaic and later to imperial cult and ideology.

Following the Severan period and the social transformations taking place during the Late Roman / Late Antique era (depending on the standpoint of each scholar), the urban temples of Cyprus eventually start declining. A weakened economy and the subsequent imperial neglect during the third century AD contributed to fundamental social realignments and dramatic ideological shifts (Rautman 2002): thus, town councils and magistrates did not maintain declining sanctuaries, which were eventually closed because of earthquake damages during the mid-fourth century AD. The official establishment of Christianity, the economic prosperity that Cyprus started enjoying, and the shift of political control (at the local level) from imperial families to Christian elites and bishops contributed to the transformation of the sacred townscapes and landscapes of Cyprus (Chrysos 1993, 5; Caraher *et alii* 2014, 294; Papantoniou and Vionis 2017; Rautman 2014, 51; Vionis and Papantoniou 2017). Cypriot bishops worked in the shadow of damaged temples at the urban environments of Paphos, Amathous, Kourion and Salamis, re-sacralising space by building cathedrals and other large basilicas in renovated parts of their flourishing cities (Rautman 2002). During Late Antiquity, settlements and new cult sites dating to the fifth century AD, like the basilicas at Karpasia, Lapithos, Tremithous, and Yalousa, document both the expansion of rural settlement and the successful Christianisation of the countryside (Rautman 2002).

The Settled and Sacred Landscapes of Cyprus Project – SeSaLaC (http://www.ucy.ac.cy/artlands/en/research/sesalac, accessed on 29 May 2019) is currently testing the above framework through a recently initiated surface survey project, in the area of the Xeros river valley in Larnaka district, with the modern village of Kofinou lying in its centre. Our investigation in the region of Kofinou so far has indeed provided a much more intensive Late Antique settlement activity (in comparison to the preceding Roman era) around an Early Christian basilica (Panagia) dated to the late sixth century AD (**Fig. 5**). The transformation processes that took place during Late Antiquity, as emerge through the collection of surface survey data in Cyprus, however, is part of another story, sufficiently addressed in the context of a number of publications of the SeSaLaC project (Vionis 2018; Vionis and Papantoniou 2019).

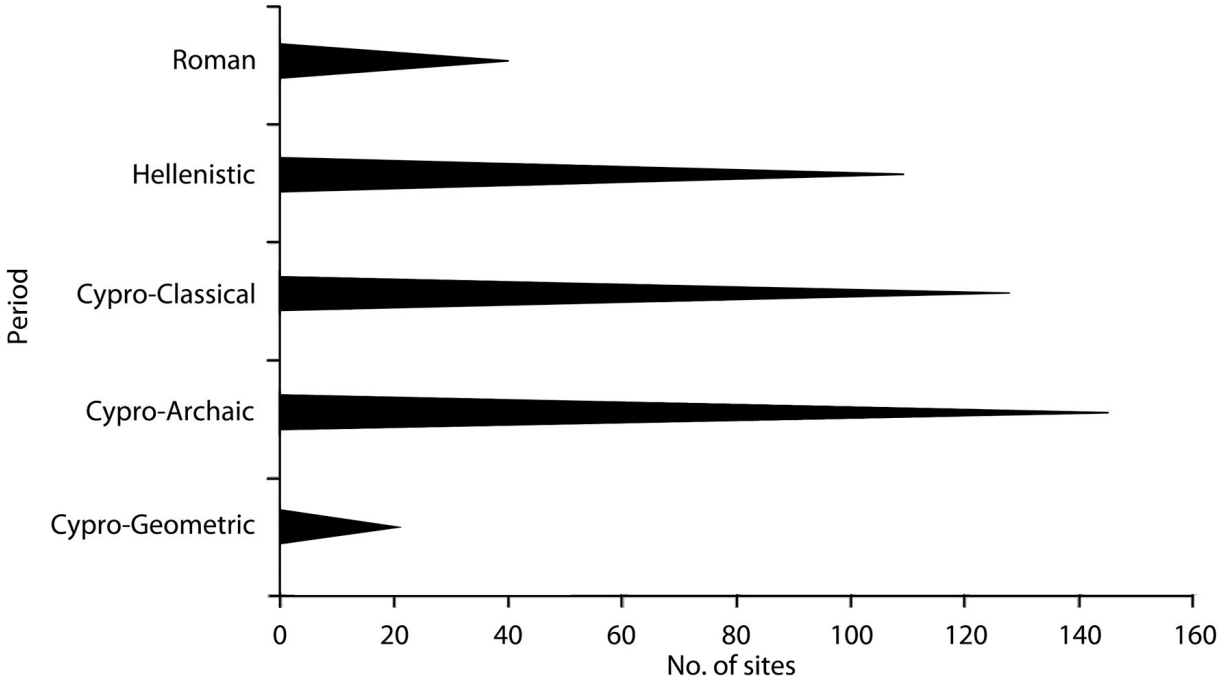

Fig. 1. Density of sanctuary sites from the Cypro-Geometric to the Roman period (after Papantoniou 2013a, 37, fig. 5)

Fig. 2. Roman marble statue of Aphrodite, from Soloi – E510, The Cyprus Museum, Nicosia. Image © The Department of Antiquities, Cyprus (courtesy of the Director)

Fig. 3. Silver tetradrachm of Vespasian with the Palaipaphos 'Temple of Aphrodite' with an icon interpreted as baetyl on the reverse (after Zapiti and Michaelidou 2007, 141; reproduced courtesy of the Bank of Cyprus Cultural Foundation)

Fig. 4. The Roman temple at the sanctuary of Apollo Hylates *at Kourion. Image © The Department of Antiquities, Cyprus (courtesy the Director)*

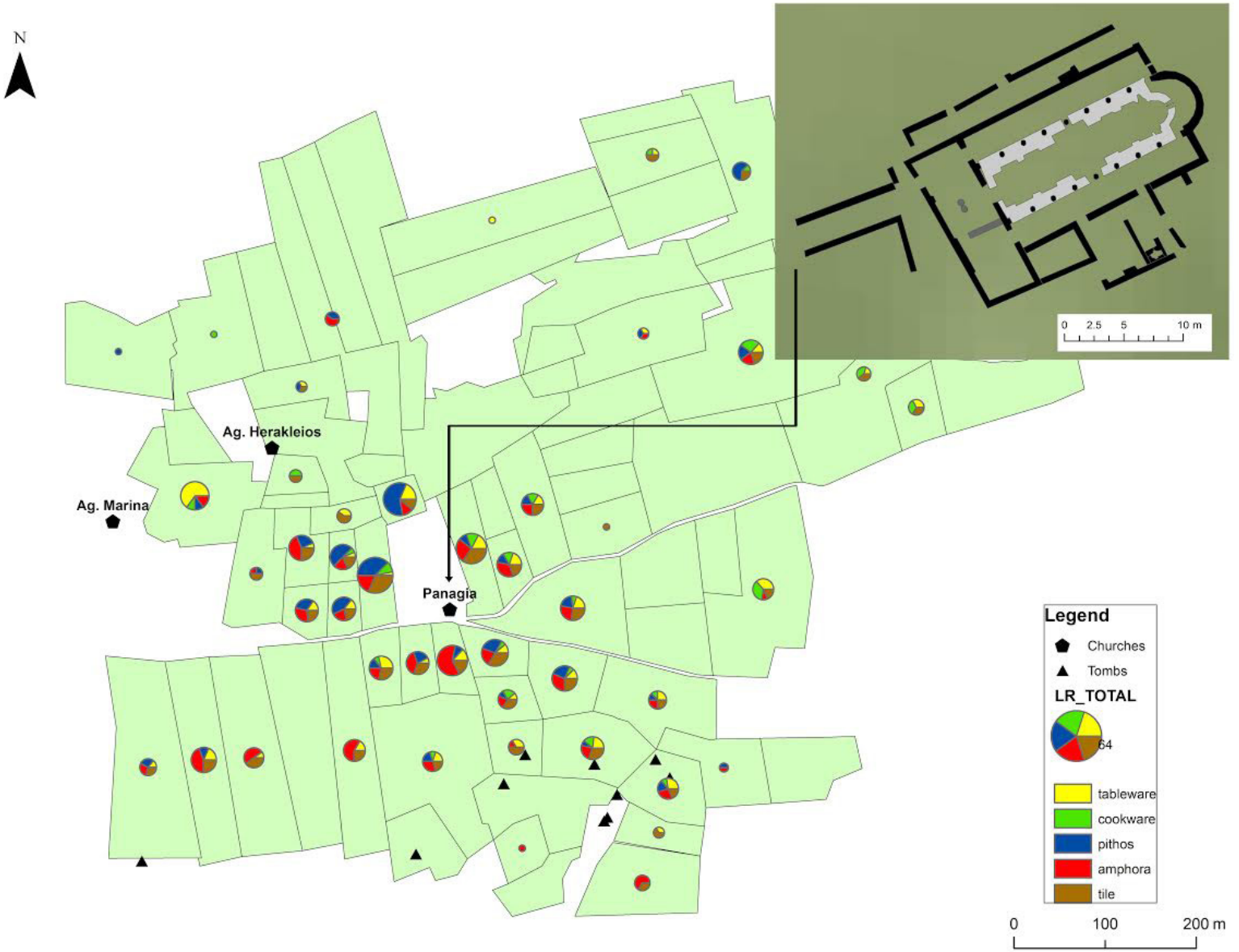

Fig. 5. Kofinou. Late Roman (LR) settlement activity as revealed from the surface survey of SeSaLaC. Image © SeSaLaC

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Abandonment and Revival between Late Antiquity and the Early Middle Ages: Facts and Fiction

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Abstract

War, earthquakes and plagues are usually listed amongst the most popular phenomena for explaining the 'shrinkage', 'decline', 'abandonment', 'transition' and 'transformation' of urbanisation and/or rural life in the Eastern Roman Empire from the late sixth to the seventh and eighth centuries. Several scholars have seen variations in the scale and effects of external threat and natural disasters but these changes have been poorly understood by Byzantinists. A re-evaluation of the archaeological evidence at hand is of emergency before we move on to interpretations and concrete conclusions about early medieval 'abandonment' in the Byzantine provinces. I would argue that major transformations did happen throughout the period in question, although the criteria for determining changes, accommodations and transformations in the Early Middle Ages should be viewed in a different, rather more optimistic, angle. As it will become clear through the employment of a different model for reading the impact of 'abandonment' in the material record (e.g. settlement shrinkage vs. evolution, industrial decline vs. local production, hybrid forms in art vs. new cultural identities) from the Aegean islands and mainlands, it is suggested that marginal areas became active arenas of constant negotiation and adaptation between the local element and emerging powers of political and economic control.

Introduction

The emergence of the Byzantine Early Middle Ageas that followed the end of Late Antiquity and lasted between the late seventh and middle ninth centuries generated a new political, economic and cultural reality for the Aegean and eastern Mediterranean societies (**Fig. 1**). The debate about the abandonment, ruralisation and demographic decrease that this period is characterised by is still ongoing and renowned through numerous archaeological cases in Mainland Greece, the Aegean islands, Asia Minor and Cyprus (Christie and Loseby 1996; Brogiolo and Ward-Perkins 1999; Bowden *et al.* 2004; Christie 2004; Kardulias 2005; Dally and Ratté 2011; Kioussopoulou 2012). War, earthquakes and plagues are usually listed amongst the most popular phenomena explaining the 'shrinkage', 'decline', 'abandonment', 'transition' or 'transformation' of urbanisation and rural life in the Eastern Roman Empire during this period. The overstressed historical validity of textual sources has shaped our perception of this period in a negative manner for too long, with Slav land invasions and Arab sea raids viewed as the sole explanation for almost every misfortune in the early medieval Balkans and the eastern Mediterranean (Charanis 1950; Ostrogorsky 1963; Zakythinos 1966; Herrin 1973; Foss 1997; Holum 2005).

Confined and fragile archaeological evidence for human activity of the Byzantine Early Middle Ages in urban environments with a long history of habitation in Greece and Asia Minor was often hastily removed in the quest for monumental remains of the Classical past. Thus, it is not surprising that

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assumptions about the transformation of shrank towns into fortified villages, the contraction of once busting economies, and the dramatic collapse of urban life were the norm until a decade ago (Foss1977; 1996). Several have concluded that the period between the seventh and ninth centuries saw a dramatic contraction of Late Antique cities and decline of urban life, with populations retreating into fortified citadels of once large cities (Foss 1976; 1979; Radt 1985).

This transitional era, previously known as the 'Dark Ages', has also been seen as one of dramatic demographic decline, with invading Slavs from the north replacing in some extreme cases the Greek populations. Similarly, Arab conquests of insular and coastal regions during the same period rendered the Byzantine provinces battlefields between Christianity and Islam. The fact that archaeologists were most commonly incapable of recognising and assigning aspects of material culture to this troubled period made the problem of identifying human activity look rather hyperbolic. Apart from sometimes false assumptions made, based on a confined number of surviving textual sources, there have been misleading attempts to assign ethnic labels to those using certain types of material culture (Vionis *et al.* 2009, 152-153.).

A re-evaluation of the archaeological evidence at hand is of emergency before we move on to interpretations and concrete conclusions about Early Medieval 'abandonment' in the Byzantine provinces. I would argue that major transformations *did* happen throughout the period in question, although we should evaluate the criteria for determining changes, accommodations and transformations in the Byzantine Early Middle Ages in a different, rather more optimistic, angle (Vionis 2017a). As it will become clear through the employment of a different model for reading the impact of 'abandonment' and 'revival' through the material record, it is suggested that marginal areas became active arenas of constant negotiation and adaptation between the local element and emerging powers of political and economic control. Examples for applying alternative interpretative approaches to material culture, the visual arts, urban and rural abandonment and revival, will be drawn from archaeological sites in Boeotia on the Greek Mainland, the island of Naxos in the Aegean, the town of Sagalassos in Asia Minor, and Cyprus (**Fig. 1**).

Material culture

When referring to the Byzantine Early Middle Ages in Mainland Greece, we ultimately have to deal with multi-cultural societies. Long ago, Peter Charanis (1959, 25) argued that the Byzantine Empire was never in its long history a true national state with an ethnically homogeneous population. Prominent Byzantinists in the past examined the varied composition of the Byzantine lands under the prism of 'racial' origin and the relationship between antagonistic groups, as recited in Byzantine literature (Charanis 1950; 1961; Ostrogorsky 1963). Whether bi-, tri- or multi-cultural, it is widely accepted that the Byzantine society was comprised of different religious and linguistic groups, especially throughout the centuries of population movements that followed Late Antiquity and lasted at least until the end of the Iconoclast controversy in the middle ninth century (Vionis 2013a, 103-104).

Thus, based on the argumentation above, it can be deduced that apart from the Byzantine Orthodox, there were also Muslim Arabs, pagan Slavic populations and other groups (e.g. Armenians, Athinganoi, Bulgars, Syrians, Mardaites) that gradually contributed to the mature culture and being of the Byzantine Commonwealth. Archaeologists have often to deal with the question whether similarities and/or differences in certain aspects of material culture and the visual arts reflect the movement of people or external influences, diplomatic contacts and trade activities between different regions and empires. On the other hand, archaeologists dealing with remains of the Byzantine past did not always

appreciate "that cultures are not unitary monoliths but dynamic interrelated systems" (Canepa 2010, 9) and that there is much more beyond the identification of material provenance and the movement of oppressed peoples and conquerors in the period that followed the end of Antiquity. A representative case and culture-historical paradigm that has attracted the interest of scholars in the aforementioned framework is the presence of the so-called 'Slav' pottery and the 'Slavic' or 'Avar' bow fibulae (**Fig. 2**) in the southern Balkans. Archaeologists have previously considered both types of material culture as index fossils for ethnic affiliation and identity, as well as evidence for a violent infiltration of Slav immigrants into the Byzantine provinces (Curta 2001, 227-310; Vionis 2013a, 108).

'Slav ware' (**Fig. 3**) is characterised by different types of vessels, one of which is a closed handmade pot with a flaring rim, rounded body and a flat base (without handles) made in a coarse fabric and has been associated with the invading Slavic populations across much of mainland and southern Greece in the late sixth century. The decoration of these vessels (in most cases interpreted as cooking pots or urns), with bands of straight and wavy incised lines below the rim, has been compared with similar designs on vessels from eastern Europe in the seventh century and later. 'Slav' pottery was at first identified during the course of French excavations at Argos, and was dated to AD 585, while archaeologists, based on the Chronicle of Monemvasia, interpreted it as evidence for Slav raids and migrations in southern Greece (Aupert 1980; Vionis *et al.* 2009, 150-153). As a result, it was quickly embraced (and this theory was considered valid until less than two decades ago), based on the erroneous dating of this kind of handmade pottery in many parts of mainland Greece, that it comprised hard evidence for the presence of the Slavs in Greece since the late sixth century (Curta 2001, 233-234).

It may have been convenient for the archaeologist and art-historian to consider such objects as the basis for historical and demographic reconstruction. Drawing such conclusions, however, from the archaeological record alone can be problematic, since there is no fixed line between *style*, *identity* and *meaning*. It is true that pottery, for example, equals people; considering, though, ceramic styles and pottery distribution as solid evidence for diffusion, migration or invasion would be misleading (Clarke 2005, 9). Rather, material culture should be read as another form of language that communicated non-verbally (Hodder and Hutson 2003, 168). Florin Curta (2005, 133) has convincingly argued that particular styles of the so-called 'Slav' bow fibulae found in Greece and the Balkans might indicate contacts and cross-cultural communications between contemporary groups assuming power, and the construction of a new identity for local elites, instead of being "passports for immigrants from the Lower Danube region".

One could argue that there is a sense of cultural mixing here between different groups, which possibly resulted in the formation of a new collective identity through social and cultural interaction, as it is attested in the material culture record. If one was to label those processes that resulted in the artistic concept of 'Slav' bow fibulae and their place in a Greco-Byzantine context, then those would be 'modification' and/or 'transformation' since the 'original' models may have been reshaped but the original function and meaning remained (Vionis 2013a, 110).

There are quite a few sites in Mainland Greece, where archaeological evidence, such as amphorae of the 'Late Roman tradition', other wheel-made pottery, and handmade vessels, such as the so-called 'Slav' ware, have been found in the same or associated archaeological contexts. The fortress of Hexamilion at Isthmia and the post-Roman settlement in ancient Olympia are well-known cases, about which historical data and archaeological evidence (amphorae, jugs and handmade 'Slav' ware, found in the same or related contexts) suggest the 'peaceful' co-existence of Slavs and Byzantines (Gregory and Kardulias 1990; Gregory 1993; Anagnostakis and Poulou-Papadimitriou 1997; Lambropoulou and Yangaki 2012/2013), the demise of specific types of imported wares (e.g. African Red Slip Ware forms 105 and 109, Late Roman C Ware forms 3 and 10) and a tendency towards self-sufficiency in pottery production from

the seventh century onwards. In this context, one could argue that the Late Roman pottery tradition probably continued for a few decades into the late seventh and early eighth century in some places through local production that imitated known forms. Excavations at Corinth have similarly provided evidence that the city was not abandoned with the arrival of the Slavs in the Peloponnese. As argued by Guy Sanders (2000, 154) "imported and local pottery, coins and minor objects attest widespread Late Roman occupation well into the second half of the seventh century", while a small but growing corpus of material of eighth century date suggests continuity into the succeeding period previously known as the 'Dark Ages'.

A similar pattern has been identified at the site of Sagalassos in inland southwest Asia Minor, where handmade, non-kiln fired cookware has been retrieved in association with wheel-thrown ceramics, e.g. jugs, cookware and a limited amount of Sagalassos Red Slip tableware (**Fig. 4**), suggesting habitation continuity into the eighth and ninth centuries (Vionis *et al.* 2009). One does not necessarily need to consider handmade cookware solely as a result of a general decline in trade, rural and/or urban life, but rather, as a local response to a general changing economic system and an emerging local pottery tradition based on household-organised production and exchange (Vionis *et al.* 2009, 161). The shift from the Roman mass-produced and customised wares (that started to disappear from the market) to non-specialised local/regional production (that started to satisfy basic household needs) need not have been a sudden one. Cyprus is a characteristic case, where handmade cooking wares first appear in early seventh century contexts and its tradition continued almost without break to the second half of the twentieth century. Evidence for this transition to the manufacture of handmade domestic pottery in the Early Middle Ages in Cyprus (and obviously elsewhere in the Aegean and the eastern Mediterranean) suggests that it had become a common operation at village and household level, probably as a result of a number of economic, historical and environmental factors, as in much of post-Roman western Europe previously (Rautman 1998, 92-93; Gabrieli *et al.* 2001, 336).

Back in the Aegean region, on the Cycladic island of Naxos, pottery at several sites dated to the late seventh, eighth and ninth centuries testifies to the existence of small and large settlements associated with contemporary ecclesiastical monuments, not merely restricted to the interior of the island but also at a short distance from the coast. The ceramic record itself provides direct evidence for the economic links between the island and other parts of the eastern Mediterranean, as well as with Constantinople, thanks to securely dated amphorae of the LRA1 variant-types and of Hayes's (1992, 71) 'Sarachane type 36' (Vionis 2013b, 30-31). The picture about settlement during the period of Arab raids in the Aegean, emerging through the corroborating evidence, contradicts previous historical views (Malamut 1988, 67-68) about desolation of coastal regions and retreat of populations to the mountains and into island interiors.

Interestingly, an evaluation of the material culture of this period (i.e. ceramics and numismatic evidence) from Constantinople, the Aegean islands, the coasts of Mainland Greece and Asia Minor, Crete and Cyprus (**Fig. 5**), reveals another ceramic *koine* (e.g. common ceramic forms, such as Byzantine 'globular amphorae', jugs with 'pattern-burnished' decoration, Constantinopolitan Glazed White Ware, handmade cookware etc.) and testifies to the presence of the Byzantine army in the Aegean and to the existence of a regional network of communication with the imperial centre (Vionis 2017b, 174). It is unclear how such a pattern could have emerged if the two antagonistic powers of the period, Arabs and Byzantine islanders, were not communicating, compromising or even collaborating in some fashion. In another island context and on the level of everyday life it is interesting that in Cyprus, during the so-called 'condominium years' in the Byzantine Early Middle Ages, Arabs and Byzantines lived together in peace and harmony in cities such as Paphos and Salamis/Constantia, as witnessed by Willibald, an English pilgrim who visited the island in AD 723 and paid his respects in the church of Saint Epiphanios at Salamis/Constantia (Talbot 1954, 161).

An illuminating piece of information about the state of affairs in the Aegean at that time comes from John Kameniates (*De Expugnatione Thessalonicae*), who mentions that in AD 904 Naxos paid taxes to the Muslims of Crete (Christides 1984, 165; Vionis 2013a, 115-116). It seems that the Arabs had come to stay; they founded their base in the Aegean and were preparing to build a new empire, not solely on raiding, looting and booty, but according to an organised plan. A conqueror would probably not continuously plunder his subjects if he needed to extract taxes from them. The conquered, on the other hand, would need cash to be able to meet their tax obligations. Cash could only be acquired by carrying out a form of interregional trade, by exporting agricultural products and/or other commodities within as well as outside the various zones of the Byzantine Empire. The aforementioned ceramic evidence and pottery *koine* testifies to all that (Vionis 2017b, 174-175).

Visual art

The period examined in this article largely coincides with the era of the Iconoclast controversy, the great debate about figural religious representation that occupied the Byzantine world between about 720 and 843. The chronology of aniconic monuments, and the political and cultural dimension of aniconic religious art remains a matter of controversy between scholars (Acheimastou Potamianou 1989, 50-57; Brubaker and Haldon 2001, 24-28), connecting this historical phenomenon either with the iconoclast policies of Byzantine emperors who commissioned the destruction of religious images or with the financial and cultural poverty of the State to invest on forms of religious wall painting. It seems that none of these assumptions are any longer sustainable. Despite the general shrinkage and transformation of different aspects of material culture, as briefly surveyed above, a closer examination of the confined examples of aniconic decoration in churches (identified also in other forms of material culture, such as textiles) in parts of the Byzantine world, e.g. Cappadocia in Asia Minor, Evrytania in central Greece, Mani in the Peloponnese, Crete and Cyprus, point towards vibrant imagination and originality rather than cultural stagnation (Crow and Turner 2014, 199-200; Martiniani-Reber 2014, 75-77).

The period between 730 and 850 saw transformation in many different levels of Byzantine political culture, economy and society: the written sources, such as the *Farmers' Law*, provide important glimpses into a highly stratified society, and suggest that the state and the Church were eager to re-impose their authority in a period of administrative reforms; through the so-called *themata* (administrative divisions) and the consolidation of borders with the Umayyads and the Abbasids in the east, the Empire's determination to impose control along important routes and crossroads in a period of administrative reorganisation becomes more than evident (Hendy 1985, 73-82; Haldon 1997, 132-136; Vionis 2017a). Could this era of reorganisation and closer contact with the Empire's enemies in the east probably explain some of the special phenomena of aniconic decoration in certain 'marginal' parts of the Empire?

Aniconic wall decoration is found and recorded from a variety of types of building in different parts of the Byzantine world, from cave- to domed churches. More than twenty pre-modern standing churches on the island of Naxos preserve layers of aniconic wall frescoes. The majority of them are found in single-aisled, often domed, churches including three of the most complete examples with aniconic programmes at Saint Ioannis at Adisarou, Saint Artemios at Stavros and Saint Kyriake near Apeiranthos (Crow and Turner 2014, 199). The dating of the aniconic fresco decoration found in some of the churches on Naxos has been regarded as problematic, while the latest study has pushed their chronology to the late ninth or early tenth century (Brubaker and Haldon 2001, 24-28). The artistic influences, also problematic, seem to agree both with Byzantine trends (on the basis of parallels from Byzantine manuscripts

of the ninth and tenth centuries) and Arab influences (such as the birds with ribbons around their necks from Saint Kyriake), which entered the Byzantine repertoire through the medium of textiles (**Fig. 6).** It is noteworthy that Byzantine historiography and hagiographical sources refer to island environments (e.g. the Cyclades and Cyprus) as safe, anti-iconoclastic grounds where iconodules found refuge in times of stress caused by iconoclast *strategoi* (generals) and emperors (Vionis 2017b, 175-176). It seems that Naxos and the Cyclades (as well as other 'marginal' lands of the Empire) can be recognised as belonging to a 'peripheral' or 'buffer' zone between the iconoclast imperial centre and the 'retreat territory' of the littoral Aegean, enjoying a degree of freedom from central state control.

I would argue that the visual arts from Naxos and other littoral places of the Empire (e.g. Crete, Cyprus), scanty textual references, and the mechanisms behind contact continuity between those places and other regions in the eighth and ninth centuries can only point to two responses towards the imperial centre and the newcomers. The first points to material connectivity and religious affiliation with Constantinople, resulting in maintaining the 'traditional ties' with the imperial centre. The second points to an intense encounter with new people and accommodation of new artistic trends from the Arab world, resulting in economic stability, survival and possible hybrid forms in art. The aforementioned evidence reinforces the argument that the Aegean islands in particular acted as the frontier between the Arabs and the world of Byzantine sovereignty (and did not fit exactly the profile of islands under central control), having become a zone of cross-imperial interaction rather than a cultural barrier between antagonistic empires (Vionis 2013a, 116-117).

Urban and rural abandonment and revival

Turning to issues of urban and rural abandonment and revival in the Byzantine Early Middle Ages, it should be noted that the 'idea of the city' did not necessarily collapse overall, but the role of previous 'local/regional centres' may have survived in an altered form after the conventional end of Late Antiquity in the seventh century. Although I do recognise that major changes occurred during the period in question, I would rather detach my views and approaches to the issue of 'continuity' or 'discontinuity' of *civitates* and urban life in the Byzantine Early Middle Ages from the established traditionalists' and non-traditionalists' theories in the existing scholarship (Ostrogorski 1959; Kazhdan and Cutler 1982). Similarly, the notion of 'abandonment' or 'decline' can be better perceived through comparison between previous monumental centres and their surrounding rural countryside.

Archaeological surveys, such as the one in the territory of Sagalassos in southwest Asia Minor, have concluded that after the traditional collapse of a complex urban life from the late sixth century onwards, the countryside went back to being a landscape organised around peer villages. By that time, rural communities had established ways of becoming self-sufficient. In the seventh-ninth centuries, villages may have remained in use, but rural communities were rather smaller in size. However, the landscape continued to be occupied and exploited continuously between the seventh and ninth centuries. Unfortunately, the nature of this use was such that it left less visible archaeological traces (Vanhaverbeke *et al.* 2009, 186-187). Ongoing intensive archaeological survey in the Xeros valley (Larnaca district) in southeast Cyprus reveals a similar picture, where a booming Late Antique countryside of village and agro-towns, such as the site of Kofinou (Papantoniou and Vionis 2018), were transformed into a village-community, dispersed and scattered into a cluster of small sites in the open country during the Byzantine Early Middle Ages (**Fig. 7)**.

The pattern emerging through archaeological surveys may indicate, on the basis of counted and statistically weighed surface ceramic concentrations, a rather pessimistic view of a downward 'city-

curve' after the late sixth century, but a surprisingly optimistic steady 'countryside-curve' (**Fig. 8**). This visualisation more than anything else, testifies to the fact that the economic crisis and the overall changing situation after the end of Late Antiquity should have a greater effect on the fate of the city and its urban population, while it must have been little-felt by preindustrial rural populations living in an environment that allowed them agricultural autarky (Vanhaverbeke *et al.* 2009, 187).

Back in the urban environment, the surface pottery from within the antique urban area of the ancient city-site and Late Antique bishopric of Thespiai has revealed low-density human activity in different parts of the site (Vionis 2017c, 364-366). Although there are only a dozen fragments of Early Medieval pottery recognised at the site, it seems natural that this material indicates some continuity of domestic life within as well as outside the enclosure walls of the Late Antique town in the Early Middle Ages (J. Bintliff and A. Snodgrass, *pers. comm.*). In addition, a carved piece of church architecture from the late antique enclosure of Thespiai, dated between the eighth and early ninth centuries (M. Karambinis, *pers. comm.*), provides further evidence for the continuation of domestic life within (as well as outside) the enclosure walls.

One of the uttermost characteristics of urban environments is evidence for artisanal or industrial production and commercialisation. The distribution of ceramic wasters and iron slag in several loci of Thespiai, with a greater dominance of finds within the enceinte of the Late Antique town, is a pattern that agrees with most examples of Late Antique towns and other defended enclosures of an urban or non-urban function (Vionis 2017a). The case of Messene in the neighbouring Peloponnese is of extreme importance here, as excavation results there testify to a transformed urban environment already since the late sixth and seventh centuries, with the urban fabric being overtaken by significant production activities. Evidence of this kind includes the construction of a water mill, the extraction and reworking of ancient building materials, and the construction of lime kilns, while a seventh or eighth century inscription from the center of the ancient city confirms the existence of agricultural establishments and cultivated fields within the town (Tsivikis 2012). It seems that Early Medieval populations were no longer interested in symbolic capital or in investing on the construction of monuments of prestige, but rather, and most importantly, on production, and economic infrastructures and activities.

The existence of walled sites in the Byzantine Early Middle Ages on the Greek Mainland, Asia Minor, and the Aegean islands, either in the form of a shrunken Late Antique town-site or as a new type of defended settlement in the vicinity, is gradually becoming common knowledge amongst Byzantinists. Instead of terminologies that incorporate notions of decline and ruralisation, such as 'walled village', 'refuge site' and 'kastro', I would propose the term 'micro-town' or 'peer village' for the new form of habitat appearing towards the late seventh century (Vionis 2017a). Taking the case of the Early Medieval Thespiai as an example, with its Late Antique walls still standing to a substantial high within view of the inhabited space, one should wonder what role *memory* played amongst the inhabitants and what their sense of inhabited place had been: urban or rural, central or peripheral, primary or secondary?

Fortification walls and walled spaces should be viewed as another characteristic landmark of this period of transformations, possibly signifying a sense of connectivity, rather than a conscious divide, between Late Antiquity and the Early Middle Ages. The defensive functionality of fortification walls during this period may be viewed as retaining a kind of 'political' symbolism, at least on local/regional scale. Considering that such constructions were designed to create a visible separation between the inside peaceful community and the unstable outside world, their height and overall physical appearance must have inspired a sense of monumentality and authority in an otherwise 'fragmented' peripheral region of the Byzantine world (Vionis 2017a).

However, an interesting parallel can be made between the fortified settlements of the Aegean and the eastern Mediterranean in the Early Middle Ages and Lombard Italy, where the relationship between city-walls and urban status has been questioned on the basis of Paul the Deacon's *Historia Langobardorum*. As Simona Latimer (2010, 43-44) notes, Paul makes a careful use of the words 'city' and 'fortress', in that he prefers the term *castrum* for the site of Forum Iulii before its elevation to the role of 'capital' of the region by King Alboin (AD 568-572), after the action of whom "Paul shows no further hesitation in applying the term *civitas*" to the King's preferred settlement. This is a characteristic example of how a political decision can change the status of a settlement so dramatically from one day to another, irrespective of its location, status, public amenities and earlier history, a case which possibly points to similar phenomena regarding the relative perception of 'decline' and 'revival' from Late Antiquity into the Early Middle Ages in the Aegean (Vionis 2017a).

On a final note, concerning 'decline', 'abandonment' and resurgence between Late Antiquity and the Early Middle Ages, it is worth mentioning that a number of recent studies have focused on the examination of climatic and environmental conditions in the first millennium AD and how these may have affected human societies and political systems (McCormick *et al.* 2012; Haldon *et al.* 2014). The analysis and interpretation of high resolution scientific proxy data (from tree rings, ice cores, speleothems, lake varves etc.) seem to explain the expansion of Roman power from the first century BC onwards, the crisis and recovery of the Empire in the third and fourth centuries AD, the contrasting fates of the two halves of the Empire in the next two centuries and the deep transformations of the seventh and eighth centuries (McCormick *et al.* 2012, 205). The regional environmental and climatic patterns that data provide when examining different regions from different corners of the Byzantine world (e.g. the Anatolian uplands, the coastal and insular Aegean, the Levant) are certainly expected; this may explain the aridity that populations experienced in the Balkans and the eastern Mediterranean from the second to the fifth century, the shift to wetter and warmer climate that other parts saw in the fifth and sixth centuries, which in Anatolia persisted into the eighth century (Haldon *et al.* 2014, 123).

Both proxy data and the Byzantine documentary sources, however, agree that in the period known as the 'Dark Ages Cold Period' (after AD 730 and until 900), draughts and famines became more frequent and were accompanied by severe winters with frosts and snow (Telelis 2008, 182; Haldon *et al.* 2014, 126). These climatic fluctuations may partly explain downward demographic trends and the militarisation of the Empire, and may have affected agricultural patterns throughout the Early Middle Ages, from the cultivation of vines and olives to less 'risky' investments, such as cereal production and livestock raising (Haldon *et al.* 2014, 139). Additionally, this is the period that other forms of agricultural strategies, such as the 'open field system', may have found good ground for developing in the Aegean and the eastern Mediterranean, as in most of western Europe in the Early Middle Ages. The open field system helped settlements withstand any kind of Malthusian-based crisis caused by population pressure on finite levels of resources and other causes (Renes 2010).

Concluding remarks

There is a number of issues arising from the case-studies presented and analysed above. Summarising what the evidence available may tell us about the reading of 'abandonment' and 'revival' after the conventional end of Roman antiquity:

1. No matter how positivistic it may sound, the re-evaluation of the material-culture record of this rather difficult period, previously unrecognised, in our contemporary age that archaeological evidence is supposed to be meticulously unearthed and recorded is of emergency here. To

recite Guy Sanders' own wording, "until we know when, questions about where, why and how remain largely irrelevant and abstract scholarly exercises" (Sanders 2003, 385).

2. A more thorough look into two different landscape contexts should be employed: the identification of rural/agricultural autarky on the one hand and urban transformation on the other, after the end of Late Antiquity, probably explains the different circumstances lived and perceived by different populations.

3. In this context, regions of the eastern Mediterranean, previously thought of as remote or abandoned, emerge as zones of cross-imperial interaction rather than as battle fields between antagonistic empires.

4. Aspects of urban transformations, too, should be placed in their correct context, taking into account the realities of a new age and new life-ways. Local or regional Late Antique urban centres did not necessarily die out overall but may have survived in most cases into the Early Middle Ages in a transformed form, where monumentality was perceived in a different manner and emphasis was placed on economic infrastructures and activities.

5. Yet, evidence for walling or re-walling of Late Antique sites in the Early Middle Ages should not –in all cases– be seen as embodiments of 'abandonment' or 'decline'. Other, less pessimistic terms, could perhaps describe more accurately new situations arising. Moreover, one needs to also take into account the role that memory played during such transitional periods; that is, what perceptions were created to the inhabitants of semi-abandoned places through their day-to-day visual contact with the traces and remains of their once glorious Roman and Late Antique past.

6. Individual actions and political decisions, in most cases unreadable on the archaeological record unless textual sources are available, should also be taken into account, as, it seems, they can change the status of a seemingly 'declined' place so dramatically from one day to another, irrespective of its location, contemporary status, public amenities and earlier history.

7. All in all, referring to this period of transition and transformations, one must not forget that any signs of abandonment or decline and revival, where really present, should be seen as evidence for a gradual and smooth, I would argue, transition to a rather different world: from 'antique' to 'medieval' life-ways and mentalities.

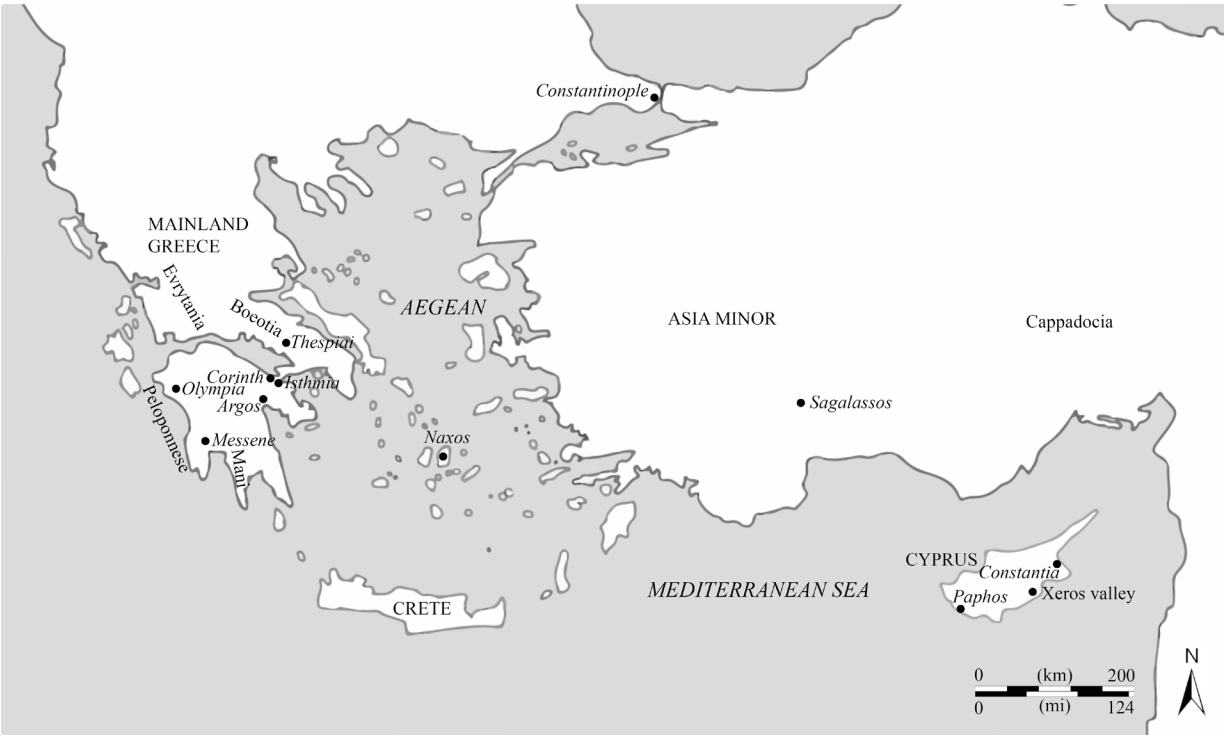

Fig.1. Map of the Aegean and the eastern Mediterranean with places mentioned in the text (map by the author).

Fig. 2. 'Slav' bow fibula from Nea Achialos, Greece (Papanikola-Bakirtzi 2002, fig. 471, 386).

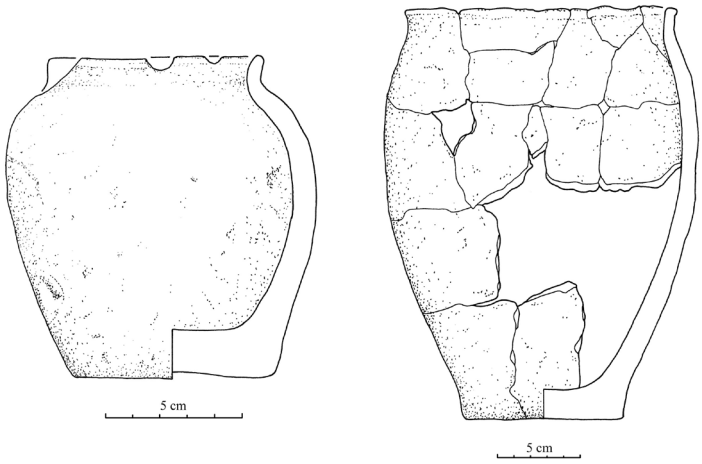

Fig. 3. Early Slav handmade pottery (Parczewski 1993, pl. 8).

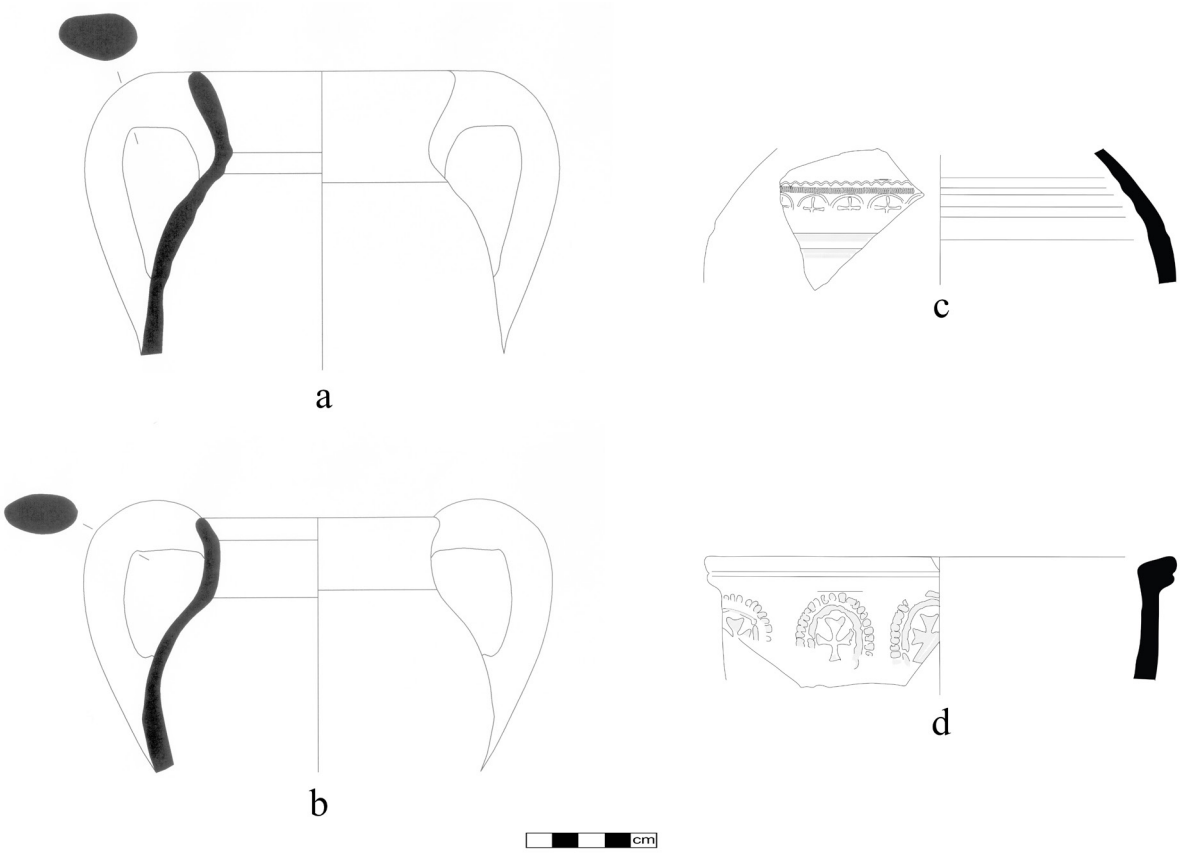

Fig. 4. Handmade cookware (a-b) and Sagalassos late Red Slip tableware (c-d) from the Fortification Gate at Sagalassos (© Sagalassos Archaeological Research Project).

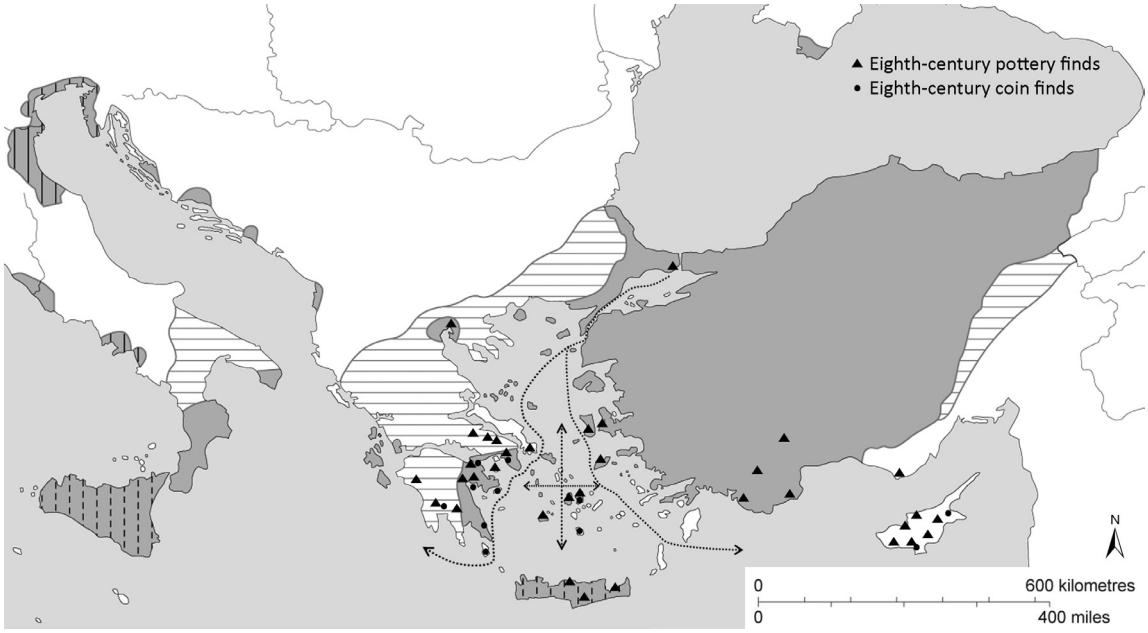

Fig. 5. Map of the Aegean and the eastern Mediterranean showing the distribution of eighth-century pottery- and coin-finds (map and data by the author).

Fig. 6. Aniconic fresco decoration in the church of Saint Kyriake, Naxos. The birds-with-ribbons composition can be seen in the centre and left side of the photograph (© Ephorate of Antiquities of the Cyclades islands).

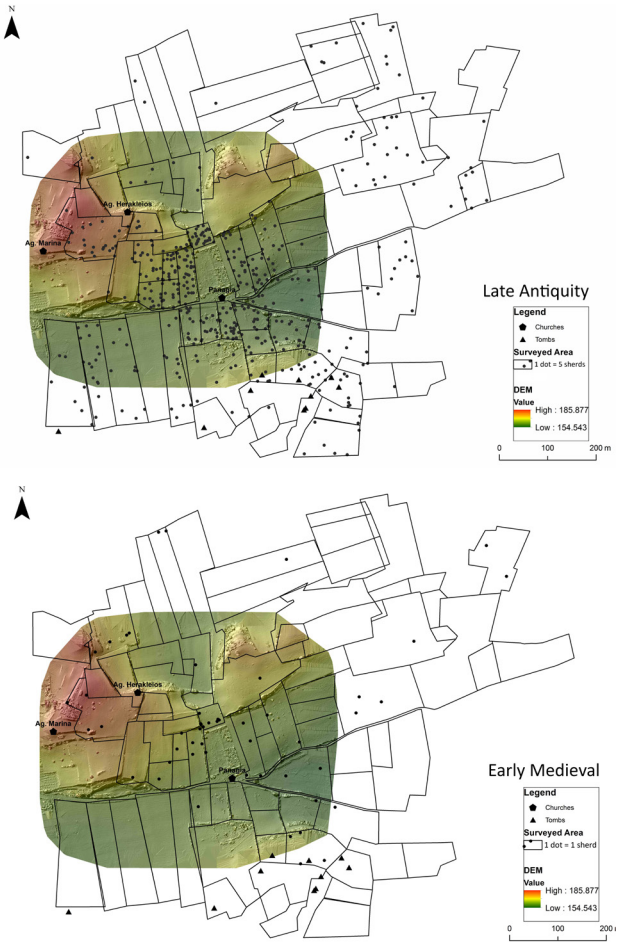

Fig. 7. The distribution of pottery sherds dated to the Late Antique (top) and Early Medieval periods (bottom) at the site of Kofinou in the Xeros river valley, Cyprus (© Settled and Sacred Landscapes of Cyprus Project).

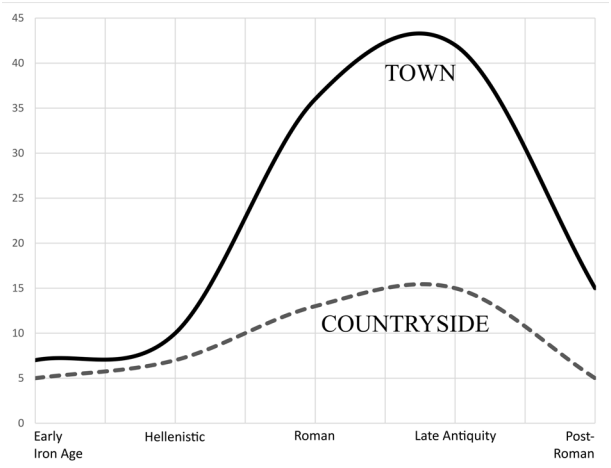

Fig. 8. A schematic representation of the different trajectories of town and the countryside, based on archaeological evidence from Sagalassos and its territory. Numbers on Y-axis are relative indicators of density and monumentality of material remains (adjusted from Vanhaverbeke et al. *2009, fig. 4, 186).*

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Investigating Transformations through Archaeological Records in the Heart of Tuscany.

The Roman Villa at Aiano between Late Antiquity and the Early Middle Ages (4th-7th c. AD)

Marco Cavalieri[1]

Abstract

Since 2005 a Belgian-Italian team, supported by the Université catholique de Louvain (Belgium), has been managing the archaeological excavation of the Roman villa at Aiano-Torraccia di Chiusi (near Siena). The building witnesses various phases of occupation. This monumental villa longinqua in agro Volaterrae *was built in the heart of Tuscany between the end of 3th and the beginning of 4th c. AD. At the end of the 5th c. AD the villa was abandoned, and during the 6th c. AD the complex was looted of a great part of its decoration: marbles and glass were recycled for the production activities implanted inside the villa. This site seems to be, not only a real 'mine' of reusable materials, but also a centre producing metal objects, as well as glass and gold ones, and probably pottery too. The aim of this paper is to present the transformation of the villa (after the site was abandoned and later on occupied again), according to the results of nine excavation campaigns. To achieve this goal, the archaeological record will be analysed in order to get a better understanding of the material culture on the site. After being abandoned in the 6th c. AD, the complex was occupied by a group of allochthons (not Romans) artisans who installed different kinds of workshops in the rooms in the* pars urbana *of the villa. Many ceramic shards (above all coarse pottery) date to this phase, but a greater variety of materials, such as lead pieces, glass fragments and droplets, beads, and differently coloured mosaic tesserae, have been recovered. Our research aims at three different goals: a) to get a better understanding of the role played by villa as a site for production activities after it was not used any longer as a dwelling site; b) to focus on the phase of transition, between the period of stable occupation and the abandonment, analysing the archaeological evidence, in order to assess the impact of desertion on the site; c) to reconstruct the transformation of the local communities in order to understand what objects were produced in the workshops, and what was the target in terms of market.*

Introduction

The site of Aiano-Torraccia di Chiusi is located in the municipality of San Gimignano, in the heart of Tuscany, in the area named *VII regio*, at the time of the Empire of Augustus. Excavations have been carried out on the site of this late antique villa by a Belgian-Italian team lead by the Université catholique de Louvain (Belgium) since 2005. Several institutions, mainly Belgian and Italian ones, supported the research (www.villaromaine-torracciadichiusi.be). This site shows different phases of occupation, ranging from the end of 3rd to the 7th c. AD and, as calculated on the basis of several geophysical prospections, it stretches across an area of about 10.000 m2, (Cavalieri, Pace 2011). Archaeological sites in this area were known since the early 20th c. In one of his early works Ranuccio Bianchi Bandinelli

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(1924)[2] analysed a marble urn decorated with festoons and heads of Jupiter Ammon that had been found in Monti, a location close to Aiano. The Italian law has protected this site as archaeological heritage since 1977, and the UCLouvain undertook the first systematic archaeological excavation in 2005.

Ten campaigns (2005-2012 and 2015-2016) have brought to light about 2500 m^2 of the complex, providing a considerably interesting overview – although still incomplete – that is useful for understanding the phenomenon of late antique rural villas in northern Tuscany, and the transition from Late Antiquity to the Early Middle Ages in the countryside. This transition implied the introduction of new production patterns, as during the "post-classical" period buildings and structures were used for purposes different from those they were originally meant for.

The villa

This site is located on the border of the roman civic territories of Siena, Volterra and Florence, within the basin of the river Elsa, in a small valley created by a tributary, the Fosci stream. Communications are particularly easy both within this area and in connecting the villa with its environs. Even though Aiano is located in the inland of Tuscany, both the Elsa Valley and the coast can be reached easily (Cavalieri, Orlandi 2015, 1903) by crossing the territory of Volterra. In the middle Ages the *Via Romea* crossed this valley, possibly on the hilltops, leading pilgrims from Canterbury to Rome (Patitucci Uggeri 2005, 57-58). The presence of this passage suggests that a road already existed in Etruscan and Roman times, but the route in use during the Roman period has not been identified yet (Cavalieri 2009, 3-7; Cavalieri 2010a, 120). Furthermore, the place name 'Aiano' suggests the presence of a road system that does not exist any longer, as this name might derive from *fundus Virianus*. The villa was usually built in the centre of the *fundus*. As it was the case for all structures used for political control, or for monitoring production, the villa was connected with the territory it controlled. Considering this point, and with reference to the general spatial organisation of the villa, Aiano seems to be rather similar to several villas excavated in central and southern Italy, including Sicily (Sfameni 2006)[3]. In spite of this, the villa in Aiano shows different and unique characteristics in terms of plans and architectural features. During the 4th and 5th c. AD, in fact, the building complex (Fig. 1) seems[4] to have been organized around a vast pavilion consisting in a Trefoil Hall bordered with exedras on three sides and preceded by a Vestibule through which it was possible to access both the central hall and the five-lobed *Ambulatio* surrounding it. The trefoil complex is connected to the other rooms of the villa (that had been partially excavated) by corridors and / or steps. Starting from the southern side of the hall, a long corridor N-S oriented opens into three intercommunicating rectangular rooms on the western side (A, B, C). On the eastern side, this corridor reveals a passage to a large open area (possibly a yard). On the northern side of the three-foiled hall complex an impressive rectangular room with a row of pillars was discovered, and it has been partially excavated **(Fig. 1)**. This monumental complex was abandonment at different times especially between the 6th and the 7th c. AD; these phases were followed by later reoccupations that entailed the dismantling of residential facilities in favour of structures for craft activities. We are going to discuss this phenomenon step by step.

2 Ranuccio Bianchi Bandinelli (19th February 1900 – 17th January 1975), an important Italian archaeologist and art historian, should be regarded as one of the fathers of modern Archaeology in Italy. He was born in the environs of Siena, in a place close to San Gimignano.

3 The villa of Cazzanello is not far from Tarquinia; the most famous Roman villa in Italy is possibly, the villa at Casale, near Piazza Armerina (Sicily).

4 So far only part of the villa has been excavated, thus, the 'centrality' of the three-foiled hall should not be given for granted yet.

The periodization of stratigraphic sequences

Villa quanta fuit, ipsa ruina docet

To analyse the Aiano villa, following the approach commonly applied to any site characterized by different occupational phases, we do not need to consider only the structures, even though they had a strong visual and ideological impact on the landscape since the complex was erected. Consequently, it is essential to understand the sequence of events that transformed these buildings from a place of *luxuria* and power control into an area for craft activities where raw materials were re-used. In order to reconstruct the different phases that included desertion, destruction, transformation and the re-use of building materials for different purposes (Cavalieri 2013), this essay analyses the villa not as a whole, but as a *ruinarum loca,* a place where ancient walls are not any longer part of a space used for living and became raw materials for making lime, or for carving small objects used in daily life. Further aspects will also be taken into account. The monumental complex is characterized on the whole by having been occupied for a long period of time, which can be divided into five different periods.

Period 1

Late Roman Imperial Period (290-350 AD)

This period can be identified with the early building of the complex. It is rather difficult to recontruct this phase, as there are no layers referring neither to the time the area was inhabited, nor to the time it was abandoned. Thus, the situation is rather different from the phases that followed, when the villa became a monumental building. Actually, according to the period we are discussing, all the surfaces and features dating to this phase, including floors, were intentionally removed with the purpose of spoliation, or for clearing the spaces when some of the workshops were installed, as it happened during Period 3 and specifically during Phase 2a and 2b. Thus, it is not possible to date precisely the early construction of the villa, nor the building of monumental structures that followed during Period 2, Phase 2. Nevertheless, thanks to a detailed archaeological analysis including the study of the finds, it was possible to identify a *terminus post quem:* in the southern area some fragments of *terra sigillata italica* were recovered in the foundation ditch of the walls of rooms A, B and E.

Period 2

Late Antiquity (350-500 AD)

This is the period which has mainly attracted the attention of both the scholars and the public, since the discovery of the complex.

During this phase, in fact, monumental buildings were erected: at present their features should be considered as unique in comparison to other late antique structures in the Mediterranean area.

Phase 1 (350-400 AD)

A new building project completely re-shaped the villa: a magnificent six-foiled hall with a five-foiled external *Ambulatio* was erected. This structure ended on the southern side with a small Vestibule accessible through a corridor that was used for receiving guests, and that was rather common in residential villas. This major project required significant economic resources; therefore, it is very likely that the first owners of the villa had a high socio-economic status (Fig. 2).

Phase 2 (end of the 4th - late 5th c. AD)

This phase followed the prior one within a few decades: the original building project was then modified. Three out of the six lobes of the foiled hall were dismantled and turned into rectangular rooms with no access to the inner hall. The accurate excavation of rooms H, I and L has revealed the presence of some foundation pits related to the six-foiled building. Moreover, the infill of a door on the north side of the *Ambulatio* indicates that this part of the villa was no longer used as a passage, but became a place for living and for the reception guests; it was also dedicated to *otium*. Furthermore, the flooring in *opus signinum* is a clear sign that this room was used as described above (Cavalieri 2012, 456-460) (Fig. 3). There is a geometrical mosaic decoration in the centre of the room and in the southern apsis; while the floor of the apsis located on the north-west side – actually the best-preserved one – is decorated by an *emblema* representing a *kantharos* framed by a *guilloche.* Both the technique used and the style of the decoration suggest that the floor dates to the early 5th c. AD. The shard of a very large rectangular dish with relief decorations on the wide rim (Hayes, Form 56), dating between about 375 AD and the early 5th c. was found on the flooring, thus confirming the proposed dating. (Cavalieri 2010b, 368-370).

Period 3

The end of Late Antiquity and the Gothic War (end of the 5th – mid-6th c. AD)

This phase represents a relevant change in the villa, as clearly demonstrated by the stratigraphic sequence: the villa was not inhabited any longer, and the spoliation that followed involved both the furniture inside it and the building materials. At this point, the complex should not be regarded as a villa any longer: from then onwards, the buildings were used in a different way (Francovich, Hodges 2003). The rooms of the villa did not maintain their original function, and served as a source for re-used materials: the *sectilia* and the marble *crustae* were removed and grinded; the glass *tesserae* of the mosaics decorating the walls were melted to make personal ornaments; the metal objects found in the villa were also re-used (often melted) to create new utensils. During this period, workshops were installed inside the buildings: the Trefoil Hall is the only structure deserted, even though all the furniture was removed (and re-used) and the building materials re-employed, after some of the walls had collapsed. This process highlights the skills of the inhabitants of Aiano: the materials available were selected for different uses, and real workshops (*officianae*) with spaces specifically designed to carry out production processes were built.

These crafts implied the processing of available materials, as well as changes in the structure of the building, as pavements and deposits were removed; as a consequence, it is not easy to reconstruct the daily life in terms of material culture, as there are many residual materials.

Phase 1 (end of the 5th c. AD)

This phase left a few traces, but it is possibly the one that left a more permanent mark on the structure, determining also the interpretation we discuss in this paper. At the end of the 5th c. AD the 'demolition' of the building started: floors and doorsteps were amongst the first materials that were removed (Fig. 4). All the paved surfaces were removed both in Room A and Room B, but their traces, such as mortar, are visible on the walls. It is clear that real floors were once present in these rooms: the ground was not levelled, as it was the case during Period 4, but unfortunately the remaining materials are insufficient to determine the type of floor used that might have been *opus spicatum*, *tessellatum*, *sectile*, or *signinum* **(Fig. 4).** The Trefoil Hall, as well as all the rooms connected to it, underwent a process that changed their aspect completely: on the floor in *opus signinum* in the main hall there are clear traces of spoiled materials (Cavalieri *et al.* 2008, 617); on the southern area, especially where the two entrances were located, a thin but compact layer of clay-rich loam started to deposit. This layer has been interpreted as the result of infiltrations through the entrances that occurred when this room stopped to be used. Further evidence confirms this idea, as inside this room there is a thick layer of plaster that once covered a ceiling made of wicker; the ceiling left a mark on the ground after its collapse (Cavalieri *et al.* 2008, 619-620). These materials, together with the seepage of highly organic clay-rich soil, marked the moment the building was abandoned. Thus, in spite of being abandoned, the Trefoil Hall was not dismantled; it might be possible that the materials it had been built with were not suitable to be re-used. In the Vestibule, as well as in the adjacent rooms (H, I and F) all the useful materials were looted: floors and doorsteps were removed, but some of their traces are still visible on the walls of the rooms and in the foundation ditches.

Phase 2 (beginning of the 6th c. AD)

During this phase the rooms were used for craft activities, even though it does not seem that this area was dismantled all at the same time. In Room A, the ground was levelled: the reddish spots on the ground clearly show that something had been heated in this room, as the signs left suggest the use of mobile heating structures, and of small moulds and forges used for melting metals. During this phase, Room B was the first structure to be re-used for a different purpose: a round and dip pit was excavated in the clay-rich ground and was part of a structure most likely used for quenching metals. This pit, in fact, shows traces of heating caused by the contact with ferrous oxides. A smaller and contiguous pit was probably used for holding a container useful for keeping small quantities of water, oil or even urine, as all these liquids were employed for making iron objects. (Cavalieri *et al.* 2009, 514) **(Fig. 5).**

At this point, the spaces of the villa were used randomly; in other words, different rooms were used in different ways. This is the case of Room H that was not in use, and for Room I that was used occasionally. The Trefoil Hall was clearly a decaying building, but the floor had not been removed yet: siding materials were removed from the walls at this stage. The early workshops were located inside the Vestibule; after removing the floor, a lime kiln was built in front of the western entrance to the Trefoil Hall.

Phase 3 (500-525 AD)

In spite of its decaying state since Phase 2, the Trefoil Hall maintained its roof until the 6th c. AD: it is likely that the shingles of the roof (*tegulae* and *imbrices*) had been largely re-employed in different areas of the building, while the walls of this room, made of travertine, were still standing. The roof probably collapsed in the early 6th c. AD, as after several shingles were removed, part of the ceiling started to

crumble; it is at this point that the brick archway supporting the eastern and western exedras collapsed inside the Hall **(Fig. 6).**

Building materials were systematically re-used during this phase, and this is the case of the collapsed (but possibly intentionally demolished) archway in the southern exedra. During this same phase, or in the following one, these bricks were used for building structures related to the craft activities carried out in the adjacent rooms, and especially in the Vestibule. The bricks were selected in order to use the intact ones only. During the 6th c. AD the area south of the Trefoil Hall started to be exploited rather intensively: after having been partially abandoned, Room F started to be used again as a working space. The east-west oriented drainage channel installed here – and crossing the area excavated so far – is most likely to be related to these newly established craft activities. A small kiln was built in the NW corner of the room, re-employing stone blocks built in a pitch excavated in the natural ground. So far, it was not possible to identify the function of the kiln and to understand for how long it had been used. However, it is clear that the kiln reached high temperatures. The small size of the kiln and its shape suggest that it could have been employed either for glass or for metal working, but neither slags nor waste have been recorded so far; we can only state that there was a workshop in the southern part of this area of the villa. The traces left on the walls and on the bottom of the kiln show that around the 525 AD it was not anymore in use.

Thus, during Phase 3 the kiln was partially destroyed and then abandoned; the construction of a larger and better-organised workshop in the Vestibule might have been the cause of this event. In the early 6th c., in fact, three small structures were built close to the entrance of the Vestibule. The above-mentioned drainage channel was built south from the Vestibule using bricks and shingles; it was EW oriented and crossed all the rooms of the villa excavated so far. This channel was carefully built using clay and not very firm mortar; it might have been built in connection with the workshops that started to have an increasing relevance from Phase 4 onwards. The area named 'E' was progressively used for accumulating different materials, including natural sediments.

Phase 4 (525-550 AD)

During Phase 4 craft production largely developed. If between 500 and 525 AD we are talking about occasional activities mostly related to the re-use of building materials, during Phase 4 craft production was carried out in specialised workshops. The ground in Room A clearly shows that fire was regularly lighted in several spots and that in this space several production activities were carried out: a glass furnace was installed in this room and used to recycle glass and to fashion glass beads. When in the mid-6th c. glass production stopped in Room A, as the same activity was installed in the Vestibule, the ground was covered with ashes. In Room B, metal smelting was still carried out.

Thus, we can conclude that during this phase the Vestibule gained importance as a productive area: it was close to the drainage channel as well as to the other workshops. At this point, the Trefoil Hall started to be used for dumping and to light small fires, usually not related to production activities.

The Vestibule was transformed into a workshop: here at least two productive structures were built in there and included fire pits, as well as a work surface area made with re-used bricks. Glass-working wastes, fragments of two non-glazed ware braziers dating to the time the workshop was deserted, together with the analyses of the above mentioned structures suggest that glass was worked in the workshop. The Trefoil Hall had almost been filled with waste, but further waste from the glass furnace next door started to be dumped in this space: near to the western entrance there was a substantial deposit of fired clay-rich soil, possibly related with the several furnaces and kilns built in the site.

Phase 5 (mid of the 6th c. AD)

During the mid-6th c. AD, when the Gothic War (535-553 AD) was reaching its conclusion, the site underwent major changes: this area was not deserted; on the contrary, it was well connected with the most relevant regional economic networks, as clearly demonstrated, until the second half of 6th c., by the circulation of coins minted in Ravenna (Cavalieri *et al.* 2010, 378-379). Nevertheless, relevant areas of the villa changed function again, as they started to be filled with waste or to be used for different purposes. Room A was used regularly for lighting bonfires, but productive activities did not take place anymore. The pits used for recycling glass were filled; sectors of the room served as dump for building materials like bricks and plasters that could not be used by the workshops (*officinae*).

Smelting and metalworking continued to be carried out in Room B. The Trefoil Hall and the adjacent rooms underwent a relevant change and eventually they were deserted. The northern area of the Trefoil Hall (including the *Ambulatio,* the northern lobe, and Room I) was filled with smelting waste: fragments of fired clay in the shape of a spherical cap, charcoal deposits and waste resulting from metalworking and especially from making copper (Cavalieri *et al.* 2009, 513). The situation in the Vestibule was comparable: a pile of building stones covered the glass workshop; probably the walls collapsed after the area was abandoned. During the mid-6th c. the area of the Trefoil Hall was not any longer devoted to craft activities but started to be used for dumping; a layer rich in organic materials and the features are particularly relevant, in order to provide an interpretation. A basin shows the progressive abandonment of a cultural phase or *facies*, still linked to Late antique models, in favour of new tendencies: forms were simplified and complex sets of dishes were not anymore in use; new characters were developed and became frequent during the following decades, and especially between the second half of the 6th and the first half of the 7th c. (Period 4).

Period 4

The early Middles ages (550-650 AD)

During Period 4 the site was 'in use' for the last time and post-depositional layers define what occurred during this period: the wing of the villa around the Trafoil Hall reached the end of use. The workshops, although still operating during the second half of the 6th c., decreased in number and became smaller; there were also changes in terms of organisation. All the productive activities stopped during the first decades of the 7th c. and fall the structures started to be gradually filled by debris, with parts of collapsed buildings, dismantled structures and waste. The fact that waste was accumulated in this area suggests that at that point productive activities were located in different parts of the villa that have not been identified yet.

Period 5

Until the modern ages (from the 8th to the 20th c. AD)

This Period is difficult to define because the soil has been used for agriculture over the last fifty years: large part of the stratigraphy dating after the 8th c. was destroyed. This final Period is characterized by sporadic occupation. Thereafter, the complex was completely deserted, until two burials, dating approximately to the mid-7th c. were installed; no grave goods were found. (**Fig. 7**).

The Recycled Materials

Period 3, and Phase 4 especially witness the systematic re-use of materials belonging to the structures and decorations of the villa. For this reason, most of these materials were recovered as fragments; they include materials such as marble, glass tesserae and metal. The marble fragments belonged to the decorations of the walls and floors of the complex. Over 600 fragments have been found and the majority of them are different types of white marble from all over the Mediterranean: some of those were very rare and expensive (Cavalieri, Lenzi, Cantisani 2012 and 2013). Moreover, there is evidence that architectural decorations were made using white marble: they include a plinth with mouldings, some fluted pilasters, and also some fragments of a low relief figural panel. Numerous glass fragments were also found in the whole area of the villa and include window glass – so fragmentary that it was not possible to reconstruct a single whole glass slab – polychrome glass inlays (elements or making *opus sectile*) representing fishes (**Fig. 8**), and vessels. The latter include plates, cups, goblets and bottles, and represent the largest part of the glass records. Concerning the *opus sectile,* the fragments were part of a panel decorating a wall and date to the 4th-5th c. AD, showing some similarities with the so-called 'Thomas Panel', a panel made in Roman Egypt, dating to the 4th c. AD and now part of the collections at the *Corning Museum of Glass* (Brill, Withehouse 1988, 37; Cavalieri, Camin, Paolucci 2016, 286-291) **(Fig. 8).**

In addition to the above-mentioned objects, a large number of mosaic tesserae have been identified: there are white, coloured, and transparent tesserae with gold leaf. Gold tesserae were made using glass with two different compositions, making a sandwich composed by a support, covered by the gold leaf, topped or protection by a thin layer of glass (commonly named "cartellina"). The glass used for the support is a common naturally coloured glass, characterized by a greenish shade, caused by the presence of a small content of iron. The glass of the "cartellina" was instead decolorized by adding a small amount of antimony or manganese, obtaining a colourless and transparent glass, suitable for not altering the perception of the colour of gold foil (Cavalieri, Giumlia-Mair 2009, 1030-1031).

All these materials yield evidence that the villa was still used beyond the "residential" phase. As the architectural decoration was dismantled, in fact, useful materials were processed as raw materials in the workshops established inside the complex.

The Workshops

Production activities were mainly located in two different areas of the site: the southern area (that included the Trefoil Hall) and the north-eastern zone. The workshops described in this essay were located in the first one; in the second one firing activities have been recognized, but it has not been possible yet to identify specific workshops. At present it is not possible to assume that there was a connection between the two areas, as the stratigraphic and chronological study of the north-eastern sector has not been completed (Rooms K and U).

As already mentioned, the activities carried out in the Trefoil Hall took place in four rooms (H, I, L, and in the Vestibule). Pottery was produced in Room H, while copper was smelted in Room I. In Room L and in the Vestibule gold and glass were respectively processed. All the Rooms were connected through the *Ambulatio*, while the Vestibule opened directly into the long corridor NS oriented.

Craft activities were also carried out on the western side of this corridor, next to the Vestibule, and precisely in the rooms named A, B, and C. Room A was used for glass production, but it is also possible

that lead was processed in there. Room B served as a blacksmith workshop. Unfortunately, the function of Room C is not clear at present and further excavations need to be carried out.

These production activities must have relayed on a complex water supply system. Only traces of this system remain: a channel running to the south of the Trefoil Hall, and a further one that cross the *Ambulatio* between Room H and the Vestibule (Fig. 1). These channels were possibly linked to a former water system, very likely connected to a reservoir that was identified in 1970s on the hill overlooking the northern side of the site (Cavalieri 2008, 7-8).

Summarising, there was a systematic use of the villa for production activities and an efficient management of the working spaces (Munro 2010, 237). The location of the workshops was, in fact, strictly connected, not only to the proximity of raw materials, but also to the need of preserving those spaces that were probably less affected by the demolishment following the desertion of the villa, during the 5th c. AD (Cavalieri 2012, 462). It is worth to be stressed that the different craft activities implied the use of fire and that they were probably interconnected: the position of the workshops, one close to the next one, certainly made easier water use and supply. As a result, the production process was optimized.

Conclusions

The evidence presented in this paper shows that the building materials and the decorations of a late antique villa were systematically re-used. Mosaics tesserae and glass *sectilia* turned to be especially useful for making small ornamental objects, such as necklace beads: a large number of glass beads were actually recovered during the excavations. The chemical and physical analyses carried out both on the raw materials and on the final products have confirmed that the objects found were actually made re-using the materials already on the site. The original decoration of the villa is completely lost, but for this reason, two questions are even more relevant. In first instance: who were the people who inhabited the villa during the early middle ages, after it was deserted in late antiquity? How did they interact with the environment and with the site? Certainly, they were skilled enough to transform mosaics tesserae into multi-coloured jewellery, and they were also able to re-use the gold leaves of the tesserae. Secondly: did they produce these objects for themselves or for the trade market? Certainly these objects had an economic value, and beyond that they carried ideological implications, as they included luxury products.

It is not easy to give an exhaustive answer to these questions, but starting from the historical and archaeological evidence available so far it is possible to make some suggestions. The villa was used as a source for raw materials, as a dump, and to establish artisanal activities: the firing techniques used and the objects found (glass beads, belt, buckles, etc.) suggest that the people who installed these activities were possibly 'foreigners', very likely with Goth background. Together with different factors, the presence on the site of silver and bronze Goth coins[5] reinforces this idea. The situation seems to be rather similar to what happened in different areas of central Tuscany: this area was a fluctuating border between the Goth and the Byzantine area, both in terms of political control and coins circulation. Even though only few Goth coins were found in Aiano, their presence is extremely meaningful: it suggests that the Valdelsa was both a backroad and an alternative route to reach the Valdarno from Siena. This route was far more secure than the one connecting Rome to Fiesole crossing the Chiana Valley and Arezzo, as Fiesole was certainly a place where many battles took place during the early stages of the Goth war

5 We are referring to the coins recovered in the southern area of the villa, between the Vestibule, Room A and Room B: a quarter of a silver *siliqua* minted in Ravenna by Atalaricus (king of Ostrogoths) and representing the emperor Justinian the Great (526-534 AD); a coin (value 10 *nummi*) minted also in Ravenna by the king Ostrogoth Witiges (536-539 AD); a *minimus* coin (value 2 *nummi*) minted in *Ticinum* (Pavia) by the king Badwila and representing the emperor Anastasius (541-552 AD).

(Arslan, Viglietti 2008, 40). The villa at Aiano was located in a rather remote place, in the inland of the Fosci Valley. Thus, during the 6th c. the workshops established there could rely on a network stretching from the Valdelsa and the Valdarno towards east, and from the Tyrrhenian coast crossing Volterra towards West. According to the last point, and considering also that luxury objects were made in Aiano, after the end of the Late Antiquity, we can conclude that Aiano was part of a trading network. This area was not based on an economy of subsistence, but it was integrated in the economy of the duchy of Tuscia, at a time when the Goth aristocracy had a prominent role. When the building was dismantled in Aiano, and its parts were re-used by different workshops and production activities, it is extremely true-likely that this process followed a precise pattern. Indeed, the high degree of organisation required for managing this complex of crafts suggests that a leading group, and possibly the people who gained the power after the rich Roman *possessores*, were supervising all these activities. It is therefore likely that the Goth *nobilitas*, following the *Edictum Theodorici regis* dating to the 500 AD and the laws known as *hospitalitas*, claimed and obtained a third of the whole lands of the Italian peninsula, being the only ones still defending these territories.

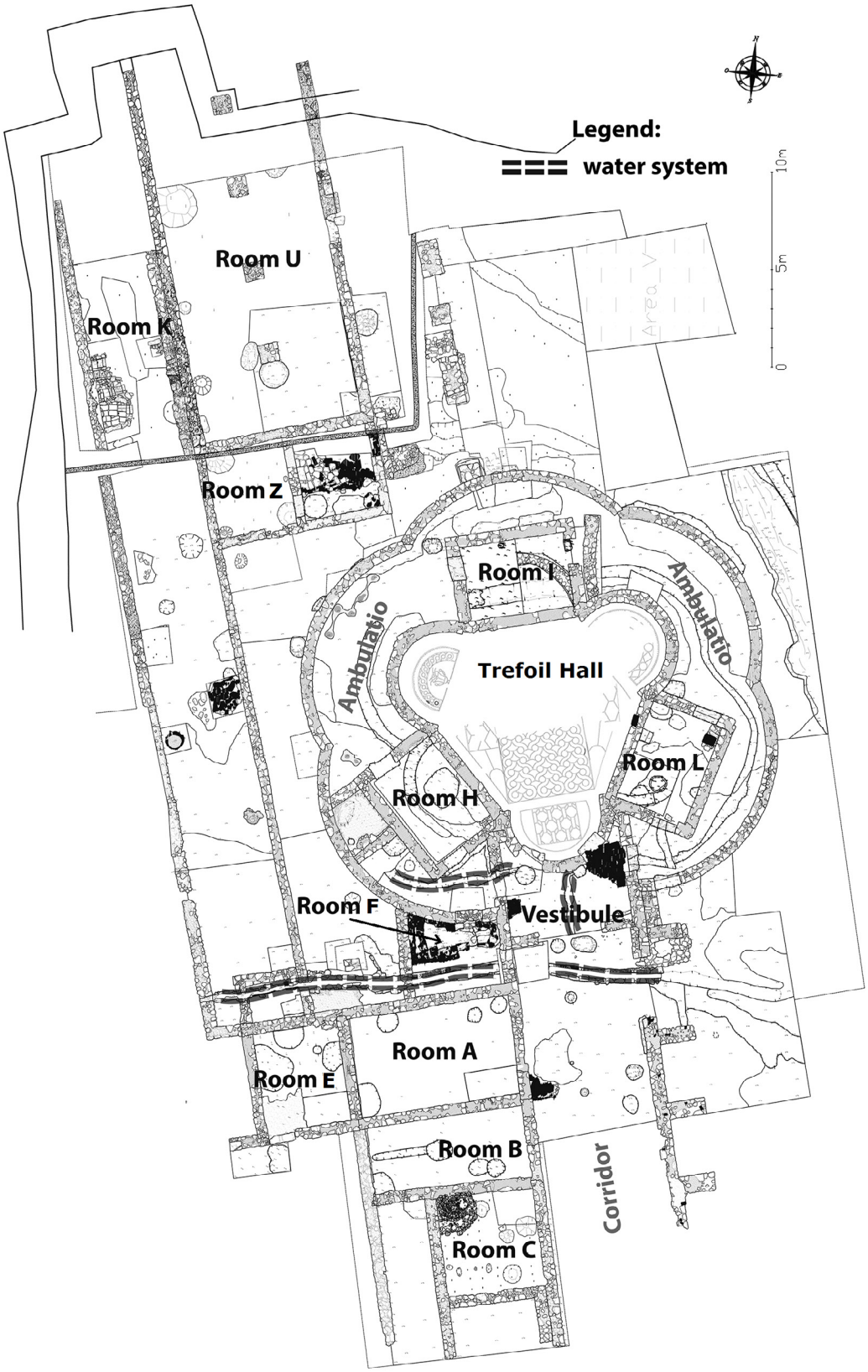

Fig. 1. Plan of the villa at Aiano (as in summer 2015), with reference to the different Areas and Rooms referred to in the text. (© M. Cavalieri).

Fig. 2. Aerial view of the villa Aiano-Torraccia di Chiusi (excavations 2016), (© Soprintendenza Archeologia Belle Arti e Paesaggio per le Provincie di Siena, Grosseto e Arezzo).

Fig. 3. Plan with the Trefoil Hall and the adjacent rooms (AutoCAD elaboration), end of 4th - late 5th c. AD. Inside the Hall, representation of the mosaics with possible reconstruction of the floor in opus signium, (Period 2, Phase 2), (© M. Cavalieri).

Fig. 4. Building in of the doorstep (possibly in marble) on the eastern entrance of Room B; it was removed at the end of 5th c. AD (Period 3, Phase 1) (© M. Cavalieri).

Fig. 5. Room B taken from east: cuts for smelting activities. Beginning of the 6th c. AD (Period 3, Phase 2) (© M. Cavalieri).

Fig. 6. Trefoil Hall, collapsed brick archway in the NE apsis, 500-525 AD (Period 3, Phase 3) (© M. Cavalieri).

Fig. 7. Room Z, NW corner: grave dating to the first half of 7th c. AD (Period 4); it contained the skeleton of a male person (© M. Cavalieri).

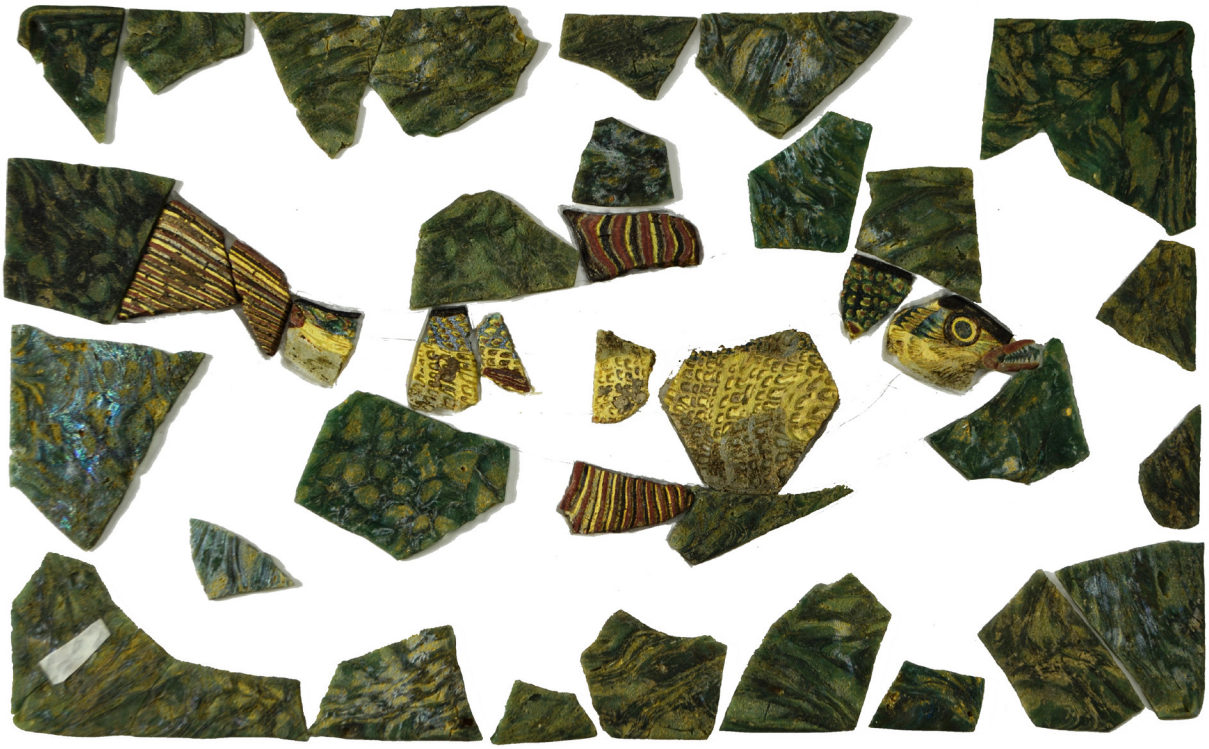

Fig. 8. Partial reconstruction of a decoration representing a fish (possibly a gilt-head bream) on a green background (© M. Cavalieri).

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