

PAPER • OPEN ACCESS

Study and Analysis of Existing Historical Burials: The Position of the Dead inside the Co-Cathedral of Sta, Maria in Cáceres (Spain)

To cite this article: Pablo A. Cruz Franco *et al* 2019 *IOP Conf. Ser.: Mater. Sci. Eng.* **471** 082069

View the [article online](#) for updates and enhancements.

You may also like

- [A Study of Two Periodogram Algorithms for Improving the Detection of Small Transiting Planets](#)

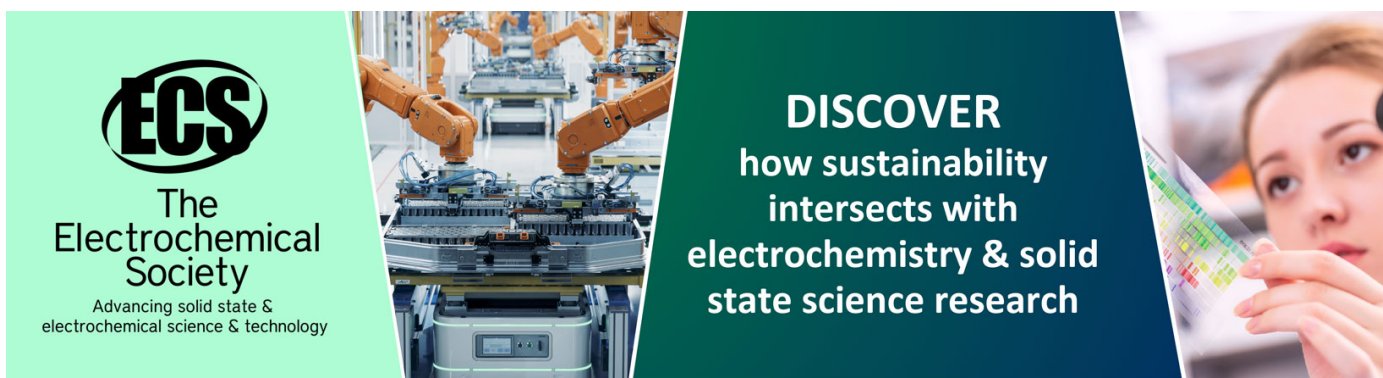
Yash Gondhalekar, Eric D. Feigelson, Gabriel A. Cáceres *et al.*

- [Low-strain plasticity in a high pressure die cast Mg–Al alloy](#)

K Vanna Yang, C H Cáceres, A V Nagasekhar *et al.*

- [Stochastic escape processes from a non-symmetric potential normal form III: extended explosive systems](#)

Manuel O Cáceres and Miguel A Fuentes



ECS
The
Electrochemical
Society
Advancing solid state &
electrochemical science & technology

DISCOVER
how sustainability
intersects with
electrochemistry & solid
state science research

Study and Analysis of Existing Historical Burials: The Position of the Dead inside the Co-Cathedral of Sta, Maria in Cáceres (Spain)

Pablo A. Cruz Franco¹, Adela Rueda Marquez de la Plata¹, Juan Pedro Cortes Perez¹, Jose Miguel Rueda Munoz de San Pedro²

¹ University of Extremadura, Av/ Universidad s/n, Cáceres, Spain

² Instituto de Estudios Heráldicos y Genealógicos de Extremadura. Plaza de Sta. María 2. 10003. Cáceres, Spain

pablocruzfranco@unex.es

Abstract. Cáceres has been a World Heritage Site since 1986 and one of its most emblematic monuments is the Co-Cathedral Church of Santa María which is located within the walled city of Cáceres in the heart of its historic centre. The building was erected between the 15th and 16th centuries over an earlier Mudejar building. Although there are several studies about the church from a historical and architectural point of view, none of them have been dedicated to its pavement which contains one of the most important tombstone mosaics in Spain. It is a checkerboard of tombs executed progressively from XV century that occupies the totality of the three church naves from the start to the chevet. The present study initiates a precise dimensional analysis of tombstones paving the floor of the Co-cathedral Church of Santa María in Cáceres to catalogue them, establish the orientation of the dead buried under its granitic pavement and concretizing certain aspects of the architectural evolution of the temple. To carry out this study, advanced methods of photogrammetry and digitalization have been used in order to be precised and able to rebuild the lost and crucial information. When we mention the position, we do not refer only to the topographical one, interesting in itself by the relation that always existed between closeness to the altar and fortune, but also to the position of the person in the society that gave him burial. This social position can be deduced by the artistic dimension of the shield carved on its tomb placed in one of the most complete heraldic groups of the Spanish Renaissance.

1. Introduction

Cáceres has been a World Heritage Site since 1986 and one of its most emblematic monuments is the Co-Cathedral Church of Santa María which is located within the walled city in the heart of the historic centre. According to Mérida, the Co-Cathedral Church of Santa María was erected between the 15th and 16th centuries over an earlier Mudejar building. The church is built with big granite ashlar in a Romanesque style, although both of its entrances are Gothic and the tower is built renaissance style. Although there are several studies about the church from a historical and architectural point of view, none of them have been dedicated to its pavement which contains one of the most important tombstone mosaics in Spain. It is a checkerboard of tombs executed progressively from XV century that occupies the totality of the three church naves from the start to the chevet. The great majority of the tombstones



are identified with a shield, which makes this pavement, in addition, one of the most important heraldic catalogues carved that is conserved of this historic period.

This is the starting point of a research divided in two phases. A first phase that consists of a desk study covering similar studies about burials in temples and looking for possible resemblances with other temples. A second technical phase, due to the importance and uniqueness of the pavement, to define, catalogue and document of the tombstones. The research has been divided in two articles, one for each phase. The present article covers the first phase and contains a theoretical part about the burial and the presentation of the case of the Co-Cathedral Church of Santa María. The final objective of the research is to document this cultural heritage to preserve it.

2. The position of the dead

With the photogrammetric technique, an accurate planimetric survey of the floor of the Co-Cathedral Church of Santa María in Cáceres is being carried out.

The Co-Cathedral Church of Santa María in Cáceres is the first one to enter into service as a Christian temple after the final Reconquest of Cáceres in 1229 [1] evidently with the space organization that it had during the Almohade domination when it was a mosque.

The history of the present temple has been written from the stylistic analysis of the temple that we now see, since the documentation preserved in the diocesan archives has not allowed, for the time being, to determine the different phases and forms of the temple through the times. In this sense we can deduce that the temple could have had a Roman implantation, a period of decadence during the Visigoth times, followed by a new Muslim plant and another new Romanesque plant before arriving at the present configuration carried out in XVI century.

This transit is reflected, at least from the Reconquest and surely from the XIV century, in the distribution of the graves that pave the ground. This pavement forms a curious heraldic museum and an interesting document in which we could find some of the keys of the artistic evolution of the temple that are missing in the parochial documents.

In this sense we hope that the documentary aspects of the project underway will be able to establish, without the aid of archaeological excavations, important determinations concerning the implantation, growth and transformation of this sacred space occupied at least 2,000 years ago and maintained with this status until the present times. The results will be analysed by an interdisciplinary team of experts in complementary subjects such as: architecture -specifically in cutting stonework and design -, history -specifically heraldry, genealogy and epigraphy-, and art history - specifically sculpture-.

Temples are very special buildings since they are born with a function as transcendent as that of being the place of communication of men with the divinity. This function has determined an architecture loaded with symbols; some of these clear and orthodox, defined univocally by the hierarchy and others - the most durable ones surely - darker, with a more uncertain origin and less clear meaning. All these symbols have been incorporated to that intangible heritage of our cultures which are the religions.

To this second group belongs the tradition of orienting the temples' chevets to the East so that the faithful prayed in that direction. This tradition has its origin in ancient times, even pre-Christian or differential cultures, so we can effortlessly find this orientation in the Western religions such as: in paganism, in Judaism or in the Muslim world, apart from the Christian.

Indeed, considering the historical epochs [2], Vitruvius devotes Chapter V of his Book IV, entitled: The situation of the temples with respect to the celestial regions, to indicate us that: "The regions to which the Temples of the Immortal Gods must look will be sought in this way. If there is no impediment, and the place is free, the deity placed in the nave will be facing the West, so that those who offer a sacrifice to her arras, look to the East at the time of the simulacrum; also those who make their request will look to the regions of the East; this way it will seem that the deities come from the East, and look at those who invoke them offering sacrifices", [3].

It seems undeniable that this tradition, already remote in the first century before our era, has to do with the journey of the sun, perhaps the first of the gods that has been worshiped by mankind. Also perhaps from this tradition Muslims inherited the orientation of the wall of the Quibla of their mosques;

orientated towards the Mecca, this is eastwards from Al Andalus. In the Quibla the Mihrab was placed towards the prayers of the believers are directed. This is what Lazarus de Velasco believed to be the first of the translators of Vitruvius into Castilian, noted in his translation of the book, and two centuries later Jose Ortiz and Sanz expressed as well stating: “from the Gentiles’ custom of worshipping the Gods towards the East the Moors took the custom of swearing to the East towards what they call the Alquibla [4].”

This tradition has so many imprecisions and exceptions that make it especially attractive for any researcher who studies it. In this sense, the results of the study under progress can provide data not only about the temples that were built on the site under study in the different epochs, but also about the rites associated with the bury the dead; data that will allow us to deepen in this ancient tradition rooted in mankind.

As many people have already observed, the only security that we have in living, is that we are going to die and this certainty, habitually annoying, is in the metaphysical basis of all cultures. Normally religion converts this fact into a passage from life to death; into a necessary but nasty transit between an ephemeral life and an eternal one.

We, humans, are beings of material culture reluctant to leave our body behind. The body is the support of our existence and the only tangible object that we have actually possessed during all our life; thus we hope to recover it in the other life that the faith promises us. Therefore, as we have to leave our corpses here, rites have been developed so that during this temporary abandonment the body is properly deposited while waiting for our return whenever this happens.

In our Hispanic case, the usual rite has been to bury the dead. This rite is supported by the Christian belief of the resurrection of the flesh and perhaps rooted in the rejection that the primitive hunter must have felt considering the waste that constitutes throwing to the flames several tens of kilos of animal protein perfectly reusable by Mother Nature.

Burials inside our temples, well in chapels built for that purpose or under the pavement our study case, in spite of the initial prohibitions, have occurred habitually at least since the high middle age and until the XVIII century. In this century hygienist considerations, which would not be put into practice in general until the XIX century, banished the practice transferring it to the outskirts of the towns. The Christian temples start to host the tombs of the mortal remains of the saints. Perhaps by the clandestine origins of Christianity or perhaps by the very nature of the liturgy since the rite of the mass demands the presence of relics of these exemplary believers under all the altars in which it is celebrated. This fact generated that the prestige of the great medieval temples was based, precisely, upon the rest of the saints that it contained. (figure 1).



Figure 1. Picture of a burial inside a gothic cathedral



Figure 2. Fresco painting of medieval times

Unlike the other religions cited before, the Christian temple is the only one that has the dual function of being the house of God and the house of the dead. This fact makes that the orientations of the prayers and the corpses complement each other. The belief that God himself is materialized in the sacrifice of the Mass has created architectural forms with interior spaces unequivocally directed to a focal point that, as we have said, is the East. The respect towards the place where this materialization of the divinity takes place, the altar, makes that the tombs are naturally oriented to that direction; so when the resurrection takes place, the corpse, placed with the feet towards the altar, can rise in front of God who will have descended from heaven to preside the resurrection tribunal.

Therefore, in a natural way, the temple and tombs orientations contained in it are coordinated and historically oriented to the same axis of the solar path. In this sense the orientation of the dead in the Co-Cathedral Church of Santa María in Cáceres is not different from other examples of its time as we find the same configuration in other Spanish Christian temples [5] and in the representations of the late Romanesque frescoes of the church of San Román in Toledo. Even before Christianity, as archaeology has shown, this orientation was important for prehistoric peoples who eternalized it in Hispania in carved sarcophaguses in big stones in various places in our geography. (figure 2).

However, the introduction of the corpses inside the temples was gradual because, as we mentioned, initially burials inside the churches were prohibited each parish had a field to receive the bodies of its parishioners, usually orientated to the North. The location of this field followed the guidelines of Roman cemeteries situated along the roadside. This location was inherited by Christians and Muslims who soon would ignore the ban occupying the interior of the temples because they wanted to be closer to their God. Finally, the ecclesiastical authorities had to correct their criteria based on the reality.

The mentioned configuration has not been exclusive patrimony of the Christian religion, we also find Jewish tombs oriented in a similar way in Sepharad, for example, in the medieval Jewish cemetery of the Incarnation in Avila [5] (Figure 1a, Figure 1b). Similarly, Muslims dug their graves, in the NE-SW direction and for example with that orientation, or in a coarser approach E-W, more than 400 graves were dug and have been studied in Muslim cemeteries excavated in Qurtuba [6] (Figure 2), the current Córdoba. Even the position of these dead, lying on their right side, seems to have to do with their Eastern-oriented prayer posture.

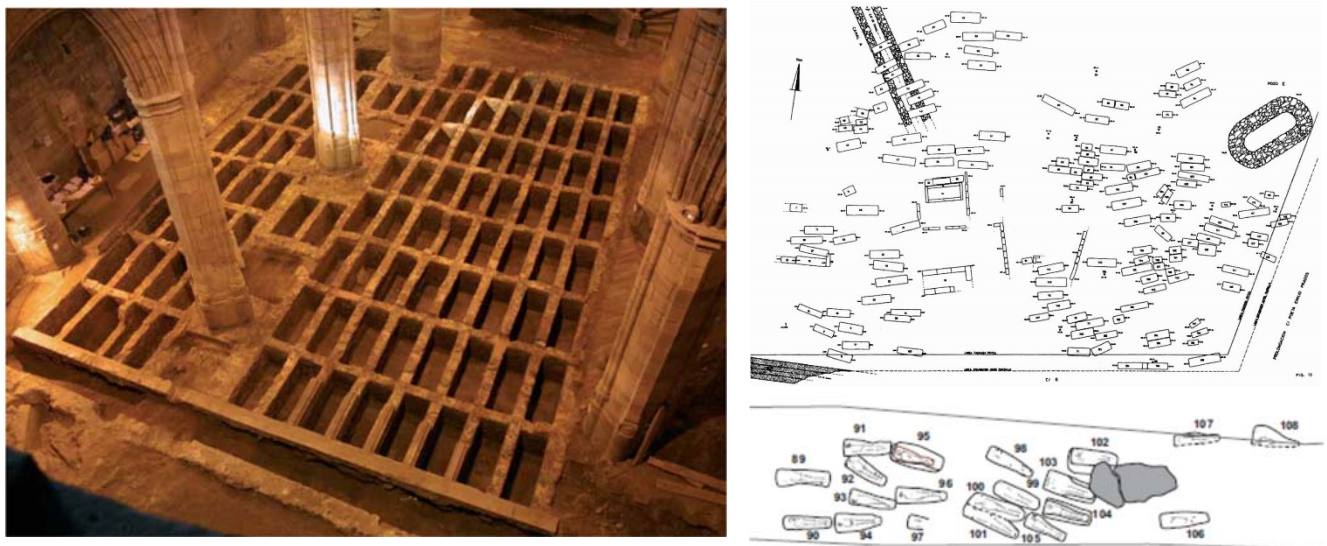


Figure 3. Plans and image of the burials inside other cathedrals already analysed

Up to now we have covered the orientation of the dead. This orientation together with a precise plan of the pavement of Santa Maria will reveal some deviations to the norm that will reveal in turn different phases and forms of the temple through the times; considering that these deviations are forced by the

pre-existence of structures now disappeared. Therefore we could deduce different eras of construction or evidences of construction elements that could have disappeared such as the choir, exempt sarcophagi, tombs or even rest of structures of some of the previous temples to the current one.

Some other aspects of the current research will, in fact, have immediate application to other investigations opened by other research teams, for example the sociological analysis that is being carried out by the Institute of Heraldic and Genealogical Studies of Extremadura about the population of the old neighbourhood in Cáceres along the XVI and XVII centuries.

The logical desire to obtain a position near the place where the divinity would materialize put a price to the floor of the temple; through a demand based on two contradictory and complementary considerations: social ostentation and piety. This demand in turn was the origin of rigorous ordinations of the graves according to these criteria, (Figure 3 and 4).

Finally, one of the expectations of the research is that the accuracy of the data obtained allows us to ascribe the works of the tombstones to the different stone mason workshops active in Cáceres at the time; and through this ascription to reveal some characteristics of their work, such as confirming the suspicion of the existence of prefabricated pieces of different models, which would be completed with the appropriate coats of arms or inscriptions at the time of their purchase by the relatives of the deceased. As we have already advanced the analysis of the results to be produced, considered from all these aspects, will generate new conclusions about the circumstances of the architectural evolution of the largest of Cáceres temples.

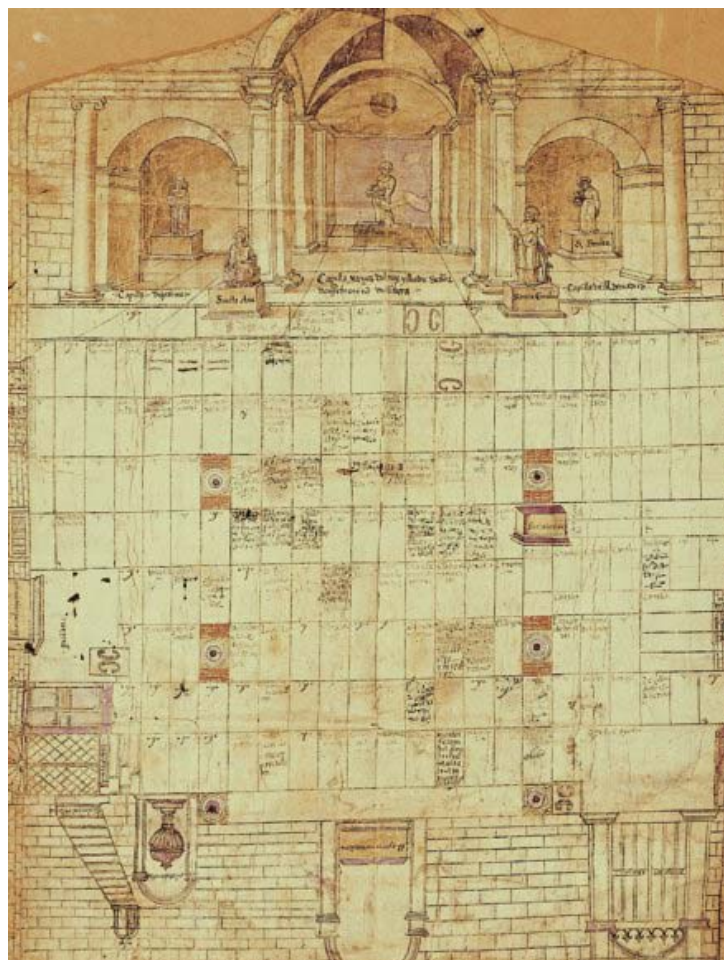


Figure 4. Historical plane of location of burials

3. Burials inside the Co-Cathedral Church of Santa María in Cáceres

As mentioned previously, a photogrammetric survey of the pavement of the temple has been carried out, focusing first and more comprehensively in the gospel nave. On one hand, in this nave is where the tombs and their reliefs are better preserved and on the other hand it is the most accessible one "a priori" for the photographic study (Figure 5).



Figure 5. Plan of the Co-Cathedral of Santa Maria did with Photogrammetric method

As a starting point for the field work, we have drawn a reticle to facilitate the numbering and placement of the tombs, grid that has been subdivided into different sections (figure 6). Later we have positioned the reticle in the pavement and we have proceeded to take photographs of it with a digital camera Canon 1300D with objective 18-55ISII. From here we have started the desk study. The first step is an initial cataloguing of the tombs according to several differentiating criteria to organize a more detailed study later. In this sense we have developed a scheme explaining the state of the tombs according to 3 parameters (figure 7). The first parameter is the classification of the tombs according to the visibility of their reliefs under these criteria: tombstone with legible shield, tombstone with unreadable shield at first sight, tombstone without shield. The second parameter is the classification of the tombstones according to their orientation to the altar under these criteria: tombstones oriented to the feet and gravestones facing the head (figure 8). Finally, the third parameter is the classification of the tombstones according to the original engraved numbering under these criteria: tombstones engraved with a legible number, tombstones gravestone engraved with an illegible number and tombstones without an engraved number (figure 9).

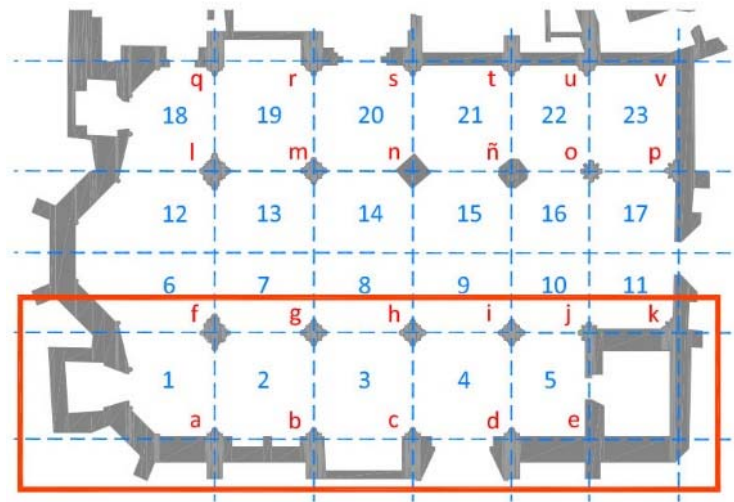


Figure 6. Selected part of the Co-Cathedral is the target of the study



Figure 7. Photogrammetric method. Plane with images and plane to line derived from work

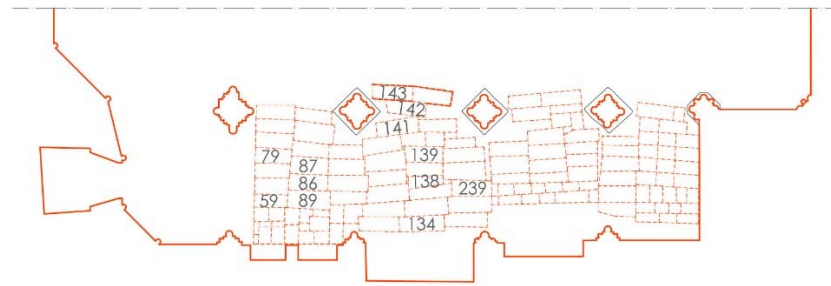


Figure 8. Some of the characteristics applied to the method

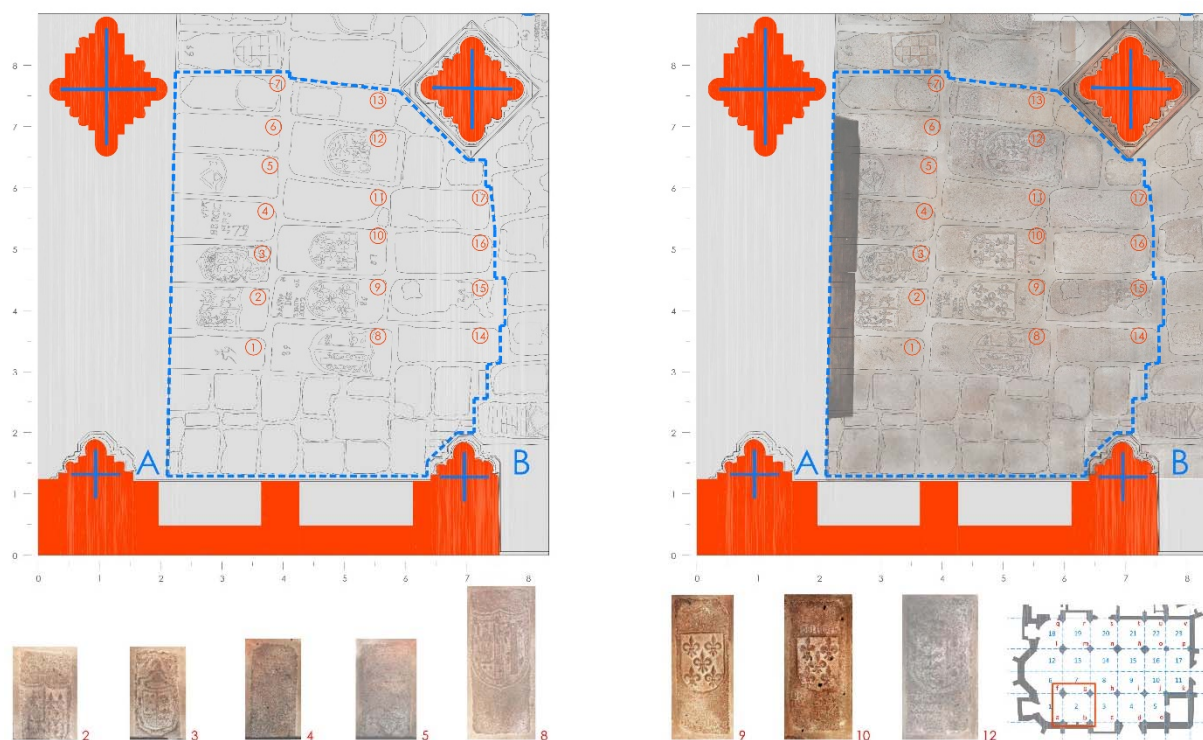


Figure 9. Precise orthophotos of some of the tombs illegible to the naked eye

Thus the tombstones are classified as follows: study area 1 - tombstone 4: tombstone with illegible shield, oriented to the head of the altar and with an original engraved number 79.

With this study scheme we can draw the first partial conclusions about the pavement of the gospel nave. First we can confirm that this is one of the Spanish mosaics of tombs more important and less studied. Second it is also clear that this work falls within what is now called a frontier science because it touches many disciplines and therefore it requires a multidisciplinary team that will enrich the research: architects, technicians, historians and heraldry specialists, who will participate in a second phase.

Once we have positioned all the tombstones in the reticle we have to define subsector using the columns of the temple in order to carry out an accurate survey of each one (Figure 10). In this step we analyse the photogrammetric survey of each section to obtain, manipulating the photographs, an image of each shield engraved in the stone. This will allow the multidisciplinary team to identify later on of each shield, which will help to accurate date of the tombstones.

Another of the results that we intend to obtain through this research is the accurate layout of the church's floor plan. So far, many maintenance works have been done in the church, but the planimetry that has been used for them has been "idealized" within a geometry. With this research we are looking for a precise definition of the actual geometry of the church's floor plan for various purposes. First, because the precision required for the development of the analysis of the tombstones is much greater than what has been needed so far for other studies. Second, because there is not a detailed study of the interior of the Co-Cathedral Church and we believe that such an important monument deserves it. Third, because obtaining a planimetry of this type opens new study lines. For example, so far the columns of the church were represented in the floor plan according to their base, but this base is different in all of them and varies enormously in height, therefore we can have up to three different floors of the church according to the cutting plane. This fact had not been taken into account until now.

4. Conclusions.

Through the text we have been advancing some partial conclusions of this research that is still ongoing and that we expect will offer substantial new findings. The first conclusion and the one that motivated this work is that we are studying one of the most important heraldic mosaics in Spain and by extension of what in medieval times was called the New World. The second conclusion is that the planimetric reformulation of the church shows different sections of the architectural elements that have not been seen until now and that will offer a new vision of the building. The last conclusion is that the majority of the families from Extremadura that took part in the American discovery are not only represented on this pavement, but "ordered" according to importance, power, interests ... This study is only the beginning of a new story that is not yet written about how the nobility of Extremadura fought for a position in the pavement of the Co-Cathedral Santa Maria de Cáceres to face the death.

References

- [1] Charter of the City of Cáceres. (Fuero de Cáceres) in https://en.wikipedia.org/wiki/Old_Town_of_C%C3%A1ceres, access: 05/2018
- [2] Marcus Vitruvius Pollio: de Architectura, Book VIII, Printing Company of Nicolás M. Jiménez Joseph Ortiz and Sanz. Madrid. Imprenta Real 1787. Pg. 96
- [3] Mss-2 manuscript of Vicente Paredes Guillen's funds donated to the Cáceres Public Library. The text is a translation of Vitrubio written between 1554 and 1564 and has not been published until 1999 in a facsimile edition commented by diverse authors. CICON Ediciones. Cáceres 1999.
- [4] Valcárcel, Juan Pérez. The Orientation of the Romanic Churches in the Saint Jacques Way. Proceedings of the second National Congress of Construction History. CEHOPU. A Coruña 1998.
- [5] Cabrera González, Blas and others. The Medieval Jewish Cemetery of La Encarnación in Ávila. Seferad, July-December 2013.
- [6] María Teresa Casal García has studied them for her undergraduate thesis and has published a short summary of her findings in Annals of Cordoban Archeology 12 Córdoba 2001. The Islamic Cemeteries of Qurtuba, p. 283-313.