Since the publication in 1980 of the conclusions of Manuel Bendala and Iván Negrueña on the findings in the Patio de Banderas of the Alcázar of Seville, the idea of a possible extension of this excavation to the rest of the place was settled between the different groups involved in knowledge of our heritage, to solve the mystery by then posed: the existence of an ancient late religious complex that would last since the fourth century until its destruction by Islamic ALcázar builders (Bendala and Negrueña 1980: 335). Subsequent work conducted in 1999 served to reinforce this idea when Roman remains of buildings of interest were localized to six feet deep. (Tabales 2000: 212).

After being a scheduled activity, the decision to excavate was taken in the Special Plan of Protection Sector 6 Real Alcázares. At the same time, a study strategy was carried out, to a first approximation to the subsurface stratigraphy, developed in 2009, and the development of an overall research program, which would include excavation and relevant analysis and subsequent enhancement of remains in an archaeological underground under de current surface.

Three campaigns have been developed up to now, culminating in the complete excavation of the central sector of the square. New actions on the perimeter of the courtyard and in one of the houses, which will be fitted out as an interpretive center of the archaeological crypt (Figure 1), will be carried out for the completion of the project.

We present here a state of affairs in our research, although it should be understood that these are ongoing and are, therefore, provisional.

HISTORICAL PROBLEMS.

The Patio de Banderas, one open square of the city, is the result of various operations of demolition and refurbishment of the central sector of the first Islamic fortress, whose most important milestones were: first, the creation of a space as a large parade ground in the Middle Ages, the opening of the walls to communicate it with the rest of the city in the sixteenth century, its reorganization and landscaping in the nineteenth century, and finally, setting its current form as a
result of the improvement works undertaken in town for the 1929 Exposition. As a result of these changes, its understanding as a neoracial part of the Alcázar was undermined by the story, to the point that today the square, paradoxically, is not part of the palace itself.

Its location was established on unknowns of scientific interest in joining up two keys whose decision became impossible elsewhere in Seville. On one hand, the detection of the first activities for the construction of the first palace, especially the recognition of its interior layout, transits, features, etc. On the other hand, we looked for the understanding of the process of urban transformation experienced by the city in its southernmost point, precisely where the channels of the river Tagus and the Guadalquivir traditionally converged.

Linked to this is the fact that the excavation stratigraphic survey, permits to suggest some initial contributions in two main areas of analysis of this research:

> the matter relating to the identification and characterization of natural conditions on which the first occupation of the area, and possibly of the city of Seville, takes place, that is, the identification of the first fluvial and lacustrine facies of the site, the recognition of the initial impact of the human presence.

> the aspect that is related to the palaeotopography of the area, especially in regard to the presence of the river terrace, slope on which primitive settlement was implanted.

Regarding the first of these issues, the current state of research allows us to confirm that edaphic horizons related to the ferrallitic soils of low terraces of the Guadalquivir have been successfully identified in the SE XIV, the time they have been described. This edaphic profile is the base of the geochronological sequence of Seville, associated with an occupational setting of the protohistorical city. This is the first time, located in the Southern profile base of the aforementioned stratigraphic probing. In this wall is detailed, in effect, a Cca / Bca horizon of carbonates accumulation, which continues to roof a B-clays accumulation as well as part of an A2 or AB (?) organic horizon, with abundant biourbanisation marks. The first results of physicochemical analyses obtained in this regard support this interpretation, although its provisional characteristic advises us to keep open the characterization and the end classification of the horizons. Without prejudice to any subsequent support from this perspective, in fact, the first critical period of occupation and, secondly, the ability to impact these first groups of settlers on the edaphic cover.

In this regard it should be noted that this profile provides an unique opportunity to know deeply the characteristics of the upper horizons of some small settlements. Although difficult to understand the same city as an entity in continuous reorganization. (Figures 2 to 9)

DESCRIPTION OF ARCHAEOLOGICAL PHASES Geochronological sequence

Preliminary data obtained from the laboratory, with the field review of the edaphic profiles showed the existence of different horizons of the succession stratigraphic surveys, permits to suggest some initial contributions in two main areas of analysis of this research:

> the matter relating to the identification and characterization of natural conditions on which the first occupation of the area, and possibly of the city of Seville, takes place, that is, the identification of the first fluvial and lacustrine facies of the site, the recognition of the initial impact of the human presence.

> the aspect that is related to the palaeotopography of the area, especially in regard to the presence of the river terrace, slope on which primitive settlement was implanted.

Regarding the first of these issues, the current state of research allows us to confirm that edaphic horizons related to the ferrallitic soils of low terraces of the Guadalquivir have been successfully identified in the SE XIV, the time they have been described. This edaphic profile is the base of the geochronological sequence of Seville, associated with an occupational setting of the protohistorical city. This is the first time, located in the Southern profile base of the aforementioned stratigraphic probing. In this wall is detailed, in effect, a Cca / Bca horizon of carbonates accumulation, which continues to roof a B-clays accumulation as well as part of an A2 or AB (?) organic horizon, with abundant biourbanisation marks. The first results of physicochemical analyses obtained in this regard support this interpretation, although its provisional characteristic advises us to keep open the characterization and the end classification of the horizons. Without prejudice to any subsequent support from this perspective, in fact, the first critical period of occupation and, secondly, the ability to impact these first groups of settlers on the edaphic cover.

In this regard it should be noted that this profile provides an unique opportunity to know deeply the characteristics of the upper horizons of some small settlements. Although difficult to understand the same city as an entity in continuous reorganization. (Figures 2 to 9)
In all these cases it is negative stratigraphic units in shape of holes with oval trend plant and circular contour, that were gradually filled with small thickness layers, product of human activities within those cavities. All these structures, whose utility is related to food preparation processes, and therefore with the alimentation of bones inside the hole, correspond to Old Iron Age. In the packages of sedimentary fill of these mass graves of combustion, ceramics made by hand is highlighted numerically, traditionally attributed to the Phoenician not community of Tarrabos, but the one made by winch is never missing. They are signs of a timeline in which the Semitic presence in the old mouth of the Guadalquivir has become effective. Therefore, the archeological data recovered now in the Patio de Banderras certify something that specialists had previously clearly the origin of Seville city and as habitats supporting real urban characteristics is framed in older times of Phoenician colonization. They are not in any event prior to this historical phenomenon. Our interpretative proposed prefer to stop using the term Bronze Final for this opening stage of the settlement, at least until we specify by research and the town itself the ceramic evidence from levels of occupancy levels prior to arrival of the Canaánites, now well documented dates corresponding to the beginning of the first millennium BC.

The EU 1931, negative, appeared filled by the EU 1933 positive, which also contained abundant vessel fragments from Tartessian period (Figure 16). In this case, its use as combustion structure may be able to be discarded because homes were not documented. The now located in the Alcázar of the Oil Holes, as can be specified in the current context, one wheel ceramics fragment, painted on the outside with brown lines on yellow background, confirms that this pit, the oldest detected to date in these habitat opening levels in the Patio de Banderras sevillian area, does not correspond with occupancy levels in the pre-Phoenician Late Bronze, but, in an Old Iron phase (Figure 15).

The EU 1931, negative, appeared filled by the EU 1933 positive, which also contained abundant vessel fragments from Tartessian period (Figure 16). In this case, its use as combustion structure may be able to be discarded because homes were not documented. The now located in the Alcázar of the Oil Holes, as can be specified in the current context, one wheel ceramics fragment, painted on the outside with brown lines on yellow background, confirms that this pit, the oldest detected to date in these habitat opening levels in the Patio de Banderras sevillian area, does not correspond with occupancy levels in the pre-Phoenician Late Bronze, but, in an Old Iron phase (Figure 15).

The EU 1931, negative, appeared filled by the EU 1933 positive, which also contained abundant vessel fragments from Tartessian period (Figure 16). In this case, its use as combustion structure may be able to be discarded because homes were not documented. The now located in the Alcázar of the Oil Holes, as can be specified in the current context, one wheel ceramics fragment, painted on the outside with brown lines on yellow background, confirms that this pit, the oldest detected to date in these habitat opening levels in the Patio de Banderras sevillian area, does not correspond with occupancy levels in the pre-Phoenician Late Bronze, but, in an Old Iron phase (Figure 15).

The EU 1931, negative, appeared filled by the EU 1933 positive, which also contained abundant vessel fragments from Tartessian period (Figure 16). In this case, its use as combustion structure may be able to be discarded because homes were not documented. The now located in the Alcázar of the Oil Holes, as can be specified in the current context, one wheel ceramics fragment, painted on the outside with brown lines on yellow background, confirms that this pit, the oldest detected to date in these habitat opening levels in the Patio de Banderras sevillian area, does not correspond with occupancy levels in the pre-Phoenician Late Bronze, but, in an Old Iron phase (Figure 15).

The EU 1931, negative, appeared filled by the EU 1933 positive, which also contained abundant vessel fragments from Tartessian period (Figure 16). In this case, its use as combustion structure may be able to be discarded because homes were not documented. The now located in the Alcázar of the Oil Holes, as can be specified in the current context, one wheel ceramics fragment, painted on the outside with brown lines on yellow background, confirms that this pit, the oldest detected to date in these habitat opening levels in the Patio de Banderras sevillian area, does not correspond with occupancy levels in the pre-Phoenician Late Bronze, but, in an Old Iron phase (Figure 15).

The EU 1931, negative, appeared filled by the EU 1933 positive, which also contained abundant vessel fragments from Tartessian period (Figure 16). In this case, its use as combustion structure may be able to be discarded because homes were not documented. The now located in the Alcázar of the Oil Holes, as can be specified in the current context, one wheel ceramics fragment, painted on the outside with brown lines on yellow background, confirms that this pit, the oldest detected to date in these habitat opening levels in the Patio de Banderras sevillian area, does not correspond with occupancy levels in the pre-Phoenician Late Bronze, but, in an Old Iron phase (Figure 15).

The EU 1931, negative, appeared filled by the EU 1933 positive, which also contained abundant vessel fragments from Tartessian period (Figure 16). In this case, its use as combustion structure may be able to be discarded because homes were not documented. The now located in the Alcázar of the Oil Holes, as can be specified in the current context, one wheel ceramics fragment, painted on the outside with brown lines on yellow background, confirms that this pit, the oldest detected to date in these habitat opening levels in the Patio de Banderras sevillian area, does not correspond with occupancy levels in the pre-Phoenician Late Bronze, but, in an Old Iron phase (Figure 15).

The EU 1931, negative, appeared filled by the EU 1933 positive, which also contained abundant vessel fragments from Tartessian period (Figure 16). In this case, its use as combustion structure may be able to be discarded because homes were not documented. The now located in the Alcázar of the Oil Holes, as can be specified in the current context, one wheel ceramics fragment, painted on the outside with brown lines on yellow background, confirms that this pit, the oldest detected to date in these habitat opening levels in the Patio de Banderras sevillian area, does not correspond with occupancy levels in the pre-Phoenician Late Bronze, but, in an Old Iron phase (Figure 15).

The EU 1931, negative, appeared filled by the EU 1933 positive, which also contained abundant vessel fragments from Tartessian period (Figure 16). In this case, its use as combustion structure may be able to be discarded because homes were not documented. The now located in the Alcázar of the Oil Holes, as can be specified in the current context, one wheel ceramics fragment, painted on the outside with brown lines on yellow background, confirms that this pit, the oldest detected to date in these habitat opening levels in the Patio de Banderras sevillian area, does not correspond with occupancy levels in the pre-Phoenician Late Bronze, but, in an Old Iron phase (Figure 15).
both pots models, from the pits now studied the analyses results that we have carried out in to understand if the tasks to which each type of vitrification degree used in the cooking procedures of these outdoor vessels we were engaged had known a high specialization. In fact, it is possible that the raw clay will also be used for the preparation of food, in the same way that the rougher kind devoted to contain the ashes of dead ancestors in the necropolis that at that time were following the incinerator rite. This dedication for various functions of almost all ceramics varieties explain the analyzes results that we have carried out in both potteries modes, from the pits now studied in the Pato de Banderas site to understand if the tasks to which each type of vessel was engaged had known a high specialization degree.

To investigate these domestic roles of the vessels, we have carried out analyzes of fat absorbed by the recipients. These experiments, conducted by Professor Paloma Álvarez Mateos in the Chemical Engineering Department, University of Seville, have revealed the use from the ninth century BC of two basic types of fats, one animal (beef tallow) and other vegetable (olive oil). As these first data should be compared with new tests, they can be taken with enough caution. In fact, it is not known yet whether the olive oil used in the cooking procedures of these outdoor kitchen vessels are obtained from the small oil press provided by the wild olive tree so abundant in the region, or from domestic olive trees. The data so far checked at the Iberian Peninsula indicate that the olive tree came to the West from the hands of the Phoenicians colonization. So if it were confirmed that the pottery fragments found in the Pato de Banderas contain domestic olive oil, we could again support the idea that these culinary activities had been made at a time when the Phoenicians had already settled in the Guadalquivir lower valley. The same data would be easier to explain if Pato de Banderas burning pits were Phoenician kitchens or of some other community of Eastern origin, because the eating habits of the local population rather obey tradi-

When the Phoenicians had already settled in the Guadalquivir lower valley the same data would be easier to explain if Pato de Banderas burning pits were Phoenician kitchens or of some other community of Eastern origin, because the eating habits of the local population rather obey tradi-

In the center of the space, a gallery that retains a column base of bricks and tiles quadrants separates two rooms, highlighting in the southern a pavement of opus signinum with gentle slopes, which, though destroyed by later buildings, allow suggesting an organization based on the hydraulic containment. (Figure 20) In this area, a round edge basin of Turdetani tradition has been localized in situ, apparently arranged under the floor level for food preservation. (Figure 21)

The chronology of these elements, marked by the materials located inside clogging fillers and cancellation of the structures in question, marks the transition between the second and first centuries BC. Radiocarbon dates have been made from the southern basin, within a range that spans the second century BC, without excluding the last years of the third century BC (Figure 22).

Excavated structures are organized around a central space, where we could have accessed by a two separate passages oppositely located in the eastern end. Inside four stone pillars with a square base were placed, whose task is unknown, but judging by its thickness and height (1.20 m x 2.00 m), they could have been used to support an upper structure.

To the north, three side by side naves would give access to that central space, while at least to the south. At this point, an arcaded gallery stood in front of the façade, sheltering over to the various rooms, while a street would perhaps complete north perimeter (Figure 23).

Although we still do not know whether this set of units was part of a larger complex, its adaptation to natural topographic slope lowering BC, to the south can be numerous of city life just founded by the Phoenicians.

Beginnings of Roman urbanism. Republican Phase I (circa 100 BC) Remains identified for this stage are concen-

trated in the central and northern part of the exca-

vated space, confined to the area of the mentioned high elevation. They are located slightly above the elevation +7.75 m (about 5 meters under the Patio de Banderas floor), a level in which their pavements are set, although some of its elevations exceed the height.

Excavated structures are arranged orthogonally. Apparently they were the first that urbanized this sector of the city, inaugurating a system of guiding Atlantic world in its last, all-along with significant alterations, until the eleventh century AD. They seem to belong to a single housing that would have walls with masonry baseboards, a porticated patio, lime plaster adobe elevations and opus signinum pavements of coarse aggregate. (Figure 17)

The walls, 0.40 and 0.55 m thick, are built with mud bricks, corresponding to 0.48 x 0.32 x 0.06 module with 0.02 sl. They have a rich composition of clay minerals (illite and lato-

limite) which is reasonable for a material made from raw clay and a high percentage of bricks, could have been camouflaged by ancient processes of other fats bacterial decomposition.

The study of usual remains localized in the structure defined by EU 1931, held at the Autonomous University of Barcelona by archeozoologist Marta Isabel Montero, has not shown any contradictory results to this functional hypothesis concerning the building and use of the Pato de Banderas site. That is, it would be logical data expected in a grave burning, of about 50 cm depth, used as outdoor kitchen. They are “crapones” burials (of men and/or goats) and cattle, and a few land mollusc shells (smalls) and marine ones (razer-clams). These last would in any case be revealing the nearby sea, something already proven to Seville in two rooms the site, where the remains observed of Seville’s marine beach are more likely that we are facing a liming than a coating. The technique used for plastering is certainly original, scoring overlapping light projections that reveal the use of some sort of overlapping planks. (Figure 18)

One of these adobe walls is more than two meters high, which is surprising, given the previous level of other structures of this kind, and more interestingly observed is the megalithic space, the eastern end. Insid e four stone pillars with a square base were placed, whose task is unknown, but judging by its thickness and height (1.20 m x 2.00 m), they could have been used to support an upper structure.

To the north, three side by side naves would give access to that central space, while at least to the south. At this point, an arcaded gallery stood in front of the façade, sheltering over to the various rooms, while a street would perhaps complete north perimeter (Figure 23).

Although we still do not know whether this set of units was part of a larger complex, its adaptation to natural topographic slope lowering BC, to the south can be numerous of city life just founded by the Phoenicians.

Beginnings of Roman urbanism. Republican Phase I (circa 100 BC) Remains identified for this stage are concen-

trated in the central and northern part of the exca-

vated space, confined to the area of the mentioned high elevation. They are located slightly above the elevation +7.75 m (about 5
city in this period suggest that it is a building with administrative and/or commercial functions, perhaps a large horseshoe, according to the image that Latin sources transmitted from the city at the end of the Republic. What certainly is not debatable is the quality and accuracy of modern conservation; the site is well maintained, and it is compared to other buildings found in different parts of the Spanish geography.

Up to three sectors with facades and different origins can be identified in the set, as part of a re-division of urban southern city probably linking to the port reorganization during this period. Most of the previous structures were removed for its construction while maintaining a portion of the adobe building at the eastern end in a new passage.

We are surprised by the spatial irregularity of the area and the deficient adjustment of the pillars to both side passages, which are partially invaded, and to the same room in which they are inscribed. The pillars are badly suited to the side passages, which are partially invaded. In the same room in which they enroll, galleries of different sizes are much smaller than the interior space defined by these pillars. We think that this inconsistency is due to the forced adjustment of the building to debris generated by the absorption and integration of only one part of the previous building in the eastern sector and perhaps due to the barrier to the limits imposed by the previous perimeter road.

**Sector 1. Northern naves**

It is the best preserved, configured through a series of juxtaposed murals alignments, singed elongated and compartmental stays that sometimes reach up to 2.50 m in height, being a cult (6.44 m) the walls average thickness. While the northern facade of the building is lost under the profile of the excavation, it has been possible to document its southern boundary, which shows a strip of 1.20 profile with income and parapet plasters or maybe adobe abutments in horizontal arrangement, and the southeast corner of the building at the point where the walls that form the eastern and southern facade are joined (Figure 24).

The stays are long, of varying width and a length of over 11 meters. They are arranged differently on the inside. The north facade of the cubic 0.44 meters (3.65 meters) is the only one which apparently does not preserve internal partitioning. The largest, located to the east, about 9 cubits wide (4.98 meters), is divided into two sections by a powerful ashlar wall. The western nave, somewhat smaller (3.44 meters), has at least five subdivisions with side entrances except one, in the middle, whose jambs are of a large size, at least compared to other buildings found in different parts of the Spanish geography.

Up to three sections with facades and different origins can be identified in the set, as part of a re-division of urban southern city probably linking to the port reorganization during this period. Most of the previous structures were removed for its construction while maintaining a portion of the adobe building at the eastern end in a new passage. We are surprised by the spatial irregularity of the area and the deficient adjustment of the pillars to both side passages, which are partially invaded, and to the same room in which they are inscribed. The pillars are badly suited to the side passages, which are partially invaded. In the same room in which they enroll, galleries of different sizes are much smaller than the interior space defined by these pillars. We think that this inconsistency is due to the forced adjustment of the building to debris generated by the absorption and integration of only one part of the previous building in the eastern sector and perhaps due to the barrier to the limits imposed by the previous perimeter road.

### Sector 2. Southern naves and gallery

The northern sector scheme is almost symmetrically repeated to the south of the central space, although at a lower level. The floors, which are preserved here, are placed under the dimension 7.3 meters. In the southern sector alignment preserved pillars in the space with the Southern outside, where a portico with bricks and tiles columns, plastered with lime mortar, is developed, some of which are about two meters of elevation preserved. The gallery is 1.92 m long and the aisle is 9.70 x 1.50 m, measures somewhat lower in both cases than the opposite corridor. In this phase, it has been excavated as well as part of another of similar dimensions. The first has an 3.55 m² area, provided with 571 x 970 rectangular tiles north side and a great ashlar pillars that supported a higher to the limits imposed by the previous perimeter road.

### Sector 3. Central room

The set most original area is places between the two described sectors. It is a rectangular space of 16 meters lower side, in which at least four stone pillars in quadratum opus are registered, irregularly arranged (Figures 29 and 30). Of a combination of Roman floor stone blocks that were set in place with perfectly regular tops and legs and in alternate rows with some wedges of the same material into stripes that appear to have been placed in dry status². The documented remains range between +9.55 and +7.56 dimensions. They seem to define three North-South direction naves with smaller galleries on the ends (3.77 mts.) and a central more light area of 768 mts. Its eastern boundary is defined by the opus lateritium wall, composed of mud bricks. It was built a century earlier, and now it will be reused with pillars framing a narrow space of just 1'42 mts. in its longest side. The western end is so far it could find something similar here, taking into account the presence in that sector of an adobe dump like that which define a 345 mts. gallery. It could also be that this alignment, which belongs to the first Republican phase, was now overaken, allowing a greater opening of this space to the West (we hope to resolve this matter in the next excavations campaigns).

The central space opens itself to adjoining rooms through different transitions, having kept three of them with sufficient clarity. A door of mortar connects the main room of the southern sector in one corner. We don't know its format, although trapezoidal vousoirs appeared in one of the fillers, which could have been part of a flat arch. To the north of the pavement slabs stood from the dimension 8 up to overcome the 9, over the 12 mts. of its length through four steps. At the door, a vertical slot in the wall shows that it seemed to have been an opening to their belonging to a street. It looked as if the gallery was part of a courtyard, a square or even, as we proposed in 1999, of a hypostyle system that supports a 2.8 high level. We have to take into account that the third century fillings that caused their destruction are mainly composed of sigillum blocks and other building elements, moving and turning the columns quadrants.

Despite its rectilinear profile, it is set in a way that the main series of juxta posed mura l alignments, signing to both sides passage, which are partly invaded. As we proposed in 1999, of a hypostyle system that supports a 2.8 high level. We have to take into account that the third century fillings that caused their destruction are mainly composed of sigillum blocks and other building elements, moving and turning the columns quadrants.

**Sector 2. Southern naves and gallery**

The northern sector scheme is almost symmetrically repeated to the south of the central space, although at a lower level. The floors, which are preserved here, are placed under the dimension 7.30 meters. In the southern sector alignment preserved pillars in the space with the Southern outside, where a portico with bricks and tiles columns, plastered with lime mortar, is developed, some of which are about two meters of elevation preserved. The gallery is 1.92 m long and the aisle is 9.70 x 1.50 m, measures somewhat lower in both cases than the opposite corridor. In this phase, it has been excavated as well as part of another of similar dimensions. The first has an 3.55 m² area, provided with 571 x 970 rectangular tiles north side and a great ashlar pillars that supported a higher to the limits imposed by the previous perimeter road.

### Sector 3. Central room

The set most original area is places between the two described sectors. It is a rectangular space of 16 meters lower side, in which at least four stone pillars in quadratum opus are registered, irregularly arranged (Figures 29 and 30). Of a combination of Roman floor stone blocks that were set in place with perfectly regular tops and legs and in alternate rows with some wedges of the same material into stripes that appear to have been placed in dry status². The documented remains range between +9.55 and +7.56 dimensions. They seem to define three North-South direction naves with smaller galleries on the ends (3.77 mts.) and a central more light area of 768 mts. Its eastern boundary is defined by the opus lateritium wall, composed of mud bricks. It was built a century earlier, and now it will be reused with pillars framing a narrow space of just 1'42 mts. in its longest side. The western end is so far it could find something similar here, taking into account the presence in that sector of an adobe dump like that which define a 345 mts. gallery. It could also be that this alignment, which belongs to the first Republican phase, was now overaken, allowing a greater opening of this space to the West (we hope to resolve this matter in the next excavations campaigns).

The central space opens itself to adjoining rooms through different transitions, having kept three of them with sufficient clarity. A door of mortar connects the main room of the southern sector in one corner. We don't know its format, although trapezoidal vousoirs appeared in one of the fillers, which could have been part of a flat arch. To the north of the pavement slabs stood from the dimension 8 up to overcome the 9, over the 12 mts. of its length through four steps. At the door, a vertical slot in the wall shows that it seemed to have been an opening to their belonging to a street. It looked as if the gallery was part of a courtyard, a square or even, as we proposed in 1999, of a hypostyle system that supports a 2.8 high level. We have to take into account that the third century fillings that caused their destruction are mainly composed of sigillum blocks and other building elements, moving and turning the columns quadrants.

**Sector 3. Central room**

The set most original area is places between the two described sectors. It is a rectangular space of 16 meters lower side, in which at least four stone pillars in quadratum opus are registered, irregularly arranged (Figures 29 and 30). Of a combination of Roman floor stone blocks that were set in place with perfectly regular tops and legs and in alternate rows with some wedges of the same material into stripes that appear to have been placed in dry status². The documented remains range between +9.55 and +7.56 dimensions. They seem to define three North-South direction naves with smaller
sector. Precisely in this descendant way, as part of that building eastern façade, a sculpture in bas-relief with phallic motif (Vargas Lorenzo 2011: 100) was located on one of the stone columns. One of the key issues in the interpretation of the constructions is the basement dimensions and their possible double height. From north to south the foundations are placed on decreasing natural terrain, like this over forty meters from 8 mts asl up to 6'50. Every wall rests on the natural ground using small outsoles seats composed of leveled fine masonry with mud, on the bottom of small pits on which the walls are placed. There are exceptions to this general trend. In some instances that preparation is absent. In the 1691 wall of the northern, reinforcement is made through facing stones basement, raising its foundations on the opposite wall along the basement passage dimension. This passage descends at least one meter to the central space. In the southern of the set, the foundation appears at level 1'50.

Floor levels would be approximately the height 8'75 asl in the north three naves and at elevation 8 in the central space with pilasters, except in the extreme passage that came from the street in the north, between the dimension 9 and 10 (not excavated yet), would fall to that level by four steps. The rooms in the southern sector, were observed seven centuries and a half, the ground changed several times, have preserved opus signinum pavements at elevation 6'80, ie, 1'20 lower than in the rest.

In the southern sector, the decline of floor (Figure 32) we believe that there would be a higher floor to regularize a consistent level from the North street above the dimension 10. We have the details here.

First, during the Flavus periods sectors 1 and 3 were artificially filled, arranging their new land on the benchmark 10 perhaps because of a structural failure, while the street was not. In the sector 2, in the same case, the northern street is raised till a certain level. The northern and central area keep plastered slabs that reveal their use to that dimension. It would be surprising a big archeological levels rise, without any changes in the northern street unless it responded to the clogging of a ground floor or basement.

The Northeast Passage goes down stepswise from North Street, in which we might be expecting open doors to this dimension.

The central sector pilasters ashlar is so powerful that cannot be understood except as a part of a framework support system whose beams were recessed at least two meters above ground level.

The constructive remains that we suppose were second the top floor have appeared to turn on the sectors 2 and 3. We may witness a finishers higher quality in these rooms, at least in the southern part. An enormous number of high quality and size opus signinum fragments appear here, being responsible in some cases of the displacement and tilt of the bricks and tiles columns in the south façade. These are especially abundant in the central space.

The general technique used for building responds to Opus Alexandrinum, it is called like this because it was used in North Africa. Carthaginian origin was in the opposite wall along the northern passage dimension. This passage descends at least one meter to the central space. In the southern of the set, the foundation appears at level 1'50.

Floor levels would be approximately the height 8'75 asl in the North three naves and at elevation 8 in the central space with pilasters, except in the extreme passage that came from the street in the north, between the dimension 9 and 10 (not excavated yet), would fall to that level by four steps. The rooms in the southern sector, were observed seven centuries and a half, the ground changed several times, have preserved opus signinum pavements at elevation 6'80, ie, 1'20 lower than in the rest.

In the southern sector, the decline of floor (Figure 32) we believe that there would be a higher floor to regularize a consistent level from the North street above the dimension 10. We have the details here.

First, during the Flavus periods sectors 1 and 3 were artificially filled, arranging their new land on the benchmark 10 perhaps because of a structural failure, while the street was not. In the sector 2, in the same case, the northern street is raised till a certain level. The northern and central area keep plastered slabs that reveal their use to that dimension. It would be surprising a big archeological levels rise, without any changes in the northern street unless it responded to the clogging of a ground floor or basement.

The Northeast Passage goes down stepswise from North Street, in which we might be expecting open doors to this dimension.

The central sector pilasters ashlar is so powerful that cannot be understood except as a part of a framework support system whose beams were recessed at least two meters above ground level.

The constructive remains that we suppose were second the top floor have appeared to turn on the sectors 2 and 3. We may witness a finishers higher quality in these rooms, at least in the southern part. An enormous number of high quality and size opus signinum fragments appear here, being responsible in some cases of the displacement and tilt of the bricks and tiles columns in the south façade. These are especially abundant in the central space.

The general technique used for building responds to Opus Alexandrinum, it is called like this because it was used in North Africa. Carthaginian origin was in the opposite wall along the northern passage dimension. This passage descends at least one meter to the central space. In the southern of the set, the foundation appears at level 1'50.

Floor levels would be approximately the height 8'75 asl in the North three naves and at elevation 8 in the central space with pilasters, except in the extreme passage that came from the street in the north, between the dimension 9 and 10 (not excavated yet), would fall to that level by four steps. The rooms in the southern sector, were observed seven centuries and a half, the ground changed several times, have preserved opus signinum pavements at elevation 6'80, ie, 1'20 lower than in the rest.

In the southern sector, the decline of floor (Figure 32) we believe that there would be a higher floor to regularize a consistent level from the North street above the dimension 10. We have the details here.

First, during the Flavus periods sectors 1 and 3 were artificially filled, arranging their new land on the benchmark 10 perhaps because of a structural failure, while the street was not. In the sector 2, in the same case, the northern street is raised till a certain level. The northern and central area keep plastered slabs that reveal their use to that dimension. It would be surprising a big archeological levels rise, without any changes in the northern street unless it responded to the clogging of a ground floor or basement.

The Northeast Passage goes down stepswise from North Street, in which we might be expecting open doors to this dimension.
ected during the change of Age, as well as the reconstruction of the opus africanum building, using new opus testaceum walls, with the instau-
lization of a major water and sanitation network, during the Flavian period (60-90 AD).

Reforms of the imperial period (1st and 2nd centuries AD)
The Republican urbanism will last more than a century with little changes of interest, except for some minor elevation changes and repairs that have been dated at the turn of time in par-
ticular between 15 BC and 20 AD11.

It will be during the Flavian period, between 60 and 90 AD, when we will see the implementa-
tion of further reforms of greater intensity, aim-
ing at the repair and remodeling of the old spaces. Firstly, we have documented a rise in the levels, due to the use of 1.30 meters power in the opus africanum building, by the contribution of very homogeneous filling packages with a high con-
centration of ceramic material12. This rise can be explained if we think that the old building had a basement in one of its rooms, which now cea-
s to function, being canceled prior tampourade with an old vain bricks, while the walls grow again in a bricks and mortar.

The new rig will be built with bricks of 0.29 x 0.22 x 0.06 meters and set in place with alter-
nering rather irregular ropes and logs, and ag-
ging bases with good quality lime mortar. A ho-
izontal row of brick irregular leveling is used to elimi-
nate irregularities in the wall. A rig consist-
ing entirely of tegulae fragmentary pieces mixt-
ted in form and elsewhere, forming pseudo-horizontal rows of bricks taken with mud.

Coatings in situ have not survived but a lot of polychrome fragments in the imperial levels did, des-
cribing for the late republican time and for the first imperial times a richly decorated inte-
riors with quality plastering13.

Another action of this period is the installa-
tion of a drain culvert with barrel vaults, the opus africanum building, bricks threaded North-South direction, which maintains a docu-
mented length of 5.08 meters14. Under the easter-
tem alley also has been noted the existence of a drain culvert built with bricks laid in a header bond in the wall and lid, and set on leveling courses regular that lock with mortar with high lime concentration. We think it drained the collector located on the works for the crypt of the baptistery, dug in 1976, beneath the square northern row of orange trees, from East to West (Bendala and Neguerra 1980: 379).

The southern sector of the patio works diffe-
rently being at a much lower elevation. In this case, the imperial reforms are limited to the pla-
cement of new pavements directly on the for-
mmer, one of them possibly placed in opus sec
te by the amount of residual marble slabs collected in attached landfills. Maybe the cracks and the collapse of one of the alignments as a result of earthquake would be behind the rise in levels.

The truth is that this operation generated a very sharp gap between the buildings on the north side of the square and the south. In the center of the square it must have existed at this time a containment system that would allow the co-
xistence of buildings with four meter height difference between them. For example, the access to the patio runs diagonally to what we would find a large peripheral gallery, that leads to the other rooms. It is bor-
dered by a colonnade of which we have the full foundation of the Western Front15. Only two of these structures are preserved, only the one on the Southwest corner is larger than centrals, although the rupture interfaces are identified, caused by the plundering of the remaining pie-
ces that a section of 10 meters from front with a row of five columns. (Figure 38)

The central courtyard pavement consists of a signum opus surface with a clear inclination to-
wards the center, under which a hydraulic line passing through the wall runs diagonally to what would be its central axis. This leads us to belie-
ve in the existence of a water container in this space, carved or at least a tub that from the begin-
ning of the patio with a row on columns, from which part of a shaft has been preserved16. (Figures 41 and 42)

We are, in short, in front of the remains of a large building that now transcends the limits set by the excavated space. This building would co-
exist with the remains of the traditionally consi-
dered northern end of the patio of Baptistry, which apparently would be part of a different building separated from ours by a street or open space.

The late building was built at the end of fifth century as associated materials suggest, although most previous fillings are marked by a broad re-
presentation of the fourth century and the be-
ginning of fifth, among them the numismatic re-
pertoire and the same ceramic17.
The ancient late building lasted at least until the second third of the sixth century AD, being destroyed and dismantled to erect a new building in its place. The rear rate of the pavement is remarkable, but the razing caused by the subsequent building and also by the Islamic quarters centuries later prevented the continuation of those ornamental elements, marked flooring or coatings you would expect from a late building of this kind.

The Visigoths building. 7th century.

On the ancient late rains we have located a building that appears to be surrounded by buttresses on the outside, while inside appears only one that could be interpreted as supporting a transverse arch on the set of a building of great altitudes. The later room for doubt, a building complex of considerable proportions. The sixteenth century, prior to the construction of the Alcázar on the Visigoth ruins. Refill packets have been located on the remains of the building, in the construction of a brick wall, which is the sort of a raised line. The unit presents at the level of its foundations a small scar that increases the thickness of the structure to reach 0.90 meters and the brickwork becomes a brick line. Adjoining the northern side of this wall we found brick abutments, equal to the wall, a quadrangular floor plan with dimensions of 0.60 x 0.60. On the southern side, a single interior abutment appears, sharing some features with the above. The building system is very similar (if not identical) to that found in recent excavations of the Al Aqabah (Rodríguez e p.).

The link between the destruction of this building and the construction of the original Alcázar is a key issue. The discoverers of the original baptismary identified the Alcázar wall with the Dr al-Imrāq, fortress built after the loss of 913 CE against the Emirate of Córdoba. We ourselves have participated in this dating until several findings have led us to a few decades later (Tabales 2009: 133). According to Bendala and Negueruela, the baptismary is covered by Islamic fillings and buildings that will raise the dimension up to one meter below the current level. Since we do not know the starting level of the last construction trench of the wall, they consider that such buildings are subsequent to the construction of the Alcázar.

However, our excavations of the Patio de Banderas, on the Alcázar original door and in the north wall identified a powerful explanation on the ground at elevation 1.11, on which a deep pit would be excavated and used as a strip footing for lifting the fortress walls. These foundations have two characteristics that define the deterioration horizon of this hypothetical religious complex of the seventh century, with a capacity to transcend the entire area, while inside appears only until the second third of the sixth century AD, a remarkable fact, but the razing caused by the seventh century occupying the entire area of the Archivo de Indias and surroundings. Different parts, sections and structures, along with the interpretation of historical documentation, allow a reasonable hypothesis about the importance of the building in the late ancient city. There has been no excavation in this area has shown a structural continuity between the ancient Roman world and the newest one. On the contrary, a disappearance of urban life can be observed, as conceived at that time from the fourth century given by a noisy agricultural landscape, perhaps a cemetery, or a burial, whose continuity is evident for centuries (Tabales 2009: 70). The inherent configuration of the building would indicate, with little room, a West-East orientation of the building complex of considerable proportions.

Since the sixth century we document the abandonment of that building. In the present case, no discussion is needed on the abandonment of the building, or the floor has been preserved, but the fact is that at the beginning of the seventh century it was replaced with a new building, very different in its orientation and in the construction techniques. The real background of the two ancient late buildings discovery in this context lies in the Christianization phenomenon of the Visigothic cities, from the fourth century AD, through the construction of martyrial basilicas (Krauthemer 2002) or the foundation of suburbs moated by Islamic infrastructures (García Moreno 1993;Moreno Martín 2011), or both at once, as seems to happen in the ancient late Tarragona (Vilar Lopez 2006). There are indications that there was a religious complex in the area. The found remains could be part of it.
We only know for sure the width of a street that had at least 3.5 meters between façades, for whose center ran a sewer, collect- ing numerous discharges from latrines located in homes. (Figure 45). In the twelfth century this network replaced the original system, much simpler though common during the pre-Islamic period, consisting of evacuation to cesspools located on the street that would be cleaned quite often because of their small size48. In relation to the spatial distribution and delimitation of housing, we have completed the plan of two houses and the patio corresponding to one third, all organized around courtyards with sunken parterre square format, without side-walls or internal partitions. The east located house (housing 6) was about 50 mts² and was set by two misdirections facing the courtyard and east sides. The first one had the entrance from the street. At least in the final moments of the twelfth century it had an ornamental baseboard with red inter-facing on white background49. A latrine arranged in a canonical manner appeared next to the door with many reforms, until its final elimina-tion. A pantry was located at the bottom of this patio. Two large vessels appeared on the north side of the pavement, one of them perfectly preserved. West of the patio, the main room opened its door axially on the patio, equally decorated with red inter-facing on the room, which disappeared over the centuries. At East, the patio provided three cubic-ses that faced the front. A warehouse, the kit-chen and perhaps a new latrine would be distributed in one of them, closed by a partition wall. The courtyard itself, surrounded by small terraces, was sunken as all detected, and had a single drain gutter on the side of the main room, on which we find a hydraulic ejector rod that acts as inner limit of the trough46. The courtyard was renovated at the end of its life, canceling the de-pressed landscaping and paving the whole sur-face with stone from the Cárdenas47. This building meets all the requirements of a housing complex type: de pressed flowerbed gardens, surrounded by perimeter terraces, irrigation canals under the ter-aces, possible kitchen, and at least two trips around the patio, warehouse and main room, so its inhabitants would not surely belong to the lower strata of the society. We thought it might be long to a social group related to artisan-indus-trial work, because although the building is not quite humble (interlacing decoration is present in two of its rooms) it does not have a large size so as to consider high class. Also in the East, but in the northern end of the square, the remains of another property ap-pear. Besides sanitation infrastructure of the build-ing room with its walking, there is a mature pha-se in which a ceramic storage jar is located, belonging to the last moments of the building life in Almo-ravid period50. The following household (dwelling 4), much smaller, was only about 35 mts², having a rec-tangular room and a very small depressed gar-den with brick low walls which replaced another older patio. In this house the changes were more significant, undergoing a radical improve-ment of materials and distribution. The remains of the buildings within develop-ment around the northwestern side of the building structures whose use of level is marked by a Dass pavement. This bound is +11.71 and would be the point of reference to Northern Is-lamic remains localized (housing 2). This bound is +11.71 and would be the point of reference to Northern Islamic remains localized (housing 2). We find here a no detailed structure that seems to be the main entrance of the building. Several vessels appeared sunk on the north side of the pavement. Finally, the completely destroyed remains of a quadrangular structure that seems to be the main entrance of the building, while three spaces were opened in the same purpose beside cooking. (Figure 47) The Northwestern level of the Islamic remains was insignificant, due to the damage caused by subsequent looting pits and refurbishment of the courtyard in the twentieth century, by placing their land near the present surface. Because of the difference in height between the North and South ends of the present patio, as we approach the southern sector, the Islamic remains conserve-vance is reduced. So we can consider the exception-nes of this period in the south side, showing de-tails such as the adequacy of housing to the slope marked by the street by stagnating the in-tervention and conserving only the visible and visible parts of the neighborhood, we found a number of stuffed packages where Visigothic building destruction materials were mixed with all subsequent operations, almost the entire islamic period, so we have no pure filler amori-zation. Deposits show saijas51 full productions going through to the end of the century ship with slight fluctuations between +10.96 / +10.30 asl, characterizing “dess” pavements, leveled with stone, structures, culverts and wells. The transition between east and south area is quite abrupt, but is still unable to close precise answers. The current situation of research raises the fol-lowing scenarios, certainties and questions for the sector in the Islamic period. We raise the possibility that, since the arrival of the Muslims in 711 until the construction of the suburb located in the Patio de Banderas in the eleventh century, this area, which we think was extramural, somehow maintained a building of the ancient late Roman complex east sector, or still in use. There is no direct evidence to support this hypothesis except the superposition of both stratigraphic horizons at that point of the Alcazar. The appearance of a Mezatorra graves-tone of the Caliphate period in this environment would support the theory. Nearby, the whole religious and burial sites were amortized at least since the 10th century by landfills, wells, potter, etc., so that its scope and weight in the area was limited fillings canceling sanitation infra-structure of the main street, which marks its sit-ing. The units that filled inside the jar of the Northeast house were also identified. On these items we also confirm leveling and abandon-ment general fillings, ranging from +12.09 and +11.69 depth52. Although in recent years, excavations in the Alcazar and its surroundings have cleared part of the changes experienced by the southern sec-tor of Ibiñia between the 11th and 13th centu-ries, archaeology still has much to say about each step of the process and especially the way in which Islamic urbanism, between the 6th and 10th centuries. It is true that the fundamental traces of these developments are now beginning to be discovered, but with single some steps still remain unresolved or a stage in which tests discarded traditionally raised possibilities, but is still unable to close precise answers.
apparently reduced to its complete disappear-
ance in Abbadi period (Tabales 2009: 76).

In theory, the first fortress was responsible for
the replacement. Bendala and Negueruela said that decades ago and so it would appear in the archaeological work made on the outside of the expansion, which also led to the fall of 914, suspected traditional date, until the end of the 11th century, time at which archeology made it possible (Tabales 2009:99). Ibn ‘Abdun descri-
bes a late Abbasid and Almoravid city collapsed in accelerated and disorganized growth, forced to acquire new urban infrastructure like the cre-
ation of new cemeteries outside the city walls, be-
cause of overcrowding and the absorption of the old ones by the village. Some people get to see an urban expansion during an 11th century to levels similar to Almodovar City, as a result of an urban need that took on future urban neighborhood development. Recent excavations of the Alcázar show how extramural Isbilia will be colonized by new unplanned neighbor-
hoods, arranged under the protection of the citadel from the moments of its construction.

The finding of a considerable length (500 m²) of Islamic buildings under the Patio de Banderas poses a question that we hope to resolve through further work. The question is: since the neighbor-
hood was established in the 11th century and evolved into Almoravid-Almohad period, after the destruction of this neighborhood we postulate the presence of the first Alcázar. In other words, was it recently raised when it was decided to close that study area for the Alcázar? Do the remains and their destruction, does this neighborhood coexist in the time of the first Alcázar? In other words, was it recently raised when it was decided to close that study area for the Alcázar? Do the remains and their destruction, does this neighborhood coexist in the time of the first Alcázar? In other words, was it recently raised when it was decided to close that study area for the Alcázar? Do the remains and their destruction, does this neighborhood coexist in the time of the first Alcázar? In other words, was it recently raised when it was decided to close that study area for the Alcázar? Do the remains and their destruction, does this neighborhood coexist in the time of the first Alcázar? In other words, was it recently raised when it was decided to close that study area for the Alcázar? Do the remains and their destruction, does this neighborhood coexist in the time of the first Alcázar? In other words, was it recently raised when it was decided to close that study area for the Alcázar? Do the remains and their destruction, does this neighborhood coexist in the time of the first Alcázar? In other words, was it recently raised when it was decided to close that study area for the Alcázar? Do the remains and their destruction, does this neighborhood coexist in the time of the first Alcázar? In other words, was it recently raised when it was decided to close that study area for the Alcázar? Do the remains and their destruction, does this neighborhood coexist in the time of the first Alcázar? In other words, was it recently raised when it was decided to close that study area for the Alcázar? Do the remains and their destruction, does this neighborhood coexist in the time of the first Alcázar? In other words, was it recently raised when it was decided to close that study area for the Alcázar? Do the remains and their destruction, does this neighborhood coexist in the time of the first Alcázar? In other words, was it recently raised when it was decided to close that study area for the Alcázar? Do the remains and their destruction, does this neighborhood coexist in the time of the first Alcázar? In other words, was it recently raised when it was decided to close that study area for the Alcázar? Do the remains and their destruction, does this neighborhood coexist in the time of the first Alcázar? In other words, was it recently raised when it was decided to close that study area for the Alcázar? Do the remains and their destruction, does this neighborhood coexist in the time of the first Alcázar? In other words, was it recently raised when it was decided to close that study area for the Alcázar? Do the remains and their destruction, does this neighborhood coexist in the time of the first Alcázar? In other words, was it recently raised when it was decided to close that study area for the Alcázar? Do the remains and their destruction, does this neighborhood coexist in the time of the first Alcázar? In other words, was it recently raised when it was decided to close that study area for the Alcázar? Do the remains and their destruction, does this neighborhood coexist in the time of the first Alcázar? In other words, was it recently raised when it was decided to close that study area for the Alcázar? Do the remains and their destruction, does this neighborhood coexist in the time of the first Alcázar? In other words, was it recently raised when it was decided to close that study area for the Alcázar? Do the remains and their destruction, does this neighborhood coexist in the time of the first Alcázar? In other words, was it recently raised when it was decided to close that study area for the Alcázar? Do the remains and their destruction, does this neighborhood coexist in the time of the first Alcázar? In other words, was it recently raised when it was decided to close that study area for the Alcázar? Do the remains and their destruction, does this neighborhood coexist in the time of the first Alcázar? In other words, was it recently raised when it was decided to close that study area for the Alcázar? Do the remains and their destruction, does this neighborhood coexist in the time of the first Alcázar? In other words, was it recently raised when it was decided to close that study area for the Alcázar? Do the remains and their destruction, does this neighborhood coexist in the time of the first Alcázar? In other words, was it recently raised when it was decided to close that study area for the Alcázar? Do the remains and their destruction, does this neighborhood coexist in the time of the first Alcázar? In other words, was it recently raised when it was decided to close that study area for the Alcázar? Do the remains and their destruction, does this neighborhood coexist in the time of the first Alcázar? In other words, was it recently raised when it was decided to close that study area for the Alcázar? Do the remains and their destruction, does this neighborhood coexist in the time of the first Alcázar? In other words, was it recently raised when it was decided to close that study area for the Alcázar? Do the remains and their destruction, does this neighborhood coexist in the time of the first Alcázar? In other words, was it recently raised when it was decided to close that study area for the Alcázar? Do the remains and their destruction, does this neighborhood coexist in the time of the first Alcázar? In other words, was it recently raised when it was decided to close that study area for the Alcázar? Do the remains and their destruction, does this neighborhood coexist in the time of the first Alcázar? In other words, was it recently raised when it was decided to close that study area for the Alcázar? Do the remains and their destruction, does this neighborhood coexist in the time of the first Alcázar? In other words, was it recently raised when it was decided to close that study area for the Alcázar? Do the remains and their destruction, does this neighborhood coexist in the time of the first Alcázar? In other words, was it recently raised when it was decided to close that study area for the Alcázar? Do the remains and their destruction, does this neighborhood coexist in the time of the first Alcázar? In other words, was it recently raised when it was decided to close that study area for the Alcázar? Do the remains and their destruction, does this neighborhood coexist in the time of the first Alcázar? In other words, was it recently raised when it was decided to close that study area for the Alcázar? Do the remains and their destruction, does this neighborhood...
tos indígenas (XIV Jornadas de Arqueología Fe-
Racio-Pinca): 57-102. Museo Arqueológico de
Zarza, Ibiza.
“El Cerro Marbana: excavaciones de 1998-99. -
En J. Beltrán y J.L. Escacena (ed.), Arqueología en el
Bajo Guadalquivir. Prehistoria y Antigüe-
da de Las Cabezas de San Juan 73-02.
Universidad de Sevilla – Ayuntamiento de Las Cabezas
de San Juan, Sevilla.
Bendala, M. y Negueruela, I. (1980): “Baptis-
tério paleocristiano y visigodo en los reales alca-
zares de Sevilla”, en Noticiario Arqueológico Hispánico
Bláquez, J. M. (1967): “Posible origen afri-
cano de los Carroceros Púnico”. Archivo Español de
Borja, F y Barral, M.A. (2003): “Analítica geo-
tecnológica en El alcázar de Sevilla. Primeros
estudios sobre estratigrafía y evolución construc-
Borja, F y Barral, M.A. (2005): “Evolución histo-ica de la vega de Sevilla. Estudio de geoarqueo-
logía urbana” en La catedral en la ciudad; en J. D. de Aranda y San Isidoro. Ayuntamiento de Sevilla, pp. 5-38. Sevilla.
Botella, D y Sánchez, J. (2008): La basílica de
Prehistoria de la ciudad de Sevilla. El corte estra-
tológico de San Isidoro 85-6. Monográficas de Arqueo-
logía Andaluza 1. Junta de Andalucía, Sevilla.
Caro, A. (1980): Cerámica gris a torno tartesia-

Castrillo, J.; Blázquez, J. M. “De la geología de la costa y ba-

día de Cádiz y el poema “Orta Marítima”, de
Gavilán, B.; Escacena, J.L. (2009): “Acera del pra-
terio Neolítico de Andalucía occidental. Los tramos medio y bajo de la cuenca del Guadai-
quivir”, Mamake XXX: 311-351.
Guzmán, S. y Canovas, P. (2009): “Constru-
Yendo la Andaluca de Bandera, M. L. (1991): “As-


**NOTES**


- Radiocarbon dating (CNA Sevilla) of a sample from the surface (the mortar layers have a width of 0.02 and the head joints of 0.10.

- The dating of this pavement (+800) coincides with the designated by the difference in completion of the north-east corner of the wall 1704, which goes down in stages from its northern end. This fact makes us think that the south fall in levels of the alley is carried out through stretches of great width resulting in a pavement of tile, 1829 to 1832. In Gasp 2-47.54 dimension, which are pavement tiles associated with building located at the end of this stretch and that clearly mark the great gap between the years 1704 and 1713.


- The author also speaks about variants of this instrument in form, which are summarized in three: rectangular (Pont de Pedra, Portugal),

- The dating of the ANC on a sample of coal extracted from adobe wall wei.1705 XV SE (year 1705) establishes a conventional radiocarbon age of 202 BC ± 45 years and a calibration to 46% chance between 264 and 205 BC.

- We are talking about the news that Estrabón provides us in his Geography or Carthago in his “Civil War”, where both of them show an image of a powerful Hispanis as a commercial Emporto.

- We have good examples in Puerta de Sevilla in Carmona, at the site of El Molinet in Carmona (Murcia); in Baelo Claudia (Cádiz) or in the Roman city of Clunia (Burgos).

- In particular, we have to think that the alignment of the adobe wall that we identify with the units 1795, 1816 and 1930, although already deprecated, would be part of the new structure which seems to be a consequence of the dimension that maintains the construction in this area.

- Despite the six stages of possible offerings left to the unknown, we have never seen the need for a further chronology to newer than the ninth century BC.

- The plastering mortar is a lime mortar that is composed mostly of silica sand (quartz) and a calci- cium carbonate from the carbonation of the lime. The CaCO3 contents of the mortar has been measured through the use of XRF and XRD (X-ray diffraction). The mortar itself has been measured by the use of an XRF and a XRD (X-ray diffraction).

- The dating of the ANC on a sample of coal extracted from adobe wall wei.1705 XV SE (year 1705) establishes a conventional radiocarbon age of 202 BC ± 45 years and a calibration to 46% chance between 264 and 205 BC.

- We are talking about the news that Estrabón provides us in his Geography or Carthago in his “Civil War”, where both of them show an image of a powerful Hispanis as a commercial Emporto.

- We have good examples in Puerta de Sevilla in Carmona, at the site of El Molinet in Carmona (Murcia); in Baelo Claudia (Cádiz) or in the Roman city of Clunia (Burgos).

- In particular, we have to think that the alignment of the adobe wall that we identify with the units 1795, 1816 and 1930, although already deprecated, would be part of the new structure which seems to be a consequence of the dimension that maintains the construction in this area.
round, the most frequent (Puentes de Segura, Salamanca, Portugal), and rectangular, the most rare, documented in some places as in the Ampitheater of El Jem (Tunisia) or in the Alcazaba of Almería.

13. In the West there was no such tradition of masonry blocks (most of these blocks mark a change in Republican era). However, both in Greece and Egypt blocks were engraved so that it was tradition to pay workers depending on working hours.

14. Authors such as Suarez and Fontcuberta speak of displacement of Centurions sent by Roman emperors to intervene in the process of work and projects as roads, bridges, buildings and aqueducts.


16. Varón, Res Bastidae, 1, 57.2-3


20. CNA dating on carbonated samples in stratigraphic units 1884 (foundation of the building) and 1676. In the first case the conventional radiocarbon is dated at 70 ± 40 B.C, with a 95% chance to open the rate between 197 ± 7 B.C. Meanwhile, the other 1676 dated at 75 ± 30 B.C. opening the rate to 95% of probability between 184 and 40 B.C.

21. At this stage we have only been able to identify a number of refill packs that slightly raise the heights of use but whose ceramic materials (especially the Vicus Sigillated pottery: below) show a chronology which is posterior to the ones shown in the packages themselves of foundations of the building. These units are represented with the numbers 1879, 1880, and 1883 that oscillete between dimensions +8 and 672. 1879. It is identified with the units 1684, 1678, 1868, 1869, 1871, 1878, levels of artificial fillers, heavily compacted and rich in ceramic material, and some of these marks have a chronology posterior to the rise of the heights of use but whose ceramic material is the one that crosses the sector of the wall and the outside of the wall. Once beyond that sector, it seems to be an imbric canal again, 0.35 of length and 0.155 of width, used as protection by a box of fragments of bricks with a thickness of 0.05 meters.

22. The dimensions of the pieces are 0.29 x 0.22 x 0.06 meters while the total width which marks the gallery wall is 4 x 2.6.

23. This is a strange arrangement that seems to mark a distinction of the dimensions, now placed inside and the building in any case, lower to the South. It seems that the walls of this passage opens into the street or open space, which, though unusual, is not new in the Roman architecture (Mateos y Caballero 2003: 21). We can see what might be an entrance that would come to the same courtyard and that seems to have purely functional connotations, probably related to males, cartriages or heavy transport (hence the ramp).

24. The archaeological materials that allow us to give a date a little over a century, w hich marks the period around the late decades of the 5th century AD for the construction of the great building activity (6) are mostly the African sigillata documented in the still-placeless spaces that have been able to excavate contexts sealed by bricks of galleries of the excavated courtyard. Documented forms are the usual ones in second half of the 5th century AD: Hayes 59, 67 Hayes and, among others. This, however, do not mark the late decades of the period, the construction of a large building, led to the homogeneity of the dimensions, now placed with slight alterations to 10.50 ad.

25. Do not be ruled out that the interpretation is partially mediated or distorted by the plundering and looting ditches and of course we agree with other authors on prudence in the absence of large excavations in extent, but the trend seems clear and logical (Amores 2005: 140).

26. This second possibility is remote because it is highly unlikely that bishops from other dioceses act as patrons and sponsors of major architectural works outside their dioceses. Diego de Montes y Cícer (1616, 1698) and the most recent of this building, the far away coinage (Aquileia, Rome...) and the lack of coinage in those decades in the peninsula makes us hypothesically locate this horizon in the first third of this period, where the looting and pillaging of the great destruction occur in Sevilla by Almans, Hadsingi Vandals, Silius and plunder of those Visigoths and the imperial troops. Ceramic Studies advance a study of a group of coins over a century certainly not is inconsistent with the chronology of the coins as during the fifth and sixth centuries monetary issue was minimal and current coins used to belong to the cited period 5th and 6th century AD.

27. The same situation occurs in Córdoba or in the south of this province, where it has been de- tested as several buildings (Sánchez Velasco 2006; id. 2009) or reconstructed sometimes a fundamentals, due to the devastation caused by Betic wars of Leovigildo. In these cases, the location is maintained, but not the structure of the building complex. Its main sectors was its internal reinforcement using abutments or buttresses, also strengthened inside by at least one transverse arch. For periods subsequent to the sixth century, parallels of buildings of this nature (Gutiérrez y Canovas 2009: 127) exist, although it is too early to define more than the possibility of existence of a domed cover or remodeled, or perhaps a second floor. Reinforcement that act as a solution similar to the one
presented here are in the last phase of the se-
venth century, assigned to El Gernzo (Ullber, 1971), where more than presumed structural
problems of the building, without having to
guess a vault, as Utterro (2006) says, made that
this type of reinforcements were needed.

In the location of a large pit of spoliation throughout the length and width
of what would be the housing 2 and 3 that
drills down Republicans levels destroying every-
thing. This is clearly a constructive material
spoliation that matches the location at that point
of large blocks, belonging to 1897 structure and
the southern facade of that building. It may be
a coincidence that survivors ashlars coincide in
metric and mate with those provided in the
walls of the Alcázar precisely at that time (late
eleventh century) and that the same was obser-
vied in 2005 in the excavation of the Garden of
Lion, but we can only speculate with the possi-
blity that the strips in this strip were targeted
because of a so vast work at the expense of the
Roman wall lying below.

35 We must emphasize the graves excavated in
the early Islamic times with the intention of
reuse the building material of the earlier buil-
dings and up upon completion are utilized for fi-
laying with landfill deposits with large amount of
ceramic material and organic moities. They are
responsible for most of the late and imperial
structures that we have referred, especially in
the western area of the square.

36 In the founding moments this street had a
clay floor with crushed ceramic and some lime,
which would give it some consistency, unusual
in this era. At the opposite end of the block
shows the existence of a much narrower street,
barely a meter, which may be part of an irregular
parabola, also crossed by a simple bricks and
tiles culvert.

37 The job of Dr. Robador shows for this pla-
ster a torsion-shaped rich in lime and high com-
pressibility and better rainfall compared to Roman
plaster.

38 In the founding moments this street had a
clay floor with crushed ceramic and some lime,
which would give it some consistency, unusual
in this era. At the opposite end of the block
shows the existence of a much narrower street,
barely a meter, which may be part of an irregular
parabola, also crossed by a simple bricks and
tiles culvert.

39 The job of Dr. Robador shows for this pla-
ster a torsion-shaped rich in lime and high com-
pressibility and better rainfall compared to Roman
plaster.

40 There are numerous examples of andaluzies
houses excavated in Seville with hydraulic struc-
tures such as those that appeared in the Patio de
la Montera of the Alcázar, in Relator street 46,
Macasta 19-21, in La Encarnacion, in the Hall
office of the Cathedral or in the Convent of Santa
Maria de los Reyes. These channels are usually
running the perimeter of the gardens and have
a torsus-shaped — made in mortar— , and may
be at a lower altitude than the platform or at the
same level, acting as pool overflows. There are
also lead small channels for drainage
41 Should be noted that two of the most im-
portant stone pieces for interpreting the ancient
late phase were located, the local of a large pit in
one in corner of the grass and the other as
the main room threshold.

42 Two samples carbonated inside the jar were
taken to determine the approximate chronology
of the deterioration of the building (and neighbor-
hood), which we place in ceramics during the
Almohad period. Surprisingly the two samples
indicated Roman dates (the first, 16/74 unit gave
50 AD ± 60 and the second, 16/58 unit, gave
160 AD ± 50) confirming that housing abandonment
figured artificial situating of the sector, for
which were found materials and fragments from different
depths should have been moved.

43 Islamic phases reflects at least two groups of
procedures relating to the construction aspects
as a result of the general phases for the eleventh
twelfth centuries respectively. The formation
of the neighborhood in Abbadi period is based
on masonry walls of thickness 0.50, hardly
found a footing except the largest
block size. The elevations use small masonry
and bricks and tiles fragments taken with mud
alternating oblique arrangement. Meanwhile
the floors were covered with mud, use of small brick (0.274x0.131x0.035 m. in
walls taken by mud, rowlock rigged vertically or
in walls of a foot and a half with ropes and logs.
In both cases the walls detected correspond to
the needle foot that would support wall eleva-
tions. Coatings detected in all homes, especially
in the one located in the East (housing 6), ap-
plied dumped on pavements. These are classic
interlacing of North African type red on white,
highlighting those that correspond to the main
room of the oriental house, with a thick, wide
ribbon of the same type that appeared in the Pa-
tio de la Montera in 1998. Meanwhile pave-
ments detected in both phases are simple leve-
elled with stone or debris floors without red ochre.

44 Studies by Rosario Huarte Cambra en “Aná-
lisis de la cerámica islámica”, Informe. Proyecto
General de Investigación Analísis Arqueológico del
Alcázar de Sevilla II. Patio de Banderas. Fase I.
Tom III, pp. 34-161. Noviembre de 2010 (Ta-
although they are still running at the end of this
work, will adjust the knowledge of Islamic de-
tected two processes.

45 In the 1464 unit, filling the sewer of the
Islamic Main Street, near Almohad ceramics,
carbonaceous remains dating from the CNA by
radio carbon dating where located, giving a chronology
of 931 to 1021 with 95% probability. This indi-
cates that in this case some of the wood burned in
this final moment of the twelfth century was cut a
century earlier.
46 Tahin (1998: 222-224) y recently Navarro
Palazon (2004: 240-241) Wall of land that
would be replaced in Almoravid and Almohad
time by more resonant elevations of mud.

ILLUSTRATIONS
Figure 1. The floor plans of the Patio de Ban-
deras. Dotted lines show Excavation of per-
fomances of the General Research Project.
Figure 2. Excavations in the Patio de Bande-
ras. Conserved structures Campaigns 2009-
2011.
Figure 3. North-South general section.
Figure 4. North Profile of SE 14.
Figure 5. North-South section. Interpretation
of phases.
Figure 6. North-South section. Interpretation
of phases.
Figure 7. High imperial and Roman republi-
can archaeological phases. Main wall structures.
Figure 8. Late antique and Islamic phases.
Main wall structures.
Figure 9. Overlay of structures under the Pa-
tio de Banderas. Figure 10. Neolithic ceramic.
Figure 11. Bell-shaped ceramic.
Figure 12. SE 14 2009 Campaign. Overview
of natural levels (colluvium) and the-
depletion of the archaeological record.
Figure 13. Steep-sided bowl, with mar-
ked carnam and smoothed edge.
Figure 14. Handmade ceramics with
burnished geometric designs inside.
Figure 15. Thrown ceramics from 1969 pot.
Figure 16. SE XVI 2010 Campaign. Pit 1931.
The murals of the perimeter of the low court of the cruise

Approach to the iconographic study

M. Isabel Bascuñán Rodríguez, Conservator - Restorer, Degree in Fine Arts.
Daniel Bascuñán Rodríguez, Technical infographic

There is a great deal of preserved remnants of wall Roman paintings and decorum fragments, the stuccos in the walls and vaults of the low court of the cruise, thanks to which we can get an idea of the extraordinary luminosity and the rich color that should have had the scenes represented in the cryptoparches that were surrounding the four outdoor patios and the central pond of the cruise, and that from the 16th century up to the last third of the 18th could be contemplated at daylight from the top platforms.

In the restoration that is being made for thirteen years, promoted by the Management of the Real Alcázar Patrimonio, many compositional fractures have been recovered, after surviving the upheavals of these long-suffering walls, hidden behind thick crusts and added mortars. His historical and artistic interest is unquestionable, and his current existence, although spoiled by the big quantity of losses, is the trace of those days when the exuberant wealth of decoration ennobled the walls of one of the most ancient areas of the Alcázar, dedicated especially to the playtime and to the rest, developed the aspect on the iconographic study of the paintings, contributing now to the break down of all the elements that can be appreciated in each of the restored murals of the arcaded galleries. The iconographic study has facilitated considerably this lecture done to each of the sectors and the raising of all the arcaded galleries. Global images have been obtained, as well as a trip for the polychromed faces, impossible to obtain only by taking photographs, considering the tightness and the narrow of the passageways, and the enormous difficulty of including the Baths will give to the citizen a true vision of this area, by means of the knowledge and comprehension of his historical, archaeological, architectural and artistic evolution, simultaneously that encourages the vision and technical exhibitions of the intervention once the restoration will be finished.

This study is focused on a first approach to the iconographic reading of the paintings, through the recognition of the formal and compositional elements that turn out to be detectable, at punctual level in each of the abundant fragments that have reached our times, and on a global scale in each of the sectors. It should be noticed that the grade of legibility is very different between the sectors, even between fragments of the same sector, because of the type and grade of deterioration and to the high percentages of losses. There are easily interpretable zones and others that are unrecognizable. This article starts from the article “Restoration of the wall paintings of the arcaded galleries of the Court of the cruise” (Rev. Apuntes del Alcázar, nº 11, 2009), and it develops the aspect on the iconographic study of the paintings, contributing now to the break down of all the elements that can be appreciated in each of the restored murals of the arcaded galleries. The iconographic study has facilitated considerably this lecture done to each of the sectors and the raising of all the arcaded galleries. Global images have been obtained, as well as a trip for the polychromed faces, impossible to obtain only by taking photographs, considering the tightness and the narrow of the passageways, and the enormous difficulty of including the
space from a visual view because of a lack of perspective and not enough distance for his suitable treed.

HISTORICAL BACKGROUND
In the last third of the 16th century, a deep, constructive, aesthetic and decorative transformation was made to the Gothic palace, affecting also to the Patio del Crucero (Cross Patio). This one, structurally raised in the shape of a cross since its almohadic origin, with vaulted galleries in the low floor and passable platforms on the upper floor, was opened towards the outdoor gardens. For this purpose a wide tunnel was constructed in the south side, under the Salón de las Bovedas (Hall of the Vaults), connecting the longitudinal pond of the ground floor —nailed popularly Barrios de Dona Marta de Padilla (Barrios of Dona Marta de Padilla) — with the Garden of the Dance. It was followed by a profuse decoration of coating of stuccoes and wall paintings in vertical surfaces and vaults, executed across a wide iconographic program of pronounced Italian influence of manierist style. In 1565 Juan Díaz and Juan de Saucedo carried out the decoration with heraldic shields of the tunnel and Juan de Díaz started to paint the fountain of grotesque. From 1578 to 1579 one, structurally raised in the shape of a cross and in cross two floors remained, with the front of the baroque lodge, and the paving with four big flowerbeds, which vaguely insinuate the position of the ancient pomaceous. Only the opening of the South-Western corner of the high patio, carried out a few years ago, shows to the visitor the current state of this structure in two levels and the first one of the sectors of the west gallery. In this sector the front of the baroque —similar to the stucco use in the vaults—, using as base tone and as background of the iconographic representation.

ICONOGRAPHIC STUDY
The restoration has allowed, in the measurement of the state of conservation of the paintings, an approach to his iconographic icon, since the processes of cleanliness, although slow and very laborious, have extracted to the light tonalities, lines and shapes not perceptible at a previous time.

In the two side galleries, the paintings are executed in each of the rounded walls, separated by the transverse arches that sustain the vaults of the three galleries of every sector. This is common in each one of them the representation of the same composite structure, organized in three iconographic blocks that, with light differences, appear in each of the mural paintings, one as a pergola, a big moulded frame, and the principal scene that is developed, as a picture, inside this frame. These three elements repeat themselves in every sector but they are represented in variable and different ways in every composition.

The pergola is a common element in all the sectors. It is a semicircular pergola, and it is located on the outline of the parietal arch, it is formed by concentric arches cut in rectangles, crowned of black and outlined in red, some of them are filled in black, with interlaced leaves and flowerbeds, one or more groups of children of or masculine naked adults, who carry musical instruments, branches of flowers, baskets of fruits on their heads, or vases flank the batter of the pergola, at a height of the impost. In others, these figures are replaced with birds, satyrs or vases with branches.

A big moulded frame is located under the pergola and it shows itself in close up in its inside, the principal scene is represented, which is different in every sector. The frame turns out to be painted with ochre, red or brown ground (imitating gilding, polychromy or wood, respectively), and its structure is romanist and in archivolts profusely decorated with finishes of violet, adorned with Renaissance motives of classical style such as little strips of cartouches, satyrs, of Jellyfish, of mutton, of lion, little heads of ells with sharp-pointed ears, valences with strings of vegetable elements, tapes, rosetaries of balls finished off with big balls, flowers, hangings cloths, free bonds or from which branches and bunches of fruits with flowers hang, birds of colors. 3 elements all that adorn the proper frame, one or more, are located in the environment to decorate, extol and embellish the scene that is represented in its interior and the general composition itself.

The central scenes, different in each section, are always carried out in a rectangular space (vain of the frame), and most of them represent activities that could be related to hunt, agriculture and livestock, there is only one indoor scene, in the palace, and the king shares table...
with some nobles of the court. In these representations characters are dressed in the old-fash-
ioned way, dressed with clothes that help to identify their own social status and the activity they do, this is the way nobles appear dressed for hunting, for the horseback riding, or the way peasants are dressed for planting or harvesting, along with animals closely related to these work, such as horses, dogs, herons, and objects or landscapes that contribute to complement the environment and context of the scene (trees, shrubs, farmlands, wheat fields, networks, spe-
ars, spades, shovels, sets with walled towers, ...). Due to the numerous mutilation and losses, these compositional fragments, as well as being mostly incomplete, usually appear isolated, su-
rrounded by large compositional gaps, or scattered, that is why, sometimes, it is difficult to in-
tegrate the global composition of each sector, except few sectors where a high percentage of pictorial composition has been preserved.

In the II gallery survive less percentage of paintings than in the inside galleries, but these have been represented in a major number of sur-
faces in every sector, both in the faces of the top perimeter, and in the perpendicular walls. Cur-
rently pictorial fragments are preserved in six of the thirteen sectors, but there are only four pieces that can provide formal compositional de-
teceable elements, although difficult to interpret.

The pictorial composition is appar-
ently continuous and occupies only the central third of the surface. The complex is structured in a big horizontal continuous band passing through the different parts of the gallery, standing about 2.20 and 1.40 m above the ground, so that it is beyond 15 cm height of the impost of the arches. The pictorial composition is also rai-
sed here like scenes, just as in the side galleries, but his representation turns out to be formally very different, being possibly slightly more ar-
chaic. A front porticoed surface has been used as an architectural framing, formed by arches, some semi-circular voussoir arches and others in sca-
allopped, separated by thick decorated walls, which exceed the height of the arches, supporting to-
gerher a deck or limited terrace, decorated at its upper end with curved moldings of lilies. Each span of the arch is closed on its underside with a strip composed of horizontal moldings, deco-
rated with linear bands of different color, or with Renaissance aesthetic reasons (straight garlands

of laurel leaves tied in X, or hanged ribbon be-
tween inserted flowers). The scene take place in the arcade openings. The entire architectural, framed portico is delimited above and below by a band that combines commented tapes topped with lilies, along with linear bands of different colors (red, black, gray).

The results of the interventions implemented in these sectors have not been able to contribute to reveal the overall theme, given the composi-
tional disparity and disproportion in the size of the figures represented. Nor if there is sequential continuity between scenes (bullets), or whether on the contrary, these scenes are isolated and only use one common space, responding more to a global issue, implemented with separate sce-
naries, as apparently occurs in the galleries side.

Regarding the side galleries, the approach of re-
tegration of the global composition of each sector, except few sectors where a high percentage of pictorial composition has been preserved.

We initiate the thematic breakdown from the galleries I and III, since both are subjected to the same initial iconographic exposition developed until a certain point. In this way, which motives have been changed, as the ele-
ments and the scenes, doing of every sector a different sequence inside the same pictorial cir-
cuit. In these two galleries there are abundant decorative elements that recur in some sectors. These two galleries also have in common that they could have been executed by the same painter, possibly a different one from that of the North gallery.

Then, knowing that this iconography has been virtually unknown to all until the process of conservation and cleaning, the reasons found used for its thematic interpretation are descri-
bed, which must be interpreted as a first appro-
ach to initial iconographic study of these paint-
ings.


Compositional breakdown blocks:
A. Pergola: It survives almost complete. It is de-
corated with yellow flowers, with the rims out-
tlined in red and its center in white, surrounded with black sticks interlaced with the pergola. The pergola at the height of the fascae is flanked with two male nudes elegant and dynamic, painted in forest shortening, whose backs rest on the curvature of the pergola, and they hold with their arms and on its heads a basket of fruits (grapes and oranges) adorned with numerous posies of black leaves. Near the foot of the character on the left we can distinguish storks of a bird’s head and its paws, once disappeared the rest of the body.
B. Frame: Much of the side top, formed by a ho-
izontal “baquetón”, in whose center rises a shot

BREAKDOWN OF ISSUES AND STATEMENTS REPRESENTED BY GALLERIES AND SECTORS

The topic that takes place in the pictorial composition of each sector is the result of the inter-
pretation of all the fragments preserved with the remains of pictorial composition. We can see
in these fragments elements, motifs and scenes, often kept away from the compositional block
they belong to (pergola, frame or main scene), isolated in the wall, and in different degrees of
conservation, which influences their degree of sharpness, and ultimately in the visual, both sim-
ply and comprehensive understanding of the composition.

We initiate the thematic breakdown from the galleries I and III, since both are subjected to the same initial iconographic exposition developed until a certain point. In this way, which motives have been changed, as the ele-
mens and the scenes, doing of every sector a different sequence inside the same pictorial cir-
cuit. In these two galleries there are abundant decorative elements that recur in some sectors. These two galleries also have in common that they could have been executed by the same painter, possibly a different one from that of the North gallery.

Then, knowing that this iconography has been virtually unknown to all until the process of conservation and cleaning, the reasons found used for its thematic interpretation are descri-
bed, which must be interpreted as a first appro-
ach to initial iconographic study of these paint-
ings.


Compositional breakdown blocks:
A. Pergola: It survives almost complete. It is de-
corated with yellow flowers, with the rims out-
tlined in red and its center in white, surrounded with black sticks interlaced with the pergola. The pergola at the height of the fascae is flanked with two male nudes elegant and dynamic, painted in forest shortening, whose backs rest on the curvature of the pergola, and they hold with their arms and on its heads a basket of fruits (grapes and oranges) adorned with numerous posies of black leaves. Near the foot of the character on the left we can distinguish storks of a bird’s head and its paws, once disappeared the rest of the body.
B. Frame: Much of the side top, formed by a ho-
izontal “baquetón”, in whose center rises a shot
of architectural and symmetrical character, painted with yellow background and shades of red, forming a rectangular projection with two recessed spaces, and the underside adorned with small scrolls, is preserved. The bottom edge of the “baquetón” is painted in brown, delimiting the lower central scene. In the right lower corner a fragment preserved of painting allows distinguishing part of the lower “baquetón”, painted in yellow ochre and decorated longitudinally with a single stem from which black leaves leave. Next to the “baquetón” there are a bunch of fruits and flowers hanging from a vertical loop, whose bottom has a knot at the top. A. Pergola: Due to the central gap, they are not preserved.

Sector 1.4.

47. Percent of preserved paint: 75%
Preserved pictorial composition: discernible.

Theme: Scene: Wild birds hunt scene.

Compositional breakdown blocks:
A. Pergola: It is decorated with flowers and loss of upward twigs that start from the upper-right boundary. B. Frame: Although it preserves the rectangular structure of the frame, we can only perceive, clearly the right side and the central area of the underside. The right side is extended upwards, ending in a sort of a cross, from which ties and bunches of flowers and twigs hang, which fall toward the upper “baquetón”. The right side is also extended outwards, forming a trapezoidal volume of surfaces curved with two endings in different planes, and a yellow in the center. This surface is presented to be with a curved anchor, as if the frame were hanging on the wall. The right side of the frame, imitating wood, is decorated on its side next to the scene with a vertical stem from which dark leaves come out, similar to the one found in the 1.3 lower “baquetón” sector. The lower side of the frame is topped with a lion’s head, surrounded by curls, only preserving the top part of the left scroll, topped with a small head of a sary, from whose mouth is displayed a red ribbon from which two bouquets of flowers and fruits hang, one located at the height of the lower right corner of the frame, and the other going up. A fragment of vertical loop starts from this bouquet, which seems to define the general outline of the entire pictorial composition of this sector.

C. Central Scene: The main scene is not perfectly clear because of its degradation, but you can identify three men on horseback, each one with a spear, two of them placed first, in the sides of the painting, and the third at the bottom, in the upper left quadrant. In the center you will find a scene with two burial curtains that are degraded so that it is impossible their identification—although it may be the face of any animal or mythological figure. A tape with three bunches of flowers and fruits hanging from the lower scrolls, defining the entire composition, as in sector 4. Finally, the rods that are closed to the inside scene are ornamented with a longitudinal stem that leaves black, very dark.

C. Central Scene: In the foreground and occupying the right half of the painting, we can appreciate a man on horseback (in profile), with a spear on his hand. He rules a horse, decorated on his side next to the scene with a field scene, during the harvesting of the wheat, outside of a walled enclosure. In the central part two characters are located in profile, one further than the other, dark skin a browned hair, who gathers the grown wheat deposing it in a big, white bag placed near the scene in the underside side of the composition. He wears red and green shirt, red tights, and red boots. Placed in parallel, but separated by the harvest, there is another peasant protected with a headscarf in the head and dressed in long skirt. We can only appreciate the boots and part of the layer of the third figure (due to the large adjacent figures) and the legs of a composition of walking in the opposite direction to the other characters. Behind them, in the upper part of the composition, there is a landscape of mountains, in whose bottom can be seen a rectangled wall with two cylindrical towers, and on the right a large brick house, possibly a silo, with straw roof and chimney, next to a large tree.

Sector 1.7.

45. Percent of preserved paint: 85%
Preserved pictorial composition: discernible.

Theme: Scene: Hunting scene (foxes?).

Compositional breakdown blocks:
A. Pergola: It is surrounded by flowers and black twigs in the outer outlines. In its left backfill there is a powerful naked male figure, standing on the fuchsia, in a lightly bent position, resting his buttocks on the curvature of the arch. His arms are raised, holding a basket of fruits and flowers. In the vain of the pergola, to the left we see a man playing a flute, the scene takes place in a landscape of mountains and trees, and one of these is in the foreground, occupying the right end of the composition.

Sector 1.6.

32. Percent of preserved paint: 32%
Preserved pictorial composition: discernible.

Theme: Scene: About collecting of wheat harvest. Compositional breakdown blocks:

A. Pergola: Completely disappeared.
B. Frame: Red in color, only its left side is preserved, although distorted and, as a part of the upper part with its central core. However, we can get an idea of the ornamentation of its rods, as it is seen throughout a rosary of small balls in yellow and a white border at the lower end. On the upper side are also appreciated the balls in the rosary with similar termination, and a finish in the upper center that contains a female face with hair of staves, associated with the mythological character of Medusa.

C. Central Scene: The central picture represents a field scene, during the harvesting of the wheat, outside of a walled enclosure. In the central part two characters are located in profile, one further than the other, dark skin a browned hair, who gathers the grown wheat deposing it in a big, white bag placed near the scene in the underside side of the composition. He wears red and green shirt, red tights, and red boots. Placed in parallel, but separated by the harvest, there is another peasant protected with a headscarf in the head and dressed in long skirt. We can only appreciate the boots and part of the layer of the third figure (due to the large adjacent figures) and the legs of a composition of walking in the opposite direction to the other characters. Behind them, in the upper part of the composition, there is a landscape of mountains, in whose bottom can be seen a rectangular wall with two cylindrical towers, and on the right a large brick house, possibly a silo, with straw roof and chimney, next to a large tree.
B. Frame: Among the surviving fragments you can also see part of a frame with a very well developed ornamentation, which is dominated by the moldings projected outwards, intertwined with tapes that are attached to rings, and from which clusters of fruits and twigs hang. Interestingly from a large scroll to the right of the composition, ribbons knotted hang, and from these a monkey also does, literally hanging, so that one of its legs is used for the falling of the other tape with garlands of fruit, flowers and black twigs, directed towards the bottom of the frame. The upper central finish preserves remnants of an elongated architecture as if it were the culmination of a curved front wall of a niche, projecting acanthus leaves and remnants of a lying small exotic animal.

C. Central Scene: The scene is confusing and difficult to interpret because, of the lack of sharpness of the preserved composition, we have to add the existence of a large gap that occupies 70% of the painting, and the lack of definition of the most significant reasons. The scene takes place in a landscape with a ground line located in the upper part of the composition, partially covered by a grove of trees. At the exit to the right, we can see a sketch with the figure of a man who raises the hands as if it had carried a similar object to some reins (perhaps he is plowing). In the foreground, on the lower right quadrant, with some masks located at the sides of the frame, there is a black line and confusing red to the supposed primitive pictorial surface.

Sector I.8. Percent of preserved paint: 60%
Preserved pictorial composition: Discernible.
Theme: Preserved elements, not enough for its identification.

Compositional breakdown blocks: We can find the most important gap of this sector in the center. The main scene and the frame are almost lost.

A. Pergola: Standard, with small daisies of white petals and yellow center. Two naked children flank the pergola in foreground, placed under the pergola, and resting on the coronation of a wall or curved cornice that rises behind the frame. The left arm of the child placed to the left is raised rubbing the pergola, hiding the right arm behind the curved cornice, in which we can see a vase with a branch of small red flowers and black twigs. A red ribbon hangs from the left branch, with lace at the top, from this ribbon a bunch of fruits hang too, flowers and twigs, no continuity, under which a crescendo bird lies. It looks toward the central and lower part of the composition. The position of his companion is almost symmetrical, while the immediate environment of the child to the right has lost a part of the pictorial composition commented.

B. Frame: Among the surviving fragments we can only see part of the upper “baquetón”, that is wide and decorated in its interior with a longitudinal strip. In the center, the figure is slightly lost. There is a bunch of fruit and flowers on its center. In some scattered fragments we see, in the lower area, traces of fruits and flowers, and part of a ribbon tied to the lower “baquetón”, similar to the area in the lower right quadrant.

C. Central Scene: Disappeared. We can only see the red color at the background, through the lower center, we can see a sketch (dotted), in the center, wearing scarves on their heads. In an isolated fragment located in the right-hand end of the tapestry we appreciate rests of the finish of the framework, with a ring and a red ribbon.

C. Central Scene: Disappeared. Only some isolated motifs survive, turning out to be insufficient for the global interpretation of the scene. In the left side, in its lower half, a confused shape that might be a tree. The background contains slightly detectable yellow scenery, and there is a tree trunk in the right side. Along with this one there is outlined the shape of an arm and its hand.

Sector I.9. Percent of preserved paint: 25%
Preserved pictorial composition: Discernible.
Theme: Preserved elements, not enough for its identification.

Compositional breakdown blocks: Only a large fragment in the upper part of the composition is retained, the rest of the fragments are less important, located in the central zone.

A. Pergola: Standard. It doesn’t retain floral decoration.
At the lower end of the arch stands the figure of profile of a savior, whose legs are clamped to a nth at the back of the facade, the figure is slightly pitch forward and his buttocks are resting on the arch, holding with both hands loaded fruit basket.

B. Frame: Disappeared. It only preserves a fragment located in the central-lower section, it belongs to the bottom rim of a volute. Next to the framework we find remains of black twigs that correspond to a primitive center of fruits and flowers, common in other sectors.

C. Central Scene: Disappeared. There is just a small fragment located in the center, where a portion of a character of noble appearance is captured, wearing a brown layer on a red suit and red baggy trousers. The index finger of his right hand points out something unidentified.

Sector I.10. Percent of preserved paint: 50%
Preserved pictorial composition: Discernible.
Theme: Preserved elements, not enough for its identification.

Compositional breakdown blocks: A. Pergola: Standard, with floral decoration. In the keystone of the arch we can see an ornament that may correspond to a high finish of the top side of the frame. The pergola rests on a curved wall. In the left side of the structure, which is damaged, there is a bunch of fruits located at the right side, blowing a trumpet, directed toward the top center of the composition. Next to him the top of a column or pilaster is preserved, on whose upper end rests a bird with a snake or tape in the peak.

B. Frame: We can still see part of the sides and top side of the beam moulding, decorated with chains, a couple of female masks located in the center, featuring scarves on their heads. In an isolated fragment located in the right-hand end of the tapestry we appreciate rests of the finish of the framework, with a ring and a red ribbon.

C. Central Scene: Only some isolated motifs survive, turning out to be insufficient for the global interpretation of the scene. In the left side, in its top half, a confused shape that might be a tree. The background contains slightly detectable yellow scenery, and there is a tree trunk in the right side. Along with this one there is outlined the shape of an arm and its hand.

Sector I.11. Percent of preserved paint: 15%
Preserved pictorial composition: Discernible.
Theme: Preserved elements, not enough for its identification.

Compositional breakdown blocks: A. Pergola: It’s not preserved. We can only appreciate a bunch of black leaves and little red flowers, a similar one to the one that is on sector I.8, that rises on the left side of the pergola.

B. Frame: It’s not preserved. A small fragment located on the right side, lower part, shows remains of a bunch of fruits and little black twigs.

C. Central Scene: Disappeared. Only some degraded and formless shades are remained.

Sector I.12. Comments: In this sector, on the corner of the Gallery II, only mural painting are preserved, in its North face, turning this one to be the beginning of the pictorial cycle of the North Gallery II.

Preserved pictorial composition: 30% compared to the supposed primitive pictorial surface.

Theme: Preserved elements, not enough for its identification.
Three fragments are kept isolated from each other, all very degraded, formally and totally. We can only see a black horizontal line at the top, located slightly below the impost of the arch, and under this line, a diffused tonal color of red and black remain. The two following fragments are almost aligned horizontally, and in them there is a horizontal black line and confusing remains of grayish light green color, in a fragment, on whose top half, a confused shape that might be a tree. The adjacent area (II.2) preserves, at this height, fragments with plant canopies better defined, with the same color tones.

GALLERY III: 12 SECTORS

Sector III.1. Percent of preserved paint: 2%
Preserved pictorial composition: It isn’t discernable.
Theme: Preserved elements, not enough for its identification.

Compositional breakdown blocks: A. Pergola: Not preserved.
B. Frame: Not preserved.
C. Central Scene: Disappeared. Only some tellurines without shape are preserved.

Sector III.2. Percent of preserved paint: 30%
Preserved pictorial composition: Discernible. Theme: Preserved elements, not enough for its identification.

Compositional breakdown blocks: A. Pergola: Standard format, decorated with yellow flowers, and intertwined twigs that come...
The central pivot rests the figure of a satyr.

**C. Central Scene:** It survives practically complete, with a personage scene set in palace, and it is developed in two rooms, an outdoor one and an indoor one, divided by a central column placed in forefront. On the left, the two men have access to a paved and arched porch that gives access to the outside, with a landscape of mountains and green spaces. Both of them are walking, the one who is behind is wearing a yellow long-sleeved shirt, a white skirt that overlays yellow breeches and green boots. He carries and object with both hands, it is thin, elongated white. Because of his clothing and posture, he seems to be located in a lower social scale, while the one that walks in front of him, wearing a short-sleeved stiff jacket, dark colored, light tone long-sleeved shirt, baggy breeches and white tight, he seems to be walking in the right hand a long object, suggesting a royal scepter or staff.

In the indoor scene Carlos V holds the king appears seated on a large throne, in the upper part of the composition, presiding over a long table covered with a white tablecloth, on which there are two red jugs and two slices of bread. In front of him, and in profile, there are two characters, and because of their luxurious clothing (hat, coat, red suit), they seem to be nobles or royalty. At a lower plane we see, around a big fire, made on a grill decorated with paws and claws of a lion, a bearded man with red hat, who is warming his hands to the fire, while the maid (dressed in long and with head scarf) warms up a white jug, which is sitting at once with a slotted utensil. In the roof of the vaulted room, white red moulding, two candelabra with four lighted candles hang.

**Sector III.4.**

**Percent of preserved paint:** 60%

Preserved pictorial composition: Discernible. Theme: Presevered elements, easily identified in the stretch from this auction until the bottom visible corner, while the vestiges of these forms are recorded in a plowed field, while spreading the seeds, taken from a red bag that carries in his left hand; he wears a red peak hat, yellow, white long sleeve shirt, red shoes. Under the archway of a house with a façade of windows and balconies, one can see a woman with long dress and white kerchief on the head, she bends slightly while holding a green basket.

**Sector III.5.**

**Percent of preserved paint:** 7%

Preserved pictorial composition: Discernible. Theme: Not enough elements to know its global theme. It looks as if it was a rural scene.

Compositional breakdowns:

- **A. Pergola:** Standard format, used as compositional framing that is repeated in all sectors of the side galleries.
- **B. Frame:** Fragment of a molding frame, in which an exotic bird can be seen on the left.
- **C. Central Scene:** There are many losses that make the central scene hard to interpret. Only sturdy tree trunks can be appreciated, we can also see a farmer in profile, with a straw hat, raising his left arm.

**Sector III.7.**

**Percent of preserved paint:** 35%

Preserved pictorial composition: Discernible. Theme: The lack of definition of the preserved elements impedes the ensuring of its overall thematic, while the situaton of the elements suggest a scene of wine duties: the collection and the treading of the grape.

Compositional breakdowns:

- **A. Pergola:** Almost completely disappeared because of the big uppe gap.
- **B. Frame:** In the composition preserved we only appreciate the smooth “baqueteones” of the sides and the bottom, having disappeared the development and expansion of the moldings, welded composition of these frameworks, as usual. Only at the bottom and middle of the composition we can appreciate some vestiges of the primary volutes. The side moldings are decorated with a stem from which small dark leaves emerge, being crowned at its lower end with two laces of leprechauns with pony ears, they are covering their heads with a red scarf knotted in the neck. Around the framework, there are abundant traceries and shapes that are discernible in the overall representation, but incompletely. The lower one is spread by laced fruits and twigs, which may be part of three different clusters, possibly joined by red ribbons, depending on model already repeated in other sectors.

In the lower area there are also other objects that are not complete, like a part of the volute of the framework (finish of the bottom center), or the scene of a bird of wood and tail, placed next to a centerpiece with flowers, fruits and dark twigs, located under the lower corner of the framework. On the right side we can appreciated two centers, adorning the sides and bottom of the overall composition.

- **C. Central Scene:** 70% of the scene has disappeared because of a big lagoon that occupies the whole framework. The lower part of the fragment is poor condition of conservation, with important erosions and losses. In the composition, all the valued elements have turned into traces, which, linked, seem to form a possible scene of the wine process, developed during the compolation and the footprint of the grape. We can see three human figures, all of them quite incomplete and mutilated by the erosion and the wear. In the upper left quadrant we can see a character walking and heading toward the left side of the composition, we can only see the white booth and part of the legs and torso of him. Next to it there is a container similar to a basket. In the lower zone we glimpse another central figure, of which only the hands are kept, they rest on a kind of horizontal beam, appa- rently driven by a vertical axis on the right side.
of the composition (possibly a mill). Under the horizontal beam we see the bent legs of that character, he remains exerting force to turn the beam (while he possibly is treading the grapes).

Sector III.8. Percent of preserved paint: 15% Preserved pictorial composition: Discordable. Theme: Scene related with small hunting (foxes? rabbits?)

Compositional breakdown blocks:
A. Pergola: It is almost completely disappeared because of a big gap that is expanded around the preserved fragment, placed in the center.
B. Frame: In the preserved fragment we can see a small part of the upper ‘baquetón’, yellow with white touches, decorated with a thin stem with leaves that travels longitudinally along the middle of the wall.
C. Central Scene: The preserved fragment is situated in the centre of the scene. Although much of the composition has been lost, the motives are identifiable with clarity, allowing its interpretation.

In the foreground, on the right, a character stands, only his left leg remains, riding a white horse dressed in red saddleb, shown in profile, in motion and in full hunting attitude. The rider wears short white pants and yellow tight. Around the horse, two dogs are busy to catch their prey: one of them, a reddish brown, is wea ring a wide white collar, and bites its prey, of which we can only see his long yellowish tail.

The other dog also harasses another animal, and between the two dogs we can only distinguish the ends of two very long ears that resemble those of a hare.

On the left side of the scene there is a hunter turned on his back, with his left arm raised, wea ring a clear short trimmed hat, shirt, white trousers and red vest set with a belt; on his back, a possible bag hangs diagonally. The landscape background shows a tree with open branches, apparently without leaves (autumn?).


Theme: The preserved elements are not enough for its identification.

Compositional breakdown blocks:
A. Pergola: It is practically disappeared because of the big gaps that affect the facing. It only conserves the fragmented silhouette of the upper left side contour of the pergola.
B. Frame: Almost completely disappeared. It retains only two fragments, located on the left side and in the lower side (lower right scroll).
C. Central Scene: Completely disappeared.


Compositional breakdown blocks:
A. Pergola: Only a portion of the lower quadrant of the framework has been preserved. The framework shows a mouluration decorated with scrolls, widely developed in the central area of the sides, similar to those found, in style and form, in other sectors of the lateral galleries. On the right side, the surface of the frame closest to the scene is enhanced with embellishments of roses ending in a ball, and only interrupted in the middle by a central scroll.
B. Frame: A moulding rises to the center and it simulates a large medallion or shield, whose curved ends toward the front end in acanthus leaves; in the central field we find three small equal shields, two above and one below, not identified.
C. Central Scene: The scene takes place in a rural landscape with trees, and we can see, in the upper right quadrant, the profile of a big house or farmhouse, next to which there is a carriage parked. On the left side, the horse is at rest, and directed in an attitude of attack toward the center of the composition. The end of this functional piece ends in a tip, with a stop made by a small crossed rod. Next to it we can see the tip of another pine, but not the figure that carries it. The only visible character wears white long-sleeved shirt, open red vest, guided by a belt, light-colored baggy pants with white collar, white nights and red boots without laces, stepping on a land covered with irregular bushes.

Sector III.11. Percent of preserved paint: 80% Preserved pictorial composition: Discordable. Theme: Hedgehog hunt scene

Compositional breakdown blocks: The high percent of preserved paint and its good state of preservation has allowed the interpretation of every single compositional block.
A. Pergola: Standard format. It is decorated with flowers and twigs of dark leaved protruding from the outer boundary.
B. Frame: The frame is profusely decorated with large, slightly simplified curved moldings, shaped with moldings of ‘gecos’ with upward semi-circles crowned with flowers at their ends, similar to one of the decorative finials found in sectors of the Gallery II.8 and 9—. The lateral ramrods are decorated with longitudinal yellow ribbons, and in its center, with small female heads adorned with headdress that fall down to the shoulders. Between the moldings and large recessed scrolls that decorate and are extended over the sides, intertwined ornamental motifs of Romanist style (loops and hanging fabrics from which bare forms of fruits and flowers hang), are repeated in other sectors. On the upper side of the frame, occupying the vase of the pergola, a moulding rises to the center and it simulates a large medallion or shield, whose curved ends toward the front end in acanthus leaves; in the central field we find three small equal shields, two above and one below, not identified. At the center, with the central figures are visible; in the lower quadrant of the frame, is situated a crestfallen bird, close to a stylized dark bouquet.
C. Central Scene: The scene takes place in a rural landscape with trees, and we can see, in the upper right quadrant, the profile of a big house or farmhouse, next to which there is a carriage parked. On the left side, the horse is at rest, and directed in an attitude of attack toward the center of the composition. The end of this functional piece ends in a tip, with a stop made by a small crossed rod. Next to it we can see the tip of another pine, but not the figure that carries it. The only visible character wears white long-sleeved shirt, open red vest, guided by a belt, light-colored baggy pants with white collar, white nights and red boots without laces, stepping on a land covered with irregular bushes.


Compositional breakdown blocks:
A. Pergola: Less of the left half is preserved in two unequal fragments. The type is standard. It is decorated with dark leaves twigs protruding from the outer boundary.
B. Frame: The framework is brown, wood imitation. There are few details. We find the vegetal motifs that supposedly made up the top left corner and the auction center on the left side, in both cases with prominent volutes of wavy terminations. We must highlight a cross-shaped one, with bulky and rounded ends, in which intersection a flower is drawn, and from the right end of the cross, a white ribbon falls. Presumably, from these moldings, tapes were falling (not preserved), and from them, three bunches of fruit and flowers also hang, arranged at intervals, which surround the composition in its lower quarter, and only the central one is decorated with oranges and grapes, taken with branches of black leaves, usual in these compositions. There are also some remains of the central finish, the work on its lower side, also made with screwed volutes, under which the central bouquet lies.
C. Central Scene: Due to the large gaps in this veneer, only a fragment of the lower center is preserved, in which the front legs of a horse on a field of red ground is represented.

Gallery II: Consist of 13 sectors
Observation: The beginning of the cycle of the North Gallery begins in the North-facing wall II.12 of sector I East Gallery, corner with the Gallery II. (See I 12 Sector)

Sector I. Percent of preserved paint: 30% (relative to the overall composition).

Preserved pictorial composition: Very deteriorated.
rated. Partially discernible (on comparison with adjacent sector).

**Theme:** Preserved elements, not enough for its global identification.

**Breakdown of areas:**
- **Outer perimeter wall:** In the set of preserved fragments, we can detect the same black continuous line arranged in horizontal that was appreciated in the high part of the attacked sector (1-12), over the line of the arch's fascia, and under this one, a wide stripe of gray color, poorly intone. Further down spots of red tonality are appreciated, and in the center of the ornament, approximately, a few spots better define that only outline the remains of a va lance of aca thanus leaves, arranged in a rhythmic way as a vegetable fret. The aca thanus leaves are green and light gray, and they are slightly tinged in black. Exactly to its right fragment contains pictorial remains with very thin vertical lines of dark color, on a light pink background, hardly detectable. And to the left of the frets there are green, brown, and red strokes. Under the fascia of the transverse arch there is another fragment, in which we observed a wide stripe of approximately 5 cm, of white color, outlined in black. This one is repeated in almost all the sectors, therefore we interpret that it is a question of a possible continuous framing line.

**Sector II.2.**

**Percent of preserved paint:** 20% (relative to the overall composition)

**Preserved pictorial composition:** Very dete riorated. Partially discernible.

**Theme:** Preserved elements, not enough for its global identification.

**Outer perimeter wall:** The remains are distributed into several fragments that cover different areas of the compositional strip (theoretically). The top piece has a black and red horizontal line, similar to one found in a previous sector (II.1). Below the fascia of the transverse arch, we find a succession of horizontal stripes of a different color, from the top to down: black stroke line, orange stripe, black stroke line, gray stripe, black stroke line, white stripe, last line of black stroke that fits the scene. Just beneath this fragment, another one is situated with traces of gray color, and to the left of it, a bigger one, practically located in the lower center section of the supposed composition, where some gray lines outlined in black can be seen, intertwined as if they were a network.

**Left perpendicular wall,** next to the courtyard:
An isolated fragment is preserved with pictorial remains, although they are degraded, with dark hues: brown and gray, formally unre adable.

**Sector II.3.**

**Percent of preserved paint:** 15% (relative to the overall composition)

**Preserved pictorial composition:** Very dete riorated. Partially discernible.

**Theme:** Preserved elements, not enough for its global identification.

**Outer perimeter wall:** There are four preserved fragments that have traces of mural painting, while the fragment of the ground is so high that only its hues can be seen. In the fragment located in the upper part of this composition and to the left of the arch, remains of yellow appear, and below, another isolated fragment, where we can see more clearly a red, clean, background with vertical strokes in black, that remind some architectural element, all on a white background. On the top side of the composition, in its central area, a fragment retains vestiges of a wide stripe of gray color. To the right of the arch, and also in the top, two fragments with small dimensions show black strokes and gray and red remains, impossible to discern.

**Sector II.4.**

**Percent of preserved paint:** 10%

**Preserved pictorial composition:** Very deterio rated. Impossible to discern.

**Theme:** Preserved elements, not enough for its global identification.

**Outer perimeter wall:** Only one fragment with mural paintings is preserved, located on the left side of the arch, at the height of the fascia. We can see and one found in a previous sector (II.1). Below the fascia of the transverse arch, we find a succession of horizontal stripes that are different colors, from the top to down: black stroke line, orange stroke, black stroke line, gray stripe, black stroke line, white stripe, last line of black stroke that fits the scene. Just beneath this fragment, another one is situated with traces of gray color, and to the left of it, a bigger one, practically located in the lower center section of the supposed composition, where some gray lines outlined in black can be seen, intertwined as if they were a network.

**Left perpendicular wall,** next to the courtyard:
A fragment with strokes of pink and black is preserved.

**Sector II.5.**

**Percent of preserved paint:** 60%

**Preserved pictorial composition:** Discernible.

**Theme:** Preserved elements, not enough for its identification.

**Outer perimeter wall:** Two big revealing fragments of the compositional scheme that has been followed in other sectors of this gallery are preserved. There is a presence of an architectural framing, with an outlined semicircular arch, and in which, inside the vain, a scene is developed, it us confused to identified because of the very high degradation of the polychromy. However, we see a character who appears in front, seated, resting his arms on a horizontal strip (which could be a table, the railing of a balcony, a horizontal beam, ..). We don't know what is he doing because we can't see it, next to the figure there is a gap. Beneath him, on the left, there is an object, possibly a container or box, and in the bottom of the scene we can see a blank figure of a woman, with a black inscription in Latin —we find confusion in the strokes of the letters, because of the polychromy tonal wear—, which reads as follows: RE SAVEDQVIMBE BEST. Interestingly, it is one of the two inscriptions registered in the paintings of the three galleries. This strip of this cartouche is followed by strips orange, gray, and white. While the fragment of the ground has a black right, a repetition of symmetrical floral motifs, made with black strokes on the beige, stucco's background (intonaco).

The separation of the left of the arch of the scene, appears with significant gaps, although it can be seen the decoration of three vertical bars or columns, ornamented with floral motifs (fla shes of orange petals and white flower corolla). In another large fragment, located to the left of the tapestry, we see the bottom corner of a framing, or from one of the thick walls that separate the arches of scene. The interior shows only the back of a horse (both limbs and the tail), represented in profile and heading to the left, on a plain orange background, possibly a field of wheat. Below of black solo of a to the one found in previous sections, and a little below, there is a bicolor stripe, black and yellow. **Perpendicular right wall,** next to the courtyard:
A fragment with strokes of pink and black is preserved.

**Perpendicular left wall,** next to the courtyard:
Small fragment with black lines outlining a gray and yellow stripe.

**Perpendicular right wall:** A fragment with traces of pink and black is preserved.

**Sector II.6 y 7**

**Percent of preserved paint in sector 6:** 30%

**Percent of preserved paint that flank sector 7, left side:** 45%

**Percent of preserved paint that flank sector 7, right side:** 75%

**Preserved pictorial composition between both sectors:** Discernible.

**Theme, left side:** It is an arch of half point, which alternates two bows with venera arches, separated by jambs with molded decoration. One of the arches is practically maimed by the corner of this sector. Inside the arch there is a panelling of arts, but hardly readable because of losses and erosion. Above arches, a limeted structure stretches, and on it, a border of interweaved plant elements and angels.

**Theme, right side:** The same arch is displayed on this floor, with the exacting of the interior of the aperture of the arch, a peculiar character appears, his anatomy is disproportionately big. It represents a naked man in foresthortening, with the right knee stuck on the ground, the right arm extended, holding a skull and resting on the knee and the right arm directed to his own head, in an attitude of thinking. The dark tonality of the entire composition is due to the thick carbonated infiltrations that have completely covered the composition and that prevent, in spite of the cleaning, the proper reading of the shades. In the upper free there is an inscription in latin characters, quite mutilated, where you can read under a valance with late gothic motifs: LIBRAMEYAPUESQUEPUESSEDESESTAAAX.

**Sector II.8 y 9.**

**Percent of preserved paint in sector 8:** 80%

**Percent of preserved remains in sector 9:** 70%

**Preserved pictorial composition between both sectors:** Discernible in sector 9. It isn't discernible in the outer perimeter wall of sector 8. The lower part of the fragments located in the two perpendicular walls. Representation: In II-8 sector, stucco of a large fragment is preserved, due to its high degradation, only some spots are preserved, located on the top (black stripe and red remains on it) annexed to the adjacent sector II-9, best preserved. Among right fascia of sector II-8 and the right fascia of sector II-9 it is developed one of the best preserved scenes of the sector, despite its many
internal losses, while its degradation is evident as you go closer to the right area of sector II.9. The whole performance is under an architectural framing, composed of a portico with three arcs, in which spaces supposedly three scenes are displayed. We can only discern the left one, because from this composition is increasingly degraded and it gradually losses more and more until it disappears at the height of the third scene. In the scene on the left, between sector II.8 and 9, the vise of a character is, (it makes us think of the figure of a young Columbus,because of the hairstyle and the facial profile) to a Carthusian monk is represented, —dressed in brown robes and shaved head— the character looks to an object. As background, a cityscape with towers, houses and church domes. In the scene on the central arc, only a portion of the vaulted lower surface, Renaissance scollop-shaped is preserved, and under it an orange background with traces of black lines not discernible. Since the composition of this arch is lost and only outlined, so only a fragment of the right arch is preserved, and inside, a fragment which makes us think of the top of a hat, and a band with a spear, all integrated on a background scatter of red and gray tones. The architecture shows curious ornamental elements, such as the division in horizontal strips of the wall that is interrupted between the arcs. These stripes run with outworn moldings which divide the spaces with decorations of ornamental relief with vegetable motifs. Closing the scene and the scene at its bottom range are ornamental bands, representing a double molding of Renaissance style, one of them of garlands based on laurel’s leaves, tied in X, and there is another one of hanging tents with flowers. The architecture is topped in its upper side with a fretwork of black semicircles joined up and decorated with lilies.

Perpendicular right wall of sector II.8, next to the courtyard: A large fragment retains visible remains of the decoration that was in these walls. A large horizontal strip is shown in this one, it is allegedly run through this facing, and it is still preserved also in the opposite end wall. In the interior of the strip a vase is shown, decorated with acanthus leaves, painted in white, outlined in black and on an orange background, its shape seems to have been inspired by a Renaissance fountain. From the left side winding string of balls comes out, it is placed next to the object. The right side is contoured by a large gap. The strip is closed on its upper and lower side with dark and light bands that have colours, arranged from top to bottom in the following order: white, dark gray, orange and white. The previous lines made during the representation have also been preserved with the final painting.

Right inside perpendicular wall, sector II.8: In a red orange background we can identify small traces of leaves, curved brush strokes and dividing strips of different thickness and color. Although the composition is very lost, it seems the decorative band that has been on the other walls is repeated, using acanthus leaves as main element.

Right perpendicular wall, sector II.9, next to the courtyard: There is a piece that draws attention because the black predominates as background color, unusual circumstance in these sectors. We used the white and orange to delimit a panel and a small flower appearing in the composition. Within the panel, some leaves are presented and next a remainder of cord.

Sector II.11. Percent of preserved paint: 5% Preserved pictorial composition: It isn’t discernible. Theme: Preserved elements, not enough for its identification.

Outer perimeter wall: Few fragments are preserved, all much degraded, of which only red spots located at the center of the composition can be seen. We also find a gray color stroke at the top and right of it.

Sector II.12 y 13. We don’t find pictorial remains.

NOTES
1 The development exhibition of the intervention was published in 2009, at No. 11 of the magazine Apuntes del Alcázar. The reader interested in the criteria and process of restoration to those who are undergoing different sectors with mural painting can go to that article.
2 Orthophotographic project performed by the photographers of the Real Alcázar of Seville, June 2000.

BIBLIOGRAPHY

CREDITS
Promotion: Patronato del Real Alcázar y Casa Consistorial de Sevilla.
This paneled ceiling, 82 m², covers the most spacious room that communicates the Patio de la Montería and Patio de las Doncellas by the eastern flank. Thanks to the comprehensive multidisciplinary studies that preceded and accompanied this restoration, we could confirm that the roof was made in the founding moment of this palace by Pedro I. Thus, both the construction technique as the pictorial procedure and materials used for these decorative wood coatings match those that were used in the rest of the Mudéjars woodwork of this palace scientifically analyzed (Figs. 1 and 2).

**STRUCTURE AND DESIGN**

Although its design is capable of self-supporting (Fig. 3), this paneled ceiling actually makes no any structural work, because it is attached and secured by bolts to the beams that make up the floor of the upper level (Figs. 4 and 5). These beams, which are seven, have a squareness of 27 cm wide and 36 cm high and cover the hall space in its less light side. The wood paneled ceiling that make up this alfarje are all the same scantling (9.5 x 9.5 cm), being the alfarjas (weatherboards) the longest ones that, placed perpendicular to the floor joints, cover the space between two parallel walls, and minors, the penaços (rails) which, are placed at right angles to the previous or parallel in short lengths, completed the network (Fig. 6). These woods were placed to form an interlacing of lane and string (as the lane is twice the thickness of the string), having two by two both alfarjas (six pairs) as penaços (30 pairs), and generating small square spaces when they were crossed. When the corresponding triangular elements were added, each of these encounters became eight-pointed stars (36 in total).

In the rectangular spaces caused by the encounter between pairs of penaços and alfarjas, some small elements were placed on their ends, as oblique penaços which converted the rectangular hollow in hexagonal, because of the interlacing layout. In this way the lanes are alternated in the longitudinal direction of the alfarjas. A lane has hexagonal hollows and the following, rectangular ones.

The necessary penaços to close the path on the perimeter were disposed at the edges of the paneled ceiling and in contact with the walls. Besides the aesthetic effect obtained in the tracery, the behavior of the wood elements was homogenized by making each one solidary with the adjoining ones, thanks to this design in grid square base.

Hexagonal holes and sinos were covered with reinforced tables to fill the resulting gaps, while the remaining voids, of a rectangular shape with semi-stars at the ends, were closed with other nailed tables from the visible surface. The bead moulding of semicylindrical section that crosses the entire design was finally placed in the center of the ribbon, forming the loop decoration.
So the end result of the trace of this alfarje ceiling, of 6.6×7.82 m dimensions, responds to six layers of eight-pointed stars flanked by alfardones (hexagonal tiles), not forming wheels.

MATERIAL HISTORY

As we know from the information derived from many carpenters restoration recently intervened in this alcázar as well as various written sources, the roofs of this palace were repaired mainly in the sixteenth and nineteenth centuries. It is therefore common to find in these Mudéjar carpenters a superscription of medieval, Renaissance and nineteenth century times. However, in the alfarje ceiling that we are studying, the layers respond exclusively to the second half of the fourteenth and nineteenth centuries. That is to say, internal constructional splendours of the 15th century have been better in this case, to attend one of his issue dated before 1857 (year of the intervention) on the 16th period (Figs. 7 and 8), time when the layers responded exclusively to the second half of the 19th century, that we are studying, ceiling that we are studying, a dark color fine wood imitation (Fig. 10).

MATERIAL HISTORY

When reflecting on the character of this alcázar ceiling, of 6.6×7.82 m dimensions, one can appreciate that the repairs of the 15th century have been better in this case, to attend one of his issue dated before 1857 (year of the intervention) on the 16th period (Figs. 7 and 8), time when the layers responded exclusively to the second half of the 19th century, that we are studying, a dark color fine wood imitation (Fig. 10).

REPAIRING

We employ the following chemical analysis and techniques for the characterization of materials...

2. Selective staining and microchemical tests.
3. Identification of wood species from microscopic features in the transverse, longitudinal and radial cuts.
4. Infrared spectroscopy (FTIR transmission and FTIR-ATR).
5. Gas chromatography - mass spectrometry (GC-MS).
6. Thin layer chromatography, high resolution (HPTLC).
7. Scanning electron microscopy - spectrometric microanalysis by energy dispersive X-ray (SEM - EDS).

As we see, the procedure and color palette corresponds exactly with other well studied Mudéjar ceilings of the alfarje type.

TECHNIQUES AND MATERIALS

In the Fourteenth Century

We can also confirm a very interesting Mudéjar pictorial procedure: the absence of gold leaf (although it is now so abundant in this place) and the use instead of silver leaves (which are so vulnerable) under subtle varnishes glazes, lacquers and translucent colors (cortaduras).

The original aspect of this work should be dazzling as changing, depending on the time of the day and the incidence of flickering candlelight. This effect would be nuanced in their reflection, but multiplied in its iridescent glow, according to the nature and tone of subtle transfer that would cover the silver.

Unfortunately, this technique is as clear as little resistant, because the silver yields to the aggressing detergents. The damaged effects include blackening and corrosion, with the appearance of chlorine and sulfur as byproducts of the process. In summary, the denaturation of the silver turns off the initial brightness. These surfaces cannot be regenerated today and its restoration is limited to the cleaning and protection removing added substances which may impair its good conservation and applying the most appropriate stable varnish: the one that, without interfering optically, increase the silver resistance to being corroded and in the rest of the substances that compose the glass, to be deteriorated.

In the Nineteenth Century

The Mudéjar craftsmen tended a gypsum pig, with animal glue on the fair face of the woods (Corsican or black pine —Pinus nigra L.— in the frieze and Scots pine, white or Valsàin —Pinus sylvestris L.— in the rest of the roof). This stucco was always applied in two coats, the top with a finer grind. Then they applied a varnish colophony resin and linseed oil. In varnished areas, in addition to applying the desired oil varnish, the craftsmen placed the corresponding silver leaf. Finally, according to the decorative scheme, they applied color and, again, resin varnish with linseed oil to give the result (see Plates 9 and 10).

As we see, the procedure and color palette corresponds exactly with other well studied Mudéjar ceilings of the alfarje type. We can also confirm a very interesting Mudéjar pictorial procedure: the absence of gold leaf (although it is now so abundant in this place) and the use instead of silver leaves (which are so vulnerable) under subtle varnishes glazes, lacquers and translucent colors (cortaduras).

The original aspect of this work should be dazzling as changing, depending on the time of the day and the incidence of flickering candlelight. This effect would be nuanced in their reflection, but multiplied in its iridescent glow, according to the nature and tone of subtle transfer that would cover the silver.

Unfortunately, this technique is as clear as little resistant, because the silver yields to the aggressing detergents. The damaged effects include blackening and corrosion, with the appearance of chlorine and sulfur as byproducts of the process. In summary, the denaturation of the silver turns off the initial brightness. These surfaces cannot be regenerated today and its restoration is limited to the cleaning and protection removing added substances which may impair its good conservation and applying the most appropriate stable varnish: the one that, without interfering optically, increase the silver resistance to being corroded and in the rest of the substances that compose the glass, to be deteriorated.

In the Nineteenth Century

In 1857 it was decided to intervene this alfarje ceiling, with the intention of remedying, among other things, the darkening above mentioned. With few pigments (bone black, different lands colours, including yellow earth, vermilion, white barium, chalk and white lead, always in low proportions) a reduced color palette was arranged, although quite mixed light and dark greyish tones. In the varnishing the overpainting was done with a more or less vivid red (see fig. 10, 15 and 18 and their corresponding tables).

After altering surfaces without other consideration to get rid of the medieval polychromy which was not properly attached or looked bad, the new paint was applied directly to the wood, bonded in tempera on some occasions and sometimes in oil painting. We found only a small area in stucco, with maybe a test or a sample not used finally as a reference (fig. 14).

RESTORATION

Coming to the present day and as we have been largely described, the main problems or damage that characterized the conservation status of this alfarje were as follows:

• Thick overpainting in distemper covering the original coatings on the entire surface of the roof except at the arroca be panels and persistent oil overpainting in that arroca be and occasionally in the rest of the alfarje (fig. 19 and 20).

The amount of accumulation of dust on the fair face of the alfarje ceiling and substantial debris in both the narrow chamber formed between the back of the roof and the floor of the upper room and between the arroca be and the perimeter vertical surfaces (fig. 21 and 22).

• Poor cohesion of Mudéjar coatings still preserved from the 1857 repaint (fig. 23). This advanced disintegration of the strata was manifested in all us forms: powder colors, cracked and accused bowls, blisters or baggy, desquama tions. The end result of these impairments can be encrypted, as they did, on numerous losses, of variable length, by the detachment of the coatings. As a result of this, much of the decoration was blurred (figs. 24 and 25).

• Areas with inconsistent or weak wood as a result of xylophagous insects attack, now inactive.

Except for the first point (the overpainting), the rest of them did not require clarifying on matters of judgment nor technical complexity greater than the solution of the problem by amply proven methods and materials, which we will discuss at this end of the article.

But we didn’t know what to do with the overpainting. In this regard, the approach was the same as the one adopted in the gallery of the Kings and Maids and in the Half-orange Dome. That is, removing the overpainting while keeping those whose elimination, by being executed directly on the support table, had not rescued any of Mudéjar coatings because, as we say, we were already lost when the alfarje was repainted or were destroyed then.

In this regard, when an accurate and detailed conservation map of the original polychrome was made, we find three different situations

APUNTES DEL ALCÁZAR DE SEVILLA 49 APUNTES DEL ALCÁZAR DE SEVILLA 48
Thick overpainting, common in oil paintings, were previously thinned to tip of blade to limit the use of solvents.

Another major task, essential for the future good preservation of the work, is the removal of the large debris (about half ton) that after several reformations of the upper room had been dumped along the time and were hidden under the floor of this upper floor on the back of the allarce ceiling10 (fig. 31).

It should be clear that when we say rabbles we do not mean compression11 layers that provide strength to the roof structure, because the disposal of these wastes was so messy that equivalent work areas could be filled with shards and debris or, conversely, be free of them. We are not talking about stuffed discharges in origin to absorb any water leaks of upper floor cleaning, because apart from that, they were said, without any order distributed, they were not sifted. There was, for example, different calipers shanks, whole bricks, disintegrated mortar, wood waste and many organic debris: old chippings, wood and organic waste. The mixture was applied by brush, was 5%.

ILLUSTRATIONS
1. The paneled ceiling before restoration.
2. Plant and south and east viewings.
3. Mounting scheme, top and bottom views.
4. Drawing with the exact distribution of the nails that attach allarce structure to the ceiling.
5. Partial view of the camera between the backfill of the roof and the top floor wroughed.
6. Detail of the assemblages between the elements that make up the different modules (top picture), roof of one of the interlaced layers on a non-structural piece.
7. These images show the molety repaint that were made on the Mudéjar epigraphs in 1875 until this time it was not possible to do it.
8. Another example of the overpainting on the “ovas”, tiles and original salpiques motifs. We have to find the large amount of loss of polychromy of the original coatings and the ones from 1857 and, secondly, that many of the nineteenth repainting were made directly on the wood, and in these extensive areas the medieval strata had already been lost.
9. Analysis of wood frieze (top) and one of the allarce fragments (bottom).
10. Optical microscope image of the cross-section of the microsample (objective MP/Plan 0.40). The numerical order indicated is shown in the table below. Middle picture: image to the scanning electron microscope of the cross section of the microsample (BSE 300 X objective).
11. Chromatogram of a sample taken with a swab on the outside of the coatings of the “ovas” of the frieze. The used of resin and linseed oil as termination “bariz” is checked.
The silver leaf (layer 2). In this sample, taken of pigments used in 1857: bone black, gypsum, organic layer (layer 3) and the metallic shine of white of barium in low proportion and white light. We can see the florescence of the applied section (50 X objective M Plan / 0.75), with transmitted light. It clearly shows the “corla” transparency and brightness of silver leaf.

Right. 17. Top photo: optical microscope image of the cross section of the sample (objective M Plan 20 X / 0.40). The numerical order that is shown is the one that appears in the table below. Middle photo: optical microscope image of the cross section (target M Plan 10 X / 0.25), with UV light. We can see the transparency of the organic layer (layer 3). Lower photo: Image obtained from the optical microscope of the cross section (target M Plan 20 X / 0.40), with transmitted light. There is transparency in the organic layer (layer 3) and the metallic shine of the silver leaf (layer 2). In this sample, taken from the “barquero” that travels through the tape; in addition to be checked the stratigraphic sequence described in the text, we detected part of pigments used in 1857: bones black, gypsy, white of barium in low proportion and white lead on very low proportion.

18. Top picture: optical microscopic image of the cross section of the microsample (20 X objective M Plan / 0.40). The numerical order corresponds to the table below. Middle picture: Optical microscope image of the cross section (20 X objective M Plan / 0.40), with UV light. Bottom picture: optical microscope image of the cross section (50 X objective M Plan / 0.75), with transmitted light. In this sample we detected several of the pigments used in 1857: barium white, gypseum and bone black.

19. After a thorough program of tastings, we found, under the paint of 1857, fragments resolved of the Mudejar decoration that were used to determine the priming and decorative layers.

20. Here we have another example of Mudejar decoration recovered (framed in green) in an al-faraj after the removal of overpainting of 1857. We can see, for example, the different skill in tracing of the perimeter “ovas.”

Top. 21. In this photograph we can see abundant accumulation of debris that were retained below the vinyl (1857). We can see debris of the bar of rope that are contained in the “tapa” in addition to be checked the stratigraphic sequence (50 X objective M Plan / 0.75), with transmitted light. It clearly shows the “corla” transparency and brightness of silver leaf.

22. Debris removed from alfarje weighed about a ton and a half. Graphic illustration of the fixing problems that were in the Mudejar coatings of 1857.

23. Due to the fixing problems of the strata, the polychromy losses were substantial. We can see the blurred appearance due to loss of coatings.

Infographic that faithfully reproduces the colors and drawings of the Mudejar decoration from the information of the relics found and restored.

24. Infographic reconstruction.

25. Infographic reconstruction of one of the pieces on a real background with the intention of comparing and showing how much splendor has been lost of Moorish decoration.

Page 108-109. 29. Process of cleaning of one of the 708 epigraphers. In all of them we re -covered the text in cursive of the time. Torrella says “The perpetual fortune” and the colors that originally ornamented it. In these tablets we see, not as in the rest of the alfarje, that in the decoration of the alferje was not used, being freed of the irreversible harmful impact that for the conservation of these parts produces a gradual corrosion of these fine metal foils.

Page 109 top. 30. Fragments of the frieze, before the intervention (top picture) and after cleaning (bottom picture).

Page 109 bottom. 31. The frieze removed and free of debris.

32. A fragment of the alfarje (framed in green) before fixing and cleaning.

33. The paneled ceiling restored.

NOTES
1 Some roofs were also intervened without success, between the decades of the 50 to 70 of the twentieth century. This is the case of the Gallery of the Kings of the Hall of the Orange of the Hall of the Ambassadors or the paneled ceiling covering the Royal Bedroom.

2 Description of the arts of restauration, of paintings and sculpture that have been executed in the Real Alcázar of Seville as well as the repa -ration in the rooms of carpentry, herteria, alba -ña and, for when all these works are realized, the palace house in complete restauration. Towards 1854. Archivo del Real Alcázar. 638-3. El Alcázar de Sevilla en el siglo XIX. p. 239.

3 Valentin Carderera and Solano (1796-1880) Honorary court painter, although he stressed more an as an archaeologist, collector and writer. His arrival at Alcázar of Seville responds to the request of the governor Diego de Mesa to the Royal Household in 1848, so that a qualified expert give its judgment on the current and future works.


6 The team of specialists in analysis for documentat ion and restoration of cultural property that has made this research study were as follows: Andrés Sánchez (PhD. in Biochemistry, Maria Jesús Gómez García, Bache lor in Pharmacy, Ismael Gonzalez Seco, degree in Physics, Marcos del Mazo Valerian, Lab Technical, Alberto García Sánchez, technical Docu- mentation.


8 Especially considering the higher reflectivity of silver, even against gold (95% and 83% in the native silver and gold, respectively).
LIGHT AND COLOR IN THE GARDENS OF THE ROYAL ALCÁZAR

Maria Dolores Robador
Dr. Architect

In the Alcázar, the gardens date back to the rich landscaped courtyards and to the transformation of the great Royal Garden, —Bedroom orchard, intramural, Retiro's orchard, extramural— in the great gardens of the Alcázar. Until the 16th century only the Prince's garden was known as the garden of the Alcázar, but it was next to the room of the Prince, close to the Catholic Monarchs' ceiling room, they both were around the Courtyard of the Dolls, which were the oldest royal summer apartments.

One of the singular performances in the gardens takes place in the imperial era, when the old Muslim qubba from the Alcázar's orchard is turned into a beautiful garden pavilion, the Arbor of Carlos V, placed in the middle of an orange garden. The Italian traveler Andrea Nava- geno was invited to the wedding of the Emperor, and he wrote: "I can find in these gardens a forest of orange trees that is the most peaceful place in the world."

Felipe II was passionate about architecture and gardens; he promotes the transformation of old Muslim orchards into modern gardens of Islamic influence. He started this process, but it would continue to the almost total disappearance of the orchards.


These small dimensions gardens are all linked, this kind of gardens were created by the Italians under the name of "secret gardens" and they were promoted by the humanist princes. They are gardens-courtyards, enclosed by tapis, as if they were rooms whose ceiling is heaven. The walls are furnished with orange trees in trellis system, having a volume by trimming of topiaries, making the gardens "closed" by treating the walls in green walls rooms, open to the sky, unique in the world.

As you walk these little gardens, when you look through its gaps as you walk by you can perceive the sequence of patio, garden wall, patio, garden wall... generating light, shadow, light, shadow, light, shadow. It is a depth accompanied by surprise and amazement when you go through each courtyard, each one diverse of colors, freshness, water sounds, aromas, reflections of the tiles, silence, birdsong, an architecture of the senses that struck the very core when you perceive everything a good garden can have, the whole universe.

Garden of Troy or of the Labyrinth. Oil of Gustavo Bacarisas. The painting masterfully represents the essence of these gardens: the sequence of patio, garden wall, patio, garden wall... generating light, shadow, light, shadow, light, shadow. It is a depth accompanied by surprise and amazement when you go through each courtyard, each one diverse of colors, freshness, water sounds, aromas, reflections of the tiles, silence, birdsong, an architecture of the senses that struck the very core when you perceive everything a good garden can have, the whole universe.

The gardens of the Real Alcázar are a compendium of the history of gardening, in a city like Seville, whose weather favors the fertility of plants and flowers, bringing forth a world of light, color, feelings and perfumes.

The gardens of the Real Alcázar, an exceptional collection, are the result of a long historical process that was born in the ancient medieval gardens and that turned into exquisite gardens over time, wholly enjoyable: flowers for sight and smell, fountains and birds to the ear... countless colors, where things can be infinite or infinite big, everything is emotion. Nature is full of life, particularly in Seville, where the climate favors high fertility in plants and flowers, and that's why gardening has always had a great development.

A brief overview of many centuries of life in the gardens of the Real Alcázar requires a mixture of medieval memories with galleries, niches, Renaissance basis, baroque auctions and covers, neoclassical elements... until today. Gardening

SEVILLE’S LIGHT IN THE ROYAL ALCÁZAR GARDENS

We all know the privilege that Seville has because of its luminosity, with a very clean sky. Because of its latitude, the incidence and inclination of the solar rays causes major light quantity. The ones who know Seville know that the sun is very strong, blinding and the sky very blue, deep. This blue is produced by the dispersion in the fluctuation of the molecules of the air, but it is not constant throughout the day, changing its intensity according to the time and day of the year. This blue contrasts with some few and small wandering clouds that sporadically circulate. Light is life, it is a gift of nature. Shadows are the result of light. Shadows are lack of light, ma-
Long the difference between the spaces with more or less light. In the gardens of Seville, the alternation between light and shadows is energetic. The intense and abundant light, the contrast between lights and shadows of the vegetation and the architectural elements is stronger nowhere else.

With the light, the colors arise. If light didn’t exist there would be no colors. But we have a lot of light in Seville, so we can perceive colors with more energy and intensity. This means that, in this city, vegetation and architecture are covered with strong colors.

This vibrant and blinding light is also faithfully in accordance with the laws of physics, so, when it impacts on a surface, is reflected with great intensity, coloring the space on its route, especially, because of its impact on surfaces more conducive to reflect the light, such as stucco, the jabelgas and the tiles of the fountains, the benches and pavilions.

But not only reflection. We know that when the direction of propagation of light passes from a material medium to another medium it produces refraction, we can see this effect in the water of fountains and ponds.

We can easily attribute the properties of light, brilliance and splendor to the beauty itself. The beauty has the way of being of the light, and this way of being consists in the reflection: the light is reflected on the surface, what is illuminated is visible as soon as you make visible other things, making them visible too.

And we find all this game of light, shadows and reflections in nature in its purest sense, which is monious and perfect, it breaks out in the gardens of the Alcázar as a result of a constant search and persistent throughout history.

FROM SUNRISE TO SUNSET

The variation of the light, from sunrise to sunset, transforms the gardens in a natural way, during the different hours of the day, when the weather is different and even in different seasons of the year. This variation of the light becomes protagonist and creator by changing the color and making shadows emerge. If the light is very intense and very direct, the shadows are stronger and greater the contrasts. Furthermore, as this depends on the time of day and the angle of incidence, the passage of time translates itself into a pseudo movement that creates the feeling of life.

Light is blue at dawn, just before sunrise. Light in the garden is warm, very yellowish and red, slowly waking this world of sensitivity in the brain, the most amazing machine of the universe. We all know about the capacity of refinement of taste, hearing and smell, we can also talk about brain educators and improvement of interpretation of sensory stimuli enunciates knowledge and refines sense.

Completing the physical plane with the psychological one, Goethe, in his “Theory of colors” expressed a great truth: “colors act on the soul, they can cause feelings, awake emotions or ideas that soothe or shake us up and they can cause sadness or joy”. The experience testifies to the fact that color influences mood and feelings.

This brief reference allows you to glimpse how nature, in general, with its countless colors, participates more powerfully in nature and culture. In the life of plants we perceive a quiet sensitivity that is harmonized with the melody of the garden, together with the architecture, and that can reach the beauty with all the fullness of its strength.

You need serenity for the extensive and intense contemplations of the gardens. The human being is a natural and major component of stopping and being astonished. This way, the person with simple and sensitive soul enjoys her/himself in the contemplation of the wonder of nature of the gardens, to the sound of what is immortalized in the stucco, the mosaics that follow each other and go to give the plants of light in the spaces in which the light is lower, where the greens are, therefore, darker.

The gardens, as the different seasons go by, get full of different flowers, which transform the color and smell of the space. Most of them appear in spring with the white blossoms of practically all the gardens, of peach trees in the garden of the Ladies, of myrtle in the garden of the Prince, the soft violet of the wisteria in the garden of the Lady and the melia, the intense violet of the tree of love, the red and fuchsia of carnations of the outerwalls of the hispano-muslim gardens.

The jacaranda tree that looks over the Gatosco Gallery in spring is all a remarkable blue violet flower, beautifully contrasting in its purest form, the unexpected, the unpredictable, what is beyond you, impressing us favorably—being perhaps object of a certain intuitive knowledge—is followed by enthusiasm liked to hope. It is not an enthusiasm that drives to the possession of the beauty, for us it is enough to have “seen” it, to know that it exists.

PERCEPTION AND POWER OF COLOR

Newton said that color is a brain perception through the senses. The perception of color is due to the light that reflects objects. The light that greets the eye from the surface of a body, affecting the retina, creates a colorless nerve impulse which stimulates the brain, according to the wavelength of the color received which completes the information, and the sensation of color appears in the mind.

We are impressed by the physiology of the human retina, where as we all know, there are two types of photoreceptors, cones (6-7 million), responsible for the daytime vision (vision of color and spatial definition) and rods (125 million), responsible for night vision (dark vision). They are able to carry out its role in lighting environment ranging from the intensity of light on a sunny; to the darkness of the night, making it possible to reach an exquisitely colored sensitivity in the brain, the most amazing machine of the universe. We all know about the capacity of refinement of taste, hearing and smell, we can also talk about brain educators and improvement of interpretation of sensory stimuli enunciates knowledge and refines sense.

Completing the physical plane with the psychological one, Goethe, in his “Theory of colors” expressed a great truth: “colors act on the soul, they can cause feelings, awake emotions or ideas that soothe or shake us up and they can cause sadness or joy”. The experience testifies to the fact that color influences mood and feelings.

This brief reference allows you to glimpse how nature, in general, with its countless colors, participates more powerfully in nature and culture. In the life of plants we perceive a quiet sensitivity that is harmonized with the melody of the garden, together with the architecture, and that can reach the beauty with all the fullness of its strength.

You need serenity for the extensive and intense contemplations of the gardens. The human being is a natural and major component of stopping and being astonished. This way, the person with simple and sensitive soul enjoys her/himself in the contemplation of the wonder of nature of the gardens, to the sound of what is immortalized in the stucco, the mosaics that follow each other and go to give the plants of light in the spaces in which the light is lower, where the greens are, therefore, darker.

The gardens, as the different seasons go by, get full of different flowers, which transform the color and smell of the space. Most of them appear in spring with the white blossoms of practically all the gardens, of peach trees in the garden of the Ladies, of myrtle in the garden of the Prince, the soft violet of the wisteria in the garden of the Lady and the melia, the intense violet of the tree of love, the red and fuchsia of carnations of the outerwalls of the hispano-muslim gardens.

The jacaranda tree that looks over the Gatosco Gallery in spring is all a remarkable blue violet flower, beautifully contrasting in its purest form, the unexpected, the unpredictable, what is beyond you, impressing us favorably—being perhaps object of a certain intuitive knowledge—is followed by enthusiasm liked to hope. It is not an enthusiasm that drives to the possession of the beauty, for us it is enough to have “seen” it, to know that it exists.

CHANGING SEASONS

Taking into account that plants are fruit of light, the nature in the gardens of the Real Alcázar of Seville, due to its brightness, displays all his wealth in a wide variety of plants, aromas and colors so characteristic of this city. Trees, plants and flowers acquire a development and unique aspect, something fascinating in the gardens, patios and flower pots.

Given the story of the Alcázar joint and its geographical location, its landscape has been enriched by the contemplations of plant species brought from remote parts of the world since ancient times: Middle East, the Islamic world and, of course, the first fruits of American flora brought by the discoverers of Americas: magnolias, drunken sticks, bougainvillea, zapotes, etc. In all of them its development was favored by climate and light of this city.

That mix fills of countless colorful the spaces of the gardens, causing a great show, where the infinitely small and the infinitely large have place, able to stimulate the imagination to awaken our senses.

The green of the leaves of the vegetation of the gardens of the Alcázar is a joyful green, because of being in Seville, it slows going yellow. This is because the concentration of chlorophyll is less needed in the plants to catch the light than in the zones in which the light is lower, where the greens are, therefore, darker.

The gardens, as the different seasons go by, get full of different flowers, which transform the color and smell of the space. Most of them appear in spring with the white blossoms of practically all the gardens, of peach trees in the garden of the Ladies, of myrtle in the garden of the Prince, the soft violet of the wisteria in the garden of the Lady and the melia, the intense violet of the tree of love, the red and fuchsia of carnations of the outerwalls of the hispano-muslim gardens.

The jacaranda tree that looks over the Gatosco Gallery in spring is all a remarkable blue violet flower, beautifully contrasting in its purest form, the unexpected, the unpredictable, what is beyond you, impressing us favorably—being perhaps object of a certain intuitive knowledge—is followed by enthusiasm liked to hope. It is not an enthusiasm that drives to the possession of the beauty, for us it is enough to have “seen” it, to know that it exists.
blue jasmine, the red of the small sevillian roses, and the lantana with its yellow flowers, white flowers, and the red and yellow ones.

Trees give landscape the dominant note of green color of the leaves with a very wide range of shades. Evergreen trees basically remain the same color throughout the year, as we can see in all orange trees, but there is usually a variation when the spring buds appear, usually in tone cleaner, and there are species whose leaves change color in winter. deciduous trees usually produce seasonal chromatic variations before leaf drop in the fall: this way, leaves become ochre or yellow, as happens to the forsythia and the Gerbera blushing in a very beautiful and striking yellow that transforms the English garden. In this same garden leaf color variation comes to red in acers, Acer pseudoplatanum. Then, before it is evident in the English garden where the colors of autumn can be appreciated, illuminated by daylight between their powerful glasses.

Few gardens can have this variety of colors because of their flowers. We can’t forget the green leaves of the orange trees tops, among which is the orange color of its oranges in almost all the courtyards and gardens of the Alcázar. Nature, in general, produces the extraordinary with unique qualities.

This amount of light, flowers and aromas is an experience in the garden in a way that all the Sevillians who were born in the city and the ones adopted by it, they all enjoy them and frequently awakens the senses of visitors.

ARCHITECTURE ELEMENTS

The gardens were designed inextricably together with the architecture. So it was in the closed gardens bounded by façades, walls and ornamental elements like in the open gardens with the entire repertoire of architectural elements: covers, halls, galleries, benches, arcades, pavements...

The wealth of shapes, colors and textures is superb, producing a constant dialogue with the nature of the gardens.

Other constant that becomes nuclear is the question of the materials with which the architectural elements are faced, emphasizing among them ceramics, in the form of mud and tile, the beds in the whitewashed, stuccoes and jablegas, the stone and the albero.

CERAMICS

The ceramic material is presented to us from the necessity of the clay tiles of the floor of the platforms of the gardens to the maximum beauty of the tiles. The simplicity of the clay tiles of the Alcázar in union with the myrtle is described by Sorolla in a letter to his wife, Clotilde. “You would like this, because you never step on the ground, everything is titled with interspersed tiles, everything fenced with myrtle, giving a natural poem.”

The humble brick is dignified by covering it with enamel. We can find in the glazed, the chromatic variety of enamels, providing infinite colors on its surface and in its reflection when the light strikes them.

Sorolla refers to the tiles of the banks, all joined to the light, the color of the flowers, the aroma, a perfect combination of tones that includes all the senses... “what roses, their bowers, ponds, benches of tiles, magnificent trees, everything smells of orange blossom, everything is warmed by a sunny ambience of life, joy of sun, oh my Clotilde, I’m sorry you can’t enjoy this beautiful moment of life. Seville is now a beauty...”

The remaining tiles also are perceived sometimes as elements inserted with the vegetation. The decoration rests in a rigorous geometry and in the abstraction.

We can highlight the haughty tiles of the Renaissance pavilion of the Arbor of Carlos V, of precise metrics and pure proportions, in which the multiple reflexes of colored light glitten. In the bank that surrounds it, completely tilled, the colors fade away with the elements of the garden, giving the sensation of a pendent building, under which one we can find a garden. The taste for the small thing and for the detail is present in the materials, harmonizing with the small of the vegetable elements.

THE LIME

The noble lime, essence of Andalusia, generates a suggestion of purity, of naturalness, it is a virgin page. Sorolla refers to the white walls of the Alcázar in the following letter: “My darling beautiful day today, splendor of light, saturated of orange blossoms, the roofs are bursting of flowers, the white walls on the blue sky are a delight. With the whole soul I am sorry that you can’t enjoy it, everything is exploding...”

The lime appears in the gardens in the mortars of lime, in the mortars of stucco, in the ja-See #22, the in the whitewashed, in all the places in which the revetments have to last. The white of the lime has been dyed by the incorporation of mineral pigments and its mixes, obtaining the countless, beautiful and luminous colors of the frontages, garden walls, fronts and decorative elements.

The luminous and unpolluted white is the predominant color. It symbolizes and transmits the perfection, the calmness and the peace. Yellow —cumarocha— and red (and ochers) coexist with. Yellow symbolizes the reflection, the communication, the calmness, the plenity and the happiness. The red symbolizes the strength, the potency, the warmth and the energy. The palette of yellow and red appears in multiple tones, contributing with vitality to the spaces.

In Seville, the recognition of the garden of the ja-See #22, and the stuccoes balance for his contrast with the diverse greens of the garden, because as it is known, a beautiful contrast takes place between the yellows and the greens of the plants. This harmony stems from the fact that the green of the plants is a compound color containing yellow pigments. So, the revetments of stucco and jablegas, which are predominantly yellow, melt the architecture with the garden, appearing in the subconscious of the observer as the quite harmonious one. This would not have been possible with a stronger, more cutting color, but a light strike the m... would have created a rupture in the space between the garden and the frontages or the architectural elements.

This harmony is strengthened with the green of the plants as it is known, a beautiful contrast takes place between the yellows and the greens of the plants.

This harmony stems from the fact that the light is reflected over the elements of the ga-See #22, and the stuccoes resemble.

In this similarity, the vegetation and the stucco resemble.

The contrast of tones and colors harmonizes the architecture and the gardening.

THE ALBERO

This clay mixed with sand and rests of small calcareous fossils dyed with the mineral of iron goetha in ferrous state, which contributes to the yellow typical color, almost only abundantly in Seville, covers the ways of some gardens. The alber-See #22, brings together perfectly with the green of the plants. As in the harmonious combination of the stucco and the jablega of yellow color with the vegetation, it happens with the yellow one of the albero.

It is well known that the green color of the chlorophyll of the plants is accompanied by the xanthon, whose hidden color is yellow, it is so the yellow one of the xanthon the setting with the yellow one of the albero. There is no a sudden jump of the green to the yellow one, but a harmonic and soft transition.

And all this beauty culminates when, as we lift the sight, we perceive the deep and clean blue sky of Seville. Contemplating the gardens, the mind is moved and we are forced to appreciate the great practice of so many men in the architecture and in the gardening of the Real Al-See #22, the history. Touching by so much beauty, we admire the gardens that we have to preserve and to take care of, for the enjoyment of the future generations.

ACKNOWLEDGMENT

My particularly warm remembrance for D. Miguel Méndez Cuesta, genius of the Color: I would like also to stress my gratitude to my te-See #22, and D. Vicente Lloreda, to the outstanding connoisseur of the building D. José Marta Cabeza, to D. Benito Valdiés, Professor of Botany, to the collaboration of D. Can-See #22, D. Marcial Alcalde, Dña dolores Ortega, D. Antonio Alhambroñedo and Dña Almudena Muñoz. My gratitude also to all the gard-See #22, the beauteous care of the Real Alcázar who take care with care-See #22, to all those who take part in their attention. My sincere gratitude to D. Jacinto Pérez Elliott, the Director of the Real Alcázar and to Dña Pilar Luengo, for the interest and great dedication with which they continue taking care of the Reales Alcázares.

BIBLIOGRAPHY


DE LOS RÍOS, Gregorio. Agricultura de Jar-


GESTUSO SANCHEZ, J. Sevilla monumental y artística. Sevilla, 1889.


ZAMORA, M. “La dispersión de la luz por la materia”. Foro científico “Aula Magna”. Web faculdad de Física de la Universidad de Sevilla.

ILLUSTRATIONS

Fig 2. Gypsum Patio. Oil, García y Rodríguez. Sevilla 1918.

Fig 3. Gathering in the Arbor of Carlos V. Oil of García y Rodríguez. Sevilla, 1905. The colours of the tiles of the banks can be merged with the ones of the garden by increasing the light effect of the pavement under which the garden runs.

Fig 4. Arbor of Carlos V. In the background, the Arbor of the Lion. Oil of García y Rodríguez. Sevilla. 1923. The taste for small, the detail, variety of colors in the flowers pots, in the vegetation and tiles, with multiple reflections make us perceive an aesthetic message of perfection.

Fig 5. Map of Olavide. 1771. You can see the old cathedrals of the la Alcoba and Retiro.

Fig 6. A. Guesdon. Aerial view of Seville with the Real Alcázar and its gardens. 1852-1865.

Fig 7. Jean Laurent (1868-1872). Introduction of palm trees in the Garden of Las Damas in Renaissance flower beds with heraldic motifs.

Fig 8. General plane of the Real Alcázar and its gardens.

Fig 9. On March 30, 1918, Sorolla writes to his wife, Clotilde, from the Gardens of the Alcázar: “I have begun a study of a rosebush so beautiful that I wanted to eat it, what a color... it is a pity that is a small note the one that I have painted and especially that I had not seen it until to today”. Fig 10. The Garden of Las Damas. Fig 11. Arbor of Carlos V.

Fig 12. Mercury Pond.

Fig. 13. Garden of Las Damas.

Fig 14. The water accompanies with its freshness, sound, movement, reflections and calm.

Fig 15. The Gardens with the Giralda tower in the background.

Fig 16. The Garden of Las Damas seen from the Garden of La Danza.

Fig 17. Magnolia grandiflora.

Fig 18. Chorisia speciosa.

Fig 19. Garden of La Danza. In spring the greatest variety of flowers gradually appears, emphasizing the white flowers of the peach trees.

Fig 20. Garden of the Flowers. Iris germanica and Acanthus mollis with ceramics in the pond in the background.

Fig 21. Gallery of the Garden of La Galera in the summer: The wisterta of the garden lifts the light in infinite tones because of its great strength, lowering the ambient temperature.

Fig 22. Garden of Las Damas and Gruttesco Gallery.

Fig 23. Gallery of the Garden of La Galera in sping. The glicinia, Wisteria sinensis, which covers the gallery in spring, is silting the light with its flowers and intoxicating with its scent.

Fig 24. English garden.

Fig 25. The image of the peacock showing its statelessness and coloring in the gardens.

Fig 26. Jets. Water is the protagonist.

Fig 27. Arbor of Carlos V. Majestic garden pavilion, where white oxer volume, on slender columns, contrasts with the interior volume, and richly tilled bench. The reflections of the ceramic lining the inner body harmoniously spread in the garden by the luminosity and depth that gives them their color. Multiple points of colors and reflections produce a painterly effect of continuity, melting the pavilion and the garden in a harmonious dialogue.

Fig. 28. La Alberca, Alcázar de Sevilla. Joaquín Sorolla. 1910. Painted between January, 20 and mid-February, 1910. The treatment of the light reflects the still surface of the water, in a calm and serene vision along with the varied colors of the vegetation of the Garden of the Flowers stands out on the canvas.

Fig. 29. Fountain of The Alcázar de Sevilla. Joaquín Sorolla.

Fig. 30. Citrus aurantium.

Fig. 31. There is harmony between the architecture and the garden because the green of the plants is a composite color which contains yellow pigments. The yellow coating of stucco connects gently with it, melting the architecture with the garden, appearing in the subconscious of the observer as a harmonious whole.

Fig. 32. Garden of the Poets. The albero, (chalky sand) with its typical yellow color, gives more luminosity to the gardens, harmonizing very well with the green of the vegetation.

NOTES


2. ZAMORA, M. “La dispersión de la luz por la materia”. Foro científico “Aula Magna”. Web facultad de Física de la Universidad de Sevilla. Fluctuation: local and transitory displacement of the equilibrium state of the whole system. Dispersion: alteration of the spatial or angular distribution of physical entities, caused by changes in the environment in which they are located or spread.


8 Letter of Sorolla to Clotilde from Seville, April 6, 1914.
The Real Alcázar is a monumental extraordinary set in many aspects; one of them is the historical and aesthetic value of its ceramic revetments. From tiled sets of the 14th century that line the basheboards of the Court of the Reyes Católicos to the ornamental programs of the Sevillian ceramics, integrating some of its most excellent milestones. In this long and dense story of which we have numerous documentary and material evidences left, there is a ceramist whose performance stood out for the quality and the innovation of his contributions. Niculoso Francisco, called by his son, the Pisano1, he did some works for the Alcázar, for the overs of the Purity street, and he has a well known one which amazes local and foreign visitors, profane observers and international specialists: The Altarpiece of the Visitación of Isabel I of Castilla, and other for Fernando II of Aragón. Of these three works only one of them has survived, and it is necessary to explore the sad destination of the other two that were placed on the plateglass of the Alcázar, a wall imitating goldened reflections, which would have justified an increase of the price of the work. We do not know if, as that monastic complex, also this one of the Alcázar would have identical parts imitating golden reflections, which would have made the tiles more expensive for the new ideas about painting pottery brought by Niculoso soon would capture the attention of the Catholic Monarchs, who would require linking the Italian painter with the old “cuerda seca” technique, which would open the door to other speculations we leave for a later occasion. Moreover, we should not forget two evidences, a documentary one and a material one. First of all, in 1504 the official supplier of the Alcázar was an elderly ceramist supported by the court, whose name is known to us as Osmo, the painter. In that prodigious year, 1504, Niculoso carried out another major commission: painting the altarpieces for the oratories of the Kings and of the Alcazars of the Alcázar of the House of the Catholic Monarchs in Seville. The specific circumstances of this request are entirely unknown. Neither the contract nor payments have been preserved, but we can easily imagine that the new ideas about painting pottery brought by Niculoso soon would capture the attention of the Monarchs, encouraging them to apply for their services. We can imagine that the shield, from which these fragments were taken, could have been composed by a central field painted with the “cuerda seca” technique and a frame, perhaps of shaped and enameling relief, which would not have survived. Since these two pieces might be dated in 1504 because of the technique and style, there is a very strong temptation to identify these fragments with the shield paid to Niculoso in this date. But we must eliminate this hypothesis for several reasons, among others, because this would require linking the Italian painter with works painted with old “cuerda seca” technique, which would open the door to other speculations we leave for a later occasion. Moreover, we should not forget two evidences, a documentary one and a material one. First of all, in 1504 the official supplier of the Alcázar was an elderly ceramist supported by the court, whose name is known to us as Osmo, the painter. In that prodigious year, 1504, Niculoso carried out another major commission: painting the altarpieces for the oratories of the Kings and of the Alcazars of the Alcázar of the House of the Catholic Monarchs in Seville. The specific circumstances of this request are entirely unknown. Neither the contract nor payments have been preserved, but we can easily imagine that the new ideas about painting pottery brought by Niculoso soon would capture the attention of the Monarchs, encouraging them to apply for their services.

In 1504 Niculoso did, at least, three important sets of tiles: a big royal coat of arms, the altarpiece for the oratory of Isabel I of Castilla, and other for Fernando II of Aragón. Of these three works only one of them has survived, and it is necessary to explore the sad destination of the other two that were placed on the plateglass of the Alcázar, a wall imitating goldened reflections, which would have justified an increase of the price of the work. We do not know if, as that monastic complex, also this one of the Alcázar would have identical parts imitating golden reflections, which would have made the tiles more expensive for the new ideas about painting pottery brought by Niculoso soon would capture the attention of the Monarchs, encouraging them to apply for their services.
might think that both were always in sight, but some letters between Antonio Ponz, Francisco de Bruna and Count of Águila make us think that in a moment that we can not know, they were hidden by some renovation work, and at the end of the 18th century they were "rediscovered" by an artist not exactly what extent under what circumstances. The truth is that the last of these characters says to Ponz, in its 6th letter from Seville, with regard to this draft text prepared for Volume IX of his Viaje de España, the following: "We should add to the description of the Alcázar... the discovery of the private oratory of the Catholic Kings..."

The analysis of this work testifies the extent to the art of painting in Seville, in the early sixteenth century, was a successful mix between the remains of a nortic figurative tradition — supported by the presence in the city of numerous Flemish and German — and new ornamental language that came from Italy to Seville around 1500, precisely with the ceramics of Niculoso, before Domenico Fancelli marbles arrived or indirectly came from Castile with the Diego de Rio architecture. A single oil painter in Seville recorded the new formula of the Baroque. It is not but in the realm of ceramics: Alejo Fernández, who, surely would have been appointed to paint the altarpieces of the kings if the order had them not been trained in Flanders or in Lower Germany. The other might have been painted by an artist trained in Rome or Florence. However, they all are made by the same individual? There could be several reasons for this apparent stylistic dichotomy, behind which could be both preferences who made the entrustment and the formation of the artist. Niculoso in Italy might have been mainly an ornamentalist. In the main scene, the subject of the Visitation of Mary to St. Elizabeth, was logical since the Queen of Castile was named after the cousin of the Virgin. The Baroque custom to profess a special devotion to the saint who saved baptismal name is known to all (Fig. 3). The meeting seems to take place in a natural setting on the shores of a river on whose banks architectures of Roman appearance rise, from them, a strange bridge of three arches leads to a tower that goes into the water without crossing the river, the arches are crowned by leafy wreaths and the bridges are crowded by lilies and rocks cliffs covered by green meadows.

On the right we can see the old lady Elizabeth and her husban, the Prince of Chinchón, represented on the right hand side of the Tree of Jesse, or the temporal genealogy of Christ, a common theme in medieval art that went out of fashion during the Renaissance. Jesse, with melancholy face, appears discouraged, hanging from his chest a stock that is divided into two branches that ascend on both sides, forming flowered volutes. Kings of Judah spring from them. Branches meet on the highest point, where the image of the Virgin Mary with the Child in her arms appears as a finish of the lineage (Fig. 5). It is impossible at this time to specify the recorded source that could indicate Niculoso, although this composition is also likely to be Norse. The concept interpretation of this subject should not have been invented by Niculoso, as it was usually, among the painters of the time. It may have been taken from a picture of a lightening page from some book of hours. Frothingham suggested that such an iconographic source might have been a work published in Paris by Thielman Kerver. However, we could not find any illustrations that might match with the scene altarpiece so we must be satisfied, for the moment, thinking generally of a Nordic source. Niculoso's paints show the effect of a gothic in evident in his characters with oval faces and clenched expressions, in the case of young people, and wrinkled skin in the elderly when we compared them with those gentle, smooth and Apollo annexed
d'll be any illustrative works that might match with the scene altarpiece so we must be satisfied, for the moment, thinking generally of a Nordic source. Niculoso's paints show the effect of a gothic in evident in his characters with oval faces and clenched expressions, in the case of young people, and wrinkled skin in the elderly when we compared them with those gentle, smooth and Apollo annexed
d'll be any illustrative works that might match with the scene altarpiece so we must be satisfied, for the moment, thinking generally of a Nordic source. Niculoso's paints show the effect of a gothic in evident in his characters with oval faces and clenched expressions, in the case of young people, and wrinkled skin in the elderly when we compared them with those gentle, smooth and Apollo annexed

The concrete interpretation of this subject should not have been invented by Niculoso, as it was usually, among the painters of the time. It may have been taken from a picture of a lightening page from some book of hours. Frothingham
frequency of his performance in the late 15th century, our painter shows here that is an excel-

The bust of the Virgin Mary that tops the tree shows her arms raised, and Jesus, while resting on a crescent moon, which is a clear allusion to the subject of the Immaculate Conception. The cen-
tral scene is linked Mary’s cousin to Queen Eliz-
abeth. His unfortunate son, Crown Prince John, who had died prematurely, is also related to the child that St. Elizabeth had at that time still in her womb. San Juan Bautista, this is a curious accidental. Meanwhile, the royal family of Mary, evidenced by the Kings of Judah, established a new relationship with the Catholic Queen. Ac-
cording to this genealogy, Christ himself was a descendant of kings and queens, firming the divine origin of a monarchy under the rule of Fernando and Isabel hidden? The royalty was experiencing a spectacular strengthen-
ing against other levels of the nobility11.

Returning to matters of style, if we look at the elements that surround the Tree of Jesse, we en-
ter into a very different level when we see figu-
rate decorations of grotesques that give a per-

tence in this work. We have already mentioned how these motifs decorate the pilasters of the frontispiece of the central scene, incomplete to be complete in its axis. They acquire, however, much more full lining of the intrados and extra-
dos of the arch, in the side nose tongs, in front of the pillars that host this central scene and also in front of the altar.

These grotesques and similar motifs seen on the front of Santa Paula are not only the earliest examples of the genre in the work of Niculoso but also in Renaissance Seville. The canteries of the pillars may have been directly inspired by Italian prints, as shown the same type of axial symmetry and relative restraint in the design of their motifs. It is more likely that the frescoed ca
cave, built by florals motifs, featured over plain ba-
kground of colors of green, orange and purple.

Despite being an interface ornamentation, these are not arising from Mudejar local art —
straight and broken loop— but from arabes-
que repertoire, which also pervades Italian art and is repeated in the sixteenth century in the pattern in the manufactured ridge tiles and sent to Rome for papal stays pavements of Leo X Me-
dici in Casel Sant’Angelo. All these tiles, unlike the altarpiece and the front of the table, are small (13 x 13 cm). Would this oratorio have a tiled plinth now lost, composed of tiles of this type? Tiles of this altar table show two different bat-
ches in their execution. The most noticeable dif-
ference is the type of green used in different parts. The top of the altar and the fringe of side flanks in contact with the back wall are the light shade of blue and purple, while the rest of the sides used the most com-
mon sea-green made with copper oxide. It seems that there were more tiles with this pattern, be-
cause of the presence of some of them in private collections.

3. THE ALTARPIECE FOR THE ORATORY OF THE KING

The altarpiece made for the king was not very lucky. The first news of its existence is owed to Ceán Bermúdez and the detail of greatest interest is the brief description of its iconography by Morales. This looking, but here Niculoso also has sought to place them in a box of Renaissance conical per-
spective scene, constructed of resources such as roof beams, arranged in fan the checkerboard floor and ashlar walls. We have to admit that the encounters of such items are resolved with an awkwardness difficult to explain while the faces and hands of the characters are carefully repre-
sented15.

The design of this altar table reflects a link with the textile world, both in front and on their flanks and their tabletop, because it could be un-
derstood in its entirety as the ceramic version of a base fabric. The front reminds us to enhance-
ment embroidery works and golden hue point of co-
lores, works of our Renaissance. Its upper part shows a fringe of colored thread of blue, green and purple, designed as a cloth covering the tab-
ble with a source of great interest and coating the sides of it (Fig. 148). It is a curly loop that mimics blue cords forming two types of records held by floral motifs, featured over plain back-
ground of colors of green, orange and purple.
date the gentilicio Psaro. That was the name he was known of, from the beginning, and he would use it sometimes as his own signature, as he did the same year on the front cover of the Monastery of Santa Paula. Secondly, it is noteworthy the greater iconographic complexity of this piece parallel respect for one done dated the queen, which had at least the six referred records.

It is unfortunate that these architectural refer- ences of the oblatory are lost. Apparently, it was located on the ground floor of the palace of King Pedro, specifically in the room called Hall with the ceiling of Carlos V, located at the eastern end, where today the bedroom is placed. I do not know if the more iconographies com- plex it had, the bigger it was. The room, after the scene of the mess of betrothal of the emperor Carlos with Isabel de Portugal, had to suffer considerable works to settle his splendid Renaissance collected in 1542. I do not know at what point the dismantling and dispersal of its tiles were produced. I can imagine how unfortunate operation took place in a period of full monumental neglect of the monumental ensemble, somewhere between 1844, that is to year that González de León mentions it in Noticia Artística de Sevilla and 1865, when Baron Davillier publishes his article of the ceramica omitting any reference to this work. We had aRather news of this alтарpiece until the late nineteenth century, when Gestoso said he had to come before 1869 twenty tiles that could be from that work and that he saw installed in the Chamber of the council of the garden benches of house No 3 of Patio de Ban- deras, next to the Alcázar. He adds a few years later: “Three or four of these tiles are now part of the rich collection of Mr. Ossa.” Indeed, the fact that two tiles appear in this collection, in Instituto Valencia de Don Juan, Madrid, the em- blem of the Catholic Monarchs, leads us to iden- tify them with those mentioned in this text, as well as some more of the same collection that seem to coincide with those described in the text from Gestoso as “laureas large fragments, some of guardillas with circles and cards, which were repeated in bundles of arrows with the motto Tanto Monta, jars with carnations, and some that judging by his drawings were part of build- ings placed in the bottom of a picture.”

The proportion of this alтарpiece preserved to- day is minimal and it is regrettably also tiles that we have noto tiles left from the six scenes of the alтарpiece, but only marginal elements of them. The format used in this alтарpiece (13 x 13 cms) does not match with the one used in the Queen (16 x 16 cms) although it coincides with other sets of parallel stripes of the one dated the queen of the monastery of Tentudia (Badajoz). Today we recognize six grounds and seven tiles in ancient Osma collection that can come from this alтарpiece.

One of the motifs given by Gestoso as “large fragments laureas” must satisfy a sector that plays such a vegetables crowns (Reg. 4062) (Fig. 15)21. Because of the lack of shadows cast on its outer profile is likely that this tile corresponds to the upper left sector of the motif. Laurel green leaves are combined on it, as in the altar of the monastery of Tendue, Isabel de Portugal’s motto, in the two opposing handles, in the shape of “S” (Reg. 4039) (Fig. 17). Three carnations are coming out of the jar, as this author says. Underfoot branches arise, twisting and symme- trically adjoining parts, which also show bundles of arrows and yokes under which we can read the repeated motif “Tanto Monta”.

I have recently noticed that the high tiled pilaster of the Sala de la Canterara made by Cris- tobal de Augusta, around 1575, for the Gothic Palace of the Alcazar, has, unexpectedly, two tiles likely like the one of the monastery of Tendue, collection, which would confirm that those come from the sevillian palace (Fig. 18)24. We can not know where these pieces were eventu- ally located in the alтарpiece, although its hori- zontal development and alternating character of the emblems of the kings suggest a certain length fireeze. Instead of proceeding from the same alтарpiece, it is possible that the mentioned collection, which would confirm that those come from the sevillian palace, may be appropriate to comment that in the Mu- seum of Fine Arts in Seville a tile of the same for- mat and style has been preserved, reproducing, on white background, the fine hand of one of the characters usually making up these sets (Sig. CEO249C). (Fig. 21). The logical question that arises is: is this tile that has been preserved from that Tree of Jesse, is the one that De Leon mentions it in 1518, with which this lost work would have some resemblance, although it might be smaller in size.

The third motif described by Gestoso must correspond with those showing a couple of tiles with polygonal foot, semihemispherical cauldron motifs used to show that he included in the Booles of Hours of the time, logic literary source for an alтарpiece dedicated to the Virgin Mary. Purple stripes liming the tile at the top and bottom allow us to imagine that it was a kind of frieze. The golden ochre background color- lourful and somewhat careless strokes acanthus leaf remind the style followed by the artist on the front of Santa Paula. The inscription referring to the genealogy of the Virgin and Christ sug- gests that the alтарpiece could contain a Tree of Jesse, like that of the queen and another painted in Brugia. In this case, one may be the possibility is suggested here. The quality of the tile, despite offering a picture of the item so fragmentary, is certainly worthy of a royal des- tiney.

Another piece of undoubted attribution to Ni- culoso, which also may have been part of the alтарpiece of the king represented a cardboard of the alтарpiece with a flower corolla under which a Ro- man castella tabula ansata appears, in which we read the word “ANA” and hanging a string of pe- arts revealing the roundawnd as an axis (Reg. ss.nº) (Fig. 22). If the piece would be part of the alтарpiece of the king, chandeliers decoration should be ad- ded to it, as well as the thought expressed in the review as above, the upper right corner of a classical frontispice, which could be fully developed in a panel of four tiles wide and six in height. The symmet- rical spanitral would show another disc with a bundle of arrows and the first part of the motto “TANTO”. The overall structure of the imagined vailed niche is similar to the frame scenes of the Life of the Virgin on the altar of the Monas- tery of Tentudia (Badajoz), painted by Niculoso in 1518, with which this lost work would have some resemblance, although it might be smaller in size.

To the third motif described by Gestoso must correspond with those showing a couple of tiles with polygonal foot, semihemispherical cauldron motifs used to show that he included in the Booles of Hours of the time, logic literary source for an alтарpiece dedicated to the Virgin Mary. Purple stripes liming the tile at the top and bottom allow us to imagine that it was a kind of frieze. The golden ochre background color- lourful and somewhat careless strokes acanthus leaf remind the style followed by the artist on the front of Santa Paula. The inscription referring to the genealogy of the Virgin and Christ sug- gests that the alтарpiece could contain a Tree of Jesse, like that of the queen and another painted in Brugia. In this case, one may be the possibility is suggested here. The quality of the tile, despite offering a picture of the item so fragmentary, is certainly worthy of a royal des- tiney.

Another piece of undoubted attribution to Ni- culoso, which also may have been part of the al- tarpiece of the king represented a cardboard of the alтарpiece with a flower corolla under which a Ro- man castella tabula ansata appears, in which we read the word “ANA” and hanging a string of pe- arts revealing the roundawnd as an axis (Reg. ss.nº) (Fig. 22). If the piece would be part of the alтарpiece of the king, chandeliers decoration should be ad- ded to it, as well as the thought expressed in the review as above, the upper right corner of a classical frontispice, which could be fully developed in a panel of four tiles wide and six in height. The symmet- rical spanitral would show another disc with a bundle of arrows and the first part of the motto “TANTO”. The overall structure of the imagined vailed niche is similar to the frame scenes of the Life of the Virgin on the altar of the Monas-
that city. Like all of them, it forms a classical pilaster organized as a chandelier, decorating the background with ochre on the right and yellow on the left. Like two from Valencia, they included the inscription on a tabula ansata cartela from which hangs a pearl necklace with a central but ignoring the usual stylistic bilingualism of this artist, that the work had been performed by two different hands. Cf Suzanne Straton, The Immaculate Conception in Spanish art, Madrid, 1989, p. 16.


José Gestoso y Pérez: *Historia de los Barros viñaderos*, Sevilla, 1904, pág. 205. I have consulted the copy of this work that is kept in the Central Archive of the Ministry of Culture, which also states that the work was published by two different hands.

José Gestoso y Pérez: *Historia de los Barros viñaderos*, Sevilla, 1903, pág. 205.


In this article I do not address aspects of this work related to their condition nor those who cast doubt on the skill of the artist both technically as compositional issues that might be interesting to discuss at another time not only to go deeper critically in the field of the achieve-ments and failures of Niculoso but also as useful information for eventual cleaning operation of this work of exception. In the late sixteenth century Made in Italy to the Iberian Peninsula left.


*NOTES*

1 “Pisano” does not mean in the sixteenth century native of Pisa, but, generally of Italy. Pisa was one of the most important seaports, from which many of the products and people who came from Italy to the Iberian peninsula left. It is quite possible that they all were pillars of an altarpiece, but not necessarily of the same work.

These two old tiles are the only ones that could be linked to the specific invocation of the altarpiece. Towards 1500 and in the environ-ment of the Spanish crown, the Tree of Jesse was an allusion to the subject of the temporary genealogy of the Virgin and not, as in centuries before, of Christ, and, above all, an allusion to the defendant Immaculate Conception of Mary by St. Joachim and St. Anne. So, it is perfectly conceivable that the aforementioned fragment, 236 x 297 cms, with the main scene of the altarpiece. In that case, the altulión to St. Anne in the tile mentioned before would correspond to a symmetrical alluding to St. Joachim, which does not contradict the generic description of scenes that Ceán left us. This choice would also indicate the interest of Fernández H who, following a strong tradition of the sixteenth century, predicted the great effort made in the dissemination and promotion of this ad-vocation, which had so much future in Spain. Considering that it would take several weeks or months to make this altarpiece, the order could have been made in 1504 or 1505. In this regard we must not forget, as Stratton recalls, that was in 1503 when Fernando of Cádiz announced in the Cortes of Barcelona that the chief of the Immaculate Conception would be held in his kingdom, among four other mentioned feasts, going well ahead of other peninsular kingdoms.

Beside this tiles of the Valencian de Don Juan Institute, I have found in different parts of the Real Alcázar other three tiles that can be attributed to Niculoso or to his workshop and a central buiding that could be linked to the altarpiece of the king. One of them is in a really unexpected loca-tion, the floor of the balcony on the cover of Apúndal, built in 1607-1608. It is placed bet-ween others that were commissioned to Hernán de Valladareles on that date and among many other parts replaced later (Fig 23). This is an incomplete base of a nudy putto that would be strung at some volute with other grotesques, perhaps in the king’s altarpiece painted by this ceramist.

Elsewhere in the set, no less unexpected than the last, the outer wall of the old Garden Risco pond, Flower Garden today, inserted between ti-tles of varied origin, which seem to supply the missing and original coating made by the Valldades’ Workshop in the early seventeenth century. The fragment of another tile also appears. No doubt this was also the work of Niculoso and it could have been part of that missing piece (Fig. 24). This is a small piece cut to be included in this lining, showing remains of a plaster represented in perspective. It is topped by an entablature on which a chemon appears with a tabula ansata from which a string of pears hangs. This enta-bulature is delimited by sheet molding and to start look behind an cornel an; of similar motives to one of the aforementioned frag-ments. It seems that this is a small detail of a front-tispiece framing the scene of an altarpiece.

Finally, out of its original ignored contest, we find two pairs of tiles called tiles for table, used in the beamed ceilings that may also be ascribed to the production of Niculoso’s workshop (Fig. 25). If these tiles are decorated with very similar motifs to those we know, Niculoso could have made it for the first time (he did not use the “melado”), he also used yellow, orange ocher, ocher earth, light green and two shades of red.

Given these fragments, based on comments of Gestoso and Diedafia, thought with some logic, but ignoring the usual stylistic bilingualism of this artist, that the work had been performed by two different hands. Cf Suzanne Straton, The Immaculate Conception in Spanish art, Madrid, 1989, p. 16.


José Gestoso y Pérez: *Historia de los Barros viñaderos*, Sevilla, 1904, pág. 205. I have consulted the copy of this work that is kept in the Central Archive of the Ministry of Culture, which also states that the work was published by two different hands.

José Gestoso y Pérez: *Historia de los Barros viñaderos*, Sevilla, 1903, pág. 205.

The frequent use of the plural in the wording of paragraph suggests that there were more than 3 or 4 tiles that Osma came to collect. We located in the same collection four other motives which, though not mentioned by Gestoso, probably belonged to the same set.

This tile measures 120 x 123 x 18 mm and shows the triple cooking atfle footprint and scraped and trimmed edges.

We can rule out that this fragment corresponded to a laurel similar to the one in the al-tarpiece of the queen, framing the emblems of the crown, as those showing a somewhat diffe-rent structure.

The tile, which is maimed on the left, is 130 x 100 x 35 mm. Displays atfle marks, scraped and trimmed edges and it has been reused as pavement.


10 José Gestoso y Pérez: *Historia de los Barros viñaderos*, Sevilla, 1904, pág. 205. I have consulted the copy of this work that is kept in the Central Archive of the Ministry of Culture, which also states that the work was published by two different hands.

19 Ceán Bermúdez, *Diccionario histórico de los más ilustres profesores de Bidas Artes en España*, Madrid, 1800, Vol. IV, pág. 100. This raises a possibility: Niculoso not only painted on ce-ramics but also made oil paintings on canvas. He was training for it, in view of what can be seen by its tiles.


17 *Cerámica de honor a la memoria de los santo mes de Renacimiento en total y 156 x 112 cms. the cenral scene.


We have already said that the altarpiece for the Queen was signed with the gentilicio “Ita-lian”.

12 González de León, Felix, *Noticia artística de Sevilla*, Sevilla 1844, pág. 134. It is however something suspicious that this author reproduces literally Ceán’s description in his Dictionary, which leads to suspect if he truly saw it or only picked up the news from the previous author.


10 José Gestoso y Pérez: *Historia de los Barros viñaderos*, Sevilla, 1904, pág. 205. I have consulted the copy of this work that is kept in the Central Archive of the Ministry of Culture, which also states that the work was published by two different hands. Cf Suzanne Straton, The Immaculate Conception in Spanish art, Madrid, 1989, p. 16.


José Gestoso y Pérez: *Historia de los Barros viñaderos*, Sevilla, 1904, pág. 205. I have consulted the copy of this work that is kept in the Central Archive of the Ministry of Culture, which also states that the work was published by two different hands.

José Gestoso y Pérez: *Historia de los Barros viñaderos*, Sevilla, 1903, pág. 205.

The frequent use of the plural in the wording of paragraph suggests that there were more than 3 or 4 tiles that Osma came to collect. We located in the same collection four other motives which, though not mentioned by Gestoso, pro-bably belonged to the same set.

This tile measures 120 x 123 x 18 mm and shows the triple cooking atfle footprint and scraped and trimmed edges.

We can rule out that this fragment corresponds to a laurel similar to the one in the altarpiece of the queen, framing the emblems of the crown, as those showing a somewhat different structure.

The tile, which is maimed on the left, is 130 x 100 x 35 mm. Displays atfle marks, scraped and trimmed edges and it has been reused as pavement.
This tile that is complete measures 130 x 30 x 20 mm. It shows the same characteristics as above.

Both tiles are tiny, 130 x 130 mm, though they have been shaped to be inserted in a plinth.

Each plinth size is: 135 x 135 x 21 mm.


The translation would be: “The Tree of Jesse has blossomed, a star is born of Jacob, the Virgin has brought a Savior, we praise You oh Lord.”

MINAS DEL ALCÁZAR DE SEVILLA

J. F. Blasco, F. J. Alejandre, V. Flores y J. J. Martín

Dept. of architectural constructions II, University of Seville

Here is provided a summary of the results and conclusions obtained from the characterization of the plasterwork of the Islamic tradition of the Real Alcázar of Seville, carried out during the years 2008-2011.

We have studied a total of 19 samples corresponding to 15 plasterworks of Islamic tradition of the Real Alcázar, 7 during the 2008 campaign, 7 during the 2009 one, and 5 in 2010. A sample of chronology Almohad plasterwork has also been characterized, courtesy of the Arqueological Museum of Seville.

It was placed in the Lemoír’s Yard of the Cathedral of Seville, and it is used as a reference and comparative of the single Almohad original sample, obtained from the “Patio del Yeso”.

1. INTRODUCTION

Plasterworks are decorative features, characteristic of Muslim art, applied in walls, arches and vaults, which tend to cover large surfaces, to hide adobe or brick, in unlimited series of repetitive motifs, but with a meaning depending on the monument to which it is applied “Islamic art, because of the limitation of dispense with figurative patterns that have an own iconographic meaning, threw itself into the creation of forms, which presence would not affect the meaning of the monument”.

The Alcázar of Seville answers to an Eastern model of palace citadel, consisting of a set of buildings of different styles and eras that have been added and/or restored over the centuries, including decorative plasterwork of different artistic periods.

Plaster, which is an essential component in plasterwork, is an abundant material in the nature and easy to transform, that’s why it becomes one of the first materials used by man in the construction of buildings. The plastering is a decorative element of great artistic value characteristic of Muslim art applied to walls, arches and vaults. The plasterwork is made of plaster, so it is easily alterable, mainly because of their low mechanical strength and its slight solubility in water. For this reason, the plasterwork walls would have required a continuous maintenance work from the moment of its creation.

The description of the plasterings, based on the historiographic study of the monument and its evolution over time, is the main objective of this project, developing a methodology to know the status of Rooms and Courtyards, trying to find some ways out of preserving these elements, applicable to other monuments of similar characteristics.

If we analyze the history of the Real Alcázar, and in particular areas where samples of the monument have been taken, we can find documents about actions like those carried out in the “Patio del Yeso” (GPY) by the architect R. Manzano, who says “It was discovered and published by Rumbano in the last years of the 19th century (Fig. 1a)”, it was consolidated and restored by the Marqués de la Vega-Infant between 1918-20 (Fig. 1b), and it has been restored and re-explored by me in 1989 and 1971(Fig. 2)

The Courtyard of the Sun (Fig. 3a) occupies the northern front of the “Patio de la Alcubilla” and owes its current physiognomy to a deep re-modeling developed in the 1970s. It has always been an abandoned domestic space of the go-
The Court of Justice (Fig. 3b), was built by Alfonso XI after the battle of Salado (1340), on the ruins of the former Almohad Palace. Some authors assume that old Almohad structures were taken from his factory, attributing its current configuration to Alfonso XI (1311-1350), although some people according to its decorarion, and to the Arabic inscription on the walls, similar to King Pedro I's ones, attribute the factory to this last monarch.

With reference to the medieval Palace of King Pedro I (building that contains most of Rooms and Courtyards which have been studied), if we start to describe the “Patio de las Doncelas”, as the center of the official dependences, it was built between 1364 and 1366 by Pedro I de Castilla. The set is finished off by a frese of Moorish inscriptions, motives of atauriques with the shields of Castile, Leon and the imperial heraldry (Fig. 4a); they reveal the important interventions carried out in the courtyard during the 16th century.

The Hall of Ambassadors and the adjacent halls are one of the old palace of Al-Mutamid, whose structures remain thank you to the Mudéjar reconstruction of Pedro I. Mudéjar craftsmen from Seville and Toledo and architects from Granada worked on this construction.

In the modern era, the repeated use of heraldry and royal emblems let us know with some precision the date where these works were built, and because of details such as the grenade in the royal shield we can deduce if the work was done before or after 1492. During the period of the Habsburg rulers, besides the works carried out in the Courtyard of the Maidens and the upper floor, coats of arms and imperial emblems were interspersed in the Mudéjar plasterwork of the ground floor and built on an old Muslim wall placed in the gardens, the arbor in the “huerta de la Alcoba”.

With the arrival of the last Habsburg, several repairs were made in the Moorish palace in the transition from the 16th century to the 17th century. After the destruction of the 18 century produced by the Lisbon earthquake, Manuel Zintora worked in the Mudéjar Palace in the early years of the 19th century, making visible from the street the Courtyard of the Maidens, but this lasted shortly, since their access was soon returned to its original state according to the canons of Islamic buildings.

The king’s bedroom (Fig 5a) and the Courtyard (Fig 5b) are part of the upper floor of the palace of King Pedro I, dating from the fourteenth century although part of its work of plaster was interrupted in the middle of the sixteenth century.

All in all, the Alcázar has undergone numerous interventions, transformations and new achievements throughout its life, some of which included many of the Islamic decorations, documented and investigated by several authors, clarifying many of the constructive developments suffered in the palace, but not all of them, because some actions might have been taken placed but not documented, allowing gaps remain in the building construction process and in the restoration one.

2. STUDY OF CASES AND METHODS

2.1. Samples

The different rooms and courtyards where several samples were taken are numbered on the floor map (Fig. 6), given by the Board of the Real Alcázar and made by A. Almagro. All samples taken from the monument that have been under research correspond to the most representative plasterwork, restored or not, from of the Mudéjar reconstruction and from different spaces of the Alcázar Palace, it has also been included a sample belonging to the Almohad times.

Previously, researchers have been taken into account the historical criteria concerning the works carried out on the monument over the centuries, following a respectful course with it. Specialists have taken the minimum necessary and representative quantities of sample to perform the analyses intended, minimizing the visual impact on cloths and according to the instructions and recommendations of the conservators of the Alcázar. Its removal and attachment corresponds as closely as possible to plasterwork that have a greater certainty about its time of realization.

We have studied a total of 19 samples corresponding to 15 plasterwork, whose description and possible construction period are indicated in chart 1.
of the material. Finally the surface hardness has been done with a duremeter Hanpruer, using the Shore C scale (0-100 units) and following the UNE 102-039-85.

This paper is a summary of the results obtained, with particular emphasis on those data that more directly provide information on the plasterwork of the Alcázar and interventions in the various rooms, according to the characterization of the them. To maintain these elements to prevent the progression of diseases, in addition to requiring a deep understanding of their materials, implementation techniques and properties, you need a few simple evaluation periodic techniques and criteria that prioritize interventions if needed.

3. RESULTS AND DISCUSSIONS

Chemical analysis results show a typical composition rich in high SO3 content attributable to CaSO3•1/2H2O, and a change on ignition to 21%, corresponding to a reference pure gypsum (Chart 2).

If the SO3 content of dehydrate gypsum is 46.50% pure, we can be observed that most of the gypsums have a high purity (calculated assuming all this comes from dehydrate gypsum through 85% SO3), while the sample taken from the Patio of the Maidens (GPD) is the one with the highest rate of all samples, followed also by the GPS samples (both > 45%). Chart 3 reflects the degree of purity in accordance with the SO3 content obtained (the origin of the archaeological sample GPL is not shown here).

Taking into account the slight solubility of gypsum dehydrate in water, which is 2.05 g/l at 20°C, and the insolubility of anhydrite II of 3.0 g/l11, specialists have determined the percentage of insoluble impurities in samples of plasterwork. Most of them come from raw materials, which can give as an idea of their old artisan preparation, although during the long period that lasts its preparation and application, some worse were improved to facilitate some operations.

In chart 4 we can see in descending order water insoluble impurities. From the plasterwork, whose percentages are lower than 5%, we know of their interventions of restoration or renovation at various times. It is not surprising to find a more refined production technique or a more selective finishing using various techniques and materials according to the cases. We might suppose at first that this set of plasterwork, could correspond to a modern era (18th and 19th centuries) because this works is from 1833, done on the dolls patio (GPM) and the Prince's room (GCP).

The Royal Room or bedroom of the Moorish Kings was whitewashed in 1813, lifting the blue and gold stucco, and later, during the Elizabeteau period (1843-68), these jalbejas were eliminated to recover the secret plastering, where carvers and estucistas had to empty the adornments and form the new ones. Likewise, we can verify the modernity of the sample taken in the courtyard of the Sun (GPS), supported by the dating analysis.

GPS2 also corresponds to a modern work, in view of the technique and the support base of cement on which it rests. Similarly, the plasterwork of the Room of the Catholic monarchs (GSR) was made in the 19th century, and the plasterwork from the Courtroom (GSA) was worked, at least, throughout the 16th century.

The sample taken from the Hall of Justice (GJS2), although it was firstly dated back to the 14th century, due to its location at the bottom of the arch that leads to the “Patio del Leon” (soffe), it has been repaired or supplemented because it was placed at a low altitude so it was exposed to shocks and damage. Finally, the purity of the material and the care spent working with the plasterwork of the Courtyard of the Maidens (GPD) endow this plasterwork of qualities that make it belong to this group, despite having been executed two centuries before.

A second group consists of those with content of impurities between 5% and 10%. We don’t know about restoration works on its plastering, except those carried out in the Courtyard of Palace by the architect R. Manzano (GPP2) between 1966-1971. He worked according to “the criterion of differentiation between the old and the new restoration”, although in this case, because of the accomplishment and application technique, it has been done with some added quartz or with cast with more impurities.

The last group, with rates well above 10%, may be indicative of a selection of raw materials and/or preparation of the most artisanal and worst care pastes. This would bring us closer to the originality and antiquity of the same ones.

3.1. Physical Properties

The real density of the pure plaster is 2.31 g/cm3 and its bulk density is of course lower due to the high porosity of sample (GPM).

The results of bulk density and apparent porosity obtained for samples of plaster are shown in chart 5.

A parameter directly related to the porosity is the ratio of the used in the manufacture of pastes, and even more considering that is based on the technique of execution used in the plasterwork: carving, modeling, or molding.

As main factors influencing water/gypsum used in the kneading of plaster dough we have: this percentage and application system and the degree of workability. This last one also depends on the number of phases present in the plaster, which is related to the degree of cooking of the raw material, the temperature of the water kneading, kneading time, the addition of accelerators or retarders and especially the ratio water/plaster used in the kneading.

The water needed by plaster for the chemical stoichiometry to be rehydrated is much lower than the required for kneading, that’s why the excess evaporates by drying during setting and hardening, leaving a porous microstructure in the rehydrate, although this is necessary to give a higher workability to fresh paste. Therefore, pastes used to make plasterwork usually have high apparent porosity values, exceeding 45%, that’s the reason why they can be classified as

---

**Chart 4. Percentage of impurity in plaster samples**

<table>
<thead>
<tr>
<th>Sample</th>
<th>GPP</th>
<th>GPM</th>
<th>GSR</th>
<th>GSF</th>
<th>GSC</th>
<th>GCA</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Impurity</td>
<td>27.21</td>
<td>31.22</td>
<td>31.22</td>
<td>34.68</td>
<td>33.33</td>
<td>33.33</td>
</tr>
<tr>
<td>&gt; 5%</td>
<td>5.56</td>
<td>3.30</td>
<td>3.30</td>
<td>7.28</td>
<td>7.28</td>
<td>7.28</td>
</tr>
<tr>
<td>&lt; 5%</td>
<td>98.37</td>
<td>96.72</td>
<td>96.72</td>
<td>92.72</td>
<td>92.72</td>
<td>92.72</td>
</tr>
</tbody>
</table>

**Chart 5. Plasterwork Physical Properties**

<table>
<thead>
<tr>
<th>Sample</th>
<th>Bulk Density (g/cm3)</th>
<th>Apparent Porsity (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GPM</td>
<td>0.97</td>
<td>54.8</td>
</tr>
<tr>
<td>GPP</td>
<td>1.00</td>
<td>54.8</td>
</tr>
<tr>
<td>GPS</td>
<td>1.00</td>
<td>54.8</td>
</tr>
<tr>
<td>GPP2</td>
<td>1.08</td>
<td>54.8</td>
</tr>
<tr>
<td>GSJ2</td>
<td>1.15</td>
<td>54.8</td>
</tr>
<tr>
<td>GSJ</td>
<td>1.20</td>
<td>54.8</td>
</tr>
<tr>
<td>GPY</td>
<td>1.38</td>
<td>54.8</td>
</tr>
<tr>
<td>GCA</td>
<td>1.38</td>
<td>54.8</td>
</tr>
<tr>
<td>GCP</td>
<td>1.38</td>
<td>54.8</td>
</tr>
<tr>
<td>GPM</td>
<td>0.97</td>
<td>54.8</td>
</tr>
<tr>
<td>GPP</td>
<td>1.00</td>
<td>54.8</td>
</tr>
<tr>
<td>GSJ2</td>
<td>1.15</td>
<td>54.8</td>
</tr>
<tr>
<td>GSJ</td>
<td>1.20</td>
<td>54.8</td>
</tr>
<tr>
<td>GPY</td>
<td>1.38</td>
<td>54.8</td>
</tr>
<tr>
<td>GCA</td>
<td>1.38</td>
<td>54.8</td>
</tr>
<tr>
<td>GCP</td>
<td>1.38</td>
<td>54.8</td>
</tr>
</tbody>
</table>

---

**Table 1. Mineral phase SO3(%) CaO (%) H2O (%)**

<table>
<thead>
<tr>
<th>Sample</th>
<th>SO3 (%)</th>
<th>CaO (%)</th>
<th>H2O (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plaster 32.5</td>
<td>46.50</td>
<td>20.93</td>
<td></td>
</tr>
<tr>
<td>Plaster 32.5</td>
<td>46.50</td>
<td>20.93</td>
<td></td>
</tr>
<tr>
<td>Plaster 32.5</td>
<td>46.50</td>
<td>20.93</td>
<td></td>
</tr>
</tbody>
</table>
very porous materials. Thus, a kneaded hemihydrate with water/plaster of 0.8, combines 80 Gr. of water with 100 gr. of hemihydrate, although only 18.6 Gr. of water are used in hydration reaction.

The mixing water/plaster ratio affects directly the apparent density of the hardened redrayte, as shown in chart 69. These data are represented in Fig. 7, where the obtained regression line fits the following equation:

\[ y = 1.48 - 0.60x \]

The coefficient of regression R^2 is 0.994. The equation indicates, on the one hand, that the relation between the two variables is inverse (the lower the relation a/y is, the higher the density, and vice versa). Secondy, the intensity in the relation between the two variables is almost considering the typology and variable evolution of samples.

From the foregoing, it can be said that the higher the porosity of a sample of plaster is, the greater the amount of water used in the preparation of the paste, which, as noted above, may be related to the execution technique. Its compactness, bulk density and mechanical strength is less. The value of the apparent porosity of the plasterwork of the Alcázar has fluctuated within the range of 41.9% to 59%, results that can be considered normal for gypsum pastes. For GSA, GSJ and CPM samples, porosities were 58.1% 58.5% and 59%, values that indicate that it was used a higher ratio a/y in them than in others, probably to obtain a paste with more time of workability, due to the difficulty of shaping of its floral decoration (Fig. 8a and 8b), or because water has been added during the work. It is possible that to the sample that has been taken with vulure termination, because the difficulty of execution by fresh carving could have been added more water to create and/or review the complex geometry sought.

We can apply the same argument to GSE or GDR samples with 55.7% and 55.1% of porosity. Sample GCA has shown a 56% of porosity, which may be attributable to its outdoor location, making it more vulnerable to moisture and partial solutions, despite their protection with several layers of enamel of lime and gypsum. They are probably plaster plates attached to the wall using of forged nails (Fig. 9), according to the system described by Rabia, according to which the plates were placed on the wall orderly and systematically. The practical difficulty of placement was to place the pieces on the same plane with respect to the wall in which it is supported, so that plaster plates were placed on the wall through the application of “that many of clay”, located on the reverse side of the plate, being fixed by pressure with strokes. At the same time they were leveled with the adjacent plate. After this process, the plate remained leveled but without permanent fixing and hollowed on its reverse, so that black plaster casting was poured on the top so that the piece remained completely attached to the wall. This casting was of coarse particle size and with more impurities, it was also gray. During the preparation of the plate, it was fresh and was placed on the wall, thus it was easy to be removed due to its low density. So, the porosity exposed to the execution technique must be the one diagnosed above, the higher the water/plaster ratio is, the greater the apparent porosity is and the lower the hardness. The influence mixing water was investigated by Barrac, who obtained an almost linear decrease of the hardness and an increase of the water/plaster ratio, from a hardness greater than 90 units of Shore C hardness for a ratio a/y of slightly less than 0.5, to other one of less than 50 units of Shore C hardness for a ratio a/y of 1.2.

Hardness

The superficial hardness of the plaster is influenced by a large number of variables such as: water/plaster ratio, the type of plaster, the thickness of application, the type of support, the moisture, the execution technique used, etc. The first variable is the most important one, because, as we explained above, the higher the water/plaster ratio is, the greater the apparent porosity is and the lower the hardness. The influence mixing water was investigated by Barrac, who obtained an almost linear decrease of the hardness and an increase of the water/plaster ratio, from a hardness greater than 90 units of Shore C hardness for a ratio a/y of slightly less than 0.5, to other one of less than 50 units of Shore C hardness for a ratio a/y of 1.2.

Hardness measures have been carried out on the samples once eliminated its layers of coating to avoid its influence. In addition, although there have been few quantities obtained so as to not damage the plasterwork, the plasterwork here have been, on the contrary, the ones that have submitted lower porosity values for different reasons. In the case of GPD, it is possible that it was applied in compacted layers and that the paste used was amass with a low ratio a/y to obtain a dry consistency because this plaster is more than 4 cm thick and a main goal was to prevent it to be sagged during its execution. For GPM, due to its coarse composition with grains of quartz and to its probable execution directly applied on a brick, we had to use low a/y ratios, which leads to a quick-setting gypsum with low porosity. Therefore, fast setting plaster can be used for works of dry styled carving, on the other hand, it’s necessary to use a slow setting plaster for modeling works.

For molding works, it’s possible to used molds with wealth of forms and details that require more liquid dosages of the paste that could refill all the spaces of the mold, or they may also be simpler molds in a forms allowing the use of a more plastic paste.

3.2. Hardness

The superficial hardness of the plaster is influenced by a large number of variables, such as:

water/plaster ratio, the type of plaster, the thickness of application, the type of support, the moisture, the execution technique used, etc. The first variable is the most important one, because, as we explained above, the higher the water/plaster ratio is, the greater the apparent porosity is and the lower the hardness. The influence mixing water was investigated by Barrac, who obtained an almost linear decrease of the hardness and an increase of the water/plaster ratio, from a hardness greater than 90 units of Shore C hardness for a ratio a/y of slightly less than 0.5, to other one of less than 50 units of Shore C hardness for a ratio a/y of 1.2.

Hardness measures have been carried out on the samples once eliminated its layers of coating to avoid its influence. In addition, although there have been few quantities obtained so as to not damage the plasterwork, the plasterwork here have been, on the contrary, the ones that have submitted lower porosity values for different reasons. In the case of GPD, it is possible that it was applied in compacted layers and that the paste used was amass with a low ratio a/y to obtain a dry consistency because this plaster is more than 4 cm thick and a main goal was to prevent it to be sagged during its execution. For GPM, due to its coarse composition with grains of quartz and to its probable execution directly applied on a brick, we had to use low a/y ratios, which leads to a quick-setting gypsum with low porosity. Therefore, fast setting plaster can be used for works of dry styled carving, on the other hand, it’s necessary to use a slow setting plaster for modeling works.

For molding works, it’s possible to used molds with wealth of forms and details that require more liquid dosages of the paste that could refill all the spaces of the mold, or they may also be simpler molds in a forms allowing the use of a more plastic paste.

These hardness measurements may provide useful information on the quality control of gypsum-based products once executed in work. Elaborating on this point, specialists have studied the relationship between the porosity and the hardness (Chart 8) of the samples of plasterwork, both graphically and mathematically, using linear regression (calculation of the regression line and its equation), obtaining the results shown in Fig. 10. The regression line obtained has the following equation:

\[ D = 113.32 - 0.80 P \]

Being,

\[ P = \% \text{ apparent porosity} \]

\[ D = \text{Surface hardness Shore C} \]
The regression coefficient $R^2$ has been 0.96, indicating on the one hand, that the relationship between the two variables is reverse (the higher the hardness the lower the porosity, and vice versa), and on the other hand, that the intensity in the relationship between the two variables, according to the type of sample under study, has been high but not perfect. This last fact is due both to the small number of samples used for its calculation, as to the conditions in which it has been calculated the hardness measure on the plasterwork, because we have these decorative acccents and not completely flat surfaces, and the measures generated with the dureometer can throw errors due to their difficulty in implementation.

The equation that relates the porosity with the hardness has as a practical application to be able to determine through the extent of the superficial hardness (with the dureometer Short C), the porosity of a plasterwork, properly indicative of the quality and state of conservation of the same.

4. CONCLUSIONS

The main conclusions that can be drawn from the results are:

• From the point of view of the chemical composition, the plasterwork studied can be grouped with respect to its content of SO$_3$, expressed as calcium sulphate dihydrate CaSO$_4$ $2H_2O$ three classes: high, medium and low purity.

• The proportions of insoluble residuals obtained reveal three distinct groups of plasterwork: A group of samples containing with SO$_3$ more than 10%, which corresponds to samples of the Almodóvar period or early Mudéjar. A second group, between 5 and 10%, which is related to those in which we don't know about restoration activities, except those carried out in the Plaster Patio (GPY). A third group, with less than 5%, which corresponds to plasterwork which have been restored.

• All the plasterworks are mainly composed of calcium sulphate dihydrate; we have also identified traces of anhydrite II, quartz, aragonite, calcite, dolomite and celestite. We have detected in sample GPY calcite and quartz in greater content than in the others, they are probably impurities that have their origin in the aljez.

• We know from the chemical and mineralogical analysis of the samples that all plasterworks are plaster pastes, formed mainly by rehydrated calcium sulfate (dihydrate) with more or less impurities, without intentional addition of lime or sand, that's why we can rule out mortars of plaster or mortars of gypsum and lime.

• The chemical and mineralogical composition of the plasterwork makes them distinguishable and reinforcing the chronology of them in most cases. We can also say, depending on the contents of impurities, that the process of drawing up the Almodóvar casts should have been less careful than the one practiced by the Mudéjars, despite following both of them craft techniques and procedures.

• The hardnesses obtained for the plasterwork are situated within the range of 67 to 81 units in the shore C scale. If we take into account the hardness that various types of plaster trim that are applied currently have, ranging between 45 and 80 units, we can consider that the plasterwork with the exception of FPG, GPM and GCA, are closer to the upper end or to the one with higher hardness.

• Between hardness and porosity: the regression coefficient has been of 0.96, which indicates a reverse relation between the two variables (the higher the hardness is, the lower the porosity, and vice versa). It also indicates that the intensity between the two of them has been high. This equation has as a practical application being able to determine through the superficial hardness (non-destructive testing) the porosity of plasterwork, properly indicative of the quality and state of conservation of the same.

ILLUSTRATIONS

Left page. Figure 1. Images of Patio del Yeso: a) Facade, discovered by Tubino in the late nineteenth century, as image of 1912 published by Gestosio (6). b) Facade after intervention of the marques of the Vega-Inclán between 1918 and 1920 (Photo library of the University of Seville).

Left page below. Figure 2. Current image, after the intervention of R. Manzano between 1969 and 1971. Previous page above. Figure 3. a) Mudéjar arches of the Courtyard of the Sun, next to the arch of the eighteenth century (on the right of the image) b) Detail of the eastern span of the Hall of Justice with atriarchic motifs (muqarnas frieze with lituc logotypes and planed palmates, flo- wered and digitate compact of Almodóvar tradition).

Previous page below. Figure 4. Courtyards and Rooms of the Palace of Pedro I. a) Polylobulated pointed arches on column (on the right of the image) b) Detail of the eastern span of the Hall of Justice with atriarchic motifs (muqarnas frieze with lituc logotypes and planed palmates, flo- wered and digitate compact of Almodóvar tradition).
floor of the palace and GCA is in the gardens.

Figure 7. Plotting Da vs a/, including regression line.

Figure 8. GSJ and GPM plasterwork. a) Detail of plaster of one of the arches of the Hall of Justice; b) Detail of sebka in the Doll’s Patio.

Figure 9. Detail of the iron nails holding plates of GCA plasterwork.

Figure 10. Plotting hardness vs. porosity, including regression line.