



## THE ADAPTATION OF THE MAIN FLOOR OF THE PALACE MELO E ABREU (18TH CENTURY) TO AN INFIRMARY OF THE OLD ASYLUM OF MENDICITY: HISTORY AND TILE PANELS COMPOSITIONAL CHARACTERIZATION

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### ABSTRACT

Due to its sunny location and mild climate, the hill of Sant'Ana in Lisbon was, since early times, the place of construction of religious and civil buildings. In the eighteenth century, near the former Santo António dos Capuchos Convent (later Hospital – HSAC), a Baroque palace was erected and later on rebuilt by the Melo e Abreu family (later Condes de Murça in the 19th century), whose noble rooms were decorated by a set of high quality tiles, concerned with iconographic and plasticity aspects.

The transfer of the Melo e Abreu family to the parish of Santos-o-Velho and subsequent founding of the Asilo da Mendicidade, allowed the purchase of the building in order to expand the assistance space. Currently, the palace serves hospital's needs, with all the constraints resulting from the cohabitation between cultural heritage and professional medical care day life.

Thus, Palace Melo e Abreu is a good case study, not only for the functional changes that it has been subjected to, but also for the rehabilitation measures for structural restoration and conservation made over time. For the assessment of its importance in terms of both heritage and scientific history, we will present an interdisciplinary study, including History of Art and Archaeometry;

In this work (together with the history of the adaptation of the main floor of the Palace Melo e Abreu to an infirmary of the old asylum of mendacity) a first stage of the archaeometric approach is presented, comprising the compositional characterization (chemical and mineralogical) of both mortar and glazed tile body of selected panels. We believe that this paper will promote a deep reflection about the safeguard and future heritage policies of this kind of Lisbon's hospitals.

**KEYWORDS:** History of Art, Archaeometry, Glazed tiles, Compositional analysis.



## 1. INTRODUCTION

Glazed ceramic tiles have been used as decorative materials in Portugal since the 15th century, being one of the most important cultural and art expressions. In this work we will present the history evolving the adaptation of the main floor of the Palace Melo e Abreu (18<sup>th</sup> century) to an infirmary of the old asylum of mendacity, as well as a first archaeometric study of the existing tile panels in the walls of the nowadays women infirmary of the Hospital de Santo António dos Capuchos.

This interdisciplinary study has two main goals, on one hand a historical overview of the Palace Melo e Abreu and its various modifications over time, with special emphasis on the tile panels, and on the other hand a first compositional (chemical and mineralogical) study of samples from those tile panels attributed to various epochs. In this way we intend to give a first interdisciplinary overview of this cultural heritage contributing to better understanding the tiles distribution and historiography, as well as, their production technologies and chronological inferences.

## 2. THE HILL OF SANT'ANA

The hill of Sant'Ana is the most central part of Lisbon and has been historically an area of charity, shelter and great solidarity assured by the existent convents using the medical knowledge. Everything has started in the outside of medieval walls at Quinta of St. Lázaro, around the 13th century, where the Order of Malta was used to isolate the lepers - the only treatment known at that time. Later on and until the 20<sup>th</sup> century, the Hospital of St. Lázaro, an harmonious group of buildings with houses for lepers and chapel, treated these patients.

Besides, the first stone from the important Royal Hospital of All Saints was laid in 1492, which became a model and an iconic building in downtown Lisbon. The number of fires, earthquakes and unhealthiness of the site and possibly the Baixa's plans of Pombal, has led this hospital up the hill. In 26 September 1769, the Jesuit College of Santo Antão-o-Novo received by King D. José the management of the Royal Hospital of All Saints. [1] The College was named Royal Hospital of St. Joseph in honor of the monarch, after adaptation works, conducted by the royal architect Manuel Caetano de Sousa (1742-1802),. "The first days of April 1775 (...) the court nobles, the religious of the convents, brothers of the fraternities and Our Lady of Mercy transferred patients to the new hospital on stretchers, skiffs, chairs and some berlins and carriages".[2]

In addition to the hospital facilities and the social support developed there, thanks to the sunny and pleasant climate site, the hill of Sant'Ana was also chosen for the construction of numerous palatial buildings. At the end of 17<sup>th</sup> century, thanks to the determination of King D. Pedro II and his sister Queen Catarina of Braganza, the existent *Quintas* were transformed into large palaces.[3] This is the case of the one of D. Luís Pereira de Barros, acquired by the Queen of England, who bought 25 properties in order to increase the buildings' of Bemposta. Around the same time, one of her maids of honor, D. Francisca Toscano de Vasconcelos (c.1640? -1719), purchased a place located in the Alameda de Santo António dos Capuchos, known as the Palace of the Açafatas, which remained in her family until the 19th century.[4]

At the turn of the century, others followed the example of Catarina de Braganza such as her maid of honor - D. Luisa Ponce de León, Countess of Pombeiro - or the Palace of the Melo e Abreu family, the subject of our study.[Fig.1] This 18<sup>th</sup> century building, had its front, facing the old Calçada de Santo António, the rest of it to the convent's property of the Capuchos extended to the West, and finally bordering Rua do Passadiço.[5]



Fig. 1 – View of the palace Melo e Abreu (Lisbon)

### 3. FOUNDATION AND HISTORY OF THE PALACE MELO E ABREU

During the present investigation, we found out that in 1688 the Judge António de Freitas Branco asked permission to the Senate of Lisbon City Council to make some works in his houses at Rua Direita de Santo António. He also requested sufficient authorization to dig new foundations, in order to make a new building, and a little shed.[6] António de Freitas Branco's buildings gave origin to the Palace Melo e Abreu. For unknown reasons, the Judge Antonio de Freitas Branco sold this property on a date yet to be determined. In 1716, D. João de Melo e Abreu bought them from an unknown José de Melo da Silva for the price of 19,500 cruzados.[7]

In 1718, D. João de Melo e Abreu and his wife D. Bernarda Isabel de Vasconcelos submitted a provision to the Council of Dezembargo do Paço, asking King D. João V the authorization for selling the Marixal houses in Lisbon, which belonged to her heritage. They also asked to use the amount of money in the purchase of Melo da Silva's property.[8]

Part of the D. Bernarda Isabel de Vasconcelos' fortune was used in the works of the new palace. At this time (1718), the couple had changed residence from Quinta da Ponte in Oeiras, to the parish of St. Bartolomeu in Lisbon, waiting for its completion.[9] In 1726, D. João de Melo e Abreu is said to be living at Rua de Santo António. He intended to expand the space, since this date coincides with the license application to the Senate of Lisbon city council to measure the works in order to finish the houses [10].

The palace remained in the possession of the family Melo e Abreu who lived there until the 19<sup>th</sup> century. In the mean time, the building was successively rent to various tenants, as it was usual at the time [11].

However, early in the 19th century, the Melo e Abreu family was created Condes de Murça and moved to the neighborhood of Santos-o-Velho. Indeed, the 1st Conde de Murça, D. Miguel António de Melo de Abreu de Brito Soares Barbosa Palha Vasconcelos Guedes, was born in this parish, according to the church records from the year 1817. This departure of the family justified the rent of the Melo e Abreu palace to the Royal Academy of Fortificação, Artilharia e Desenho in 1843. Some years later, in 1850, this institution changed place to the Palace of Bemposta, by decree of Queen Maria II [12].

Finally, in 1854, D. João José Maria de Brito Melo Abreu de Vasconcelos Barbosa e Palha, 3rd Conde de Murça, sold the palace to the Crown, through the newly elected Director José Guedes Isidoro (1851-1873), who integrated it into the Asilo da Mendicidade, an institution that had occupied since 1836 the facilities of the adjacent Franciscan convent of St. António [13].



The acquisition of the palace was funded by the Asilo revenue provided through the festivities of the Passeio Público. Works of rehabilitation of the Palace Melo e Abreu wing were ordered to receive the female beggars in 1854, under the auspices of the Director. This permitted the increase of the number of beggars of both sexes, which were distributed by two independent zones. Thus, in order to adapt this old baroque building to the new functions, successive Directors (Isidoro José Guedes, José Silvério de Amorim Guerra Quaresma and Alfredo Guedes de Queiroz) launched several campaigns of works, which envisaged the new building, as well as the conventual facilities. The works seem to have ended in 1898, the date on which the refectory and the Church of the Asilo were both finished [14].

The book "Souvenir de Lisboa: Portugal impressions of a visit to the Asilo da Mendicidade" was published and commissioned, perhaps, by the Director shortly after the work was completed (1899?), in order to mark the end of the adaptations and to disseminate the good assistance policy followed by the Crown in Lisbon.[15] By reading the text, we were told that the Palace Melo e Abreu wing was composed by eleven bedrooms and six infirmaries for both sexes.[Fig. 2] From 1881, under the direction of Alfredo Guedes de Queiroz, works were made at the workshops by resident carpenters, painters, masons and plasterers. All these craftsmen were recruited from the residents of the Asilo, whose function was to maintain and repair all the building. This represented both a form of occupation, as well as a contribution to the stability of the financial institution itself.[16]



Fig. 2 – View of the old infirmary in the 19<sup>th</sup> century

#### **4. THE COMMISSIONERS OF TILES FOR THE PALACE MELO E ABREU**

D. João de Melo e Abreu and D. Isabel Bernarda de Vasconcelos were the owners of the palace in the first half of the 18th century. They were responsible for its construction and completion as well as its interior decoration: the great staircase and the main floor rooms, which in general corresponds today to the female ward of the Hospital of St. António dos Capuchos.

For a better understanding of the profile of these commissioners, it should be noted that D. João de Melo e Abreu was the son of D. Francisco de Melo and D. Joana de Abreu. His grandfather, D. Pedro José de Melo, was the governor of Maranhão and his grandmother, D. Maria de Mendonça, was aunt of the chief of the Armoury, D. Estêvão António da Costa. D. João de Melo e Abreu was born around 1683/4 in S. Martinho de Semexe, parish of the bishopric of Coimbra.[17] In the early 18th century, he married D. Isabel Bernarda (c.1680?-1742), daughter of Miguel Soares de Vasconcelos and D. Joana Pacheco de Melo.[18]

The union of D. João de Melo e Abreu with D. Isabel Bernarda de Vasconcelos meant the addition of an immense heritage, judging from the estate they used to manage and the properties they used to live on (Quinta da Boavista in S. Martinho; Quinta da Ponte in Oeiras and in Santarém) . The



yields reverted in part to the purchase and enlargement of the Palace Melo e Abreu. Moreover, D João de Melo e Abreu was Commander of Santa Maria de Frexes from the Order of Christ; Lord of the villages of Préstimo and Serém, title inherited from his father's assets, as well as the patronage of the convent of the Capuchin Province of St. António de Serém.[19]

Their heir, D. Miguel de Vasconcelos Melo e Abreu (1708-1792), was born in 1708.[20] Some years later, in 1744, he married D. Josefa de Bourbon Mariana de Melo Man, daughter of D. Pedro José de Melo and D. Maria Trigo(?) de Bourbon, which seems to have been an important family event at the time. The ceremony took place in the Oratory of the Palace of the bride's brother, D. Antonio José de Melo Homem, located in the parish of Mercês at the Combro. The social importance of this family can be confirmed, for example, by the presence of D. Tomás de Almeida, Patriarch of Lisbon, who presided over the ceremony.[21]

In short, family Melo e Abreu, descendant of relevant representatives from the court and its ecclesiastical entourage, presents a considerable fortune in the first half of the 18th century, settling in the hills of Sant'Ana, an area chosen by the court and nobility, to build their palace with three large windows upon Valverde.

## 5. THE TILE PANELS

Major changes transformed the palace Melo e Abreu in the 19th century, which does not allow us nowadays to safely determine the true area of the primarily building. However, it is possible today to identify what we believe to have been one of the most important parts of the palace, by reading the documentation and the remaining plans.

The building presents different sorts of tiles: pattern tiles from the last quarter of the 17th century (former palace of António de Freitas Branco?), religious episodes, *fête galante* scenes (including theatre, ballet and opera scenes along with *Commedia dell'Arte*), battles and hunts, and finally rococo ornaments, all from different periods. The main floor was deeply changed, during 19<sup>th</sup> century works, as evidenced by the photographs of those years. In fact, the ancient walls that were used to divide the whole space were demolished, creating this way a single room to house the beggars. Later, in 1938, Norberto Araújo described this room well furnished and decorated in a King João V style.[22]

In the 60s of the 20th century, this area suffered new interventions, including the division of spaces, both disabling entries and creating new areas in support of medical activity. The removal of Dutch tiles, probably from Rotterdam workshops, similar to the ones at the Casa do Paço (Figueira da Foz) dates back to this period.[23] These tiles were used for decorating two rooms and are nowadays the ones next to the infirmary with the door deactivated.[24] On a date which cannot be determined, probably around in the 1960's, according to photographic records, the entrance of the infirmary was transformed in two different rooms separated by partitions, such as the current pantry and the treatment room. Such changes do not allow us today to have the right perception of the entire space and decoration, as D. João de Melo e Abreu has provided in the 18<sup>th</sup> century. However, if we consider the distribution of thematic and iconographic tiles, we can better understand the successive purposes of the main floor. It is possible to identify different areas: first, a central one, more uniform, which corresponds to the panels, bearing the arms of Melo, Abreu e Vasconcelos. This space should have been the reception area, in which D. João de Melo e Abreu wanted to stress his lineage and marriage union that linked him to the wealthy family of Vasconcelos. The tiles on the space point us to a campaign works after 1726, date of the application carried out by D. João de Melo e Abreu. Based on this date, it is likely that the execution and placement of tiles might date back to the 30s. This period coincides with the work of the painter Nicolau de Freitas (1703-1765), the most probable author of this endeavor, and who had satisfied an order to the convent of Santo António dos Capuchos, sometime



before.[25] Moreover, the artist performs in other places with the same figurative panels on the theme of the hunts, influenced by the engravings of Antonio Tempesta, like the ones painted to the dining room of the Palace of Correio-mor, in Loures.[26] [Fig. 3]

In turn, the north area has a large number of tiles, inspired by the *Commedia dell'Art*, following the drawings of Jean Bérain (1637-1711), later engraved by Jacques le Pautre (a. 1653-1684) and published by Carel Allard (1648-1709).[27] [Fig.4] These tiles are also attributable to the mastery of Nicolau de Freitas and seems to correspond to an uniform iconographic program contemporary to the works of decoration undertaken in the 30's. It is worth mentioning that this area displays tiles, cut from other panels, or removed from other walls of the palace, as well as examples from other sets of unknown origin and authorship.[28] From a careful observation of one of the panels one can verify that several tiles were lost, thus forming an independent panel, which we will reveal now for the first time.[Fig. 5]



Fig. 3 – Panel of the lion hunt (pantry of the Hospital)



Fig. 4 – Detail from the set *Ballet dance*

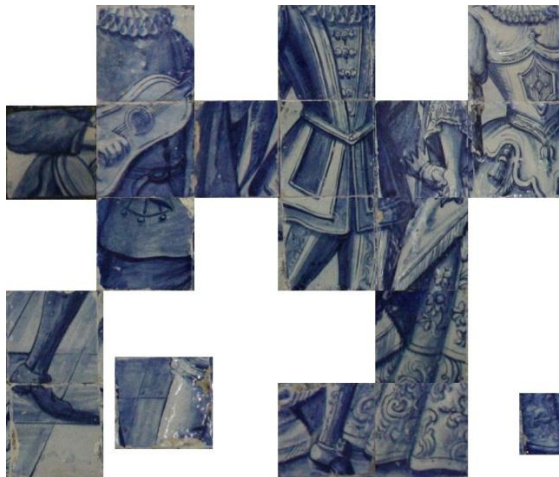


Fig. 5 – Panel rediscovered from the set *Commedia dell'Arte*

In contrast to this, the opposite area exposes tiles with religious themes (scenes from the Old Testament as the Stories of Tobias, Abraham and Moses, New Testament, Saints and Hermits). We have also find 17<sup>th</sup> century tile patterns, along with examples attributable to the art of the Spanish painter Gabriel del Barco.[29] Some of the religious scenes were damaged and do not have any narrative coherence among them, even if such episodes are accepted as moralizing tiles in opposition to profane scenes on the adjoining walls. The existence of a particular oratory inside the palace could possibly explain a 19<sup>th</sup> century reuse of these religious themes to the lining of the Asilo. The proximity of the convent of Santo António and the extinction of the Capuchin Order in 1834 may also indicate an origin, which it has not yet been fully clarified. Observing all these main floor tiles, there are areas of major changes and cuts, as well as an arbitrary placement of tiles to supply the missing parts. The tiles were often grouped by analogy, by shades, and decorative motives. This makes us to believe that such works were carried out during the 19th century, probably made by beggars who, as we saw earlier, helped in the building maintenance.

## 6. CHEMICAL AND MINERALOGICAL CHARACTERIZATION OF TILES (BODY AND MORTAR)

Glazed tiles belonging to the walls of the main floor were selected for compositional and chronological characterization aiming to contribute to (i) a broader knowledge of this type of cultural assets production technology; (ii) the establishment of productions and possible chronological correlations; (iii) dating tile panels to better ascribe unknown or imprecise chronology; (iv) better understand the tiles distribution and historiography.

In this work chemical and mineralogical compositional results are discussed, chronological issues are an ongoing task to be discussed in further works.

### 6.1. Materials and Methods

In a first approach, five glazed tiles were selected taking into consideration the representativeness of the various existing panels in the infirmary of HSAC, especially 17<sup>th</sup> century pattern tiles, hunting scenes and rococo ornament.[Figs. 6 and 7] The collection of samples had some constraints, especially those related with the fact that we have to collect them in a still operating infirmary, as well as, those related with the panel itself, as caution must be taken to sample in a less invasive way . Cores with 8 mm diameter were taken from the tiles' body by using a diamond drill, and only in two tiles we were able to sample corresponding mortar. Four tiles are attributed to the 18<sup>th</sup> century (A1, A2, A3, A4) and the other tile (pattern tiles) to the 17<sup>th</sup> century (A5). The two mortar samples (A2M, A4M) belong to the tiles from the 18<sup>th</sup> century (A2 and A4).



Fig. 6 – Panel from the set of hunting scenes



Fig. 7 – Panel with Rococo ornaments

The chemical analysis of tiles body and mortar was done by means of instrumental neutron activation analysis (INAA). Ceramic samples and standards (sediment GSD 9 and soil GSS 1) were irradiated together in the core grid of the Portuguese Research Reactor (Sacavém) for 2 minutes (short irradiation) and seven hours (longer irradiation). Details concerning the measurement and processing of the gamma spectra can be found elsewhere [30][31]. This analysis permit to obtain the concentration of the following 30 elements: Na, K, Fe, Sc, Cr, Mn, Co, Zn, Ga, As, Br, Rb, Zr, Sb, Cs, Ba, La, Ce, Nd, Sm, Eu, Tb, Dy, Yb, Lu, Hf, Ta, W, Th, U. A detailed analysis of the element distributions was performed in order to contribute for the establishment of geochemical behavior within and between samples, which are able to identify, or not, possible correlations with decoration / chronologies and productions.

The mineralogical composition of both tile body and mortar was obtained by X-ray diffraction. Non-oriented aggregate powders of the bulk paste sample were prepared and analyzed by using a XRD diffractometer, CuK $\alpha$  radiation at 45 kV and 40 mA, a step size of 1° 2 $\theta$ /min from 2° to 70° 2 $\theta$ .

## 6.2. Results and Discussion

As expected, compositional results enable to clear differentiate tiles from mortar samples. In a mineralogical point of view the two analyzed mortars are similar and consist mainly of quartz and calcite with traces of k-feldspar; tiles body have three main types of mineralogical associations: (i) quartz > gehlenite > calcite > wollastonite > k-feldspar > hematite (samples A1 and A4); (ii) gehlenite > quartz > calcite > wollastonite > k-feldspar > hematite (samples A2 and A3); (iii) calcite > gehlenite > quartz > hematite (sample A5) [Fig.8]. It is important to enhance that they have diverse mineral proportions, they are all carbonate rich, but (i) has a coarser paste, and the differences among them are closely related with firing temperatures.

Mineralogical composition of tile bodies enables to contribute to the establishment of technological production procedures, especially those concerning firing temperatures. The presence of high temperature phase minerals, like gehlenite and wollastonite, points to firing temperatures at least higher than 800°C [[32][33][34]. Sample A5, points to an initial raw material more enriched in calcite than the other tile bodies. Another important technological feature is the use of calcite as a binder.

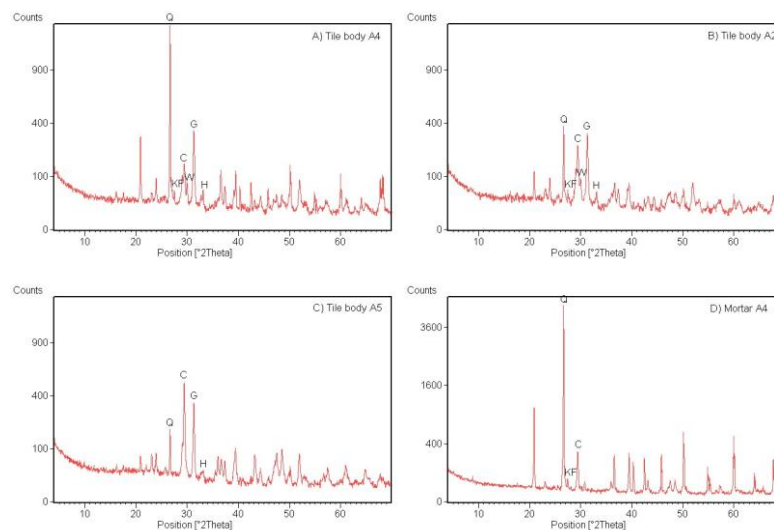


Fig. 8 - X-ray diffraction patterns of non-oriented aggregates of the bulk sample of tile bodies (A; B; C) and mortar (D), representative of the main mineralogical associations. Q: quartz; KF: k-feldspar; C: calcite; W: wollastonite; G: gehlenite; H: hematite.



Considering the five analyzed tile bodies, detailed chemical differences were observed [Fig.9] enabling to differentiate (i) sample A5 mainly due to higher As contents and lower K, Rb, Zr, Cs and Th contents; (ii) to gather samples A1 and A4, with higher K, Zn, Rb, Ta and U contents; (iii) to gather samples A2 and A3, with slightly higher contents of Fe, Sc, Cr (related to ferromagnesian minerals) and of light rare earth elements (LREE) and heavy rare earth elements (HREE).

Sample A5 is clearly detachable from all the others in a mineralogical and chemical point of view, with higher calcite contents and lower quartz contents, causing a slightly dilution of chemical elements, on the other hand, As content reaches the highest level, as arsenate ions tend to be readily fixed by calcium ([35][36]. It is interesting to notice that this sample is the only from other chronology, attributed to the 17<sup>th</sup> century. Also is located in an opposite part of the infirmary at East.

Samples A2 and A3 belong to the same hunting scene included in a tile panel column close to the entrance of the infirmary at West, and, as expected, are very similar in a compositional point of view.

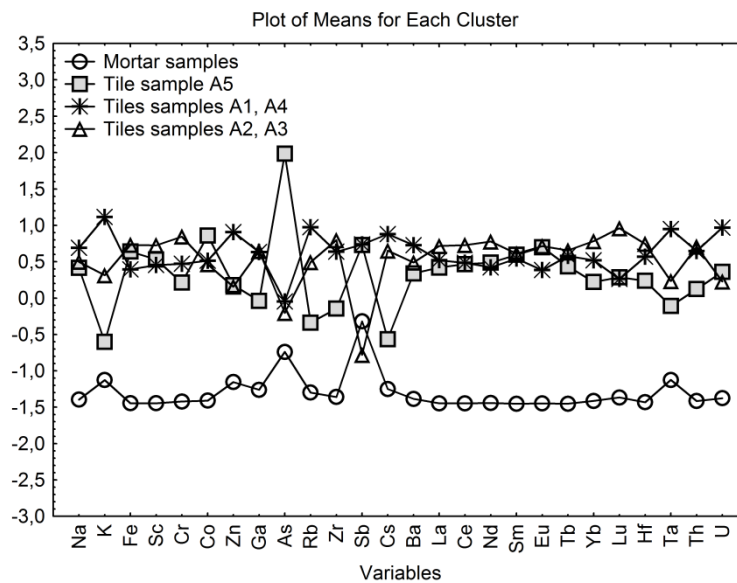


Fig. 9 - Plot of means for each cluster obtained by the k-mean clustering method, using as variables the major-, minor-, and trace-element concentrations obtained by INAA of tiles body and mortars.

## 7. CONCLUSIONS

The nineteenth century deep changes of the Melo Abreu's old palace hinder us the proper understanding of the iconographic program designed for him. Both laboratory and documentary researches showed us that the whole set of tiles is dated between the late seventeenth century and second half of the eighteenth century.

The analytical approach applied to the tile bodies and related mortars through mineralogical and chemical composition by XRD and INAA enables to obtain a first glimpse of composition characteristics of the analyzed tile panels from the main floor of the Palace Melo e Abreu. In the tile bodies, one sample (A5) is clear detachable from the others, and it is important to enhance that it is also from a different chronology (17<sup>th</sup> cent.), different location in the infirmary (East) and diverse decoration (pattern tiles). This 17<sup>th</sup> century sample was originally richer in calcite, was fired in the same range of temperatures as the others, but due to the high calcite content, is more enriched in arsenic, so we may be in presence of a different raw material (calcareous clay). Subtle compositional differences were found between samples A2 and A3 from samples A1 and A4, so we may be in presence of the same tile production using the same type of raw material and production technology.



So, in this work, the two main targets were achieved, by presenting a detailed history of the adaptation of the main floor of the Palace Melo e Abreu (18th century) to an infirmary of the old asylum of mendacity, together with a first archaeometric approach, especially voted in this phase of the research, to a compositional characterization of some of the tile panels. New insights were done regarding tile body production technology, particularly firing temperatures and chemical and mineralogical composition of used raw materials, also considering chronological issues.

Undoubtedly the best approach to a better cultural heritage management needs to include this kind of interdisciplinary studies: the better we know our heritage in various points of view, the better we understand it, and we manage it and profit it. Besides, this paper brought some important news about the cultural profile of the commissioners (the family Melo e Abreu) and the high erudition of the chosen themes, revealing part of the experience of time in Lisbon Baroque.

## 8. REFERENCES

- [1] The model hospital transferred knowledge, experience and memory to the other centenarian institution: the College of Santo Antão-o-Novo. This school was opened in 1593, although it was only finished in 1652. The initial plans belonged to the royal architect Baltazar Álvares (c.1578-1624), which was amended and corrected by Filipe Terzi (1520-1597). The main building has undergone major improvements in the reign of King D. João V (1689-1750), who was influenced by Father João Carbone (1694-1750). The magnificent decorative baroque tiles in main buildings dates back to this period.
- [2] LEONE, J., Hospitais civis de Lisboa. Exposição comemorativa da Fundação do Hospital Real de Todos-os-Santos 1492-1980, Lisboa, (1980).
- [3] COUTINHO, M. J. Pereira, "O núcleo habitacional na órbita do paço da Bemposta: aquisições e artistas" in Actas do Iº Encontro do Palácio Centeno, (2012) (no prelo).
- [4] FLOR, S. V., "O regresso de D. Catarina de Bragança a Lisboa: As residências e a "família", in Actas do Iº Encontro do Palácio Centeno, (2012) (no prelo).
- [5] VELOSO, A. J. B. e ALMASQUÉ, I., Hospitais civis de Lisboa – História e Azulejos, Lisboa, Inapa, (1996).
- [6] Arquivo Histórico da Câmara Municipal de Lisboa, *Livro 1 de Cordeamentos* [1614-1699].
- [7] DGARQ/TT, Chancelaria de D. João V, Livro 44, fl. 162v. Santos Simões left us a reference about the Palace Melo e Abreu, referring that it was acquired in 1718 by the 2nd Morgado da Figueira, D. Pedro José de Melo (d.1740), but the documentation now surveyed seems to contradict the eminent investigator. Whilst the information has been collected by Santos Simões on the House-Murça Sabugosa archive, we do not know the kind of documentation he had consulted. In fact, the author only indicates the uncertain date of c. 1718 for the purchase of the house. However, the sources recently consulted point us to different dates and buyers. SIMÕES, J. M. dos Santos, *A Casa do Paço da Figueira da Foz e os seus Azulejos*, Figueira da Foz, Ed. Museu Municipal Dr. Santos Rocha, Figueira da Foz (1947), p. 19.
- [8] DGARQ/TT, Chancelaria de D. João V, Livro 125, fl. 150.
- [9] DGARQ/TT, Tribunal do Santo Ofício, Conselho Geral Habilitações (João), Maço 116, doc. 1716. and Memorial Histórico ou Coleção de Memórias sobre Oeiras... (LOPES, J. C. Aworters leitura e notas, SALVADO, S. (coord.), IIº Vol., Lisboa, Câmara Municipal de Oeiras, 1982.
- [10] Arquivo Histórico da Câmara Municipal de Lisboa, Livro 30 de Cordeamentos [1721-1729]. Os autores agradecem ao Arquitecto Hélder Carita a presente referência documental.
- [11] The information was gathered from the Livro da Décima da Cidade de Lisboa de 1762. It documents us the presence of several craftsmen such as João Francisco shoemaker, Francisco Viana



da Costa saddler among others. Cf. Arquivo Histórico do Tribunal de Contas, Livro da Freguesia da Pena, DC924 AR (1762-63), fl. 91.

[12] ARAÚJO, N. Peregrinações em Lisboa, vol. 4, Lisboa, Editora Lisboa, (c.1938), pp. 43-49.

[13] AMORIM, M. A., "O Convento de Santo António de Lisboa: do temor da Peste Grande à Fundação do Templum Concordiae", in T. L. M. VALE, M. J.P. COUTINHO, (coord.), Lisboa e as Ordens Religiosas, Colóquio de História e de História da Arte, Actas, Lisboa, FCFA/GAL, (2010), pp. 193-242.

[14] DGARQ/TT, Ministério das Obras Publicas, Asilo da Mendicidade, Maço 502 - processo 270, 1894.

[15] Souvenir de Lisboa - O Asylo de Mendicidade, Lisboa, (1899?).

[16] Souvenir de Lisboa..., p. 15.

[17] DGARQ/TT, Tribunal do Santo Ofício, Conselho Geral Habilitações (João), Maço 116, doc. 1716.

[18] DGARQ/TT, Registos Paroquiais, Livro de registos de óbitos, (1743-1762), freguesia de NS da Pena, fl.135v.

[19] COSTA, Pe. Carvalho da, Corografia Portuguesa, Tratado III – Comarca de Esgueira, Cap. XXI (1705).

[20] DGARQ/TT, Registos Paroquiais, Livro de registos de baptismos, 1693-1732, freguesia de NS da Purificação de Oeiras, fl.74.

[21] DGARQ/TT, Registos Paroquiais, Freguesia das Mercês, Livro de registos de casamentos, 1740-1748, 91v.

[22] ARAÚJO, N., Peregrinações..., p. 43.

[23] QUEIRÓS, J., Cerâmica Portuguesa e outros estudos, (GARCIA, J.M. e PINTO, O. R. org.), Lisboa, Ed. Presença, 4ª ed., (2002), p. 204; SIMÕES, J.M. dos Santos, A Casa do Paço..., p. 19 and SIMÕES, J. M. dos Santos, Carreaux céramiques hollandais au Portugal et en Espagne, La Haye, Martinus Nijhoff, (1959), pp. 73-74. According to the latter author, the Dutch tiles which were used in the decoration of the rooms of the Casa do Paço of Figueira da Foz were due to the initiative of D. Pedro José de Melo. For this reason, Santos Simões established the link between Dutch tiles of the palace and the ones at the Melo Abreu's. These tiles were exploitations of the work from Figueira da Foz. In light of the new documentation now revealed, we consider the hypothesis that D. João de Melo e Abreu has ordered a specific set of Dutch tiles and some frames due to national production, which work resulted in a composite version mentioned by Santos Simões. According to Nora Schadee, the production of purple tiles was not only confined to the first quarter of the eighteenth century, since we know some orders sent to Jakarta dated from 1761. SHADEE, N., "De Rotterdamse tegel-industrie in vogelvlucht", Tegels uit Rotterdam 1609-1866, Zaltbommel/Rotterdam, Aprilis, (2009), p. 19 and p. 38.

[24] The authors wish to thank the information about the works undergone in the 60s to Sr.<sup>a</sup> Enfermeira Irene Caeiro and Dr. Barros Veloso. Cf. MECO, J. O Azulejo em Portugal, Lisboa Ed. Alfa, 1986, pp. 147-148. As we know, part of these tiles were removed to the Museu Nacional do Azulejo: MNAZ, nº inv. 1681 and 5450.

[25] MECO, J., "Nicolau de Freitas", Dicionário da Arte Barroca em Portugal, Lisboa, Ed. Presença, (1989), p. 198.

[26] MECO, J. "Azulejo", Estética Barroca II: pintura, arte efémera, talha e azulejo - Arte Portuguesa da Pré-História ao Século XX, RODRIGUES, D. coord., Fubu Ed., (2009), p. 135.

[27] The taste for Dutch tiles of D. João de Melo e Abreu can also be evaluated by the choice of themes related to the *Commedia del'Arte* much in vogue at the time in the Netherlands and even spread to Germany. The set at the Elector's Augustusburg palace is a good example of this situation. JOLIET, W, "Tegels voor de keurvorst" Tegels uit Rotterdam..., pp. 194-195 and pp. 199-201. To know more about the French influence in Portuguese tiles, see SMITH, Robert C. "French models for



Portuguese tiles", in *Apollo*, 134, (1973) pp. 396- 407 and CORREIA, A. P. Rebelo, "Estampa e azulejo no Palácio Fronteira", in *Azulejo*, nº 3/7, (1999), pp. 23-60. The drawing is available through <http://www.artstor.org>

[28] This problematic history and iconography will be worked out in the near future by this working team.

[29] SIMÕES, J. M. dos Santos, *A azulejaria em Portugal no século XVII*, 2 vols., 2ª ed., Lisboa, FCG, (1997).

[30] DIAS, M.I. and PRUDÊNCIO, M.I., Neutron activation analysis of archaeological materials: an overview of the ITN NAA Laboratory. *Portugal. Archaeometry*. vol 49.2 (2007), p.383-393..

[31] PRUDÊNCIO, M.I., GOUVEIA, M.A., and CABRAL, J.M.P. Instrumental neutron activation analysis of two French geochemical reference samples basalt BR and biotite Mica-Fe. *Geostandards Newsletter*, X, 2931, (1986)..

[32] TRINDADE, M.J., DIAS, M.I., COROADO, J., ROCHA, F. , *Mineralogical transformations of calcareous rich clays with firing: a comparative study between calcite and dolomite rich clays from Algarve, Portugal*. *Applied Clay Science*, 42, 2009, 345-335, (2009);

[33] TRINDADE, M.J., *Geoquímica e Mineralogia de Argilas da Bacia Algarvia: Transformações térmicas*. Tese de Doutoramento. Universidade de Aveiro, 440 p (2007);

[34] TRINDADE, M.J., DIAS, M.I., COROADO, J. & ROCHA, F. Firing tests on clay-rich raw materials from the Algarve Basin (Southern Portugal): Study of the mineral transformations with temperature. *Clays and Clay Minerals*, 58, 188-204, (2010).

[35] PRUDÊNCIO, M.I., DIAS, M.I., RUIZ, F., WAERENBORGH, J.C., DUPLAY, J., MARQUES R., FRANCO D., BEN AHMED, R., GOUVEIA, M.A., ABADE, M., Soils in the semi-arid area of the El Melah Lagoon (NE Tunisia)-Variability associated with a closing evolution, *Catena*, 80, 9-22, (2010).

[36] KABATA-PENDIAS, A., *Trace Elements in Soil and Plants*, third ed. CRC Press, New York. (2001).

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