



Time of changes. In the beginning of the Romanization

**STUDIES ON THE
RURAL WORLD IN
THE ROMAN PERIOD**

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Rural settlement in the central littoral area and the interior regions of Catalonia in the 1st and 2nd centuries BC

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ABSTRACT

Despite their importance for understanding the Romanization process in the north-east of the Iberian Peninsula, dispersed rural settlements have attracted little attention and, until recently, have been analyzed incorrectly. Between the 2nd and the 1st century B.C. settlements on the central coast and in the interior of Catalonia, like in other areas of the region, underwent a radical reorganization. These changes are evident in the distribution, density and functions of the settlements, although their rhythm and importance differ in each area. This process assumes the simultaneous disappearance of a number of different types of settlements and the creation of a new settlement hierarchy, especially characterized by the increase in the number of small dispersed agricultural villages. This situation must be viewed in relation to the overall gradual changes resulting from the inclusion of the territory in the Roman provincial system and the development of new socioeconomic structures. This process of change can be most clearly seen on the coast closest to *Tarraco*, which was becoming one of the centres of republican *Hispania*.

KEY WORDS: Rural settlement, agriculture, conquest, Romanization

RESUMEN

A pesar de su importancia para comprender el proceso de romanización del noreste de la Península Ibérica, el hábitat rural disperso ha sido objeto de escasa atención y ha sido analizado de forma incorrecta hasta época reciente. Entre los siglos II y I a.C., el hábitat del litoral central y del interior de Cataluña, al igual que en otras zonas de la región, experimentó una reorganización radical. Estos cambios son perceptibles en la distribución, la densidad y las funciones de los establecimientos, aunque su ritmo y entidad son diferentes en cada zona. Este proceso supuso, de forma simultánea, la desaparición de numerosos establecimientos de tipología muy diferente, y la creación de una nueva jerarquía del hábitat, caracterizada, en especial, por la multiplicación de pequeños núcleos agrícolas dispersos. Esta situación debe ponerse en relación con los cambios globales y graduales generados por la inserción del territorio en el sistema provincial romano y el desarrollo de nuevas estructuras socioeconómicas. Este proceso de transformación se aprecia con claridad en el espacio litoral más cercano a Tarraco, que se configura como uno de los centros de la Hispania republicana.

PALABRAS CLAVE: Hábitat rural, agricultura, conquista, romanización

Despite its importance in understanding the Romanization process in the North-East of the Iberian Peninsula between the 1st and 2nd century BC, dispersed rural habitats have been the object of very little attention until quite recently. The first references to the appearance of new kinds of habitats in this period, and their association to a global change in the forms of territorial organization and exploitation only appear in some studies, beginning half-way into the 20th century, dedicated to very specific regions of the littoral and pre-littoral area of Barcelona and Tarragona. Most of these works combined very pronounced methodological and documentary limitations with analytical and theoretical approaches that favoured political and cultural factors in their explanation of historical processes. These approaches turned archaeological records into a mere reflection of the actions of such factors.

This situation has conditioned the evaluation of the features, chronology and meaning of habitats in the end of the Iberian period, and ultimately, the comprehension of the Romanisation process the region undertook. The best examples of this are the studies of P. Giró or J. Estrada on the settlement of some of the Barcelona's territories (Garraf, Alt Penedès, Vallès Oriental and Vallès Occidental) and the north of Tarragona (Baix Penedès) (Giró 1960-1961; Estrada 1969; a great amount of this documentation is collected in Gorges 1979). The catalogues compiled by these scholars have certain value, as they gather a large measure of information on all kinds of sites, many of which have been destroyed in last past few decades, without appropriate research having been conducted. The absence of excavations, nevertheless, and specially, the lack of a rigorous methodology, have prevented an adequate analysis and definition of these locations (a revision of this evidence, to which the new data obtained in the systematic prospection of certain territories must be added, can be found in: Miret, Sanmartí, Santacana 1987; Miret, Sanmartí, Santacana 1991; Cebrià, Ribé, Sanabre 1991; Miret 2003, with previous bibliography; for the Tarragona region: Carreté, Keay, Millet 1995; Arrayás 2005, 148 and subseq., 164).

Many of them were identified with the inaccurate term of Roman-Republican *villae*, a designation proposed in relation to the hypothesis stating the existence of an ancient and systematic italic colonization process in some regions of Catalonia. This term, nevertheless, lacked sufficient backing in the archaeological documentation available at the time (locations taken up by Imperial-dated *villae* where black varnish ceramic were gathered on surface level, for instance.) This superficial classification has prevented, for a long time, the accurate definition of the transformation of the rural habitat between the Republican and Imperial eras, as well as of the socioeconomic and cultural factors associated to these changes. The consequences can be observed in the debate around which rural settlements can be considered *villae* (a definition that, for a long time, has been limited to strictly material and typological criteria) and the time at which what could be called the villa system was established in this region of the Iberian Peninsula (Prevosti, 1981 a-b; Prevosti, 1991; Prevosti, 1995-96; Prevosti, 2005; Miret, Sanmartí, Santacana, 1987; Miret, Sanmartí, Santacana, 1991; Miret, Revilla 1995; Olesti, 1995; Olesti, 1997; Járrega, 2000; Revilla, 2004; Plana, Revilla 2009).

Similarly, P. Giró or J. Estrada's studies draw on the perspective of considering the disperse habitat of previous centuries (from V to III century BC) to be a marginal aspect in regard to a settling concentrated in *oppida*. Consequently, the locations identified (generally, silo grounds) weren't analyzed as elements belonging to a territorial occupation system through which it was possible to rebuild the indigenous communities' social and economic organization, but rather as exceptions or anomalies (cf. Sanmartí, 2004; Sanmartí 2009).

Ultimately, the fundamental problem was that the interpretative approach used by these and other scholars depended entirely on the concept of a cultural change inspired by comparison with modern colonial situations, in which political factors were given primal importance. P. Giró, for instance, considered that the rural habitat which he identified in the province of Barcelona was the result of a Roman military and administrative strategy conscious and programmatically applied immediately after its conquest, with the objective of altering the indigenous society's structure. This strategy apparently aimed to achieve submission by means a systematic dispersion of the population. This perspective, which implicitly accepted the idea of indigenous passiveness and the positive value of Roman dominion, lead him to separate the Full Iberian Period and the 1st - 2nd centuries as radically different situations (Giró 1960-1961, 160).

The knowledge on the interior territories of the province of Barcelona is even more limited (Anoia, Bages, Osona, etc.). It hasn't been until recently that a certain amount of monographic studies on sites (most of them partially excavated) have been published, and particularly, a few archaeological region-wide inventories, which have allowed to develop an overview on settling organization and evolution during the Roman and Iberian periods (the only systematic inventory is from the Bages region: Daura, Galobart, Piñero 1995; a summary of the central area of Catalonia in: Enrich, Enrich, Sales 2008). These publications, however, rely on incomplete and qualitatively uneven information which mostly proceeds from ancient excavations, carried out without applying an adequate methodology, or from urgent interventions. Furthermore, most of these initiatives have centred on settlements, leaving out other types of evidence, which are more difficult to identify and excavate. These factors have conditioned the possibilities of correctly analyzing the characteristics of rural habitats and means of territorial organization. Similarly, the state of the documentations has eased the implicit acceptance of the thesis that the interior regions constituted a homogenous space characterized by a relatively marginal socioeconomic and cultural situation and had a slower development than the coastal areas. This perspective needs to be revised due to the emergence of new evidence in the last few decades; in particulars, thanks to the identification of settlements that can be defined as flatland agglomerations, which take on a special role as artisan centres, and perhaps also of trade. A good example is the "Camp de les Lloses", in Tona (Molas *et al.* 2000). These settlements were integrated into a new, organized territorial structure in the last decades of the 2nd century and beginning of the 1st century BC. This structure involved, among other things, the constitution of a road network that ensured the communications between the littoral and interior regions, in which these settlements were perfectly integrated (Olesti 2000).

Drawing on a different perspective and type of evidence, Iberian layers and deposits found in locations occupied at a later time in the form of *villae*, other investigators also addressed the issue of the dispersed Iberian habitat. In a very brief work, J. de C. Serra-Rafols defined their nature perfectly by considering them as agricultural settlements that didn't follow the generally accepted pattern of habitats concentrated in fortified settlements, located on elevated positions. This author also proposed the fundamental issue of the chronology of the phenomenon by trying to establish whether this kind of habitat was prior to the Roman conquest, or subsequent to it. This uncertainty implied the implicit accepting of Roman leadership in the triggering of a process of change (Serra-Rafols 1962, 260). Subsequently, numerous investigators have confirmed the presence of layers and archaeological material, dating from the late Republican period, in locations later occupied by *villae* and other kinds of imperial era rural settlements, and have correctly interpreted them as

proof of a stable habitat (for instance Prevosti 1981a and 1981b; Palet 1997, 165 and subseq.; Solias 1998; Solias 2003; Menéndez, Solias 1996-1997; recent syntheses from certain territories can also be quoted: Prevosti, 2008; Enrich, Enrich, Sales, 2008). In general terms, however, the destruction of many of these sites and the lack of rigorous and comprehensive excavations of other sites has generated problems in the analysis and interpretation of their nature. These problems are noticeable in the mix-ups found in the terminology that is used. The limited, and in some cases careless, publication of excavation data has contributed to these problems. In fact, publications limited to a condensed description of the results, lacking planimetry, a stratigraphic sequence or good photographs are not rare.

The precedents: settlement of the Early and Middle Iberian Era

The discoveries made in the last few years have modified the perception of the occupation and exploitation of the territory in Catalonia during the Middle Iberian Period (400-200 BC). Recent studies have allowed evaluating the nature and function of dispersed habitats, giving special attention to the typology and distribution of the settlements. In the same sense, it's possible to propose a hierarchy of dispersed habitats based on spatial, morphological and function factors (Sanmartí 2004; Sanmartí 2009, 24-25; central littoral area of the region: Asensio *et al.* 1998). This hierarchy was lead by great, fortified *oppida*, followed by medium or small agglomerations, also fortified. At a lower level, we find the settlements directly related to the agricultural exploitation of the territory, which were frequently associated with the presence of storage facilities (silos). In this category, we can distinguish settlement with very diverse characteristics, internal organization and proportions (Plana, Revilla 2009).

Firstly, isolated farms, with sizes ranging from 200 to 500 m² of surface, in which the same building served the purposes of residency, agricultural and artisanal production and storage. Some of these building present a compact structure, such as Can Bonells, a settlement located in the central area of Catalonia (Molas, Sánchez 1994, 68-70). This settlement was made up of a dozen different spaces with distinct functions, including a stable. Other apparently more numerous building were organized around an uncovered central area. In the central and southern littoral are the farms of Fondo del Roig (Ferrer *et al.* 2003) can be cited, and possibly, the settlements of Corral d'en Guardiola (Morer, Rigo 1998, 153; Morer, Rigo 2003a, 318) and Can Calvet (Gili, Rigo 1992). These locations were occupied from the 5th or 4th century until the 2nd century BC.

A second category would include the more modest, isolated settlements, whose function was apparently different. These were small cabins made up of 1, 2 or 3 rooms, associated to a reduced amount of silos. The characteristics of these locations don't generally provide the possibility of determining whether their occupation was permanent or seasonal. Various practically unknown archaeological sites could be included in this category, as they've been destroyed by later occupations (Iberian or Roman), by erosion or as the result of the great urban ventures of the past few decades: the first phases of l'Argilera settlement, in Calafell (Sanmartí, Santacana, Serra 1982) ; Albornar (Benet *et al.* 1992; Macias, Remolà 1992) ; Cal Ramon, in Santpedor; La Roixela (Daura, Galobart, Piñero 1995, 125-126 ; Enrich, Enrich, Sales, 2008, 211, 219) ; or Camí Vell de Llor (Molist 1998). This category is the most difficult to define. In spite of that, the great number of small, isolated settlements indicates both the intense density of rural habitats, as well as the agricultural development during the Middle Iberian period.

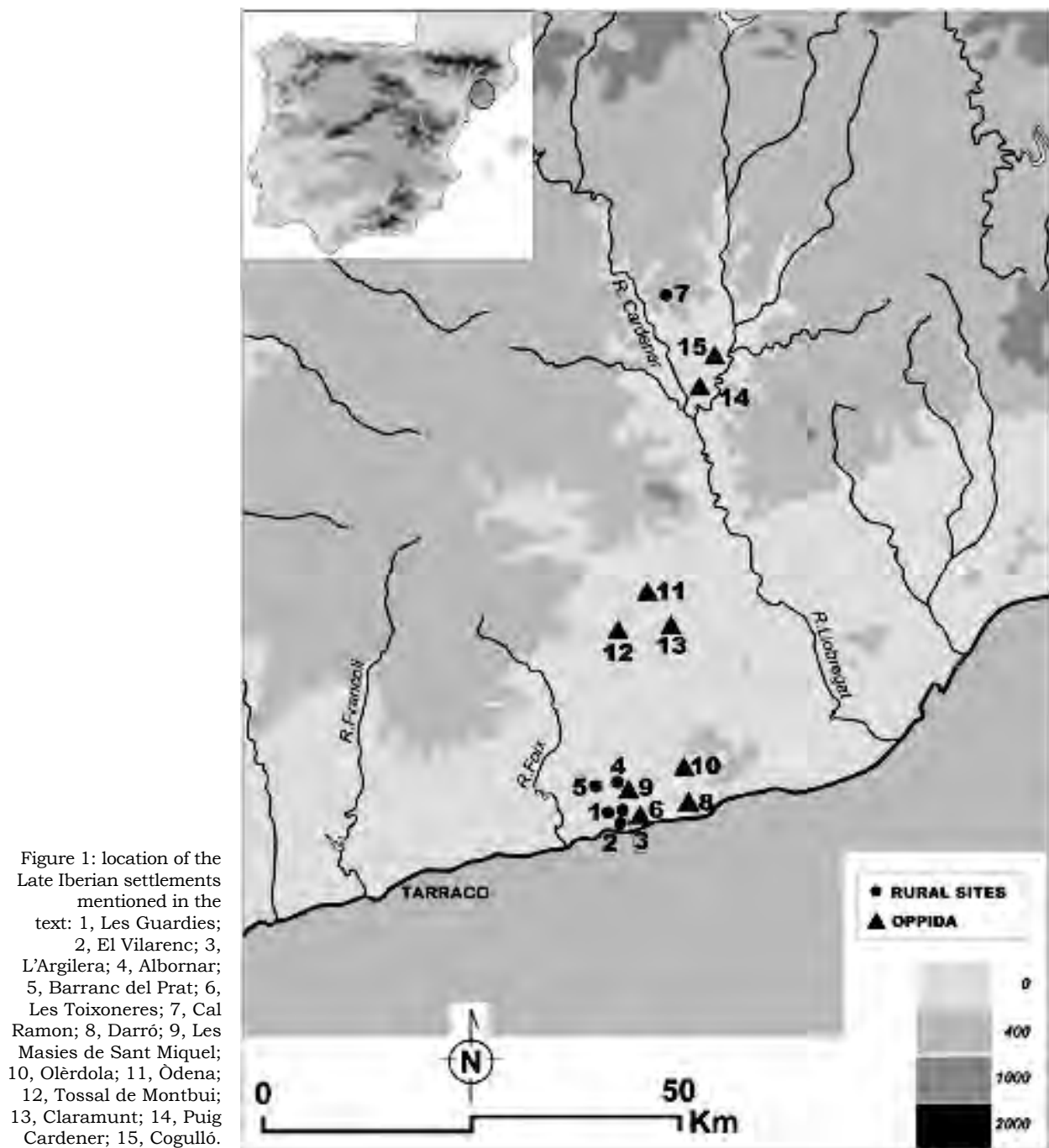
Finally, some settlements could be interpreted to be small agglomerations,

similar to villages. The few places that are known are made up of groups of a small number of houses (modestly sized, with a very simple internal organization) in a disorderly manner, generally with no contact amongst them. None of these places indicate a special concern for their defensive conditions, as they aren't located on elevated areas, nor have any fortifications been located. The first occupational phases of Les Guardies (Morer, Rigo 2003b) or de Can Xercavins (Asensio *et al.* 2001, 244-245) can be included in this category. A few silos and indications of specialized metallurgic activity of certain importance have been identified at the first of these locations. This fact reveals that this settlement served a double function regarding the population of nearby territories: storing agricultural surplus (under the control of an indigenous aristocracy that resided in nearby fortified nucleuses) and supplying the population with tools (Morer, Rigo 2003b, 337).

Settlement in the Late Iberian Era: typologies and distribution

Between the 2nd and 1st century BC the central littoral settlement in Catalonia, just as in other areas of this region, experimented a radical reorganization. These changes can be perceived in the distribution, density and functions of the settlements, although the rhythm and entity are different in each area. This process simultaneously entailed the disappearance of numerous settlements, of assorted typologies, and the creation of a new habitat hierarchy. The importance and significance of this change can be observed, in particular, in the destruction of a series of very specific agglomerations dating from the beginning of the 2nd century. This is the case of the citadel of les Toixoneres (Calafell). It was a small enclave (around half an Ha), but its location, material culture and mighty fortifications suggest that it was a key nucleus of the political and socioeconomic control system of an important part of the Penedès littoral between the 5th and 3rd centuries BC. Its function was most likely related to the presence of an aristocratic group (Sanmartí, Santacana 1992; Asensio, Morer, Pou 2003, 275).

At the same time, other *oppida* remained occupied. This is the case of Darró, in Vilanova i la Geltrú, which appears to take on a new position as a population and services centre, as proven by the development of an entirely regular urban structure and the rebuilding of its domestic architecture based on more complex constructive lines (López Mullor *et al.* 1992). Another important settlement that remained occupied is Masies de Sant Miquel (Banyeres del Penedès). Recent excavations have proven the existence of a large settlement, around 4 Ha in size, protected by a wall and with a very complex spatial organization. A sequence of occupation from between the 5th and 3rd centuries BC has been identified in this location, but there is evidence of continuity of the habitat, at least in some sectors, until the first half/mid 2nd century BC (Cela, Adserias, Revilla 2003). The same continuity is observed in Olèrdola, an *oppidum* which already had a well-defined urban structure in the 4th century BC (with evidence tracing back to the 7th and 6th centuries). The settlement remained occupied during the 2nd and 1st centuries BC, when new domestic structures were built that corresponded entirely to the indigenous lifestyles. Towards the year 100 BC a fortification was built (in which a wall and wall, a tower and a large reservoir tank stand out) that appears to be associated to the presence of a Roman military deployment; yet this fact doesn't entail the end of the settlement, a part of which remained occupied until the end of the Republican period (Bosch *et al.* 2003; Molist *et al.* 2009, 602-605). As in the case of Darró, Masias de de Sant Miquel and Olèrdola, numerous *oppida* on the Catalanian littoral were able to continue operating as population centres and as locations from where the administration and



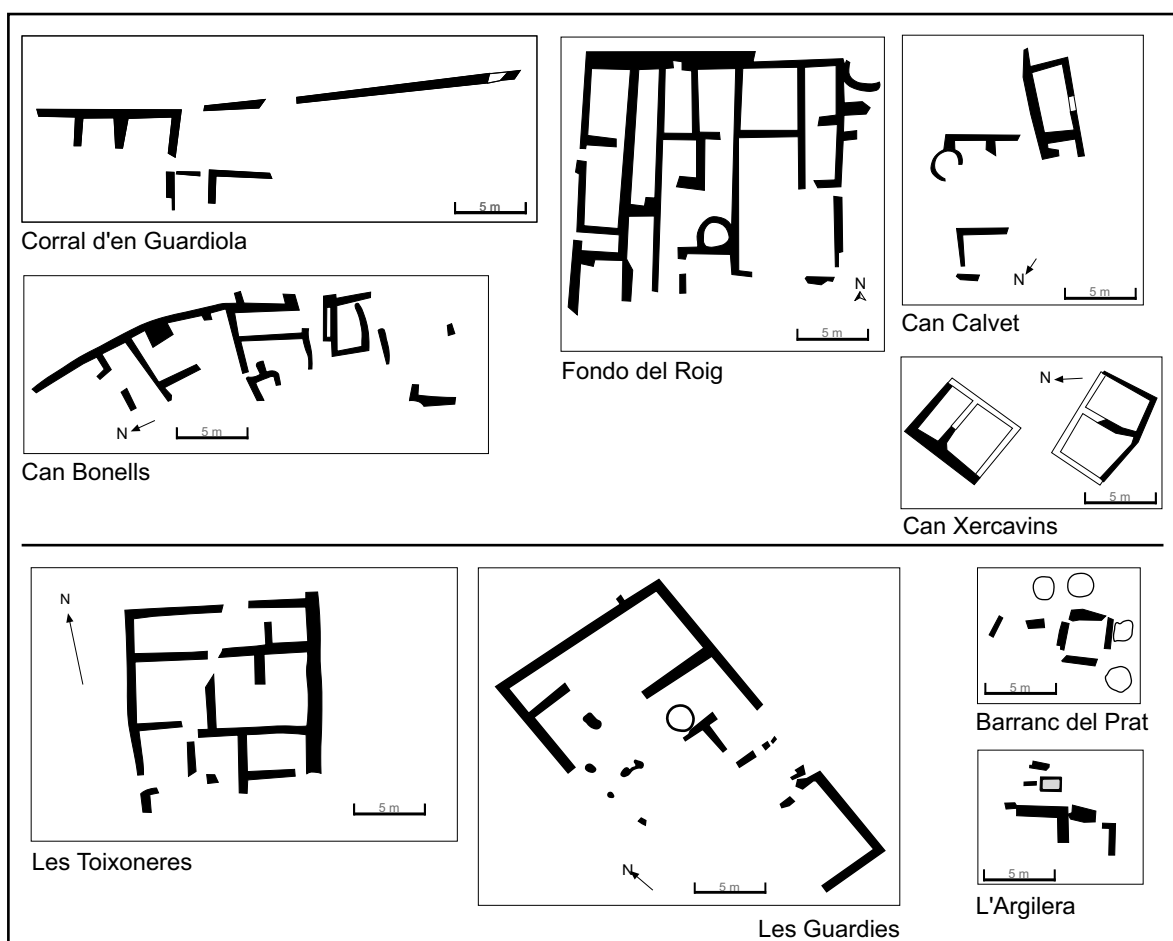
exploitation of the neighbouring territory was organized, although now, under Roman control (Olesti 2000). The situation of the regions of Anoia and Bages, where a few high altitude, concentrated settlements are known of, (Cogulló, Puig Cardener, Òdena, Tossa de Montbui, Claramunt, etc), isn't as clear. There are signs, however, of certain habitat continuity in this area, with appertaining fortification constructions (Daura, Galobart, Piñero 1995, 111 and subseq., 117 and subseq.; Enrich, Enrich, Sales 2008, 218-219) in some cases (Cogulló).

In this context, some small, dispersed settlements also disappeared, while others remained occupied; in general, after a longer or shorter time lapse, which is archaeologically difficult to define. In the Penedès area, as an example of this continuity, the cases of l'Argilera, El Vilarenc and Albornar can be cited. Assorted agglomerations, such as Les Toixoneres or Les Guardies,

were also reoccupied. Yet the most significant fact is the appearance of new settlements (Miret, Sanmartí, Santacana 1987; Miret, Sanmartí, Santacana 1991; Miret 2003). This phenomenon is difficult to quantify, but it appears to respond to a process of intensification in territorial occupation (merely indicative, yet significant numbers in Miret 2003, 369). This possible increase seems more relevant if many of the reoccupied locations are considered as new settlements (the above mentioned, for instance), as they don't appear to have any kind of connection with the nucleuses from the 4th and 2nd century BC.

The settlements are located in the areas at the base of the mountain or in the plains, near water courses, from where spaces that had agricultural potential could be controlled; yet the access to forest resources was also sought. The proximity between these locations (the distance between them ranges from 500/600 to 1.500 m., without losing visual contact) suggests a dense settling pattern. The location of these settlements responds to an agriculturally based economy, complemented with diversified and immediate access to the area's natural resources as a strategy to fulfil the wide range of needs generated by a domestic unit (although it's also possible that some of these enclaves concentrated a reduced number of family units). These needs include materials for construction and artisan work, fuel and dietary supplements derived from the possibilities of recollecting a wide assortment of animal and vegetable species. The farms located at small elevations along the coastal area, for instance, exploited the advantages provided by a very ecologically rich environment that combined an assembly of wetlands, small

Figure 2: Settlements of V-IV centuries BC (above) and II-I centuries BC (below).



streams and beaches. The exploitation of this system, which has survived, although in a very degraded way, until the 20th century, constituted a basic strategy in peasants' subsistence during medieval times (Santacana 2007, 214). The specific analysis of some of the sectors of the Penedès-Garraf costal area provide good examples of this type of implementation, as well as of the density of its habitats. In the regard, it's worth mentioning the assembly of small settlements located in the valley of Torrent de la Cobertera, in the municipal area of Calafell (Revilla 2003), the nucleuses near the beach of Vilanova i la Geltrú in the area located between the arroyo in Sant Pere de Ribes and the coastline of Sitges (López Mullor *et al.* 1992; López Mullor, Fierro 2000; Miret 2003).

The interior regions of Catalonia appear to indicate a similar situation, as the appearance of a certain number of small settlements on flatland areas can be observed from the end of the 2nd century BC, and in some cases, as has already been mentioned, as the extension of a previous indigenous nucleus (as is the case of Cal Ramon). Despite the difficulties generated by the absence of adequate documentation, this phenomenon appears to indicate a denser territorial occupation, in turn related to the intensification of agricultural exploitation. In the case of the forest areas nearest to the Pyrenees, connected to the coastline through the basin of the Llobregat River, it's likely that other resources were also exploited. There is anecdotal record of metallurgic activity in these areas (The Berguedà region, for example) during the imperial period, and the possibility of the existence of a well developed livestock-based economy ought to also be considered, although the strategies and forms of exploitation employed cannot be defined (Enrich, Enrich, Sales 2008, 220).

The evidence related to the architecture and spatial organization of these settlements is scarce due to the nature of the materials that were used and to the limited number of archaeological interventions that have taken place. In fact, most of these places have been located exclusively thanks to the superficial dispersion of ceramic and, in rare occasions, of specific elements such as *tegulae* (this problem can be observed in Miret 2003, 367 and subsq.; some of the sites of the Torrent de la Cobertera, in Calafell, in the Albornar municipal district, or of the lower course of the Llobregat river, display the same identification problems: Revilla 2003, 377; Benet *et al.* 1992; Molist 1998). These circumstances limit the possibility of defining the architectural typologies of this habitat.

Amongst the sites that have been excavated in length, it has been possible to identify a series of buildings characterized by a complex internal articulation of spaces and activities, and which appear to respond to a well defined architectural typology. All of them have a rectangular floor and are divided in multiple rooms which are organized, maintaining a certain symmetry, around a distributing corridor located on the building's transversal axis, or around a central, uncovered area which is variable in size. An example of this kind of architecture is the small structure erected at an undefined time in the 1st century BC on the remains of the Iberian citadel of Les Toixoneres, in Calafell, (Sanmartí, Santacana 1992; Asensio, Morer, Pou 2003, 273-274 and fig. 5). The building is organized in a minimum of 9 spaces, variable in size and shape, distributed with certain order, around what may have been an inner courtyard in its first stages (this area would later be covered and partitioned). The total preserved surface is of about 170 m², but the building might have been bigger. From amongst the set of rooms, one more important one can be distinguished from the rest, based on its position (with a commanding position with regard to the other rooms, located on one of the axes that orientate the building) and size (roughly 25 m²). Most of the walls used in this emplacement belong to former Iberian constructions; only some of them were built in the I century BC. The technique and materials are very simple:

dry stone for the foundations and rammed earth walls. The roof was most likely made up of wood and branches; but *tegulae*, which served the purpose of covering the part of the paving of the rooms, has also been retrieved. The building, therefore, takes on various pre-existing elements and structures in the construction and organization of a series of entirely different spaces that belong to a new conception.

The settlement erected in the last phase of the occupation in Les Guardies (El Vendrell) could also pertain to the same model. With a rectangular floor, it's internally divided into differentiated areas and takes up a surface of approximately 400 m². Although the building has only been partially preserved, its basic organization be broadly reconstructed. The space appears to be defined by its symmetry, which depends on a central axis. The rooms that have been identified (a minimum of 5) are distributed in an orderly way, in accordance with this symmetry. In one of the larger rooms, part of an installation for making wine, or with more likelihood, oil, was located. Two more, with homes, appear to have served a residential function (Morer *et al.* 1997: 84-85; Morer, Rigo 2003b, 336-337). This construction, that covers the aforementioned settlement from the Full Iberian period, dates from the 2nd century and remained occupied during the first half of the 1st century B.C.

This type of building has been identified with all certainty in other places of Catalonia. The most full-featured and well known example is the settlement of Can Pons, in Arbúcies; a building with a surface of about 170 m² divided in 6 or 7 areas. This settlement combined a residential function with the storage of agricultural production, as well as several domestic activities, such as textile manufacturing (Font *et al.* 1996). The organization of the whole indicated conscious intention in the planning the space's use, a situation that, in turn, implies both a differencing of the activities and a well-defined hierarchy. In fact, one of the characteristic features of the rectangular-floored buildings is the perfect integration, in architectural terms, of residence and work processes; the latter, pertaining to either domestic needs or agricultural and artisan production. These processes signify the presence of very characteristic infrastructure (kilns, houses, silos or other storage methods), with no disorder regarding the specific spaces and their functions. In Can Pons, for example, a small kiln was located by the building, very close to the main access. Its exterior positioning was intended to facilitate work and prevent the danger that a combustion process entails, but its proximity and size suggest domestic use (Font *et al.* 1996, 96). In Les Guardies, in contrast, the combustion structures are located inside the building (Morer, Rigo 2003b, 336).

The models that this kind of rectangular constructions follow are difficult to establish. The preceding Iberian architecture developed more complex architectural designs, both in the *oppida* and in rural environments, but their characteristics and structure are different. The originality and the speed at which they spread, in regard to the process of rural reorganization and population, suggest a kind of building that's defined in a new historical and cultural context, in relation to the changes in social relationships, the arrangement of the habitats and the production structures that were produced in this period (Revilla 2004, 185-186). It's difficult, nevertheless, to define the determining factors in each case. The situations that were created must have been very diverse, and we lack the adequate documentation necessary to respond to certain matters: the different existing types of construction and their degree of diffusion; the social context of each kind of habitat; and finally, the chronology and geography of the implementation processes.

Other more modest constructions (based in their size and internal organization) have also been identified. A good example in the central littoral region is el Barranc del Prat, in Albinyana, a small two room building with

a total surface of 32 m². Another nearby example is a settlement located in Albornar, made up of two constructions, very close to one another: one with a rectangular floor, internally divided into two rooms; the other one which is more difficult to define, and is placed over constructions built during the Middle Iberian Period (Benet *et al.* 1992; Burés *et al.* 1992). In the case of the interior regions, it's also difficult to define a precise typology of a new settlement edified in the second half of the 2nd century BC in Can Ramon. The excavations that have been carried out have allowed the discovery of 3 areas, a courtyard and what may possibly be a storehouse. The constructions also appear to indicate certain regularity in its spatial organization, but the location hasn't been adequately analysed nor have the discoveries been sufficiently published (Daura, Galobart, Piñero 1995, 125-126). Most of the places cited have only been partially excavated and, consequently, it isn't possible to certify whether these buildings are actually simpler than the ones previously mentioned (yet still combining residence and productive activities) or if they ought to be considered as sheds or another kind of installation that depends on a bigger settlement (example in other regions of Catalonia in Revilla 2004).

Simultaneously, the conditions of both their conservation and of the archaeological excavations prevent the definition of architecture and organization of many other settlements. One of these cases is the second phase (2nd and 1st century) of the occupation of l'Argilera, where a few walls that belong to a building of an indefinite structure have been identified. Yet the aggregate displays a very orderly spatial organization (the existence of several rectangular spaces, of different sizes can be sensed) and it's been possible to establish that one of this building's rooms contained an installation for obtaining oil (Sanmartí, Santacana, Serra 1984). Another example is El Vilarenc (Revilla 2006). This place was initially occupied by a nucleus of uncertain characteristics (probably a farm) that is generically dated from the 4th and 2nd century BC. 3 silos, several artisanal installations and a few walls that perhaps were related to a residential function belong to the next stage of the habitat, dated towards the end of the 2nd century - beginning of the 1st BC. The site's level of destruction (over which a *villa* was implemented towards the end of the I century BC), nevertheless, doesn't allow for the qualification of the nature of these constructions or their relation with the artisanal and storage installations. In fact, it's perfectly possible that the whole of the excavated structures didn't operate simultaneously and that the identified activities correspond to different phases of the settlement. In any case, these elements display an apparently disorderly distribution in a reduced surface (around 400 m²).

As yet, it hasn't been possible to identify, along the Penedès-Garraf coastline, any settlements that could be labelled as rural villages or secondary agglomerations whose characteristics (a concentration of a certain number of family groups, diversified economic activities) allow to place them at an intermediate level amongst the *oppida* that remained occupied and the dispersed nucleuses. These secondary settlements have appeared in other areas of the Catalan coastline and interior region. The best example is Can Balençó (Mataró), a nucleus made up of several independent houses located on the plain, next to a torrent, and lacking fortifications. This settlement has two occupational stages: from mid 2nd century to the second quarter of the 1st century BC, and from the second quarter and the end of the 1st century BC (Carreres *et al.* 1992: 164-166). Another example is the before mentioned Camp de Les Lloses, a settlement founded during the last quarter of the 2nd century, in which signs of important artisanal activity have been spotted; more specifically, the place appears to have been dedicated to recycling of iron and bronze objects for building all kinds of products. The settlement

was made up of a few rectangular-floored buildings with complex internal distributions, with rooms dedicated to residence and to craftsmanship (Molas *et al.* 2000). Its position in the new communication network that was organized towards the end of the 2nd century allowed it to take on the role of supplying the nearby territory, perhaps also developing a broader commercial role than that involved by the simple sale of its production.

In fact, it's quite possible that the continuity of *oppida*'s habitat during the 2nd and 1st century BC, both on the coastal and interior regions, made the presence of these secondary agglomerations unnecessary in some areas. The subsistence of part of the old *oppida* could be explained by the redefinition of their nature and functions: deprived of their previous political nature, these centres took on an eminently economic role, connected to the individual exploitation of small rural spaces' resources, formed from the fragmentation of the old indigenous communities' territories. In the absence of a network of cities, which was only developed starting in the first half of the 1st century B.C., these nucleuses ensured, on a local scale and in a new socioeconomic context, the services and functions (craftsmanship, markets) connected to the habitat, the maintenance of exchange circuits and the functioning of a progressively developing system of fiscal contributions and benefits (Ñaco 2003, especially 233 and subseq. analyzes the impact of certain factors associated with the Roman conquest - contributions and requisitions, exploitation of the soil - in the organization of indigenous societies).

An aspect worth highlighting in many of these settlements is the coexistence of indigenous and Roman elements and practices concerning constructive technology. This, alongside the systematic use of walls made of stone and rammed earth, wooden posts, clay pavement or houses dug into the ground, many places used *tegulae*; for example, l'Argilera, les Toixoneres or Albornar. Yet the most important innovations concern spatial organization (specifically, the adoption of regular plans determined a certain degree of symmetry) and, more significantly, productive infrastructure (many places on the catalan coast incorporate the *dolia* storage system and use of *opus signinum* reservoirs: Revilla 2004).

Dynamics of settlement and economic structures

The appearance of these rural nucleuses dates from the middle to the end of the 2nd century BC, although they could have been founded at later stages (Revilla, Miret 1995, 195-196; Revilla 2004, 187; Arrayás 2005, 149, 168; for other areas of the region: Pujol, García Roselló 1994, 106; Olesti 2000, 61). The length of the occupation is very variable: last quarter of the 2nd century-beginning of the 1st century BC in l'Argilera (Sanmartí, Santacana, Serra 1984, 21, 30); 2nd-mid or end of the 1st century BC in Albornar (Macias, Remolà 1992, 144-145); end of the 2nd century-beginning of the 1st BC in Barranc del Prat (Burés *et al.* 1992); second half of the 2nd -first half/mid 1st century BC in Les Guardies (Morer, Rigo 2003b, 336); from an uncertain time in the 1st century BC until the end of the same century in Les Toixoneres (Asensio, Morer, Pou 2003, 274). These datings, nevertheless, should be considered with caution, as in many places they aren't entirely known and it's not always possible to establish precise chronologies due to the sparseness of representative ceramic or numismatic material. On the other hand, many settlements appear to have been occupied for a short period of time. These factors prevent from determining the possible stages within the general process of the reorganization of rural habitats (Arrayás 2005, 175-176, speaks of habitat intensification in the *Tarraco* territory during the first half of the first century, but there lacks evidence in this respect). El Vilarenc is a good example of the stated dating problems. It isn't possible to indicate the establishment's foundation chronology, nor to date some of the structures

that appear to pertain to residential functions. On the contrary, the time of use of the artisanal installations and silos can be clearly situated towards the end of the 2nd century BC. Some of the silos were filled up little afterwards (at the very beginning of the 1st century), but this fact doesn't necessarily imply a complete desertion of the location, a fact that can't be accurately dated. The evolution of artisanal activity can't be established either (Revilla 2006, 174-175).

The implantation of these settlements occurred in the context of the profound transformation of the social and economic structures that took place throughout the 2nd century in the eastern coast of the Iberian Peninsula, and which quickened during the end of the same century. Without denying the indigenous communities' capacity to act and adapt, these changes appear to be driven by Rome according to its political and economic interests, and to have taken place at several different levels and using varied mechanisms, both economic and political: an intensification of exchanges, new markets, the extension of the use of coinage and organization of a fiscal system. In this sense, some investigators have pointed out the relationship between the appearance of these settlements and the development of new economic means that implied an increase in productive capacity and a greater integration of these rural nuclei in the exchange circuits (Pujol, García Roselló 1994; Revilla, Miret 1995; Olesti 1995 and 1997; Olesti 2000: 65 and subseq.; Arrayás 2005). At the same time, this process is connected to a broader and more far-reaching restructuring, in which the distribution of land, the creation of cadastres, and from the beginning of the 1st century BC, the foundation of new cities (a general vision in Olesti 200; for the specific impact of certain measures: Pena 1994a-b and 1998; Arrayás 2005; a recent systematic analysis in Naco 2003) should be considered. In the case of the central and southern coast of Catalonia, the specific stimulus that drove the reorganization of habitats and exploitation forms should be sought in the *Tarraco's* role as a military base during the central decades of the 2nd century, and its progressive definition as an urban nucleus; especially since the end of the same century. Arrayás related this reorganization process more specifically to the imposition of a cadastre and the progressive transformation of the region's social and economic structures. This process was carried out by the indigenous population themselves (2005, 169-175; also Olesti 2000, 71).

Nevertheless, the documentary evidence available (archaeological or otherwise) for trying to define the position of dispersed habitats in this global process of change is scarce and ambiguous.

As has been mentioned, in many of the settlements dating from the 2nd century BC, structures related to the storage and processing of agricultural products have been found. Part of these elements are Roman in origin (such as the *dolia* or the deposits built using *opus signinum*) and existed in parallel with the use of indigenous practices (the use of silos for storing cereals). Despite their easy identification, it isn't always easy to accurately specify the meaning of the presence of these structures. Some of them appear to be directly connected to covering a wide array of daily needs, and can be interpreted as the result of an autarchic strategy aimed at ensuring a small group's material and social self-reproduction (Miret, Sanmartí, Santacana 1987 and 1991, interpret these nuclei as self-sufficient rural units). This would be the case of living quarters and domestic kilns, located inside the buildings themselves, or outside, in the immediate proximity. The presence of certain silos might also be related to self-provisioning needs; especially those located inside a building (Les Guardies, for example).

In contrast, in some places evidence has been found that is related to the elaboration and storage of certain products that seem to be connected to the

new organization schemes and to an intensification of productive capacity that allowed for generating agricultural surplus. This surplus would be canalized towards urban and overseas markets, or collected in the form of fiscal contributions. In this regard, the set of 5 silos surrounding the Barranc del Prat building could be considered. The small number of silos, alongside their proximity to the structure, could indicate domestic use; but its excavators interpret this place to be a temporal habitat related to the organization of agricultural work cycles. Thus, it could be understood as a specialized building: the in situ conservation of a nearby farm's productive surplus. The 3 silos situated in El Vilarenc, near a structure whose organization and functioned hasn't been possible to determine, are more difficult to evaluate; but in any case, the large size of two of them reveals an important grain storage capacity. Even more significant is the presence of elements related to the elaboration of agricultural products which were likely to be commercialized, such as oil and wine. This evidence has been located in l'Argilera, Les Guardies and El Vilarenc (Sanmartí, Santacana, Serra 1984, 21; Morer, Rigo 2003, 336). In some of these places, (l'Argilera) *dolia*, which were used for storing liquid, have also been found (evidence in other territories: Casas *et al.* 1995: 35-36)). The appearance of this kind of installation coincides (last quarter of the 2nd century BC) with the first manufacturing of amphorae, inspired on italic prototypes, in El Camp de Tarragona (Revilla 1995; Revilla 2007). Both of these phenomenons imply the existence of a certain amount demand - urban, in this case -, centred on transformed agricultural products. The response to this demand indicates the existence of technological and institutional factors concerning the distribution and commercialisation of food supplies.

The artisanal activities identified in some of these settlements also present interpretation problems. Some of them seem to be specifically connected to domestic needs, either by nature (textile manufacturing), or because they were organized on a limited scale. The archaeological evidence regarding this phenomenon, however, is very ambiguous. Very few places have been entirely excavated, hence, it isn't possible to accurately specify the size or organization of the human groups that inhabited them, the entity or evolution of artisanal activity or how it may have coexisted with other activities; in particular, with agriculture. The presence of *pondera* in many places could be related to different situations: part-time work in the elaboration of a family unit's requirements, or on the contrary, a production process in which a certain amount of manufactured goods were canalized towards exchange circuits. In Can Pons, for instance, a great measure of *pondera*, appertaining to 2 looms, were found in a single room (Font *et al.* 1996). This case is difficult to evaluate, but could perfectly well be interpreted as a segregated artisanal activity that required an important part of the residing group's time and work capacity, with no need for complete specialisation. In general terms, this situation could imply the use of different strategies: the use of the domestic units' surplus of labour during certain periods of the agricultural cycle (textile manufacturing in rural, pre-industrial societies offers an excellent example); or rather, the full-time work of a specialist. Each case involves a combination of agriculture, commerce and handicraft that uses specific work services and organizational methods that cannot be accurately defined.

Many of the cited settlements have also provided evidence of artisanal activities whose nature and characteristics appear to clearly exceed the boundaries of domestic necessities. In El Vilarenc, which is the most full-featured case, a kiln intended for baking ceramic and several structures associated to metallurgy have been identified. The kiln is a very simple, elongated structure dug into the terrain, which widens at one end, thus allowing to distinguish between the firing chamber and the *praefurnium*. The part of the structure

that has been preserved is 2 m. long with a maximum width of 1m to 1'10 m. in the firing chamber. A wall made of stones, joined with mortar and set directly on the ground, protected one of the structure's sides. Nearby, there are 3 small, tank-like structures, excavated into the terrain, that were used for metallurgic work (Revilla 2006, 169).

It's difficult to interpret the artisanal installations in Vilarenc. It's impossible to accurately determine whether the kilns and the metallurgic structures were in operation at the same time, and if both installations were used full-time. The production capacity of these infrastructures doesn't appear to be significant either. Yet the nature of these activities - metallurgy and ceramic - involves a specialized degree of knowledge. At the same time, the coexistence of activities related to controlling fire, which imply significant fuel needs, as well as lengthy manufacturing processes, signifies that a measure of attention was given to organizing work at a scale that exceeds a domestic unit's internal necessities. It's worth pointing out that, on the other hand, these kilns were very close to the silos, a fact that puts forth a possible coexistence between artisanship and agriculture. This settlement must have supplied the needs of both the human group residing at the location, and of nearby settlements. This activity could be integrated, with no obstructions, with agriculture, allowing a better use of the environment's resources. It therefore appertains to an economic situation characterized by a diversification strategy aimed to ensure the obtaining of means of production and the work force's reproduction, in a context in which no exchange circuits or fully developed markets that could solve these necessities existed. Yet it wouldn't be appropriate to overstate this diversification's autarchic disposition, and far less, to consider it simply as the perdurance of indigenous productive methods. The appearance and development of these artisanal practices, and their combination with agriculture acquire meaning in an economic context which appears to be characterized by intensification in productive capacity. It's worth pointing out that, along the same lines, these domestic units had a complete set of agricultural tools, as displayed by the tools (hoe, rock pick) retrieved in the silos of Vilarenc.

The great majority of these settlements should be considered as autonomous exploitations whose organizations and functioning was based on the possibilities of a small domestic unit. These units were capable of generating a surplus (grain, wine or oil) intended to be sold, at the same time as they ensured self-preservation and reproduction by integrating agriculture, gathering and artisanal activities at several different scales and with different goals (tool repair, production of a small surplus of manufactured products). It's also worth bringing to attention the fact that these small units were capable of producing surplus of very different kinds of crops that, in some cases, involved the technology necessary for transforming the product. On the other hand, these units also met certain limits. On the one hand, concerning their possibilities of amassing technology (in the form of large installations) and labour; on the other, and taking their nature into account, with regards to their capacity to organize work processes that allowed them to increase production and productivity, responding to both economic (the market) and extra economic (fiscal occurrences) stimuli and pressure. At the same time, it's difficult to accurately define the structure of social relations and judicial mechanisms that regulated the functioning of these production units (Revilla 2004, 188-189). Specifically, the conditions in which the occupants worked and who controlled the production processes and surpluses: Were they small independent peasants, or were they subordinated to an owner? And, according to the different possibilities, with what right, or under which contractual or dependency mechanisms did they exploit the lands? In this context, the terminology used to evaluate the size and organization of these

agricultural units presents certain risks in terms of its ambiguity (*cf.* Olesti 2000, 73 and *subsq.*). It's also convenient to be especially cautious when establishing the relations between the propagation of these nucleuses and the likely distribution of land on behalf of Rome (bearing in mind that the textual references on Catalonia during the Republican era are very scarce: Arrayás 2005, 173-175).

Some investigators have linked the transformations that rural habitats undertook with a general change from a cereal-based economy to a viticulture-based economy. This change could be observed in the systematic adoption of technologies related to the elaboration of wine and in the appearance of artisanal activity oriented towards the amphora manufacturing (Olesti 1995: 165, 192; 2000: 73; for the origins of viticulture in Catalonia: Revilla 1995: 45 and 149 *subsq.*; Olesti 1998). This hypothesis, nonetheless, faces important problems due to the lack of archaeological documentation, which doesn't allow for the entity of this process of technological change to be established (Revilla 2004). Many places haven't been adequately excavated and their installations can't be accurately dated. It's important to point out that the technological evidence itself can lead to in corrections: *dolia*, for instance, can't be used both for grain and for liquid. A good example of this is l'Olivet d'en Pujol, a small building, built towards the end of the 2nd century BC, made up of a rectangular enclosure that bordered a space that contained 75 *dolia* and a small related cabin. The place appears to depend on a main nearby nucleus, and its organization could be explained in the context of the intensive agricultural exploitation of the Empúries territory, generated by favourable conditions, in order to commercialise its production; in this case, grain (Nolla 2008, 85). On the other hand, its archaeology shows a more complex situation: alongside wine, the importance of its oil production is pending evaluation. At the same time, the grain production must have continued to hold an important position (as can be observed in the case of Barranc del Prat) which would last until the High Empire.

Another problem, in this case, an underlying one, is the suitability of proposing such a generalized and radical change in strategies within the ambit of an ancient economy and placing viticulture in the centre of this change. In fact, amphorae and epigraphic evidence display a more gradual affirmation process of viticulture and the commercialisation of wine from *Hispania Citerior* throughout the 1st century BC. The expansion of this wine-based economy on a large scale (although in this case, the archaeological evidence should also be carefully analysed) was located in the Augustan period (Revilla 1995, 45 and *subsq.*, 151). This problem should in effect be analysed from a broader perspective. The impression is that we have before us a process of general reorganization of the territorial occupation and organization mechanism connected to the urbanization and consolidation of new social and economic structures in the Catalanian coastal areas (this aspect has been observed by Olesti 2000, 72 and *subsq.*, and Arrayás 2005). The affirmation of a social order based on land ownership (exercised individually - as citizens/owners - or collectively - as local oligarchies that managed the city's resources) must have been accompanied by a restructuring of ownership relationships, investments and intensification of production processes. This situation would translate into changes in rural habitats, work mechanisms and infrastructures. This context must have stimulated the general development of agriculture, and more specifically, the production of easily commercializeable goods surpluses, due an increase in demand, as an essential part of the region's diet, or due to its connection with the appearance of new behaviours and a general increase in the standard of living in city centres. This phenomenon probably had a special effect on the Catalanian littoral areas, due to their connection to the great overseas

exchange circuits, and because of the development, at a very specific time, of a concentrated urbanization process.

A number of the settlements on the Penedès-Garraf coastal area remained occupied until the 1st and 2nd centuries AD or even later dates (Miret 2003, 370). This continuity, nevertheless, entailed a change in the nature of these habitats. Some places (El Vilarenc, for example) turned into *villae* (Revilla 2006; other examples in Olesti 1995: 211 and subseq.). In other cases, the architectural modesty suggest that they may have operated as secondary settlements, integrated into the structure of a *fundus* and connected to a large-scale cycle of economic activities (Revilla 2008, 112 and subseq.; an example in Northeast Catalonia in Burch *et al.* 1995). In the interior regions the occupation of all of the known locations appears to have ended sometime in the last quarter of the 1st century BC and, as occurred in the littoral areas, some of them were replaced by *villae* that remained occupied until Late Antiquity (Enrich, Enrich, Sales 2008, 220). The abandonment of indigenous nucleuses constitutes an important problem due to its historical importance. The generalisation of *villae*, from the end of the 1st century BC, indicates the development of new economic strategies and mechanisms. *Villae*, as productive and management mechanisms, concentrate production and storage means, and organise intensive work processes according to rational principles. This new system is linked to a restructuring of property. The economy of *villae* therefore entails a new hierarchy for the activities and uses of the territory, which would result in the reorganization of the landscape and the creation of a varied typology of settlements in terms of functions and architecture. At the same time, the appearance of *villae*, is connected to ideological and social needs, lined to a new social order, which required other architectural and residential models.

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