Food Storage among the Iberians of the Iron Age North-West Mediterranean (c. 225-c. 50 BC)

Mateo González Vázquez

4. The Cost of Conquest: A Bottom-Up Approach.

4.1. Introduction.

For much of the twentieth century, archaeologists have tended to interpret the evidence of the intensification of agricultural production as the result of the organization of a surplus by a ruling class or aristocratic elite, motivated by the exaction of some kind of tribute (see Thurston 2015: 125 for a complete bibliography on this subject), partly as a result of a deterministic vision of history and a neo-evolutionist interpretation of the emergence of Iberian societies in the north-east of Iberia, in which the role of subjugated Iberians under Roman rule consisted mainly of producing more to support the campaigning needs of the Roman military (e.g. Rancoule 1992: 79; Burch 1996: 208; Burch et al. 2017; Bénézet 2017). It is widely believed that the Iberians did not have mechanisms to face the demands of Rome, whose power is palpable by archaeologists through the imposition of new architectural forms, some of them related to territorial control as would be the construction of the road of Mn Sergius at the end of the 2nd century BC (Miret et al. 1991: 50) or the building of a monumental wall and *praesidium* in Tarraco and Emporion (Nolla and Sanmartí 1984: 18; Hourcade 2014) and the urban foundations (Guitart 1994: 205), often seen as small islands of Romanness (Stek 2014: 33).[1]

This explanation is clearly grounded on a Weberian definition of power, which Max Weber identified as being authoritative (Paynter and McGuire 1991: 5-7; van Dommelen 1998: 24). In this chapter I will adopt a bottom-up approach, also picking up on some of the issues raised in the previous chapters, in order to reconsider the role of storage as valuable evidence in studying the social and cultural changes of the Iberian communities during the Late Iron Age. I use this particular evidence of the archaeological record as a case study to understand the impact of the Roman conquest and the initial

[1] For instance: 'És difícil, en l'estat actual del nostre coneixement, poder dir si aquest fet fou el resultat d'una actuació programada i detalladament planificada o si, contràriament, fou la suma d'un cúmul de fets amb implantació arítmica i inconstant. No obstant això, tant per l'extensió territorial que abastà – pràcticament tot el conjunt del territori que analitzem- com per la coincidència cronològica en la construcció d'aquests espais monumentals (a final del segle II aC i primers anys del segle I a.C.) podem considerar que aquests fets són part d'un procés, d'una manera de fer; en definitiva, d'una política provincial ben diferent a la que s'havia practicat fins aquell moment i que es caracteritzà, a partir d'aquells anys, per la introducció d'elements culturals de clara arrel i tradició itàlica, visualitzats per la seva arquitectura, quasi sempre en el cor dels vells oppida indígenes' (Nolla et al. 2010: 39).

dynamics of a developing provincial economy, and thus produce a radically different picture of how these communities became a part of the expanding Roman Republic.

4.2. Colonialism and knowledge.

Throughout the 1830s and 1840s the French army gained control over most of Ottoman Algiers, or the area which would come to be known as Algeria from 1839. When in 1841 General Bugeaud took command of the war in Algeria, he prompted the French army in Algeria to change their military tactics in the same way that the Roman general Metellus had done in Africa. He abandoned traditional formations and adopted other military tactics better suited to confront guerrilla warfare (Lorcin 2002: 299-300). For instance, disproportionate requisitions of grain stocks constituted one of the greatest threats to the survival of the subject communities. These practices were so merciless and destructive that there was a verb in Arabic to refer specifically to these encounters, translated by some French travelers as *manger une tribu* (literally, 'to swallow up' a tribe). In other words, the French soldiers were, in Africa, the natural heirs of the Roman soldiers (Dondin-Payre 1991: 144).

Charles-Joseph Tissot, diplomat and a pioneer archaeologist in North Africa, imagined how the tactics employed by the French soldiers would have not differed greatly from those used by the Roman legionaries in the past: '[the] *pilum* of the legionnaire must have played, in the search and discovery of these underground granaries, the same role as the rifle of our soldiers' (Tissot 1884: 743-44). In all likelihood, Tissot was acquainted with the *Bellum Africanum* ('War of Africa'), a first-century BCE text which has been attributed both to Caesar and Hirtius, on which the narrator reports how Caesar got hold upon a large quantity of grain upon learning from an informer that 'both in the open fields and in practically all their farm buildings they have a secret underground vault for the storage of corn, the main motive for this provision being wars and the sudden appearance of an enemy'(65):

> 'There is in Africa a custom among the natives whereby both in the open fields and in practically all their farm buildings they have a secret underground vault for the storage of corn, the main motive for this provision

being wars and the sudden appearance of an enemy. When Caesar got to know of this custom through an informer, at the third watch of the night he sent two legions and some cavalry a distance of ten miles from his camp, and later saw them return to camp laden with a large quantity of corn.' (Loeb, 1955).[2]

As Nicholas B. Dirks put it, **'**colonial knowledge both enabled conquest and was produced by it; in certain important ways, knowledge was what colonialism was all about' (Dirks 1996: IX). Frédéric Lacroix (1870: 108), who had received in 1851 the task of elaborating a detailed study of the Roman methods of colonization (Lorcin 2002: 308), noted that '[nowadays], the Arabs and Kabyles of Algeria still have a marvellous talent to completely conceal their underground granaries' (Lacroix 1870, 108). He added to this that Varro's reference to grain being stored for decades, was in all likelihood responding to the incidental finding of pits which, despite having been abandoned for a long time, still preserved the wheat and the barley in a sound condition.[3] This is a clear example of how depending on what perspective one adopts, the perception on a given subject matter can be completely different. These settlers were acutely aware of the prior origin of the practice they were trying to replicate, adapt, or justify, and how storage pits were 'easy to conceal': '[the] nomads, the Orientals, for example, place their silos separately, the owners of which are the only ones to know their location (Noguier 1874: 240). One of the most influential of the eighteenth-century authors on the Maghreb, Thomas Shaw, who published his *Travels or Observations Relating to Several Parts of Barbary and the Levant* in 1783, after rejecting the plausibility of Hirtius' account, related the use of pits with the fact that most Arabic tribes in North Africa were nomadic:

'Hirtius acquainteth us that the Africans made use of these pits for the greater security of their provisions from an enemy: but it is more probable, that they were contrived in those earlier ages, as they continue to be this

[2] 'Est in Africa consuetudo incolarum ut in agris et in omnibus fere villis sub terra specus frumenti condendi gratia clam habeant atque id propter bella maxime hostiumque subitum adventum praeparent. Qua de re Caesar per indicem certior factus tertia vigilia legiones duas cum equitatu mittit a castris suis milia passuum X atque inde magno numero frumenti onustos recipit in castra'.

[3] In that sense, it has happened that grandchildren have found pits built by their grandfathers, the positions of which had been lost, and because of the hermetical sealing the grain could still be eaten (Fenton 1983: 578).

> day, for the greater ease and convenience of the inhabitants. For it cannot be supposed that the ancient nómades, any more than the present arabs, would be at the expense of erecting storehouses of Stone, when they might, at a much cheaper rate, be served with these, at every station, where they encamped to gather in their harvest.' (Shaw 1738: 221-22)

During the greater part of the French presence in Algeria, the use of binary oppositions for rhetorical purposes was common (Mattingly 1996, 53; Lorcin 2014). As nomads, the Arabs of the plains were indomitable and hard to control. As Lorcin (2014, 37) writes, '[the] word nomad in itself implied changeability and irregularity', something to be curtailed by transforming their nomadic lifestyle into a sedentary one (Davis 2007, 53; Sessions 2011, 216; Lorcin 2014, 37-38). They were considered to be at the earliest stage of their development, with underdeveloped agricultural technology. By contrast, the Berbers were normally categorized as the 'indigenous' inhabitants of Algeria, who also led a largely sedentary life and were more prone to France's civilizing mission, as they had been ruled by the Romans already; they were opposed to the 'invading' and 'newly arrived' Arabs, who were mostly nomadic or seminomadic, and their dependence on agriculture was less critical compared to the Berbers, being also known as Kabyles in Algeria (thence the reference to this binary opposition as the 'Kabyle myth'; cf. Lorcin 2014).[4] This distinction can be seen, for instance, in G. Mouëtte's *Description du Maroc*, one of the earliest accounts:

> 'Les Arabes demeurent sous de méchantes tantes dans les plaines, où sont les meilleures terres à cultiver, en ayant chassé les Barbares quelque temps après qu'ils y furent amenez par Mouley Almanzor. Ceux qui ne veulent point obéir au Roy, lorsqu'ils sçavent qu'il s'approche de leurs quartiers, chargent tout ce qu'ils ont sur leurs bœufs et sur leurs chameaux, et se

[4] Stéphane Gsell's (1920: 16-17) description of this mode of storage in his *Histoire ancienne de l'Afrique du Nord*, which formed the basis of all subsequent work on the Roman archaeology of North Africa, constitutes a good case in point. According to Gsell, the Berbers 'have not abandoned this custom', in reference to the use of storage pits. Gsell's reference to the use of pits by the Berbers is thus something of a surprise, since most pre-modern accounts referred to the Arabs as the main users of this storage method, since it allowed them to cover their storage while at the same time leading a nomadic or seminomadic life. Gsell, however, described storage in pits as 'hermetically closed', that 'they also preserve cereals from insects', and that they 'ensure a long conservation'. All three aspects consistent with the ideal of a sedentary and profitable agriculture. This illustrates, in my opinion, how the view of this storage method had been reconfigured.

> retirent dans des montagnes de difficile accès, où ils se retranchent, jusques à ce qu'il s'en soit retourné, laissant leurs biens dans des cavernes ou matamores qu'ils font sous terre, sur lesquelles ils labourent et sèment, afin qu'on ne les trouve point ; mais quelquefois il se rencontre des chiens, qui, en gratant dessus, les découvrent.
>
> Les Barbares, qui sont les restes des Cartaginois, des Romains et des Vandalles, anciens conquérans de l'Afrique, se sont retirez aux montagnes qui estoient auparavant inhabitées, où ils ont bâty des villages, des maisons et des châteaux, y ont planté des vignes, des amandiers, des noyers et des oliviers et une infinité d'autres arbres fruitiers, y nourrissent quantité de bestiaux qu'ils viennent vendre aux villes, et en acheptent des grains des Arabes, qui n'ont nul autre commerce. Outre la langue arabesque, qui est commune à tous ces païs, ils se servent en particulier de la leur, qu'ils appellent chilha.' (*Sources Inédites de l'Histoire du Maroc*, 2ème série, p. 165).

Ever since the culmination of the 'pacification' process of Algeria, it became a kind of 'testing site' for new models of European settlement and colonial experimentation, with the ultimate goal of turning this new conquered land into 'one of the most beautiful provinces of France', rather than a colony *strictu senso* (Sessions 2011, 183-84). As Sessions (ibid., 325) puts it, in order to understand the origins of French colonization in Algeria, 'we must look to the intimate and dynamic interactions between empire and a political culture that increasingly encompassed both metropole and colony'. As has been illustrated by Diana K. Davis (2007, 54), 'the goals of colonization included the establishment of rational, sedentary, market-integrated agriculture and livestock production'. Therefore, in the same way that successive colonial governments in French Algeria showed interest in the evidence of Roman hydraulic systems, with the main objective being their renovation for modern use (Mattingly 2010, 55), they also showed an especial interest in how they stored their harvests, attracted by the fact that North Africa was a suitable land for subterranean storage, as indicated by the Roman agronomists (see Chapter 1). For all these reasons, as early as 1836 several projects concerning the creation of military villages, who had the idea of introducing the sedentary habits to the nomadic tribes, were widespread (Lorcin 2014, 37-38). Other projects, most notably those put forward by Captain Ferdinand Lapasset in 1847, head of the Arab

Bureau at Ténès, involved the designation of areas for pit storage which would guarantee the control over the local production (and at the same time combat future ideas of rebellion) under the pretext of creating a 'loan system' for the Algerian peasants most in need:

> 'Les avantages de ce projet sont politiques et matériels, mais il nous semble que les premiers l'emportent sur les seconds.
> 1º Le Gouvernement a, plusieurs fois, essayé des ôtages ; il a fini par renoncer à cette garantie peu commode et coûteuse, qui souvent lui échappait au moment du danger : cette mesure mettrait en son pouvoir un intérêt aussi fort que celui des personnes, l'intérêt matériel. Certes, il serait bien préférable d'avoir entre les mains tous les approvisionnements des tribus ; nous y avons même pensé ; mais nous avons reculé devant cette mesure vexatoire qui entraverait au plus haut point les travaux d'agriculture, et nous nous sommes bornés à présenter ce diminutif de l'idée première, dont l'intérêt est cependant assez fort pour donner à réfléchir à la tribu. Si donc elle venait à oublier la foi jurée, ses silos reviendraient de droit à l'État, et elle en serait prévenue à l'avance.
> Si, au contraire, elle nous restait fidèle, comme alors elle serait, le plus souvent, obligée de se réfugier sous nos murs, elle le ferait sans crainte, car elle serait sûre d'y trouver des approvisionnements.
> Mais une des considérations les plus fortes, c'est celle de nos approvisionnements en temps de guerre : beaucoup de publicistes se sont préoccupés, et avec raison, de ce que deviendraient nos possessions d'Afrique en cas d'un conflit européen, d'un blocus maritime, qui ne permettraient pas à nos navires marchands de venir approvisionner les divers points de la côte, comme ils le font journellement. Nous ne voulons pas discuter cette grave question ; nous l'indiquons seulement, nous bornant tout simplement à poser pour exemple une insurrection comme il y en a eu et comme il y en aura probablement encore : lors d'un pareil événement, toutes les troupes sont devant l'ennemi ; les convois sont fort difficiles, s'ils ne sont pas impossibles ; les places trouveraient alors dans les approvisionnements en orge et en blé des tribus, sauf à les rendre plus tard s'il y a lieu, une immense ressource. […] Ténès, le 19 avril 1847. Le

capitaine d'état-major, chef du bureau arabe, Ferdinand Lapasset' (Berseville 1897 : 67-68).

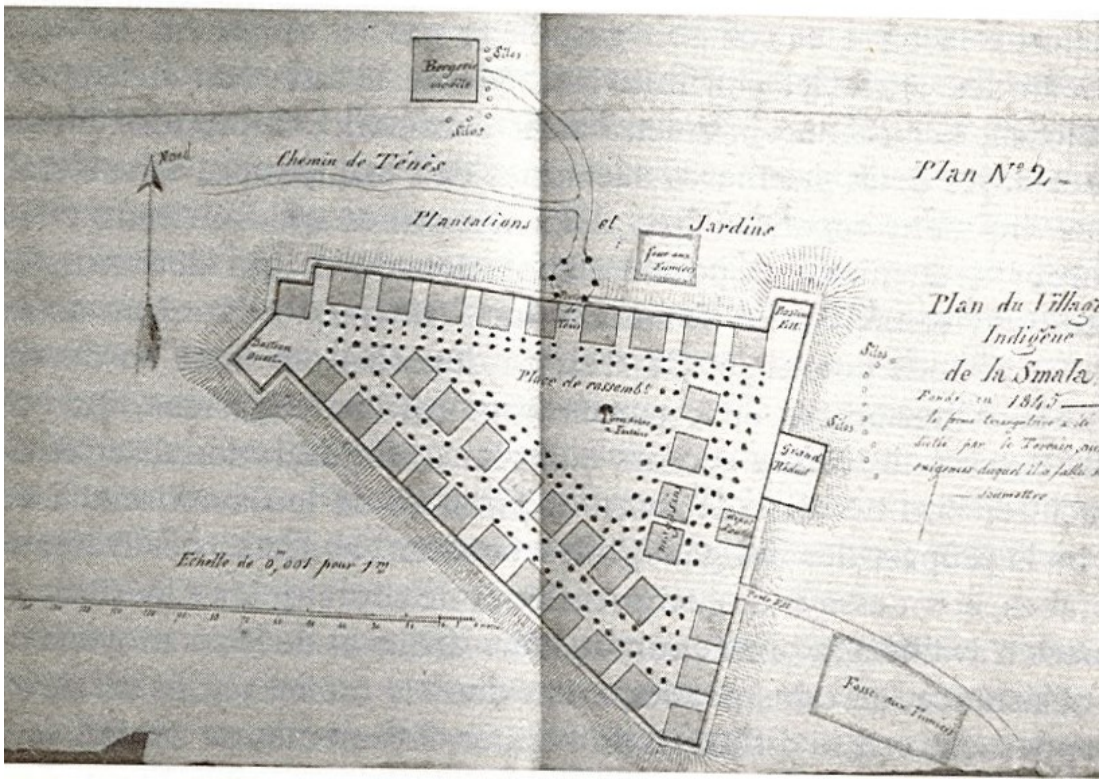

Figure 48. *Lapasset's model Algerian village of Smala (1845). Source: Archives Nationales d'Outre-Mer.*

Lapasset's project would later come to be known officially as the *Sociétés Indigènes de Prévoyance*, and later still the *Crédit Agricole*. The other project was intended to construct a model Algerian village, where an area for the storage of grain would also be designated (cf. Fig. 48), the purpose of which was denoted as the 'progressive fixation of the natives to the soil'. As Brower (2011: 64) has argued, 'the drive to establish agricultural settlements in Algeria's northern territories emanated as much from security concerns as from the search for economic prosperity'. Consequently, notions concerning storage in pits were markedly transformed in the course of the nineteenth century, since they had to conform to France's projects of control. In the same vein, W. Esterhazy (1849: 353) described how the Flittas tribe had emptied all their clustered silos (*agglomérés et connus*) and decided to scatter all their provisions throughout isolated and hidden silos (*cachés et isolés*), acknowledging that these

concealed storage facilities could occasionally pose a serious threat to the French army in need of supplies:

> 'J'avais trouvé à acheter quelques quintaux de blé chez les Oulad-Cherif, secours d'autant plus utile que les Flittas, bien avertis par la rude guerre que j'avais faite, l'hiver dernier, aux silos des Hachems, avaient vidé tous les silos agglomérés et connus, et éparpillé leurs approvisionnements dans les silos cachés et isolés, et appelés en arabe silos sauvages ; tactique qui avait rendu à peu près infructueuses toutes nos recherches en traversant leur territoire. J'avais aussi acheté des chevaux et des bœufs, et des moutons avaient été amenés dans nos camps.'

Other historical and ethnographical accounts from later periods, belonging to different chronological and geographical contexts, emphasize the use of underground storage as a means of defence against human, not biological, danger. A. Fenton, in his paper Grain storage in pits: experiment and fact (1983), gathered a good number of ethnographic and historical references to underground storage, most of them referring to Central and Eastern Europe. F. Sigaut, in a similar study, La rédecouverte des silos à grains en Europe occidentale, 1708-1880 (1979), gathered some references to the use of silos in Western Europe. In most of these references the safety of storing grain underground is what stands out. The earliest reference comes from Ireland in the 16th century. Sir J. Norrys stated in 1595, when reporting about Tyrone's country: 'The rebels bury their oats as soon as they cut them' (cited in Lucas 1956: 19-20). This was done to prevent the grain being put to fire. In a similar note, but different context and location, Reneaume in 1708 commented on the use of silos in Poland and Hungary, arguing that there was an extended use of underground pits to store grain in those areas in which revolutions and wars occurred:

> 'Outre que cette maniere conserve le grain, elle le met encore en sûreté dans les païs sujets à de fréquentes révolutions, & il est assez ordinaire qu'on en use de la sorte dans les endroits où on fait la guerre.'

Georgius Krieger, a member of the college of the Jesuits in Olomouc (Moravia, Czech Republic), reported the land registry of the college between 1622-1743, in order to prove the benefits of underground pits, against the recent plans of building new large above-ground granaries. Apart from setting out the good conditions of preservation of grain stored underground, he provided references to the large benefits obtained from underground grain storage during some troublesome years in the region, i.e. the Turkish incursions (1663-1683), the instability triggered by Rákoczy and the bad harvest years in the first half of the 18th century (1709, 1710, 1719, 1726 and 1727). It was precisely during these years, according to Krieger's report, when large benefits were obtained from the sale of the grain stored underground, since prices were higher (cited in Kunz 1979). Here Krieger was clearly praising the benefits of the security of pits as a long-term storage facility, rather than the purely economic benefits of speculation with grain. Krieger also pointed out how during this unstable period (1710-1747), silos were in use systematically (cited in Kunz 1979: 122).

4.3. Balancing 'our' mutual knowledge against 'their' mutual knowledge.

The control of storage occasionally may be transformed into a control over knowledge (DeBoer 1988; Hendon 2000; Given 2004: 37). Whilst display may be a common social feature related to storage, this idea however needs to be examined when studying storage in pits. Consequently, it is necessary that archaeologists balance 'our' mutual knowledge against 'their' (i.e. the peoples we study) mutual knowledge, to borrow Hendon's words (2000: 43). Warren R. DeBoer suggested that subterranean storage in Eastern North America could be interpreted as a 'powerful signal of resistance to a new social order' or a 'stress marker' (1988: 14), a conclusion that he mainly based on the fact that external viewers on occasion regarded the storage in pits as a concealment strategy against requisition from raiding groups or oppressive socio-political orders.[5] By means of a critical review of the ethnohistoric and archaeological sources, DeBoer suggested that the extended use of storage pits should be regarded as a symptom of either seasonally abandoned settlements or resistance to new and potentially oppressive socio-political orders. He referred to three testimonies related to subterranean storage for the Plains and

[5] Similarly, Raymer (1990) found that concealment of stores was also important not only for residentially mobile groups but also under conditions of human predation, such as raiding and warfare.

Woodlands of North America, belonging to the seventeenth, eighteenth and nineteenth centuries.[6]

In relation to the late prehistory of the American Bottom (IL.), DeBoer argued that the variability in the use of subterranean storage in suburban Cahokia might be a manifestation of an ever-increasing regional hegemony of Cahokia. Therefore, according to DeBoer, this new circumstance did 'not require concealment from pilfering strangers during episodes of settlement abandonment, but they might encourage concealment from tribute demands emanating from a new kind of enemy, presumably in the form of elites based at Cahokia itself.' (DeBoer 1988: 10). Accordingly, DeBoer placed a high premium on the presence or non-presence of storage units within the Cahokia settlement system (Collinsville, Illinois). While near the centre there is little evidence of domestic storage, the presence of large domestic units further away from Cahokia is more common (DeBoer 1988). Therefrom, DeBoer deduced the following: 'Rather than a marker of institutionalized social inequality, subterranean storage is more likely to be a powerful signal of resistance to a new social order' (DeBoer 1988: 14). Concealment of grain surplus from a new (and potentially oppressive) sociopolitical order is also attested in other regions. For example, the ethnographer and explorer W. Thomson surveyed Palestine when these pits were still in use, and he reported in 1880 the following: 'I saw people storing away grain in cisterns far out in the open country between Aleppo and Hamath, and they did this to hide it from the government tax-gatherers' (Thomson 1880: 90).

The safety of these caches, however, could not always be guaranteed. As the comparative history of modern Maghreb shows, government officials and invading forces many times achieved to find and dig up these deposits. It is the various evidence that made these hoards self-evident, rather than the stratagems that 'hoard hunters' employed, that is interesting for our purposes. The signs leading to the recognition of some of these clusters were, ironically, directly related to the same features that enabled the grain or

[6] These three accounts indicate the importance of concealment in order to protect surplus. In the 1696 French campaign against the Onondaga, Frontenac complained that it took two days in finding and 'digging up the caches, or hidden stores of food, and destroying their contents'. In the eighteenth century, Charlevoix observed that the Miami, 'when they are obliged to be from home from any time, or when they apprehend some irruption of the enemy, [...] make great concealments under the ground'. Farther west and later in the nineteenth century, Bradbury remarked that 'the nations of the Missouri always liable to be surprised and plundered by the Teton villains, annually conceal a quantity of corn, beans, etc. after harvest in holes in the ground, which are artfully covered up' (DeBoer 1988: 1).

other foodstuffs to be protected from vermin and insects. Normally, the opening of a storage pit was completely sealed with a slab covered with clay, in order to keep out the oxygen and create a sealed environment. Soon after closing, the wall of the pit developed a natural shell of fermented grain, creating an oxygen-free interior environment. The fermentation process that occurred in these pits helped to preserve food from bacteria. The same process, however, created a very distinctive smell that dogs were able to trace down, after being duly trained, as it has been described in more detail by José María de Murga y Mugártegui, a Spanish soldier, writer and traveler who published in 1868 *Recuerdos Marroquíes* ('Moroccan Memoirs'). Also, according to the same sources, at dawn vapour emerged from these pits, eventually revealing the location of these pits. It may not be a coincidence, in my opinion, that Caesar's gang went out in the fields to recover these deposits during the third *vigilia*, in modern terms equivalent to approximately 6 to 9 am:

> 'When Caesar got to know of this custom [grain stored in pits] through an informer, at the third watch of the night he sent two legions and some cavalry a distance of ten miles from his camp, and later saw them return to camp laden with a large quantity of corn.' (*African War* 65; Loeb 1955).[7]

However, it might also be the case that the 'informer' mentioned in this passage pointed out directly to the location of these caches. In fact, Hamdan Khodja, an Algerian dignitary and scholar who wrote *Le Miroir* (published and translated into French in 1833) when he became a victim of the French conquest, noted that the pits were so cleverly laid out that when an army invaded the land, they would march above them and the grain deposits would still go undetected, unless a traitor revealed their location. Therefore, these storage facilities could occasionally pose a serious threat to an army in need of procuring itself the harvest. Quintus Curtius Rufus, a Roman historian probably writing during the reign of the emperor Claudius or Vespasian, in his only surviving work, *Historiae Alexandri Magni*, highlights the practice of burying grain among the local communities as the main reason of Alexander's army starvation when marching through Thrace:

[7] 'Qua de re Caesar per indicem certior factus tertia vigilia legiones duas cum equitatu mittit a castris suis milia passuum X atque inde magno numero frumenti onustos recipit in castra.'

> ‘Alexander had crossed the Caucasus, as was said above, but had almost been reduced to starvation through lack of grain. […] For the barbarians had pits which they call *siri*, which they conceal so skillfully, that only those who dug them can find them; in these their crops were stored away. In lack of these supplies the soldiers lived on fish from the river and on herbs.’ (7.4,24).[8]

The earliest reference we have on subterranean storage is in a Greek inscription (Fig. 49) that refers to events that occurred during the Chremonidean War (267-261 BC) (*SEG* 24:154; Petrakos 1967; Heinen 1972: n. 152; Austin 1981: n. 50; Petrakos 1999). This is an honorific inscription in which a general is congratulated for letting the farmers hide their grain safely in what appear to be underground silos. Lines 8-10, where this is mentioned, are rather fragmentary and difficult to read, although the last restitution attempted, by B. Petrakos (1999), suggests to read it as τον σιτ[ικὸν καὶ] τοὺς ξυλίνους καρποὺς μέχρι τριάκοντα σταδίων συνεκόμισεν τοῦ [στ]ρατο[πέδου ὄν]τος [ἐν τῆι] χώραι καταστησάμενος κρυπτούς (lines 8-10). However, in an earlier restitution it was suggested that κρυπτούς referred to an elite armed group, whose main function was to cover those gathering the crops (Garlan 1974; Knoepfler 1993). This text can however be linked to the description of this storage device provided by Philo of Byzantium, a Greek mathematician and engineer, who wrote the *Mechanical Syntax* during the second half of the third century BC. He dedicated one chapter to provide some hints on how to endure a siege, and he considered in the first instance underground storage as the most effective way of storing the grain. He provided a detailed description of how to store grain underground to make it endure a siege period:

> ‘Pour conserver les orges et les froments, il faut les nettoyer le mieux possible, creuser des silos à ciel ouvert de la plus grande profondeur possible, enduire leur fond, sur quatre doigts d’épaisseur, d’argile bien pétrie et mélangée à de la paille hachée, et enduire leur pourtour d’amurque:

[8] ‘Alexander Caucasum quidem, ut supra dictum est, transierat, sed inopia frumenti quoque prope ad famen ventum erat. Suco ex sesima expresso haud secus quam oleo artus perunguebant, sed huius suci ducenis quadragenis denariis amphorae singulae, mellis denariis trecenis nonagenis, trecenis vini aestimabantur; tritici nihil aut admodum exiguum reperiebatur. Siros vocabant barbari *scrobes*, quos ita sollerter abscondunt, ut, nisi qui defoderunt, invenire non possint: in his conditae fruges erant. In quarum penuria milites fluviatili pisce et herbis sustinebantur.’

que l'on mette dans l'argile deux tiers de poudre et un tiers de sable. C'est là qu'il faut constituer des dépôts si l'on veut le meilleur séchage possible. Le blé une fois introduit, il faut y enfoncer en son milieu, jusqu'au col, un vase rempli du plus fort vinaigre possible; puis, on mettra au-dessus une couverture en forme de cône, faite avec des briques que l'on enduira d'argile: car, de cette manière, il est incorruptible.' (86.6-9 ; translation Yvon Garlan 1974).[9]

Next he recommends storing grain for one year:

'Il faut que ces sortes de construction aient également des entonnoirs au milieu de leur couverture, afin qu'à volonté on puisse jeter le blé et l'introduire sans peine dans le local inférieur en le faisant couler. Il convient que la cité entrepose du blé au moins pour un an; il faut l'acheter quand il est au meilleur prix et, l'année écoulée, utiliser l'ancien avant d'en entreposer du nouveau en prévision des sièges et des disettes éventualles.' (88.29; translation Yvon Garlan 1974).[10]

It is commonly accepted that Philo, in order to write his *Mechanical Syntax*, drew on Aeneas the Tactician's *On the Defense of Fortified Positions* (4th century BC), who noted the following: '…how to make useless the material voluntarily left in the country which might be useful to the foe, for example, that for building walls or huts, or any other enterprise; or, if it is not destroyed, how to conceal both food and drink, the products of the fields and other things in the country... They have been fully treated in the book on *Military Preparations*' (Loeb translation 1928).[11] If we take these three bits of evidence

[9] Philo's translation has only been published in French. Τὰς δὲ κριθὰς δεῖ και τοὺς πουροὺς <φυλάσσειν> ὡς βέλτιστα καθάραντας καὶ σιροὺς ὡς βαθυτάτους ὑπαιθρίους ὀρύξαντας καὶ τούτων τὸ ἔδαφος ἀλείψαντας ὅσον ἐπὶ τέσσαρας δακτύλους τὸ βάθος πηλῷ διειργασμένῳ καὶ ἠχυρωμένῳ καὶ κύκλῳ περιαλείψαντας ἀμόργῳ· ἔστω δὲ τὰ μὲν δύο μέρη χνοῦ, τὸ δὲ ἓν ἄμμου εἰς τὸν πηλὸν ἐμβεβλημένα. Ἐν τούτοις καλῶς ἔχει θησαυρίζειν, ἂν ὡς μάλιστα ξηρανθῶσιν. Ἐμβληθέντος δὲ τοῦ σίτου δεῖ ὄξους κεράμιον ὡς δριμυτάτου εἰς τὸν μέσον ἄχρι τοῦ τραχήλου κατορυξαι· καὶ περιβαλόντα ἄνωθεν <ἐν> κωνοειδεῖ σχήματι πλίνθους καταλεῖψαι πηλῷ· οὕτω γὰρ ἄσηπτος γίνεται.

[10] 'Δεῖ δὲ τὰ τοιαῦτα οἰκοδομήματα καὶ χώνας ἔχειν ἐν μέσαις ταῖς ὀροφαις, ἵνα, ἐὰν βουλώμεθα, βάλληται καὶ κατακομίζεται ῥᾳδίως καταρρέων ὁ σῖτος εἰς τὸ κάτω οἴκημα. Τίθεσθαι δὲ προσήκει μὴ ἔλαττον εἰς ἐνιαυτὸν τὸν σῖτον τὴν πόλιν· ἀγοράζειν δὲ δεῖ ὅταν εὐωνότατος ᾖ καὶ διελθόντος τοῦ χρόνου τὸν μὲν παλαιὸν ἀναλίσκειν, νέον δὲ ἄλλον τίθεσθαι πρὸς τὰς γινομένας πολιορκίας καὶ τὰς συμβαινούσας σιτοδείας.'

[11] 'τά τε καταλιμπανόμενα ἐν τῇ χώρᾳ ἑκουσίως, εἰς χρείαν δὲ φέροντα τοῖς ἐναντίοις, οἷον πρὸς τειχοποιίαν ἢ σκηνοποιίαν ἢ ἄλλην τινὰ πρᾶξιν ὡς δεῖ ἀχρεῖα ποιεῖν ἤ μὴ φθείροντα ἀφανίζειν τά τε βρωτὰ καὶ ποτὰ

together, it seems fairly straightforward to associate the concealment (ἀφανίζειν) of 'both food and drink, the products of the fields and other things in the country', with the excavation of underground pits, which Philo of Byzantium treated in more detail.

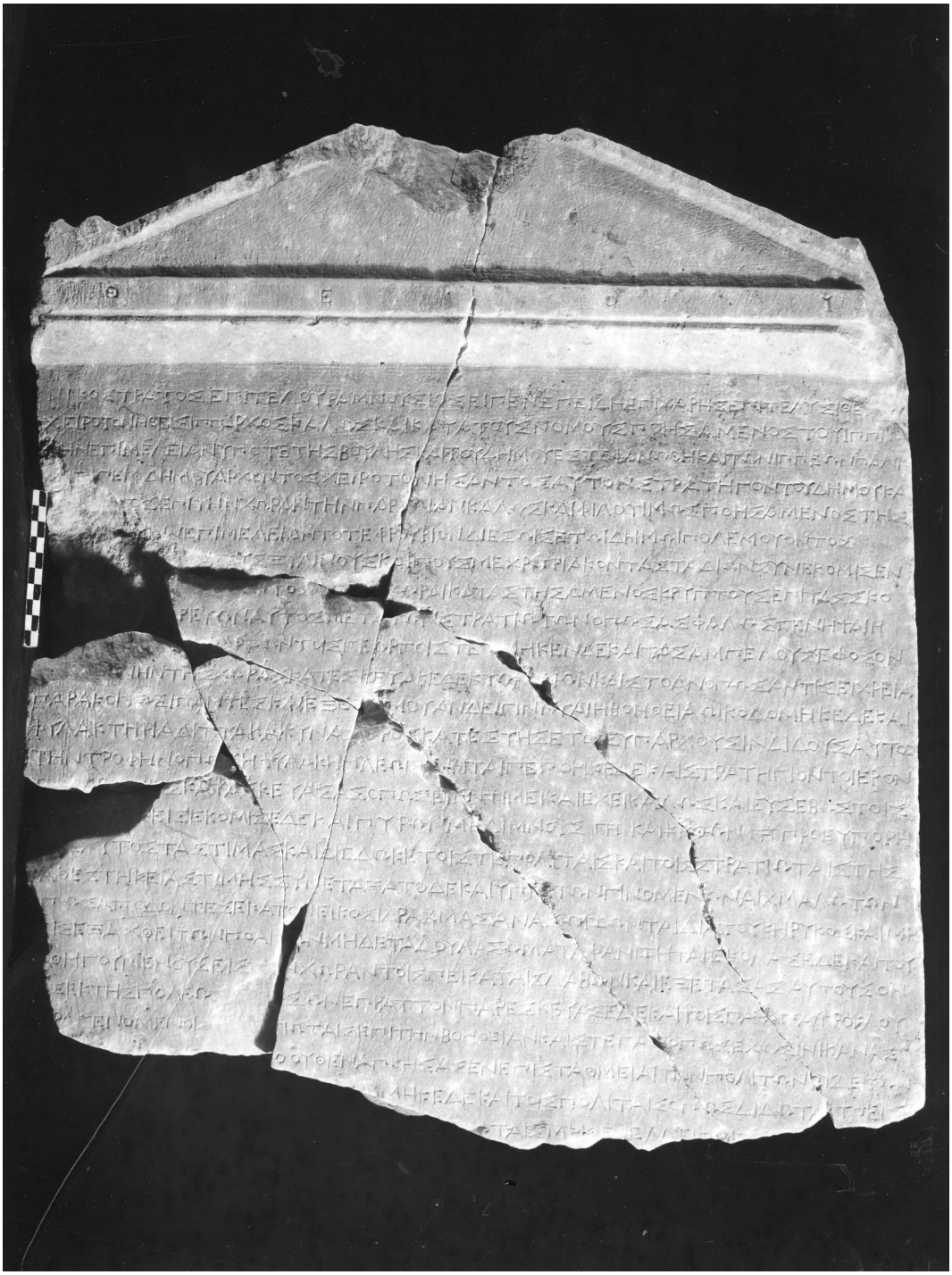

Figure 49. *An honorific decree of the Chremonidean War in Rhamnus (SEG 24: 154). Source: photographic archive of the Epigraphic Museum at Athens, EM 13463.*

καὶ τὰ κατ'ἀγροὺς ἔγκαρπα καὶ τὰ ἄλλα κατὰ τὴν χώραν, […] γέγραπται δὲ τελέως περὶ αὐτῶν ἐν τῇ Παρασκευαστικῇ βίβλῳ.' (8.3-5).

Later accounts seem to corroborate this. Tacitus offers a rather detailed account on the various customs of the German peoples in his work *Germania*. Among these, he indicated that it was common among the German peoples to store grain underground, in order to protect it from the winter cold and also to hide it away from the enemy in case of a hostile incursion. He goes on to note that 'what is hidden and buried is either not known to exist or eludes by the very fact that it must be sought' (16.3). It is of no coincidence that the only references to this custom we have in the Ancient World are found in Tacitus, who wrote the most detailed early description of the Germans, and the author of the African War, an account of the military campaigns of Julius Caesar in North Africa. When a pit cluster was intended as a tactic to make the grain surplus less accessible to either unfriendly invaders or stringent collectors, it falls into the category of what has been termed as 'everyday forms of peasant resistance', of which one of their essential characteristics is that this form of so-called resistance makes no headlines, as Scott (2008: 36) would put it:

> 'Their safety lies in their anonymity. It is also extremely rarely that officials of the state wish to publicize the insubordination. To do so would be to admit that their policy is unpopular, and, above all, to expose the tenuousness of their authority in the countryside'.

As I noted earlier, the security of these caches was not riskless. These same accounts describe how, to avoid being deprived of those things necessary for their very sustenance, the subject peoples and communities concealed their food supplies in order to mitigate these requisitions. As for the inhabitants, they were occasionally compelled to abandon their land temporarily, hoping to discover a portion of their hoards upon their return. In fact, the English traveler and scholar Henry Baker Tristram acknowledged that those 'obliged to retire before a superior force for a time, may hope that only a portion of their [grain] hoards will be discovered.' In saying this, Tristram acknowledged that those who temporarily abandoned their lands, were certain that part of their food reserves would be lost. For this reason, I think it is important to emphasize that in my study I focus on intentions rather than consequences, recognizing that many acts of resistance, as Scott would put it, 'may

fail to achieve their intended result'. Above all, their safety lies in their anonymity and the fact that they must be sought. This is evident as all the sources I have been commenting on basically devote to narrate how the army developed various stratagems to locate and dig up the food caches.

In the same vein, the Roman historian and archaeologist David J. Mattingly, in his book *Imperialism, Power, and Identity* (2010), refers to taxation and other exactions as 'the quiet violence of empires', due to the 'difficulty for archaeologists to find traces of this current battle, when so little of the written sources of the census and taxation systems survives'. But even so, the potential of archaeology as a source for the history of the colonized is immense; and continuously growing. A fine example of this progress is the book *The Archaeology of the Colonized*, published by Michael Given in 2004, where he deals with the competing economic forces of imperial exaction and individual strategies of evasion. According to Given, who focuses his work on farmsteads, illicit whisky stills, and labour camps, 'the increasing popularity of intensive survey and landscape archaeology in the past twenty years has begun to redress the balance.'

4.4. The quiet violence of Roman imperialism.

The impact of warfare in north-eastern Spain did not come to an end with the consolidation of Roman military control over the region. Other military operations in the Peninsula resulted in a constant military presence, which was frequently in need of procuring the harvest for itself. More recently, some scholars have adduced this circumstance to suggest that coercive methods and severe exactions were ordinarily employed during the 2nd and a part of the 1st centuries BC in Iberia. In this way, the conquered communities were still being considered under the *ius belli* premises (Ñaco 2003; Olesti 2006: 130-2). The direct control by Rome over the territory during this period consisted mainly on the maintenance of garrisons in some large urban centres (Fig. 50), and a limited number of *castella* and *praesidia* (Guitart 1994: 205; Olesti 2006; Cadiou 2008; López and Prevosti 2010), and where their control capacity was not sufficient, they resorted to local elites (Sanmartí 1998: 14-15; Campo 2000: 60; Moret 2016: 465). In relation to this circumstance, the capacity of Rome to carry out exactions,

at least in a regular way, on the conquered territory, has been questioned, at least while the campaigns of conquest lasted (Ñaco 2003: 262). In this way, a supposed collaboration between some Iberian elites (without greater precisions) is called for, as well as the installation of the Roman organization and administration on the territory, especially towards the end of the 2nd century BC.

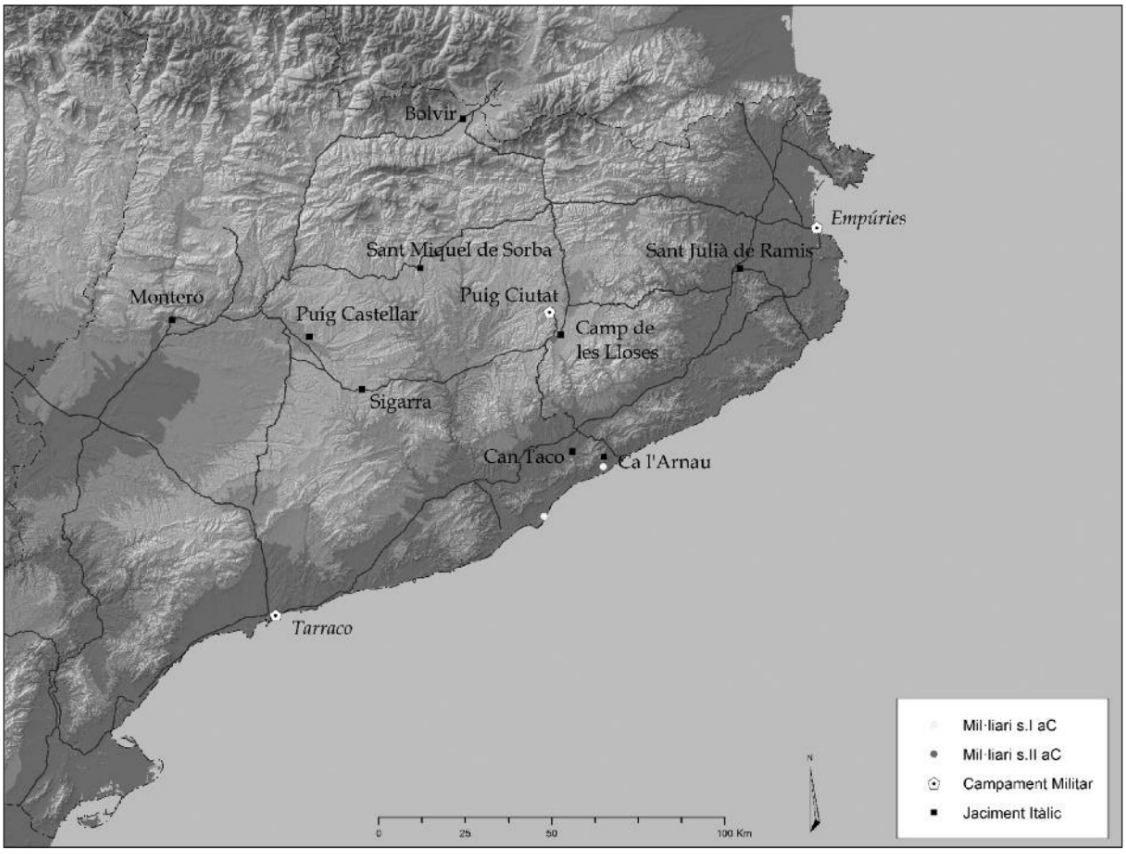

Figure 50. *Main sites categorized generally as 'Italic' (2nd and 1st century BC) (Carreras et al. 2014).*

A few literary instances demonstrate that Rome's food requisitioning policy was (occasionally) met with the utmost reluctance. These, however, are very rare in the literary record and very often refer to very exceptional events. For example, Cicero in his speech on behalf of Marcus Fonteius, who had been praetor of the Narbonensis province in the years 75 to 73 and accused of corrupt practices during his tenure, devotes much of his speech to defending what seems to have been Rome's common practices in the past, declaring that '... our opponents are the men who met these requisitions with the utmost reluctance'. Such demands are detailed soon after: '... he requisitioned large troops of cavalry to serve in the wars then being waged all over the world by the people of Rome,

large sums of money to provide these with pay, and enormous quantities of corn to enable us to carry on the war in Spain.' These practices are confirmed by Livy, who reported the dispatch of a Spanish embassy in 171 (how did they organize among themselves? Did they get in touch with each other?), in which they complained about oppressive requisitions carried out by the praetor Lucius Canuleius: 'Then were introduced to the senate ambassadors from the several states of both the Spains; these, after complaining of the avarice and pride of the Roman magistrates, fell on their knees, and implored the senate not to suffer them, who were their allies, to be more cruelly plundered and ill-treated than their enemies' (43.2).

The mass of the available archaeological evidence I have reviewed seems to point with distinct clarity that the 2nd and the beginning of the 1st century saw a massive increase in the number of storage pits. The association of the expansion in the use of storage pits with the emergence of a new sociopolitical order has been suggested before. However, this expansion has often been misinterpreted again as an intensification of agricultural activities: '... nous pensons que l'on peut assez raisonnablement envisager, en basin audois, la possibilité d'une incitation à une production excédentaire et d'une collecte de céréales, destinées au commerce ou aux besoins militaires, pendant les décennies qui ont précedé et suivi la création de la Province' (Rancoule 1992 : 79). This presumed intensification of agricultural activities, based on the existence of these pits, has also been tied to the introduction of taxation by Rome: '... el fet que les comunitats sotmeses a Roma paguessin un tribute anava acompanyat d'un increment de la producció agrícola, i això es constata amb el creixement espectacular del nombre de camps de sitges i per una major dispersió dels nuclis d'emmagatzematge.' (Ros 2003: 206; Gebellí 2007). This view seems to be influenced by the relationship established in 1980 by Keith Hopkins between the imposition of taxes paid in money and an increase in the volume of trade. Using Hopkins' own words, 'they were forced to produce, and to sell, more food in order to pay taxes.' All the same, this interpretation contradicts both the ethnohistoric and literary evidence.

A growing demand may lead to the intensification of agricultural production for exchange or tax purposes (Hopkins 1980; Morehart and De Lucia 2015: 26-28). Nonetheless, the way that these fluctuations are reflected in the archaeological record needs to be examined to a more thorough extent. Whilst a greater integration into a wider

market may lead to an increase in the need for short-term storage, it is always at the expense of long-term storage locales, including the storage in pits (e.g. Van der Veen 2007: 124).[12] Nonetheless, in order to speculate or benefit from price fluctuations, there must be a shared value system within an integrated economy, both of which are key determining factors that seemingly do not occur in our region being studied, at least during the period prior to the Roman conquest (Gorgues 2010: 232-35). It is therefore not only demonstrably incongruous to suppose that an increased capacity of long-term storage should be taken as an index of increasing demand in cereal crops, but also squarely inconsistent with the historical context. Considering these observations, the increasing storage capacity in pits (a.k.a. long-term storage) during the 2nd century BCE could be indicative of a decreased capacity to engage in grain trade in comparison with preceding centuries.

How to define the dispersion of rural settlements has been much debated (for a more detailed description of this discussion see Revilla 2004; 2010: 140-41). By some archaeologists, these have been categorized as Roman-Republican *villae* who emphasize an early process of Roman colonization in the Iberian Peninsula (Prevosti 1981a-b; 1984; 1991; 2005; Keay 1989; Járrega 2000), whilst others have highlighted the local component of these settlements and consider them to reflect the continuity of the pre-existing territorial organization (e.g. Olesti 1997). In addition to this, it has become increasingly clear that during the Middle Iberian period there was already a pattern of small and dispersed rural settlements (Sanmartí et al. 1984; Miret et al. 1986), which suggests that the alleged spread of small farmsteads during the 2nd century BCE did not involve a complete redefinition of the pre-existing settlement pattern. Both explanations attempt to define various cultural and economic phenomena as either all continuity or all change, in what clearly constitutes an offshoot of the same binary dilemma between native/Roman that in my opinion has constituted the principal drawback of previous studies, thus forcing a reconsideration of the rigid interpretations of the postconquest landscape in north-east Iberia that has typified scholarship on Iberian archaeology.

[12] In this regard, for instance, it is noted in a paper published at the *Revue Moderne* in 1868 how as soon as the French began to be interested in buying the grain produced by the Algerians, they stopped storing the grain in underground pits in order to sell it: 'Autrefois, l'exportation n'existait pas. Les blés du Tell algérien étaient consommés sur place, sauf une certaine quantité qu'achetaient les tribus de pasteurs du Sahara et les habitants sédentaires des oasis. L'excédant était alors mis en silos, et servait de réserve pour les mauvaises années. Mais depuis que le commerce français a donné, par l'exportation, de la valeur aux blés, les maîtres arabes les vendent, au lieu de les mettre en silos.'

The presence of an enemy force active in the countryside inevitably had a negative effect on agricultural life and inflicted great psychological damage upon the population who lived off the land, harassed by what Moret (2016: 466-67) has categorized as low intensity conflict. Even though these did not reach the level of an all-out war, for a little over a century a situation of endemic insecurity would have persisted.[13] In spite of this historical context, the dispersion of a whole series of rural settlements has been explained as representing a dense network of small rural settlements with the aim of producing more in order to satisfy Roman demands. Nonetheless, if the main goal of Rome was to enforce taxation, would the Roman tax-gatherers have encouraged or allowed such independent, self-focused economic behaviour? This question has not been brought up. The historical reality tells us precisely that the dispersion and exodus of the population in the context of exactions responds precisely to the attempt to evade them, and a dispersed settlement only hinders the exaction of impositions, be it in the form of tributes or manpower (i.e. Farriss 1985: 218 refers to the dispersion of the indigenous populations in remote farms and the frustration that it caused to the Spanish colonizers; in the same vein, Bandy and Janusek 2005 for Tiwanaku; Scott 2009 refers to other tactics of evasion in southeast Asia; and Thurston 2015: 138 gathers these instances in order to illustrate the example of Svealand). One should add to these historical references, the French experience in Algeria (see above), which clearly demonstrates that the dispersal of pit clusters was deemed as a strategy of evasion against the French administration.

It seems therefore rather unlikely that we should think of the pit clusters dispersed across the landscape as representing a dense network of small rural settlements. Thus, the occupation of lands considered marginal for the practice of agriculture, such as mountainous areas or near marshes (i.e. Can Pons, fig. 51, and Sant Mateu de Vall-Llobrega: Nolla et al., 2010: 79), could alternatively be explained as an attempt to move away from the Roman control centers, and not so much by an expansion of the cultivated area as a result of an overexploitation of the most fertile lands. Moreover, I would like to

[13] In this regard, Campo (2000) documents from the time of the Second Punic War and the subsequent years 35 coin hoards, of which 8 are located north of the Ebro river. According to the scholar, it would be indicative of the climate of instability that would be experienced in this area (in the same vein, see the study on the Ulterior province in Chaves 1996: 584-91). In fact, the monetary concealments in southern Gaul during this period were interpreted as a consequence of the conflicts generated by Rome's cadastral policy (Clavel-Lévêque, 1988).

highlight, among these supposed small farms, the site of La Muntanyeta (Viladamat, Girona), which was dated between the 2nd and 1st centuries BC (cf. Figure 52). This small settlement consists of a series of rooms built in wattle and daub on a stone base, which is associated with a reduced number of storage pits. The characteristic feature of this site, which is located on a small elevation 5km away from Emporion, is that during a short time of period counterfeit coins from *Untikesken* were minted (Casas et al. 2010). This, to some extent, contradicts the idea of peasants eager to produce more in order to meet Rome's military needs.

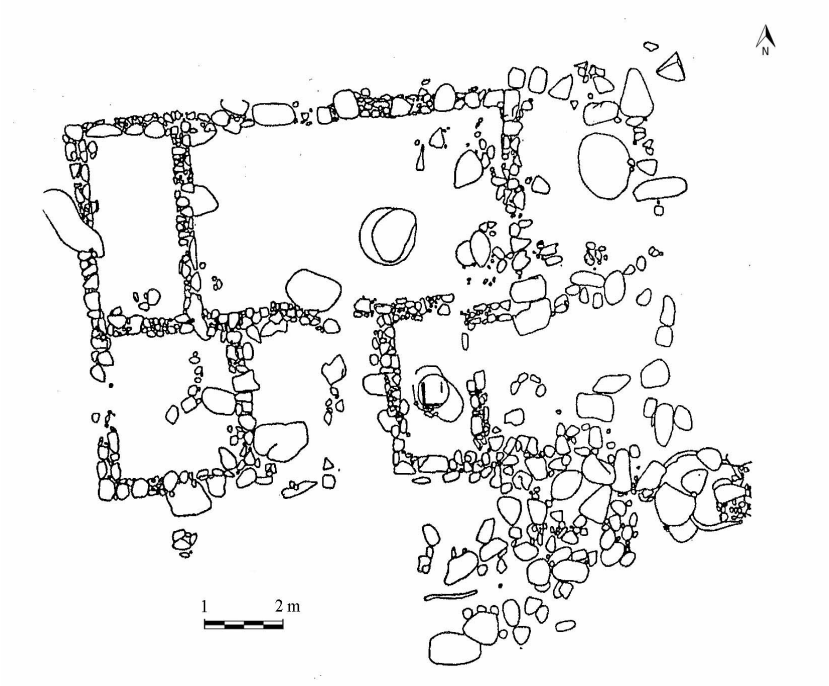

Figure 51. *Can Pons, Arbúcies site plan (adapted from Font et al. 1994: 141).*

Figura 52. *La Muntanyeta site plan, phase 2 (Casas et al. 2010: 148).*

Rather than an index of increasing trade or the intensification of agricultural activities, the spread of storage locales in NE Iberia could have originated because of the necessity of the local communities to secure their subsistence in defence of an invading force and surplus appropriation. The location of these storage locales on the plain, may be suggestive of the desire to disguise their location, as well as the separation of storage locales from habitation sites, which may also suggest an element of concealment. The same variety of contexts and interpretative complexity can be found in the pit clusters prior to the Roman conquest. In a society that has been described as consisting of endemic small-scale raiding and warfare (Sanmartí et al. 2006), these clusters probably represent attempts to store communal resources away from living areas to protect them from

possible raids, since often these were located on an elevation with difficult access, which made them easily defensible.[14]

As cached food becomes more abundant, it needs to be guarded from thieves and other potential threats (Cordell 1984: 188; Halperin 1994: 178), to the extent that defensiveness outweighed the appropriateness of locating the storage facilities next to the habitation areas. The building of a walled enclosure at Turó del Vent (Llinars del Vallès, Barcelona), inside which storage pits are notable, which according to its excavators was hurriedly built by the end of the third century BC in the context of the outbreak of the Second Punic War (López et al. 1982: 108-109).[15] For the clusters located on the open field, its protection was mainly based on a passive defensive method, which is that of easy dissimulation, in which one person acts as guardian of the group of pits (Rosenberger 1985: 252; Lefébure 1985: 217). Relatedly, it is interesting to point out that the small and dispersed pit clusters are absent within a radius of 11 km from Tarragona, and with a radius of between 4 and 10 km from *Emporion*, both of which have a very reduced number of pits. Other storage locations that tend to be reoccupied on multiple occasions, such as Camp del Pla de Sant Esteve and Camps de Mas Vidal, for instance, are as far as 20 km from *Emporion* (cf. Figure 53). From this viewpoint, a change in the place of storage and the increased seasonality in the location of pit clusters attested for the Late Iron Age could in turn be considered as an adaptation to this new scenario under Roman rule.

[14] Interestingly, in an article from 1972, Lluís Esteva noted the following: 'Edificado en tiempos inseguros, de frecuentes luchas tribales, como sus vecinos de 'El Fortim' (Sant Feliu de Guixols) y de 'Castell' (Palamós), esta en lugar de fácil defensa. Situado en un altozano, rodeado por acantilados por la mayor parte de su perímetro, tenía el resto defendido por murallas, de las cuales quedan restos visibles. Quien visite actualmente el poblado podrá ver la gran cisterna, abundantes restos de cerámica y especialmente numerosos silos, hoy medio cegados o cegados del todo (…). Aunque se han hecho en él pequeñas pero numerosas prospecciones clandestinas, el trabajo de excavación sistemática está aún por realizar.' The protection of production from external dangers of a human nature is an aspect that until today has rarely been taken into account when an attempt has been made to explain pit clusters documented in northeast Iberia. Thus, the only reference to security reasons is an unpublished archaeological report, presented by Francisco Cuesta in 1984, where he briefly documented this custom of concealing production, and associated it with the excavation of a small cluster in Sant Cugat del Vallès. In this way, Cuesta (1984: 32) noted briefly that 'defender y ocultar los excedentes en años de escasez e inseguridad ante posibles pillajes, guerras o robos; la proximidad a los campos de cultivo y el consiguiente ahorro de esfuerzo y energía; el control más o menos directo de la explotación; o cualquier vicisitud que sufran las reservas alimentarias pueden llegar a ser vitales para la subsistencia de la comunidad que los ha creado'.

[15] This has been attested also in Morocco, where several communal pit clusters were protected by a wall during periods of aggravated insecurity (Lefébure 1985: 217).

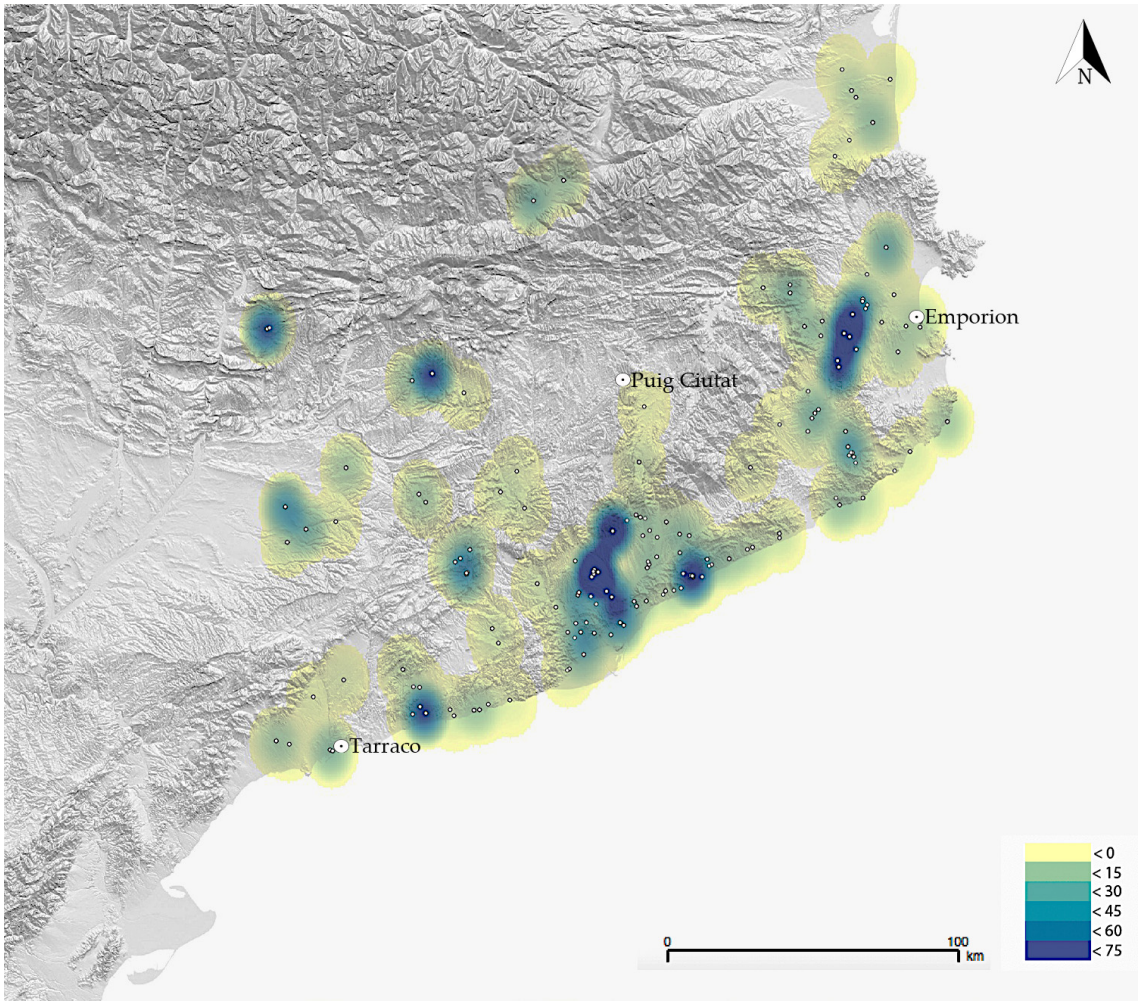

Figure 53. *Pits density with a dot for each cluster (late 3rd to 1st century BC), with sites categorized as Roman military camps.*

4.5. Change and adaptation.

The concept of 'romanization' has been very recurrent in order to categorize the 2nd and 1st centuries BC, as we can see in its occurrence in the titles of scholarly papers in the region (i.e. Aquilué et al. 1984; Miret et al. 1986; Barti and Plana 1989; Garcés 1990; Pujol and García 1994; Bacaria 1998; Gurt et al. 1998; Molist 1998; Bermúdez 2000; Curià and Picazo 2000; Olesti 2000; Buxó 2001; Tremoleda and Castanyer 2007; Sanmartí 2009a; Nolla et al. 2010; Llinàs et al. 2012), and it has also been the main theme of conferences such as *Times of Changes in the Beginning of the Romanization*, or *Romanització dels Pirineus* (Padró and De la Vega 1990). The theoretical framework of

this paradigm shares many of the problems related to concepts such as acculturation and the world-systems theory (cf. Chapter 2), especially in all aspects concerning agency (the Iberians are 'passive' receptors). Romanization, as Mattingly (2011: 207) describes it, is a classic example of the tendency to simplify complex realities through concepts that exalt and exaggerate the level of homogeneity, in which indigenous communities aspire to 'emulate' what is given to them. This produces a dualistic vision of colonial contact (a clash between two cultural blocks) and the unidirectionality of the processes of change in the societies under study, at all times oriented towards a level of 'civilization' comparable to the Greek or Roman (Dietler 2010: 335), thus becoming terms such as hellenization or romanization some sort of abbreviated form of the passive adoption by a local community of a Greek or Roman culture (van Dommelen 1998: 21-22). However, these interpretative proposals propose a paradigm that since the 1990s has been gradually discarded, also to some extent as a result of the rejection of other theoretical frameworks such as that of acculturation.

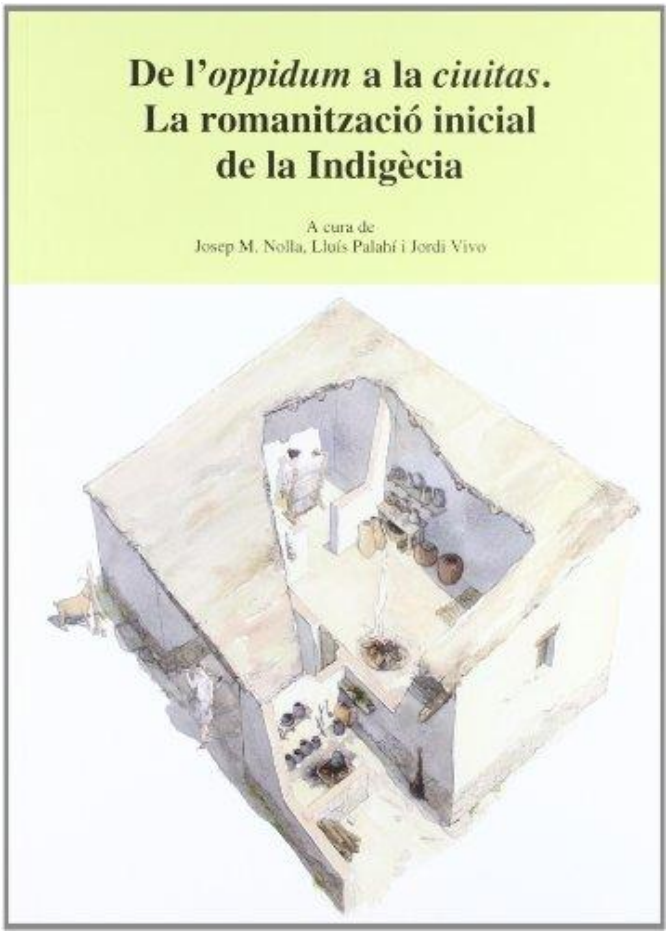

Figura 54. *Book cover of a recent monograph on the 'romanization' of the so-called Indigetia, by J. M. Nolla, Ll. Palahí and J. Vivo.*

Despite recent challenges to the acculturation paradigm and the acknowledgement of colonial entanglement and negotiation, the historical vision tends towards a structural reductionism, in which the catalyst for change lies exclusively in the macrostructures of economic power and the mechanistic articulation of modes of production (Pitts and Versluys 2015), as well as a teleological concept of history that places economic systems outside their cultural context and conflates modernity/transformation with development. This is in part due to a certain absence within postcolonial theory itself and its minimal engagement with economic analysis (Kayatekin 2009).[16] This relative absence has in turn affected archaeological approaches, and as a result very few efforts have been proposed for a postcolonial analysis with an explicit focus on political economy. On this reasoning, the continued use of storage pits throughout the Late Iron Age, between the 3rd and 1st centuries BCE, has commonly been regarded by archaeologists as the 'lingering on' of a local cultural trait (Pérez 2000: 49), above all because this storage method was largely unknown in Italy (cf. Columella, *Rust*. 1.6.10; Peña 2016: 296). Therefore, this substitution has traditionally been styled as a technical upgrading or replacement from a more 'primitive' method of storage, originally suggested by J. Jannoray in his explanation of the urban development of Ensérune (Nissan-lez-Ensérune, western Languedoc) (Jannoray 1955: 91; Schwaller 1994: 34).[17]

However, a predominantly holistic perspective of culture, in combination with a poorly developed notion of acculturation, partly due to an excessively dichotomizing view of colonial situations, make these views considerably slanted and untrustworthy (van Oyen 2018 has recently offered a more nuanced view on the substitution of storage pits by dolia). Consequently, even though the use of pits declined substantially from the middle of the 1st century BC onwards, the persistence of this method of storage throughout the 1st and 2nd centuries (Salido 2009: 107-108; 2011: 131-32) and even the promotion and adoption of these depots by Roman settlers (Bermúdez 2010: 44), has also

[16] For this purpose, I draw inspiration from the approach employed by Zein-Elabdin (2009), in which she examines economic patterns in modern Africa by incorporating the postcolonial notion of hybridity, thus arguing against dualisms of modern/traditional or developed/underdeveloped. These are based on the status of culture within economic approaches, which she calls a double erasure of culture: the conflation of modernity with development that sees market rationality and technology as a supracultural factor, and an insistence on the possibility of understanding economic systems outside the cultural context.

[17] The same explanation prevails on the Spanish side of the Pyrenees: 'Ja no n'hi havia prou amb aquells arcaics sistemes d'emmagatzemar la collita en sitges excavades sota terra' (Nolla et al. 2010: 100).

been emphasized in recent scholarship. Accordingly, it was suggested that the introduction of the *dolium*, a large earthenware vase sunken in the ground (Fig. 55), which became more apparent in the archaeological record in north-eastern Iberia during the 1st century BCE, proceeded hand in hand with the progressive decline of the use of pits as the preferred storage method (Ribas 1961: 24; 1964: 70; Aquilué et al. 1984: 45; Nolla and Casas 1984: 25; Garcia 1987: 92-93; Burch 1996: 213-14). More recently, however, a new approach is emerging that tries to understand and reflect the complexities of society and tries to move away from a purely holistic view of cultural change (i.e. Belarte et al. 2010; Sinner 2015).

Figure 55. Dolium *from the oppidum of Ensérune, Nissan-lez-Ensérune.*

Throughout the first century BCE the use of pits declined progressively. In turn, during this same period the use of *dolia* becomes more apparent in the archaeological record, normally understood as an element of the so-called "Romanization" of the region. Generally speaking, a *dolium* could be described as a large earthenware vase or container, sunken in the ground, used to store both liquids (especially wine and olive oil) and solid foods. Occasionally it could be used for the transportation of foodstuffs. Some scholars have linked the relatively extended use of *dolia* with a 'general change from a cereal-based economy to a viticulture-based economy, [and] the systematic adoption of technologies related to the elaboration of wine and in the appearance of artisanal activity oriented towards the amphora manufacturing' (Revilla 2010). Large concentrations of *dolia* such as l'Olivet d'en Pujol (Viladamat; Fig. 56), however, have put into question this explanation. L'Olivet d'en Pujol was a small enclosed area built towards the end of the 2nd century BCE that contained up to 75 *dolia* in total. This enclosure was attached to a small cabin. In my opinion, the 'Roman' *dolium* should not be regarded as a mere substitution of the "indigenous" pit, as it has been suggested.

The differences between the dolium and the storage pit are important enough to analyse this considering the specific containers and their main features. Firstly, the *dolium* allows the measurement of produce in standard units of volume and the reckoning of strict equivalencies with more accuracy (Nolla et al. 2010: 100-101), since all containers tend to be the same size. This feature would undoubtedly facilitate things such as trade or taxation and the fact that many of these containers are frequently stamped with symbols or numbers, might be related with this feature. This might also be an indicator of centralized production. Contrarily to this, storage pits vary in size and shape, and their contents cannot be assessed unless you have been in charge of the filling or the excavation of the pit. Besides, it was not rare, as some ethnographic accounts indicate, to store different sorts of food in a single pit, separating them in layers using wooden planks. For this reason, neither the quantity nor the type of stores is obvious.

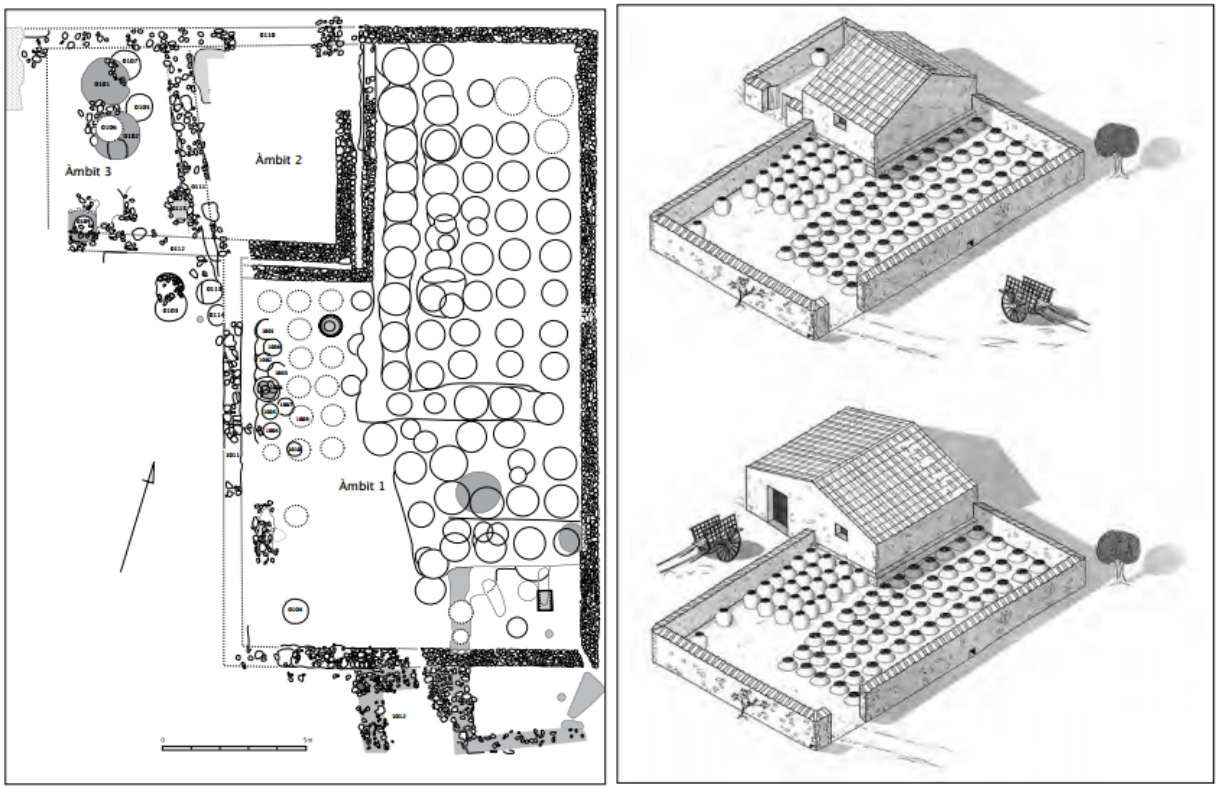

Figure 56. *Plan site and hypothetical restitution of l'Olivet d'en Pujol (Viladamat, Alt Empordà) (Casas et al. 2013).*

All things considered, the extensive use of *dolia* starting from the end of the 2nd century BCE onwards at the expense of the use of silos would undoubtedly facilitate certain types of control over production, for instance in the collection of taxes, among others. In fact, several scholars have pointed out how storerooms played a key role in the accounting system (cf. Topic 2016: 147 for an up-to-date list of references). Up to that point, the conquered communities were still being considered under the *ius belli* premises, and therefore subject to more or less frequent exactions.[18] Therefore, rather than being an identity marker of Roman technological prowess, as it has been set out, state regulation or need could offer a better explanation to the extended use of *dolia*, at least for the Early Roman transition period. In order to make such assertions, of course, one is compelled to analyze storage *per se*, rather than storage as an indicator of something else. Secondly, dolia are rarely completely sunk into the ground, and their

[18] It was not until the late 2nd century BCE that regular taxation was introduced in Roman Spain, and this has been recently suggested, contrary to most scholars who tended to assume that taxation would have been introduce from the very beginning of the Roman conquest of the region (Ñaco 2006).

mouths are always visible. The fact that these are normally found in clearly delimited areas, also makes their location more obvious. The location of pits, conversely, even when they are found in large groups, can be easily disguised, since as we have already seen concealment is one of their major advantages, especially among semi-nomadic and nomadic peoples. These considerations may contribute to a better understanding of the formation of some notably large concentrations during the period prior to the Roman conquest (ca. 550-200 BC), up on the recognition that the reasons of their abandonment during the Late Iberian period may help us understand their *raison d'être*.

4.6. Concluding remarks.

Empires exploit resources and people. During the immediate post-conquest phase in a given region, it is generally accepted that coercive methods and severe exactions were ordinarily employed. For instance, in North Africa under the Ottoman and French occupation disproportionate requisitions constituted one of the greatest threats for grain stocks, essential for the survival of the subject communities. This practice was referred by some European observers as *manger une tribu* (literally 'to swallow up' a tribe). These same accounts describe how, to avoid being deprived of those things necessary for their very sustenance, the subject peoples and communities concealed their food supplies in order to mitigate these requisitions. As for the inhabitants, they were occasionally compelled to temporarily abandon their land, hoping to discover a portion of their hoards upon their return. In fact, one should add that this activity is also attested among nomadic communities across the world, since it allows them to cover some specific storage needs when they are absent for more or less an extended period of time.

In both cases, the concealment function of subterranean storage is associated to the threat of theft and rapine, especially when a community is obliged to abandon their village to escape from conflictive encounters. In this regard, we need not only to analyse storage in purely functional terms, but also to consider the social and moral aspects associated with it. Resultantly, the consolidation of Roman control in the region during the 1st century BC, may have resulted in the gradual abandonment of storage pit clusters. These pit clusters reappear in Iberia during Late Antiquity and are found in Iberia

especially during the Middle Ages. Alternatively, one could effectively draw an association between the progressive abandonment of pit clusters in Iberia and the consolidation of the *Pax Romana*.