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## THE ROMANIZATION PROCESS OF AN AGRARIAN LANDSCAPE: LA SERENA REGION

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**ABSTRACT:** Recent systematic survey and excavations in La Serena region are contributing with new data about changing landscapes between the Iron Age and Roman times. The main focus of this activity has been the valley of the Ortigas, a tributary of the Guadiana River. The origin of this research was to provide a territorial framework for the excavation carried out at the protohistoric site of Cancho Roano, but little by little it has widened its historical and geographical objectives. Archaeological analysis of territory is directed towards the recognition of successive agrarian landscapes, resulting from the implementation of different models of social and economic organization. One of the main focuses of research is the transition from late protohistoric to early Roman times. In this paper we will show some preliminary results of several analyses relevant to this historical problem. On the one hand, data from intensive surveys allows us to make comparisons between protohistoric and Roman locational criteria and settlement intensity. On the other hand, selective topographical surveys are helping us to increase our knowledge of the so-called “recintos torre” (small fortified sites of gigantic stone masonry), traditionally dated between the first century BC and the Imperial period. Lastly, recent excavation and review of the Cueva del Valle site (a cave sanctuary of the first century AD) allowed us to revisit the study of the religious dimension in the shape of the agrarian landscape in Roman times. Together with the treatment of these historical specific problems, we discuss the methodological advances and difficulties. These are mainly related to the application of non-destructive techniques like surface survey.

**KEYWORDS:** Romanization, Agrarian Landscapes, Non-destructive Techniques in Archaeology.

### BACKGROUND: LA SERENA REGIONAL PROJECT AND THE TERRITORIAL LINE OF RESEARCH AT THE MERIDA INSTITUTE OF ARCHAEOLOGY

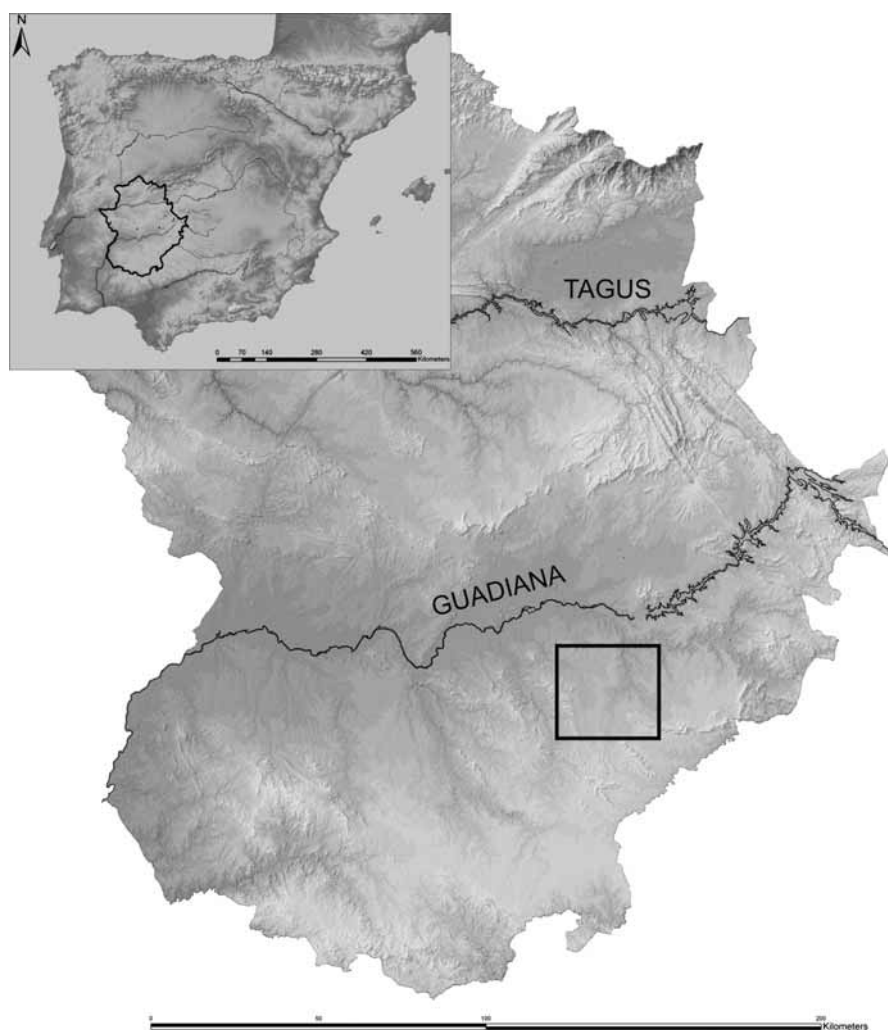
The last campaign of excavation at the archaeological site of Cancho Roano took place in 2001. These works began in 1978 directed by Joan Maluquer, and continued under the direction of Sebastián Celestino. The final result was the discovery of an exceptional settlement that has become well known in protohistoric Peninsular studies (Maluquer, 1981; Id., 1983; Almagro Gorbea, 1990; Celestino & Jiménez Ávila, 1993; Celestino, 1996; Id., 2003). With the huge body of knowledge obtained about the site, one of the most imperative needs was the understanding of its role in the settlement patterns of the Guadiana Basin during the First Iron Age. This objective led in a natural way to the planning of a project on a territorial scale, with the La Serena region as its sphere of activity. The historical scope was also extended, considering an analysis of the evolution of the landscape from the Neolithic to the most recent preindustrial past (Fig. 1).

This diachronic approach was designed to combine the treatment of specific problems of each period with a “longue-durée” reading of the main tendencies in the transformation and human construction of the environment. At the same time, an outstanding preoccupation of the project was the development of innovative methodological lines, oriented to give answers to the problems of interpretation of the material record. In this sense, from the beginning, greater efforts were focused on the application of non-destructive techniques like remote sensing and surface survey. In fact, these are the axes that have guided the birth of one of the main lines of investigation of the Merida Institute of Archaeology.

### INTENSIVE SURVEY AROUND CANCHO ROANO

#### METHODOLOGICAL PROBLEMS

These general objectives were implemented between 2000 and 2002 in the accomplishment of intensive survey works in the area surrounding Cancho Roano. Methodological background of this work has



1. Location of La Serena Region

already been published, so we will just review it very briefly (Celestino & Walid, 2003; Walid & Nuño, 2005). The study area was delimited by a radius of 3 kilometres around the site. This area included the full extent of the upper reaches of the Ortigas river (a tributary of the Guadiana) and of the Cagancha stream (a tributary of the Ortigas) (Fig. 2).

This is a landscape of smooth relief, in which the predominant element is a very open holm oak woodland (the “dehesa”), combined with cereal crops. Only the granite outcrops and the irrigated land established in the 1960s around Docenario break this monotony.

The most noteworthy aspect of the strategy adopted in this survey was that it did not treat the archaeological site as the most elementary unit of recording. Instead, it tried to develop a system able to give answers to the great diversity of

forms in which surface finds are recognized. It was designed to reflect the spatial behaviour of the more obtrusive sherd concentrations, the weakest distributions or apparently isolated finds. The purpose of this system was twofold. On the one hand, the researchers wanted to control as far as possible the effect of the alteration processes experienced by archaeological deposits. This was considered of great importance to be able to assess the representativeness of the surface record. Secondly, the existence of a wide range of human activities susceptible to leave material traces in the landscape beyond the areas of concentrated activity was assumed.

The increasing availability of spatial technologies facilitated the implementation of these ideas, originating a line of research to which the Institute is increasingly committed. The result of these campaigns was the composition of a very detailed record of the surface finds around Cancho Roano. With respect to the older vestiges of occupation, it is worthwhile to mention the existence of at least one late Neolithic settlement, located on a smooth hill next to one of the tributary streams of the Cagancha. Also, the last excavations made in the Cueva del Valle site have brought to light remains from this period. We also recorded some dispersed finds of the Copper and the Early Bronze Age.

This scarcity of findings contrasts with the abundance of information regarding the landscape occupation during the life of the successive Cancho Roano buildings. After the collapse of this site, and throughout the fourth to second centuries BC, the occupation of the zone seems to shrink and it becomes insignificant. Again in the Republican period we have clear indicators of an agrarian colonization that intensifies in the Imperial period.

Study of the finds of pottery is still in progress. Nevertheless, we can start to explore the main spatial and chronological differences. The first step in our analysis of the spatial distribution of finds has been to define variables that could reveal patterns of the occupation of the landscape. We wanted to check from the countryside to the site, the hypothesis of the singularity of Cancho Roano. We created models to analyse the degree of accessibility between the buildings and the surrounding sites. We also quantified the topographical prominence of protohistoric emplacements to assess the choices taken in its location.

Another important issue has been the assessment of the suitability of land for agricultural practices. Rather than an estimation through isolated variables, we tried to make a simultaneous analysis

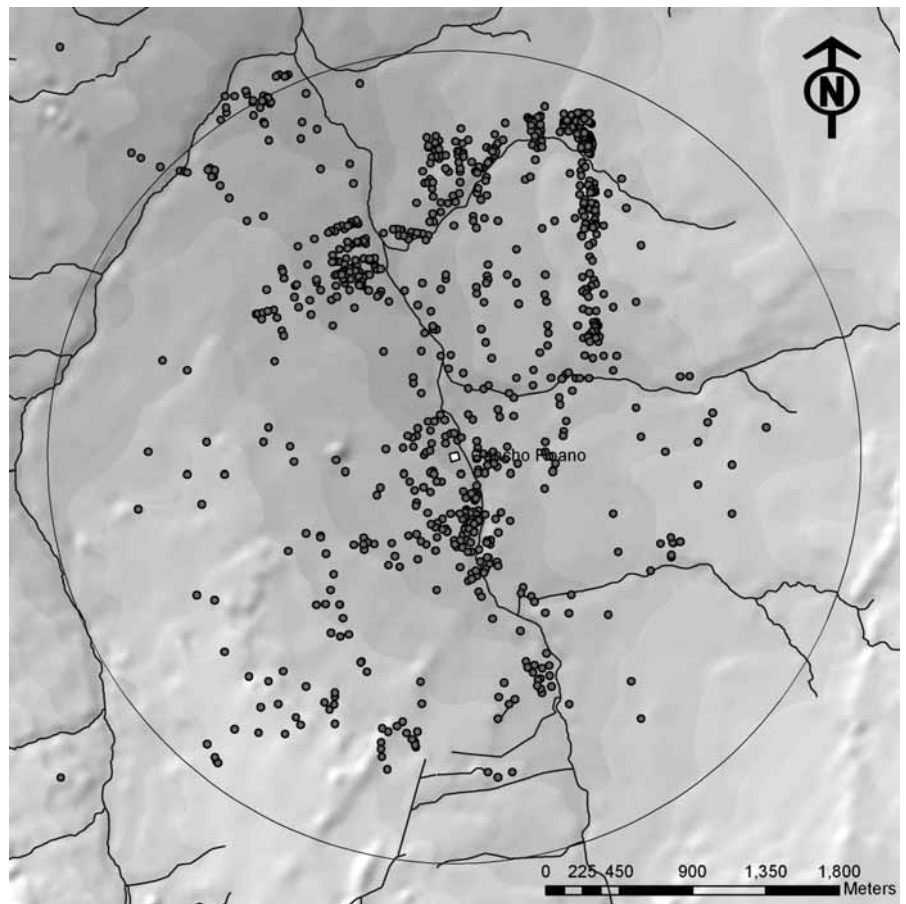
of several variables related to terrain productivity, geological background, soils, slope and sun exposure.

We performed several statistical tests and created density estimations in order to explore the distribution of findspots looking for patterns and meaningful differences. This enabled us to test the existence of significant clustering and variation through time. For each period, we made a distinction between isolated finds of very low density, and more obtrusive scatters. Finally, we compared the information belonging to protohistoric and Roman chronologies. By this process we wanted to calibrate the intensity of the correlations.

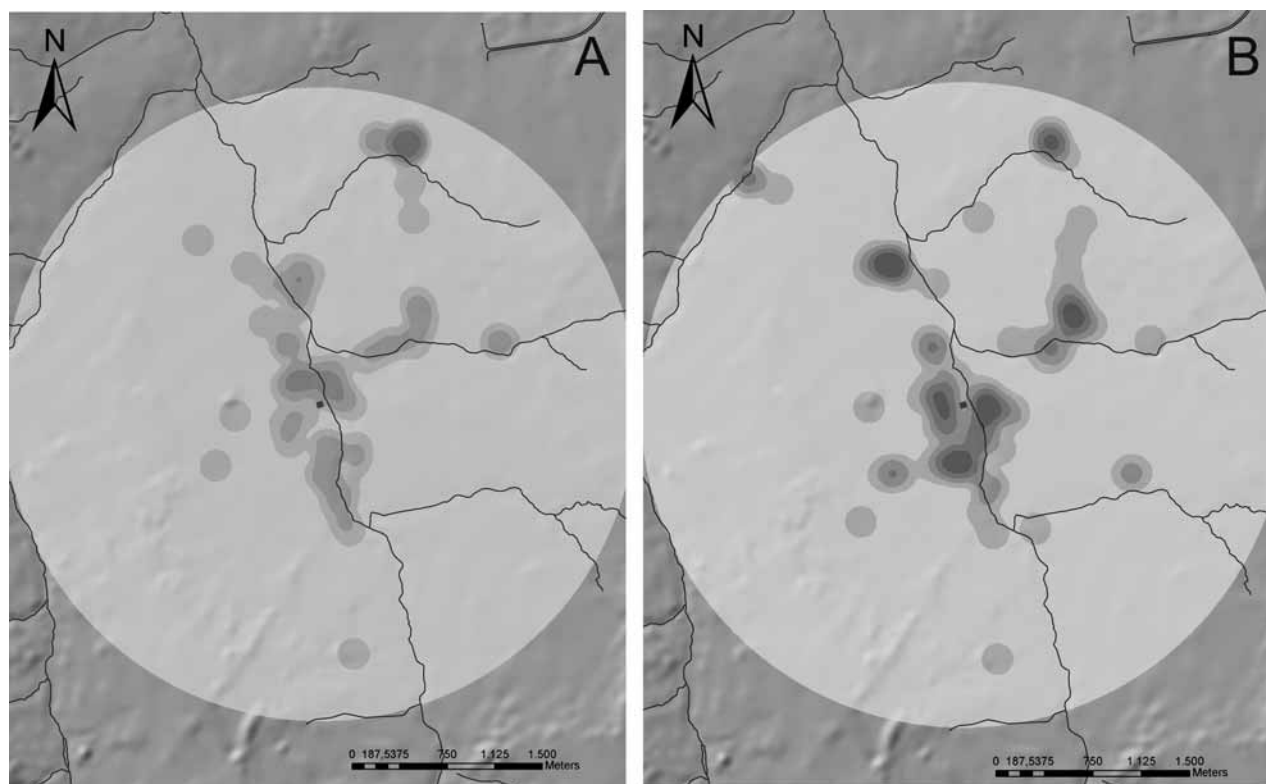
#### RESULTS FOR THE PROTOHISTORIC OCCUPATION

We can obtain a first visual approach to the protohistoric occupation of the Ortigas valley by means of density maps. Several clusters can be clearly defined along the Cagancha and within a radius of approximately one kilometre around Cancho Roano. We can identify at least three *foci* that should be identified as small sites. Their chronology has been determined from the early seventh century to the early fifth century BC. In eleven other cases it is possible to locate dispersions of sherds of pottery that can also be framed within the same chronology. In almost every case these are very small dispersions, mostly consisting of large, coarse storage vessels and millstones. This figure does not take into account the important concentration of materials in a radius of 200-250 metres from Cancho Roano, whose assessment is problematic due to earth movements during the excavation of the site (Fig. 3).

The global distribution of the protohistoric material at a middle range from Cancho Roano is mostly associated with the fluvial system. There is a clear tendency for the location of settlements in the least prominent areas with the greatest drainage capacities. This tendency is strongest in the case of the more important scatters. Nevertheless, beyond these areas, the Ortigas basin is a landscape of little topo-



2. Survey area around Cancho Roano and global distribution of survey results



3. Density map of Protohistoric (A) and Roman (B) finds around Cancho Roano

graphic contrast, in which the human occupations did not stand out in their immediate surroundings. Considering the average height of the locations, a non-random behaviour can be observed. The building of Cancho Roano itself is camouflaged in the terrain, right next to the bank of the Cagancha stream.

The interpretation of this scattered settlement is strongly determined by the discussion raised by the singularity of Cancho Roano. In recent years, several works have confirmed the existence of an intense agrarian colonization along the middle Guadiana Basin, starting in the seventh century BC and reaching its peak in the late sixth to early fifth century BC (Jiménez Avila, 2001; Rodríguez Díaz, 2004; Rodríguez Díaz *et alii*, 2007). Nevertheless, the available evidence is still coming almost exclusively from excavation. Territorial studies are in a very early stage of development. A remarkable exception is the intensive survey carried out around the Mata de Campanario site (Rodríguez Díaz *et alii*, 2004). This structure has been interpreted as a noble residence occupied by an aristocratic lineage holding the property of surrounding lands. In this case, small indications of settlement around the site were considered as the remains of small peasant farms, directly settled close to the fields. The distribution of all those small settlements, according to some scholars, indicate the existence of a *fundus*. In our view, we cannot speak about the analogous functionality of the small sites around Cancho Roano. We should consider them as small production units integrated in the catchment system monopolized by the sanctuary.

The strongly ritualized destruction of Cancho Roano, dated to the end of the fifth century BC, seems to coincide with the crisis of the protohistoric agrarian colonization in the region. Both the global results of the survey and the intensive work around La Mata show an almost complete absence of finds from the Second Iron Age (Rodríguez Díaz *et alii*, 2004, p. 499). In our case, the visibility of this period is extremely problematic, since the pottery traditions have a very long durability. There are, instead, more reliable references to the emergence of fortified settlements in strategic points of easy defence, some of them not very far from Cancho Roano. However, there is increasing knowledge of Second Iron Age settlements not limited to this concentrated model in the southwest of the Iberian Peninsula. In our view this is a topic that demands more intensive survey, determined as little as possible by previous assumptions about settlement patterns.

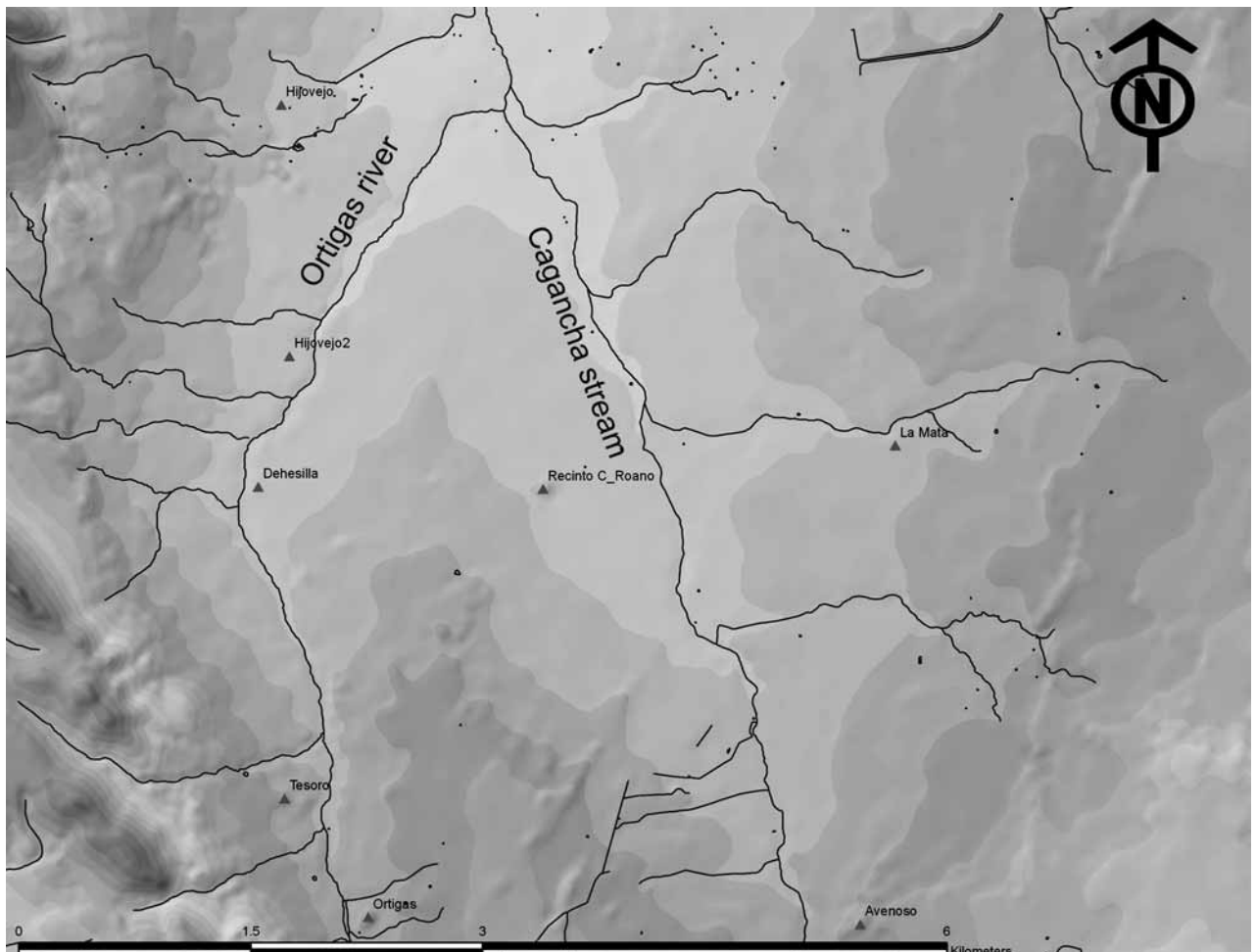
## LA SERENA REGION DURING THE REPUBLICAN PERIOD: SCATTERED SETTLEMENT AND MONUMENTAL ARCHITECTURE

In contrast to the scarcity of data for the period subsequent to the end of Cancho Roano, there is a small sample of sites in which we have identified finds that could be dated to the transition to Roman times. There are at least twelve locations with oxidizing, wheel-made pottery with shapes, fabrics and/or decorations clearly different from the First Iron Age materials. All of them are in a radius of less than 900 metres around Cancho Roano, and always close to watercourses.

Also within the survey area we find one of the main concentrations of the so-called “recintos torre” (small enclosures with gigantic walls) of the La Serena region. We are speaking of at least eight sites distributed along the fork formed by the confluence of the Ortigas River and the Cagancha stream. This is one of the most well known features of rural settlement in the area during the Romanization stage (Fig. 4).

Those “recintos torre” enclosures form a broad group of small sites in which the most characteristic element is the existence of gigantic masonry structures. Their typology is diverse, like their emplacements and chronology of identified materials. The topic was extensively discussed during the 1990s by the research group directed by P. Ortiz Romero, so I would rather not expand too much on this subject (Ortiz Romero & Rodríguez Díaz, 1987; *Id.*, 1990; Ortiz Romero, 1990; *Id.*, 1991; *Id.*, 1995; Rodríguez Díaz & Ortiz Romero, 1998; *Id.*, 2003).

Synthetically, it could be said that interpretations have fluctuated between two main positions. The authors of the aforementioned works have defended an eminently military function, related to the strategic control of territory during the conquest process. The main landmark of this point of view has been the exca-



4. Distribution of “tower enclosures” around Cancho Roano

vation of the Hijovejo site (Rodríguez Díaz & Ortiz Romero, 2004). Regarding their constructors and time of their construction, hypotheses vary from an early chronology (around the beginning of the first century BC) linked to the Sertorian conflict, and later dates, around the end of the first century BC, in the context of the exploitation of the lead and silver mines of the Castuera district (García-Bellido, 1994-1995).

A second trend of interpretation considers these fortifications as an expression of power in a wider sense, related to the monumentalization of sites devoted to the exploitation of the land. This view is influenced by the comparative analysis of Hellenistic, Italic and Punic architectonic models, in which the tower is an element integrated in the rural buildings. Authors like Moret (1999; Id., 2004), and, more specifically for the southwest, Fabião (2002) have suggested this reading. More recently, the review of data in the Alemtejo by Mataloto (2002; Id., 2004) contextualizes those buildings in a transitional settlement model previous to the definitive agrarian colonization of Imperial times.

The matter is quite complex and, as just noted, it is widely treated already in the literature. Undoubtedly a lot of information has been gathered, although it would be desirable for the complete results of surveys and excavations to be published. In our opinion, a systematic approach aided by quantitative methods and the support of spatial technologies can provide new elements of judgement around the problem. In this respect, we want to present here a sample of the research project that is currently being developed at the Merida Institute of Archaeology.

In the first place, our efforts were centred on obtaining an accurate location for all the sites, since the published references and maps did not allow them to be located at a detailed scale. This was an essential preliminary to be able to undertake studies on the criteria of location of the enclosures. Secondly, this review was completed with a basic description of the sites. Although at first we did not have suitable topographic instruments, with the support of GSP receivers we could elaborate sketches of the general structure of the sites, drawing up the contours of the most outstanding characteristics. We want to stress that, in most of the cases, a lot of structures could be identified on the surface, so it was possible to obtain a great amount of data on these constructions without excavation. In fact one of our objectives is to complete a highly detailed planimetry and topography of every site. With this aim we are testing the application of several methods, from traditional surveying with total station and GPS to photogrammetric restitution from low height aerial photography (Fig. 5).

This last system is based on taking zenithal pictures from a zeppelin equipped with a remote controlled camera. Control points were distributed across the zones of interest. These references were sufficient for correcting, rectifying and finally georeferencing images. We could then produce detailed plans and micro-topography of the sites. Finally, we are in the process of carrying out excavations in two sites. Together with the stratigraphic information we are gathering samples for pollen analysis.

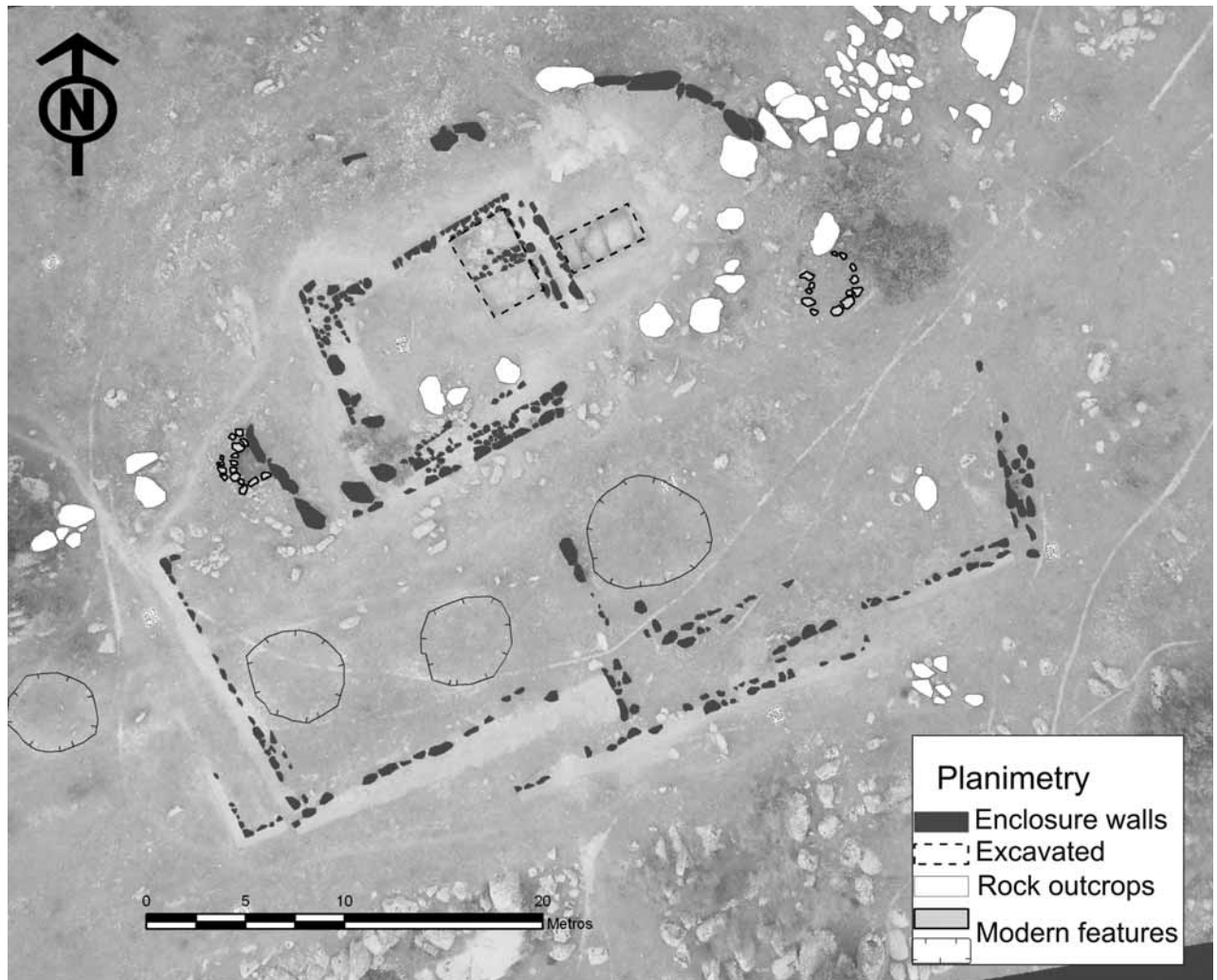
### **The enclosures: a basic description**

#### **Recinto de Cancho Roano**

This is situated 730 metres from the protohistoric site of Cancho Roano and at the same distance from the Cagancha stream. For its placement, a great outcrop of granodiorite was used, which allows to stand out topographically in a flat environment. The most remarkable feature is a trapezoidal enclosure of about 2000 square metres. The walls are composed of great blocks of a coarse, gigantic fabric. Inside, the excavation carried out by Ortiz in the 1990s (still unpublished) discovered a masonry wall attached to the enclosure perimeter and a collapsed deposit of Roman roof tiles. Unlike in the other enclosures, there is no evidence of any tower structure. In the south side of the enclosure ploughing reveals a concentration of sherds, roof tiles and bricks (Fig. 6).

#### **La Mata**

This is a small mound standing above the Albuera stream. We could not identify rock outcrops in the base of the structure. It covers a surface of 400 square metres, consisting of a quadrangular building of 18 x 12 metres, oriented SE–NW. The ground visibility around was very low, and the scarce material recovered consisted of roof tiles, bricks and fragments of large storage vessels.



5. Aerial view and planimetry of the Cerro del Tesoro enclosure

#### La Dehesilla

This small site is placed in a granite outcrop close to the Ortigas river. Visible remains consist of a quadrangular structure of 12 x 10 metres, E-W oriented. The wall fabric is made of a double line of great masonry granite blocks. Outside and attached along its south face we could distinguish a second wall. This technique shows a great similarity to the one we recorded in Cerro del Tesoro. On the surface we found sherds of very coarse storage vessels and oxidizing tableware. Their shape and fabrics suggest a late-Republican chronology.

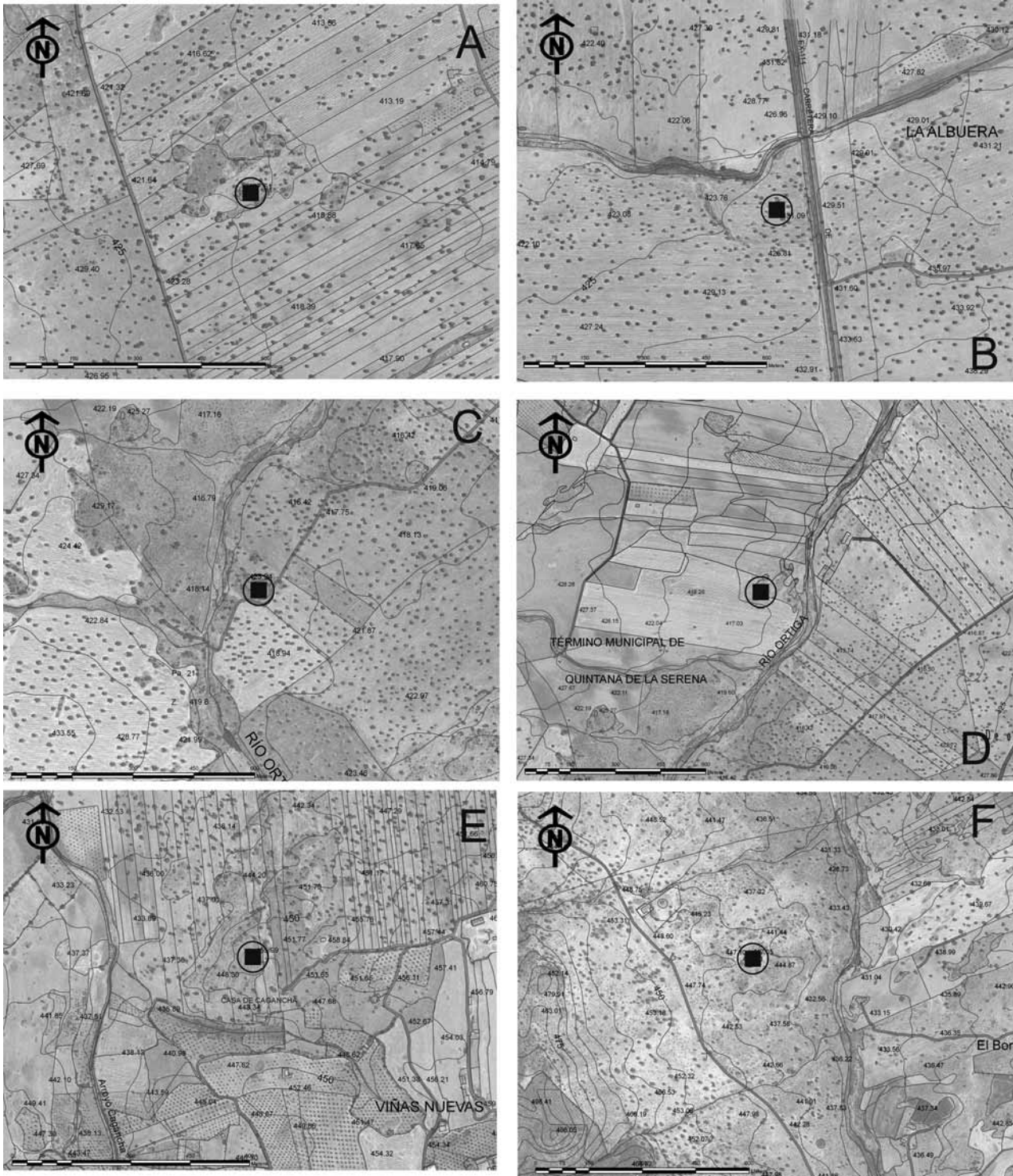
#### Hijovejo 2

This enclosure is placed in a great granite outcrop 140 metres from the Ortigas river. We could clearly identify a quadrangular building of 7 x 8 metres. Several wall alignments between the rocks define an enclosure of about 1100 square metres. The main sherd concentration, south of the enclosure, includes a great abundance of roof tiles.

#### Avenoso

The site stands above the Cagancha stream bed and is placed in a granite outcrop. The complete plan still survives of a quadrangular structure of 12 x 10 metres with an E-W orientation. On the eastern side we detected an access way 1,5 metres wide. Outside the building an agricultural terrace could fossilize an exterior enclosure of about 400 square metres. Archaeological material was almost completely absent due to the thick grass coverage.





6. Detail map of the location of A) Recinto de Cancho Roano; B) La Mata; C) La Dehesilla; D) Hijovejo 2; E) Avenoso; F) El Tesoro

### Ortigas

This is an artificial tumulus approximately 170 metres from a ford in the Ortigas river. Its area is 1000 square metres. Undoubtedly the most visible archaeological feature is the mound, on which Roman structures are placed. Its clayey composition and the pottery recovered suggest a protohistoric occupation. Regarding the enclosure, the general plan corresponds to an L-shape, E-W oriented, with a maximum length of 27 metres and a maximum width of 15 metres. A second enclosure delimits the perimeter of the mound. Preliminary analysis of surface finds clearly indicates a First Iron Age occupation (painted and grey wares,

amphorae). Common wares of late Republican times were also identified, together with fragments of Mañá-Pascual A-4 amphorae. We have also recorded Hispanic and Italic red slip wares, and Roman roof tiles.

#### Cerro Del Tesoro

This small site was placed over a granite outcrop close to the Ortigas river. Three concentric enclosures can be identified. At the top of the hill, there is a tower of 11 x 9 metres directly grounded in the bedrock. A second wall of gigantic fabric close the small top of the hill, and a third external enclosure defines at least two main structures on the south side of the site. Excavation results of this site are in a preliminary stage, but we can advance the finding of Campanian pottery, as well as red slip ware and a great amount of coarse cooking pottery.

#### The enclosures: a brief discussion

The study of the locations, structures and materials of these sites allows us to form an overall impression. In the first place, an element common to all the sites is the choice of positions of little prominence topographically and with no defensive capabilities. They are grounded on granite outcrops to stand out just in the immediate surroundings.

This type of implantation has been related to a preoccupation with vigilance of the natural ways of access to the valley. Nevertheless, they are surrounded by elevations from which it is generally possible to exert a much more effective control of any movement in the zone. We have tried quantitatively to express this variable by analysing the relative altitude and the topographic prominence of the locations. Obviously this type of analysis will be limited to a descriptive character unless we work with bigger samples. Nevertheless it is a good tool for exploration and contrast for understanding the location of these enclosures within the ensemble of known sites in the region. Another quite graphic form to help visualize these problems can be to quantify the importance of the different relief units surrounding the enclosures. For this purpose we found useful the application of some landscape analysis techniques developed by the geomorphologists with the help of the digital terrain models. We find, for example, a remarkable coincidence of the enclosures along the Ortigas river and the optimal points for its crossing. Given that this watercourse does not have a great flow, it could be interpreted as a choice linked to a more local need.

We believe that in this sense it is worthwhile to indicate that these locations are also the lowest parts of the valleys and alluvial zones, offering the greatest potential for agriculture. Hijojejo2, Cerro del Tesoro, Dehesilla and Ortigas are very close to the Ortigas river, whereas Avenoso and Mata are next to tributary streams. The enclosure of Cancho Roano is in this (and, as we will see, in other aspects) an exception, being located at an equidistant point between the Ortigas and the Cagancha rivers. However, the glacia surfaces surrounding it sustain a dry crop agriculture.

To emphasize the military character of the enclosures, some have emphasized the existence of inter-visibility relations, that would correspond to a network of establishments created to control the territory (Rodríguez Díaz & Ortiz Romero, 2004, p. 93). In this respect it is necessary to say that, even assuming the height of the towers was sufficient for an observing point, the results are very unequal. For example, the visual connection of all the sites with the *oppidum* of Magacela has been pointed out as evidence of a preconceived plan to extend the strategic control of this site. There is no doubt that the Republican occupation of Magacela is essential to understand the Romanization of the region. But it is also true that it is really difficult to find a single geographic point in all the zone from which the sharp profile of the mountain of Magacela cannot be seen with clarity.

If we take as a reference a radius of one kilometre around the sites, we find a group of cases in which the visible surface fluctuates from 30 to 60%. Values around 70% correspond to three cases. Once again exceptionally, the Cancho Roano enclosure is the site with a more open visual control of its immediate environment. Another variable related to visibility is its directionality, the relative importance of visual control according to its aspect (Fig. 7).

Finally, with regard to the visual relations between the sites, just as for direct observation, the models performed were unclear with respect to the possible existence of a special preoccupation to create a

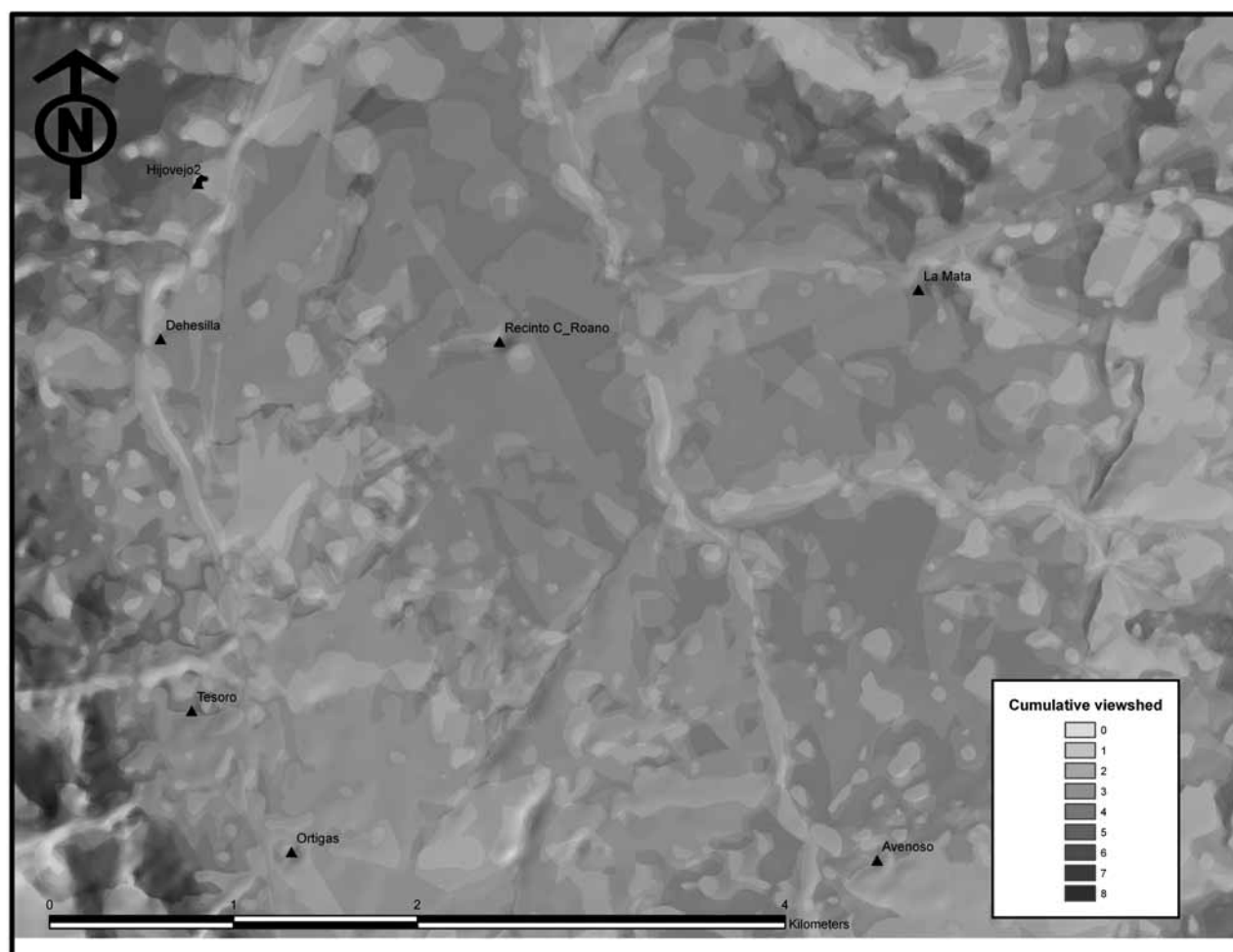
network. The smoothness and homogeneity of the relief of the whole area means that it can be defined as a wide corridor, hence that we cannot find special limitations to obtain an effective control from a reduced number of locations. Although many of the enclosures are in visual contact, we cannot identify complementary relationships.

Regarding the size of these structures, they vary between approximately 580 square metres at La Dehesilla, and more than 2000 square metres at Cancho Roano. This last is double the size of most of the sites. Nevertheless this issue is quite problematic due to strong differences in surface visibility. In some cases only the central structure can be identified, while in others ploughing reveals a much wider settlement.

From the architectonic point of view, remarkable similarities exist that confer homogeneity to the sample. The most characteristic element, present in seven of the eight sites, is the presence of a quadrangular tower of very similar dimensions and fabrics in all the cases. They are constructed with great granite blocks confronted and forming a double face. At least three cases have a distinct cleaning of one or two parallel walls to the face of the tower, which could serve to reinforce the platform. Diverse alignments of walls, along with the dispersion of sherds on the surface, allows the definition of small zones of habitat around the central structure.

With regard to the architecture, the exception is again Cancho Roano. The visible structures allow us to identify a trapezoidal enclosure made up of great, quite irregular blocks that enclose the space between the granite outcrops. There is no clear trace of the presence of a built tower. Some of the natural rocks stand out because of their height and size, but we could not find any trace of their use as a support for a construction (Fig. 8).

The coarse fabrics of the walls, the narrow inhabitable space and other architectonic solutions have been important arguments for posing the hypothesis of a defensive functionality. The apparent contra-



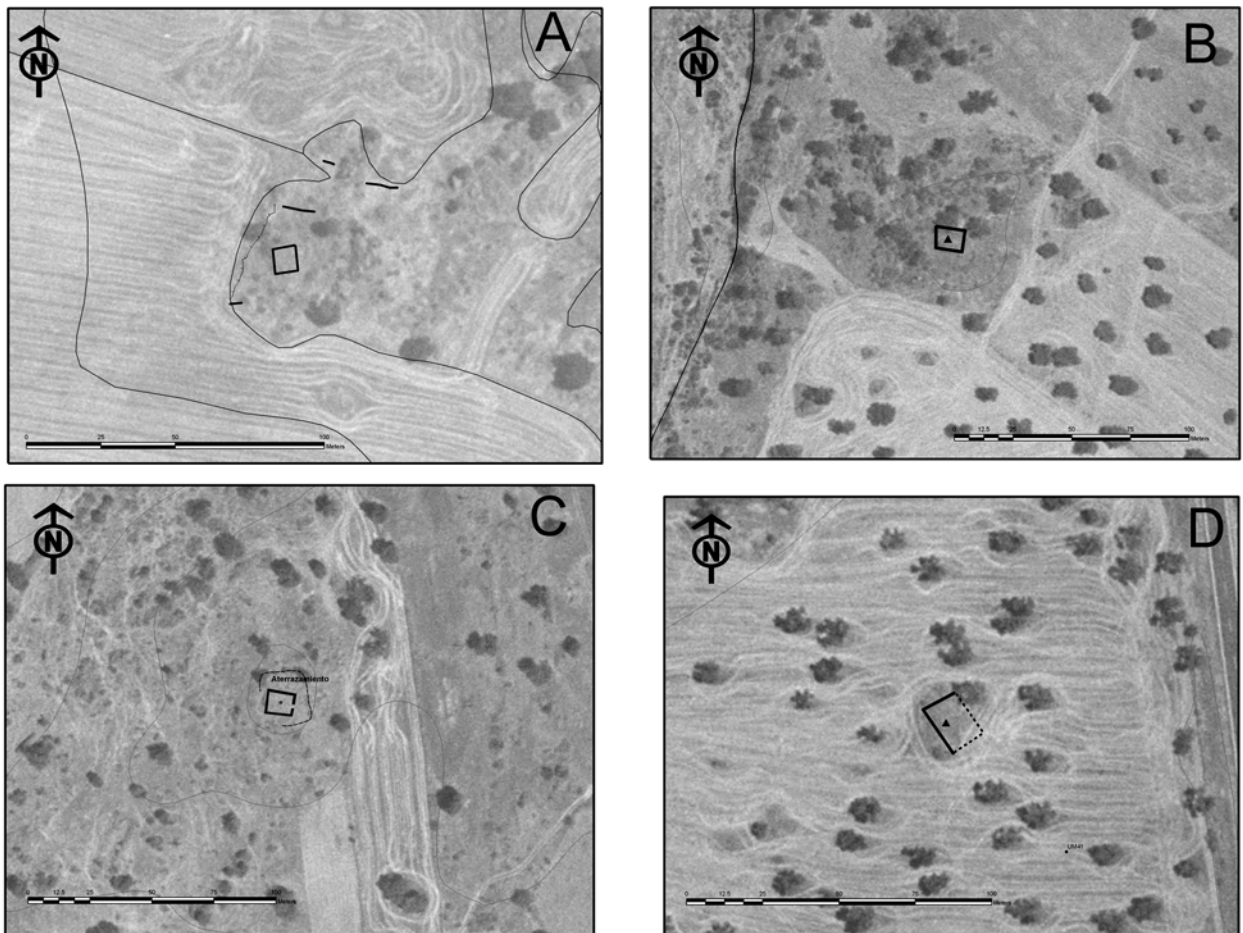
7. Cumulative viewshed of the enclosures around Cancho Roano. Darker areas indicate higher visual control

diction between a control role and the previously described locations should justify the great investment of work (Ortiz & Rodríguez Díaz, 1998, p. 268). Nevertheless it is also true that this concern with security is also present in isolated rural constructions, especially in historical contexts marked by conflict. Paradoxically, from the construction point of view, the use of irregular blocks demands a much higher expertise and effort than more standardized materials.

In short, many of the aspects the subject of discussion around the interpretation of the enclosures turn around the elusive problem of dating them. There is general agreement in placing the beginning of the phenomenon in the first century BC. To the published finds of the excavation of Hijojejo (Ortiz Romero & Rodríguez Díaz, 1989) we must add the presence of Campanian pottery ceramics in the Tesoro and the Ortigas, along with some imitations of common wares and other forms of late Republican chronology. In La Mata and Avenoso the only nexus that we can adduce is the similarity in structure and constructive techniques.

As some authors have pointed out (Mataloto, 2002), however, this scarce evidence would not allow the dating of the enclosures to specific historical moments, like the Sertorian wars. In this sense we found more coherent proposals like that for Mataloto, considering the enclosures as a preliminary stage in the process of the Roman agrarian colonization. The needs of strategic control and economic exploitation would go side by side. The fact that in all the sites, without exception, we find occupation of the Imperial era suggests that rather than a parasitic reuse of the Republican buildings, it is a continuity phenomenon.

This Imperial settlement has been heavily documented in the intensive survey around Cancho Roano. Still, without a detailed study of the materials, we lack data to establish a sequence within the Roman



8. Architectonic features of the enclosures. A) Hijojejo 2; B) La Dehesilla; C) El Avenoso; D) La Mata

	<b>R value</b>
All Protohistoric locations	<b>0.58</b>
All Roman locations	<b>0.45</b>
Protohistoric areas	<b>0.58</b>
Roman areas	<b>0.33</b>
Protohistoric points	<b>0.75</b>
Roman points	<b>0.45</b>

(Random distribution, R=1; clustered R <1; regular R >1 to 2,1)

*Tab. 1. Nearest Neighbour Analysis of Iron Age and Roman find distributions around Cancho Roano site, taking into account differences between the whole sample, discrete concentrations and isolated findspots*

nonparametric tests for independent samples the relative altitude of the locations with protohistoric and Roman material. The test results showed that material distribution does not appreciate a significant variation based on the chronology. Assessing all the points with Roman material compared with a random distribution clearly showed the same tendency. Therefore, despite the time gap between protohistoric and Roman colonizations, we can't find a clear tendency for change in locational rationale. Considering that we can't argue a clear cultural continuity in landscape occupation to clarify this similarity, we must envisage an explanation in terms of economic strategy. Small Roman rural sites could be linked to a small-scale exploitation system focused on natural irrigation zones.

## THE CUEVA DEL VALLE SITE REVISITED

Another outstanding element of the rural landscape of this period was the Cueva del Valle site. It is situated about four kilometres south-west of Cancho Roano, and has been well known at least from the beginning of the twentieth century. The first academic publication to mention it is the report of the excavation carried out in the Roman *distylus* of Zalamea de la Serena (García Bellido & Menéndez Pidal, 1963). The first works in the cave during the 1960s and early 1970s were realized by local amateurs and erudites, including a "rescue mission" by children from the local school led by their teachers. They focused on the cave's interior, almost completely removing the original archaeological deposits. Systematic work only began in 1977, directed by Alvarez Martínez (Alvarez Martínez, 1986). Excavation was concentrated on the small plain below the cave (Fig. 9).

Since then, the site has been widely cited in publications regarding religiosity in pre-Roman Extremadura (Blanco Freijeiro, 1981; Alvarez Martínez, 1986; Berrocal Rangel, 1992; Enríquez Navascués, 1995; Celestino, 1997; Rodríguez Díaz & Ortiz Romero, 1998). Its importance has been stressed as one of the few cult places known in this region. Alvarez Martínez interpreted this place as an indigenous Romanized sanctuary. Recovered materials do not allow the attribution of a precise time for its foundation. Miniature imitations of amphorae and other scattered finds suggest the use of the cave from protohistoric times. The most remarkable find was a great quantity of anthropomorphic and zoomorphic clay votive offerings. They have been considered as local productions, different from terracotta artefacts found in other clearly Roman worship contexts, like Castrejón de Capote or Cerro de San Pedro (Blech, 2003; Moneo, 2003).

Our present work, framed in the regional project of La Serena region, is focused on the cleaning and identification of finds from the old excavations. Study of the material is still in progress, but we can anticipate finding a large amount of common wares, especially *paterae*, pots and small vessels. Regarding Roman productions, we can emphasize the abundance of early red slip ware and, to a lesser extent, thin-walled pottery. We also found some materials related with cult, like clay votive offerings, miniature handmade vessels and oil lamps.

sites. Assessing together all the locations with Roman material, in searching for patterns in its distribution, we have performed a nearest-neighbour analysis. The results obtained, specially for the dispersions of greater density, indicated a concentrated behaviour with greater clarity than was the case for the protohistoric occupations (Tab. 1).

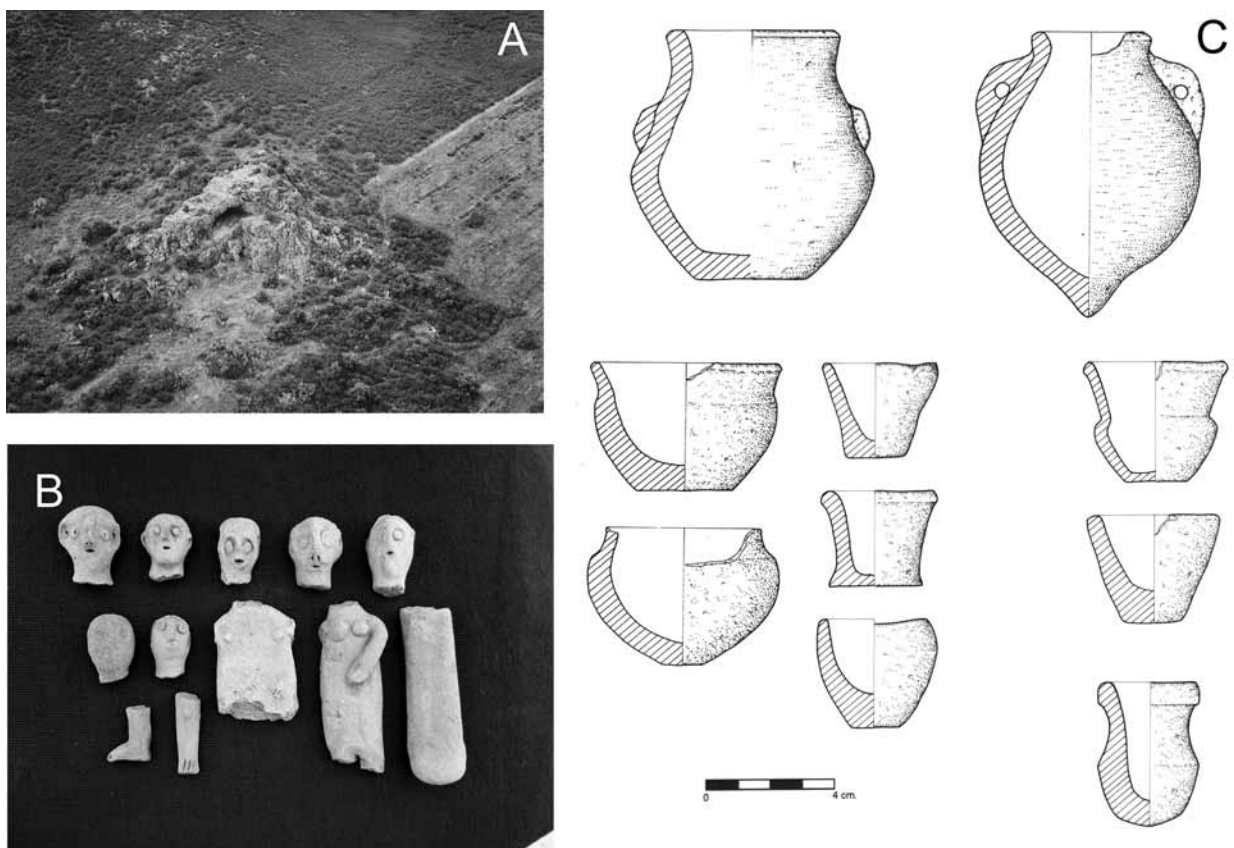
As we have already seen, one of the most outstanding characteristics of the protohistoric occupation was the preference for less prominent locations. We compared by means of

The serious disturbance of the cave's interior was mentioned above. The emptying materials deposited in the cave on the plain below was recorded. There is no evidence of any structure or *favissae*. We have not found any argument to question the traditional interpretation of the site as a sanctuary. The use of this kind of cave as places of worship is well attested in the Iberian Peninsula from the sixth century BC. Nevertheless in the south-west area we only know this example, and probably the Fuentes de Leon caves, also in Badajoz province. In relation to the chronology, alterations make it difficult to give a clear answer. We propose a certain sequence at least from the beginning of the first century BC to the middle of the first century AD. There is therefore a coincidence with the appearance and development of the enclosure phenomenon. Nevertheless we have evidence of a different pattern in the consumption of imported pottery that could be interpreted as evidence of cultural choices. Whether the people visiting the cave are the same as those occupying the "recintos torre" enclosures is still an open and interesting question.

#### FUTURE DEVELOPMENTS: INTENSIVE SURVEY IN THE MIDDLE ORTIGAS BASIN

With respect to the effort of cataloguing and studying the enclosures, a long task still awaits us. We believe in the great potential of the combined study of the structures from the perspective of the archaeology of architecture, and the analysis of their location criteria provided by the landscape study. Both lines have in common our interest to experiment and innovate in the recording and interpretation of the spatial component of the archaeological data.

We are committed to the effort of increasing the areas of intensive survey. Here two main objectives come side by side. On the one hand, we wish to proceed in the experimentation of new recording methods for surface survey, thinking about their limitations and possibilities. Thus La Serena Region becomes a great laboratory. We understand that, on a peninsular scale, it is still necessary to regard the



9. A) Aerial view of the Cueva del Valle; B) and C) Clay votive offerings and vessels from the Cave

survey as a second-class source of data. On the other hand, refinement and improvement in these techniques should provide an image of increasing resolution of the dynamics of landscape occupation through time. As some authors have pointed out, a growing trend in survey work goes towards the more intensive study of smaller areas. Far from seeing this as a myopic phenomenon (Blanton, 2001), we think that this is the only way really to understand the meaning of surface distributions.

Following these principles, our last fieldwork campaign was focused on the diverse landscape units of the middle Ortigas basin. This time the survey area was delimited by two large transects across the river bed. They were defined in order to obtain a sample of the distribution patterns of surface finds in the valley. The underlying idea was to improve and speed up a recording system not based on the concept of site, taking advantage of developments in spatial technologies. The work was planned in two stages. In the first stage, every land plot was surveyed with an interval of 10 metres between fieldwalkers, locating with GPS receivers all the finds along each track. The aim of this global count was to obtain an estimate of sherd densities, but avoiding the time-consuming task and the loss of spatial resolution of setting up grids in the field. An improved data flow between the GIS environment and data recovery allowed us to analyse information in real time in order to define possible areas of interest (Fig. 10).

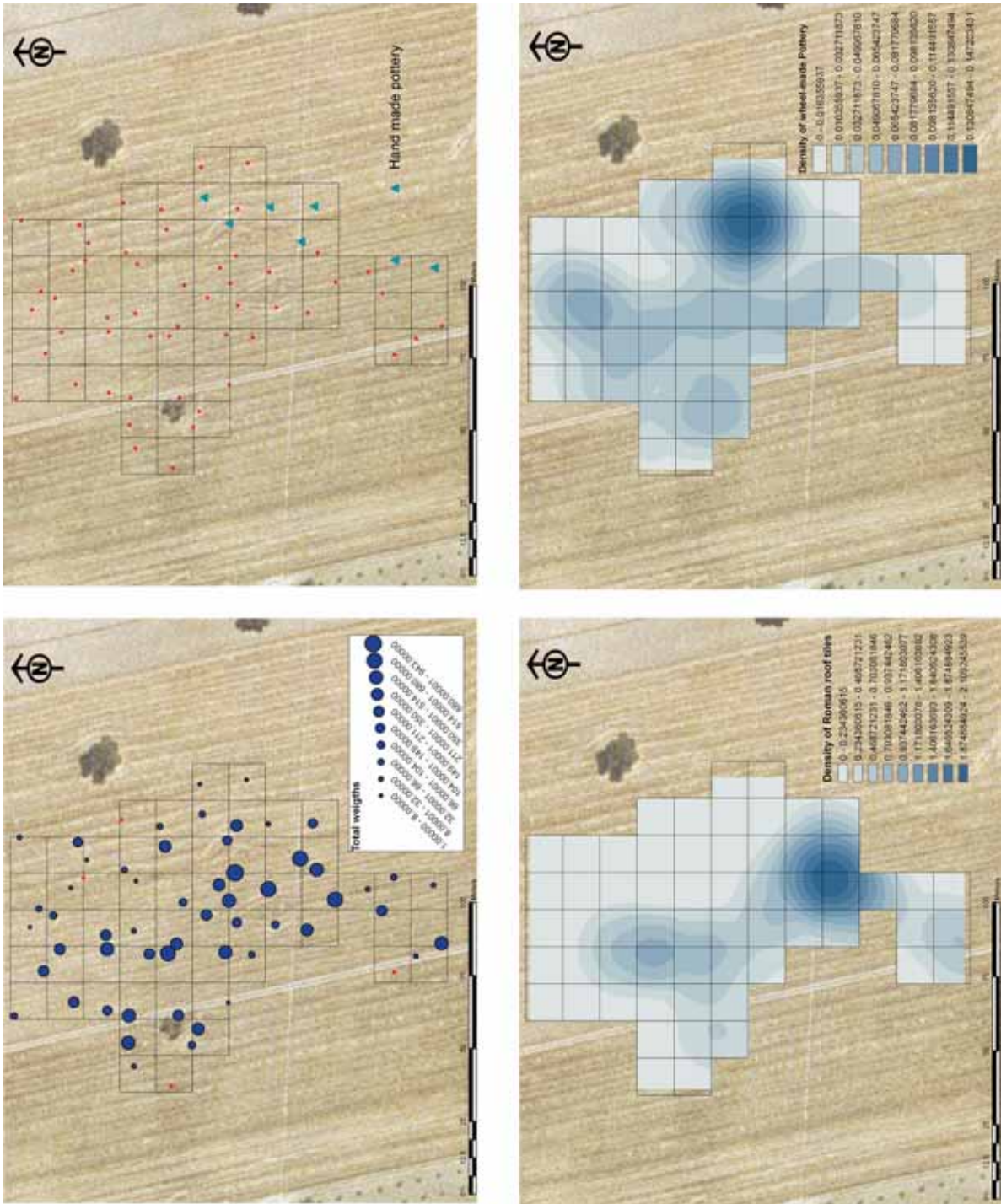
Once these areas of interest have been delimited, the second stage of work consisted in their systematic sampling. Survey points were easily uploaded in a GPS receiver for their location on the ground. Each one was inspected with the help of a sampling unit of one square metre. All the materials found inside the unit were picked up (with the exception of construction elements like roof tiles, brick etc.) and described. Again in the laboratory, this tabulated data was linked to the point distributions. With this procedure we have avoided selective, unsystematic practices which lead to remarkable biases. Pottery collections will be representative samples of surface scatters, then we will be able to explore the distributions in detail in order to detect chronological or functional variations. Nevertheless, none of this protocol will be meaningful by itself until we have surveyed areas of a minimal size. For example, there is obvious potential for using this method to explore the area surrounding the enclosures.

## CONCLUDING REMARKS

The final objective of all these efforts is to widen and deepen our knowledge of the historical evolution of the La Serena landscape. However, this work must be framed in the current scientific debate on two fundamental senses. Firstly, regarding the specific characterization of rural landscapes of protohistoric and Roman times in the whole of the south-west of the Iberian Peninsula, we need to go beyond the reconstruction of the small local history of each zone. Secondly, on a theoretical and methodological plane, there is the need to make formal proposals for research on preindustrial agrarian landscapes in general terms, as Guilaine has proposed (Guilaine, 1991). The experimentation and the search for new ways of analysis will always be useful to offer to us new perspectives on the archaeological record and it will help to understand the data structure in depth.

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10. Intensive, "siteless survey" in La Serena region: sampling a Roman rural site



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