ENGLISH TEXT SUMMARY

## SANTA CATERINA DE BARCELONA: POPULATION AND DEVELOPMENT STUDY

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Over the last few years, an archaeological investigation project has been carried out at the site of the old Santa Caterina market in Barcelona. This site was previously occupied by a Dominican Order (Order of Preachers) monastery of the same name between the 13th and 19th Centuries. The excavation process has uncovered a sequence of occupation of the site from the beginning of the Bronze Age to the present day. In this article, a review is conducted of the classical historiography referring to the monastery and the area in which it was located, relating the new archaeological data and taking a new look at the documentary sources.

The first occupation of the site was, as mentioned, at the beginning of the Bronze Age, with the presence of three pits, where a large quantity of pottery and a double grave were discovered. The next occupation is indicated by the remains of a ceramics production centre, characterised essentially by the presence of Pascual 1 and Dressel 2-4 amphoras, chronologically situated at the change of era. In the 4th Century AD, the site was occupied again, but with a different function, this time funereal, with the construction of a large necropolis with funerary buildings, Aula and the delimitation of the area by perimeter walls. With regard to the limits of the necropolis, what is very significant is that it stays within the same grounds in the height of imperial times. There is also evidence of this if we observe the location of the later church which respects the same lines of division as Roman times, these lasting for almost 1000 years.

Continuing with the phases of occupation, between the 8th and 10th Centuries, there is evidence of scattered occupation of the site, characterised by the presence of wells for the extraction of water and silos, evidence of silos being found in the layers of soils and deposits.

At the end of the 10th Century – beginning of the 11th, a single-nave church was built with semicircular apse, adjoining which are structures which have been related to the site of a small monastery. Around the site during the 12th Century, some domestic premises were constructed, shaping the first attempt to develop the site. This process was interrupted with the arrival in 1223 of the Dominicans to the area around the church (possibly in disuse at that time). They would go on to occupy a large site, eliminating the features of this primitive urbanisation. The monastery of Santa Caterina became the largest in the City, exerting a great influence on the city and its rul-

ing classes. In the 19th Century, the decline of the monastery began, being sealed by the loss of part of its land at the time of the Trienni Lliberal (a three year period during which the liberal constitution was restored), by the lengthening of the Freixures Street, and the construction of the public square of Santa Caterina. Despite the fact that under the later royalist government the monastery recovered part of its land and even went on to construct new buildings, in 1835 it was set on fire during popular revolts and soon after, was sold and demolished. The market of Isabel II, better known as Santa Caterina, was built on part of the site. With some alterations, it continues to this day and at the moment is undergoing a process of restoration. Essentially, the aim of this article is to present the changes in use of this site and their repercussions on the story of the development of the city of Barcelona from prehistoric times to the present day.

## IMPORTANT FIGURES OF *BARCINO* AND LAIETANIAN WINE. LOCATION OF A *FUNDUS* OF THE *PEDANII CLEMENTES* FAMILY IN TEIÀ, EL MARESME, BASED ON AN INSCRIBED LEAD *SIGNACULUM* FIND (2nd CENTURY B.C.)

This article focuses on the vineyard and wine-making site at Veral de Vallmora (Teià-El Maresme) and on the exceptional finding of a lead seal, a *signaculum*, with inscription, discovered during the archaeological conservation interventions which have been taking place throughout 2003-2004 as part of the *Cella Vinaria* project, driven by the Teià City Council.

This project has been developed as part of Plan Director 2003-2007 which plans the creation of an area of approximately 13,000 m<sup>2</sup> for a Social and Cultural Services Centre and will include a Visitor Education Centre for the site. The aim is to explain, within the context of Romanisation, the historical phenomenon of the origin, development and expansion of vineyards and wine production in Laietania and the trade in wine from Tarragona from the 1st Century BC to the 4th Century AD. The site is located on the terraced slopes of a hill, 93 m above sea level, above a lay-by on the C-32 motorway; it is catalogued in the Inventory of Catalan Archaeological Heritage (IPA 1987, p. 23-24) and was discovered in 1966 by L. Galera.

A series of structures have been unearthed which provide evidence of the wine-making process, with pressing rooms, deposits, stores and dolia defossa. The initial phase of occupation dates back to between the 2nd and 1st Centuries BC, with a period of construction already documented inside the latter century. Within the 1st Century AD, still in the Augustan era, we find the beginnings of the great building corresponding to the vineyard and wine-making centre which was extended under the Flavians and was in use during the Antonine and Severus periods (1st-3rd Centuries AD). The decline of a great part of these structures took place, it seems, during the first half of the 4th Century AD, with evidence of its total disuse in the 5th Century; however, frequenting of the place is observed until the 7th Century, with a series of burials in simple graves. The lead signaculum was found inside a rectangular structure, possibly a tank,

right next to a Trajan sestertius. The seal is rectangular shaped, with letters in relief which tell us that it belonged to Epicteto (slave) de Lucio Pedanio Clemente.

Núria Miró i Alaix

Isabel Rodà de Llanza Antoni Martín i Oliveras Carles Velasco i Felipe Roser Arcos i López NEW DATA ON THE ROMAN RAMPARTS OF *BARCINO:* RAMPART WALK CONSERVED IN CARRER DE L'ARC DE SANT RAMON DEL CALL

This was a family which was well-represented in *Barcino*, where we know of various *Pedanii Clementes* and of Epicteto himself, paid homage to by his wife as liberto by this time and seviro augustal, on a pedestal which we have previously dated to the times of Trajan (IRC IV, 106).

This new inscription provides evidence that this branch of the *Barcino gens Pedania* exploited the wine-producing resources of Veral de Vallmora, one of the few sites where we know the name of the property, managed by Epicteto when he was still a slave and was acting in the name of his master, Lucio Pedanio Clemente. Between February and March 1996, as a result of rehabilitation of the main floor of the property located in Carrer de l'Arc de Sant Ramon del Call, no.5, the City Archaeological Unit considered it was necessary to perform an archaeological excavation, since part of the housing on the wall was from the *Barcino* of the Late Empire.

We find ourselves in an area located on the western end of the cardo, on the side that leads out of the city at the side of La Rambla, near to the entrance of the Jewish quarter. In this southwestern side of the defensive structure, a transversal section on the façade of houses 3 and 5 of Carrer del Call has been visible since ancient times. The action we performed was on the upper part of this housing.

The work focused on extensive excavation of an 11.57 m<sup>2</sup> room and a 30.76 m<sup>2</sup> inner courtyard.

The results obtained after the excavation was completed led to rediscovery of the top and paving of the rampart walk on the Late Empire ramparts, as well as greater knowledge of tower 62, and how these two defensive elements were related.

The precise construction, as shown in the minute details conserved in this section, such as the slight functional slope of the opus signinum paving to ensure conservation of the nucleus, or the existence of the parapet and its possible merlons, lead us to think that the fortification was a structure designed to last, as demonstrated by the passage of time. The Roman ramparts, a living element throughout the history of Barcelona, adapted to the city's need for space, as shown by discovery of the wall of the inner parapet and the eastern wall of the tower, with extensive reforms and repairs to make full use of the remains of previous structures. This refers to the time in which the city began to encroach upon the ramparts by building housing increasingly close to the fortification, at times using its structures as a retaining wall for the house itself. Starting in the 13th century, with construction of a new wall in La Rambla area, the ramparts no longer served a defensive purpose. A series of documented strata reopened this space, increasing the passable area on the rampart walk where we conducted the work,

until the top of the wall in this place became a habitable area. The new building located in the Jewish quarter raised the walls of the house, using the remains of the parapet of the wall and the base of the tower as foundations. In an undefined moment after 1857. this space was annexed to the building in Carrer de l'Arc de Sant Ramon del Call, opening access from the main floor and leading to Carrer del Call. Previous to this event, on the pieces of bare wall on the east side of the house where the plastering has been chipped again, we have found some door and window openings, already condemned from ancient times, that suggested a possible façade and converted the hidden area of the rampart walk into a space open to the outside. Were there one or several houses which one could access from the rampart walk? Was this used in the city as an elevated passage? The data obtained during excavation, with the passable area made of compact earth dated from the 14th and 15th centuries, as well as the refilling of the space between the possible hardened clay merlons with the shape of a drainage channel, provide evidence that would support this hypothesis of the historic period in which this section of the rampart walk was used as a passage to enter the housing. A more in-depth documentary and historical study is required in order to verify empirically that this event could have been repeated in locations near the area where excavation was conducted. After annexation of these areas to the new structure in Carrer de l'Arc de Sant Ramon del Call, no.5, which leads directly to Carrer del Call, the areas

where the rampart walk was located were converted into rooms, and the tower area was transformed into the inner courtyard of the housing. The connection between this annexed section and the rest of the building, with an evident difference in height, is remedied by a small staircase located in the present kitchen of the house. In conclusion, we have verified the survival of the spaces delimited by these two elements of the ramparts at the present elevation, as well as the openings or passageways that joined them to one another. Moreover, we have seen that their relationship with the external

LOCALLY MANUFACTURED AND IMPORTED COMMONWARE POTTERY FROM THE PLAÇA DEL REI ARCHAEOLOGICAL SITE, BARCELONA, BETWEEN THE VISIGOTHIC AND ISLAMIC PERIODS. 6th-7th CENTURIES

environment has also survived, although it has changed. The areas of the rampart walk that were open are now closed, and the closed area of the tower is presently open. The entire unit has the same passable areas between both elements of the fortification, at the same height and with the same doors, where it is still used at present as a thoroughfare. The archaeological dig in the Plaza del Rey in Barcelona has yielded a significant amount of common pottery which can be dated in the second half of the 6th century and the 7th century. This dating is based on the large amount of amphorae found, the presence of late forms of African terra sigillata and numerous coins, including Visigothic *numus*. This pottery was largely fired in closed kilns and used in the kitchen and for storage purposes.

The study of the pottery found on the site has led to the establishment of six major groups based on a macroscopic analysis, taking into account the type and composition of the clay and the finish, or surface treatment, of the pieces. Of the six groups, four correspond to what is known as coarse grained pottery, normally fired in a closed kiln, and two to darkened coarse fine-clay pottery for storage and auxiliary household uses. Specifically, Group V corresponds to items imitating fine Ibizan pottery, which have also been identified in Mataró.

The archaeometric study, conducted by Cau and Buxeda, and published in this same volume, has enabled them to establish ten types of production. In relation to their origin, two have been considered as non-local, with at least one of them, Group VI, probably from the south-east of the Iberian Peninsula. The rest correspond to local or regional productions. Their composition is compatible with the geological area around Barcelona and the Maresme district. It would appear that in the second half of the 6th century and in the 7th century, there was a large number of small workshops supplying the city of Barcelona. As for the forms, in the pottery from the Plaza del Rey, there are a majority of open forms, pots and cooking vessels complete with lids. Besides traditional pots, there are tall pots, with or without handles, mortars or lipped bowls, and plain bowls or cup bowls. These items have been shaped on a potter's wheel and fired at low temperatures. The finishes consist of burnishing/spatula and coating techniques. There are hardly any decorative elements in the groups studied.

In the same contexts we find common pottery imported from the Central Mediterranean (the Aeolian archipelago and the island of Lipari), southern Italy and the Balearic Islands, of which few examples have been found in Barcelona, although, based on the studies of J. M. Macias, it was abundant and well established in Tarragona. Other productions have also been found, including common glazed pottery and common pottery with a spatula finish. The former is only present in testimonial amounts on the site and it may consist of remains of crucibles associated with glass manufacture. This seems to be the case of some remains discovered in Barcelona. On the other hand, some French findings of pottery crucibles would seem to confirm this hypothesis. In relation to the common pottery with a spatula finish, it corresponds to very well-made fine pottery fired in an open kiln and with a spatula finish, and has been found both on late antiquity levels and on levels close to the 8th century. This type of pottery, of which there is not a homogeneous group, has nothing to do with, and should not be mistaken for, the high medieval spatula pottery which is well known in Barcelona in its most representative form: sitra. On the other hand, the overall sequence on the site has enabled us to establish clear chronological horizons dating from the second half of the 7th century, the 8th century, and the late 9th-early 10th century. The pottery that has appeared in these contexts continues in the forms inherited from the Spanish Visigothic period; only a few plates/pots appear to be related to established Arabic forms known as alcadafe, which can be seen on sites in Cartagena and Alicante. There is an important number of pieces

made by hand/wheel, as well as of bases of containers with thick sides and deep grooved bands inside, which had not been detected in the previous facies. In these sequences, covering the 8th century, such a little known period in general and particularly in this city, there are no clear fossil pointers, so these periods of occupation are not usually recognised in the urban sequence. In Barcelona, we are only aware of one group from the same period, identified in the Administrative Archive excavation, so little more can be said at the moment. A total of 40 late pottery objects, 37 coarse pottery cooking vessels and 3 fine, coarse-grained pottery objects, have been characterised archaeometrically by X-ray fluorescence (XRF) and X-ray diffraction (XRD). A selection of 19 pottery objects, according to the results obtained by XRF and XRD, have been characterised subsequently by thin film optical microscopy (OM). All of the pottery objects are from excavations of the Plaça del Rei (Barcelona), from contexts dating from the latter part of the 6th century or the 7th century. The results offer a surprising complexity

in the configuration of the pottery studied. It has been possible to define up to a total of 10 different productions, some of which are extremely heterogeneous, suggesting that if a larger number of samples had been studied they could have been divided into several more productions.

The fine, coarse-grained pottery defines a singular production (BC-2) identified with a URCP defined in the study of the late pottery of Mataró (PL-C). It is a calcareous production, fired, possibly for the most part, at high temperatures in the range of 850-950 °C. Its origin seems to be located in the area of the Catalan coast.

In the case of the coarse pottery cooking vessels, a total of up to 9 different productions have been identified. These ceramics are not very calcareous and, with few exceptions, all of the individual pieces analysed were fired at low temperatures. These productions seem to include local and/or regional productions, along with other imported production. Of the local and/or regional production, URCP BC-3-4.2 seems to refer to a production derived from granitic areas, quite possibly granodioritic, and has certain similarities with the local and/or regional productions of coarse pottery cooking vessels identified in the Mataró pottery. This leads to propose its origin in the Maresme as a hypothesis. On the other hand, although they include granitic plutonic materials, URCP BC-4.1a and BC-4.1b also include metamorphic contributions that indicate an area of origin different from URCP BC-3-4.2. Nevertheless, while not ruling out more distant areas, it may also have originated in areas close to Barcelona. Of the imported productions, the URCP BC-6 is noteworthy, since it includes materials from a metamorphic area with presence of schist. Likewise, most of the URCP BC-8 is metamorphic rock, which seems to rule out origin on the Catalan coast, although no area of origin can be specified. Finally, there are three productions for which it is not possible to state that they are local and/or regional production or importation based on analytical arguments. In the case of the URCP BC-9, chemically and petrographically it has clear similarities with the Cau 4.2-5.2 works, but these works are recorded in assemblages with a chronology prior to that of Plaça del Rei, usually up to the early 5th century. Their origin is uncertain, although the possible regions of origin include some areas of the coast of Catalonia, Andalusia or Sardinia, as well as others. At any rate, it must be emphasised that this manufacture is also known with certainty in Darró and the Balearic Islands, as well as the Alicante area, where analytical confirmation is lacking. The appearance of this production in different locations of the western Mediterranean does not seem to be compatible with the distribution that we might assume for local or regional production of the Catalan area with this chronology. As regards the origin, the URCP BC-1 has extraordinarily high contents of Pb and Zn, which quite probably can be attributed to the existence of mineralization with these elements. These types of mineralization are common in vast areas of the peninsular southeast. Moreover, this explains the relative similarity between this URCP and some of the materials from the Theatre of Cartagena. Nevertheless, it has not been possible to establish any positive identity with these materials based on chemical analysis. Petrographically, they include slate that, although it is also found in the southeast of the Peninsula, is not foreign to some outcroppings on the outskirts of Barcelona. Moreover, positive identity between this URCP and the works of this area known at present cannot be established either based on comparison with reference materials from the southeast. Likewise, the URCP BC-7 is a case similar to that of the URCP BC-1 in a certain sense. It also has high concentrations of Pb and Zn with certain similarities, but

not positive identity with productions from the southeast. Petrographically, it includes a mixture of plutonic and metamorphic materials that does not rule out its possible origin on the outskirts of Barcelona, certain regions in the southeast, or other regions. In short, in spite of the limited number of pottery objects studied, the pronounced complexity of this assemblage has specific characteristics in relation to our knowledge. Moreover, it is clear that its dynamic does not seem to be compatible with what we know of Mediterranean trade of this kind of pottery, based on the example of the Balearic Islands and the peninsular southeast. Nevertheless, comparison of this assemblage from Barcelona with that studied in Mataró also reveals very significant differences, as the latter is formed primarily by relatively homogeneous local and/or regional materials. Therefore, it is difficult to explain the diversity of the productions existing in Barcelona, and their absence in Mataró. Moreover, it is difficult to determine the origin of some imports, which, if confirmed, would not exist according to our knowledge of the western Mediterranean area. Barcelona seems to have a complex and specific commercial dynamic in relation to what we know of the surrounding areas.

The Romanesque cathedral of Barcelona was consecrated in 1058 and the start of its construction goes back at least to the 1030s. It was sited on the same spot as the building that had existed up until that time, and where the first cathedral had been built in the 4th century. The lack of archaeological excavation in the subsoil of the current church means that, at the moment, we have no material remains of the cathedral that preceded the Romanesque one, which was demolished in the 11th century. By contrast, there are significant remains of the other buildings that made up the Barcelona episcopal complex (bishop's residence, episcopal hall, baptistery...), from the time when the bishop became established in this northeastern quadrant of the city of Barcino, in the 4th century. This area would become the centre, not only of religious power but also of political power when the count's residence was later built here, and this would last throughout the Middle Ages.

Of the Romanesque cathedral, in contrast to the preceding ones, we do have some isolated archaeological remains, found casually at various points. Firstly, sections of the western wall of the porch, initially found when tests were being made for the foundations of the new Neo-gothic façade in 1887. And, then, between 1967 and 1969, when the baptistery was excavated, and in 1977 when the floor of the cathedral was taken up again at this point. Also, the imposts with sculptural decoration which were first found in 1887 and then in 1951, when the Carrer dels Comtes was excavated, and in 1964, again inside the cathedral.

M. Vergés and T. Vinyoles were the first to study the documentary data and information on the archaeological remains in depth, and they suggested a hypothetical floor plan in relation to the Gothic cathedral, based on another slightly earlier 11th century building, Sant Vicenç de Cardona. Its use as a model, and perhaps the same tradition of previous studies, initially brought them to displace the relevance of the imposts to the previous cathedral, which was supposedly Carolingian. Later they rectified this, considering them to be 11th century and from the new cathedral which was built then.

In the present study, the information and available remains have been reviewed in order to once again approach a hypothetical floor plan for the Romanesque Barcelona cathedral and, at the same time, look at the architectural function of the imposts. The first thing to record is that the archaeological remains have not been properly positioned in M. Vergés' and T. Vinyoles' drawings with respect to the Gothic cathedral. Using measurements on the plan and, taking into account that we know the north-west corner, it has been possible to establish exactly where the outside side wall ran. It passed at the very level where the Gothic chapels are opened up, so the foundations were used to serve as a support for these. This re-use is logical and also happened with the wall on the south side. This assumption allows us to establish the total width of the building, the centre of which must have incorporated, as the Gothic building does with the crypt of Santa Eulàlia, the ossuary deposited by Bishop Frodoí in the 9th century. Moreover, the fragments of the façade of the porch wall that are preserved, which include one of the doors, allow us to suggest a width of three naves. The result is significant because the pillars separating the naves coincide exactly with the current building, so another important case of re-use of the foundations of the Romanesque cathedral by the Gothic one becomes clear. The resulting openings in the porch façade do not seem to have coincided exactly with the church doors, because as well as the two side ones, the central part could have had two doors and not one, given that the available remains indicate that the width of the central opening would have be too great for a single door.

The study of the sculptural elements confirms the dating already proposed for some time for them, in the second third of the 11th century and, therefore, the fact that they come from the building consecrated in 1058. The motifs displayed in them are common in other pieces from 11th century Catalan buildings. The analysis of the motifs on the most intact of the preserved imposts also leads us to suppose a symmetrical arrangement of the building, so that the supports on either side of the nave would have had very similar decoration. This also appears in the contemporary church of Sant Pere de Rodes. Finally, the form in which the whole imposts appear – worked on one face and along only half of the sides - makes the supposition that they are unfinished pieces unlikely. On the contrary, they are perfectly finished and the unworked sides, together with the back, must have been fitted into the supports. A similar example can still be seen in the heavily restored Barcelona church of Saint Pere de les Puel·les. This allows us to put forward the hypothesis that the pillars of the Romanesque cathedral of Barcelona must have been T-shaped. The ridge would have been at the side of the central nave and would have included the imposts.

THE URBAN AREA OF THE PRESENT PLAÇA VILA DE MADRID DURING THE LATE MIDDLE AGES (13TH - 15TH CENTURIES). RESULTS OF ARCHAEOLOGICAL AND DOCUMENTARY RESEARCH Cesc Busquets i Costa Isidre Pastor i Batalla

This paper seeks to present an initial proposal of how growth of the urban area of this sector of the city developed during the medieval period. The results of the archaeological research have been analysed with this aim, with the support of documentary contextualisation, in order to present new proposals that help understand the dynamics of urban growth of the medieval city. Nevertheless, subsequent comprehensive studies of the documentary collection are required to gain more in-depth knowledge of the historical evolution of housing in this urban area up until construction of the Convent of Santa Teresa in the late 16th century.

The urban growth experienced by the city of Barcelona during the medieval period was primarily due to a process beginning in the late 10th century, which is considered to conclude around the 15th century, with closure of the second walled area of the medieval period. This development of the urban area was carried out by progressive occupation of the territory of the suburbium surrounding the area of the Roman Barcino. Up until that time, the city had been limited to this area. The vast territory located around the city is characterised by its clearly rural aspect and by the many orchards and fields that primarily occupy this area.

Development of the urban area of this sector of the city took place as a result of the influence of two buildings located in this territorial region: the Church of Santa Maria del Pi (10th century) and the Priory of Santa Anna of the order of Sant Sepulcre (early 12th century). These act as catalysts and, at the same time, dynamic elements in the process of urban growth in the nearby surroundings. This process is undoubtedly a clear example of the role of the religious class in urban development of the growing medieval city.

Within the framework of this territorial context, the importance of Carrer de la Canuda as one of the primary vertebral axes of urban growth of this sector of the city has become evident. The territorial reference represented by this street, starting in the late 12th century, as boundary between two of the major sections of land in the area, is the essence of the subsequent transformation of the route into a street. The first references from the medieval era documented in the present Plaça Vila de Madrid are elements that affirm the primarily rural character of the area up until the late 13th century. As of this time, a process of growth begins, developed based on the so-called Vila Nova (new town) of Sant Sepulcre and Vila Nova of Pi, which will lead to the first developments of an urban area in this location during the 14th century. The archaeological intervention facilitated documentation of the scope and entity of the former, and identified two clearly differentiated phases of growth of the urban area. The first of these refers to a series of buildings located near Carrer de la Canuda that were within a chronological framework established as the late 13th century. In a second period, as of the late 14th century, the urban area in the central sector of the present square was developed. The construction process generated by this new occupation of the inner land of Carrer de la Canuda and Carrer d'en Bot covers an extended period of time, up until the late 15th century.

Archaeological research has facilitated documentation of the remains of this area and provides new data on the process of urban growth in the sector. These results, in comparison with the profuse documentation on the city conserved from this chronological period, have made it possible to present an initial historical summary of the area of the present Plaça Vila de Madrid during the Late Middle Ages, between the 12th and 15th centuries. At Carrer Tiradors no.1, in the city of Barcelona, located in an eminently industrial area of the Sant Pere district, an archaeological intervention was performed (in May 2001) to determine the location of an infrastructure from the 19th century used in part of the leather tanning process. The excavation documented a short sequence of filling strata from the 19th century used to refill the ground floor level, taking advantage of the existing structures -primarily the leather tanning infrastructure: the structure of two large pits and a collector- to lay new paving. Only a couple of pieces of evidence prior to the tanning period could be located, such as the rectangular well, the lower part of which dates from the 17th century.

Although most of the remains found during the excavation were from the 19th century, the origins of the property go back to the medieval period. Presently two pieces of raised evidence are still conserved, specifically a slightly pointed arch from an archway located in the western party wall and, on the northern wall, another arch, in this case semicircular, for entrance to the property. Both structures bring us closer to the 13th - 14th century as a chronological horizon for the origin of the property. The most noteworthy remains are the assemblage of infrastructure used for leather tanning. In this regard, a large structure has been located which includes two large pits or tanks with a circular design and slightly trunco-conical section. One of the two tanks, the one located further to the east, is larger and conserves the inner surface, formed by an intermediate layer of pine wood and a flat tile finish in vertical position. The leather treatment process was performed inside these pits. Tests conducted by the company Arqueocat have determined that some of the processes that use fish oil to treat raw material, probably oil tanning or leather oiling, were carried out on this property. In both cases, the leather must be placed in large pits. The wooden surface would provide the thermal insulation required to keep the liquid inside the tanks at a certain temperature.

In conjunction with the archaeological excavation, the documentary historic study of property no.1 bis of Carrer de Tiradors in the city of Barcelona was

conducted by the company Veclus. This study contributed data regarding the building that goes back to the late 17th century. It also established the relationship between the structures and the tanning activity, based on a document from 1858 which records the sale of the property to the tanner Andreu Alier.