A research on the azulejo panels of the São Roque chapel in Lisbon

João Manuel Mimoso, Alexandre Pais, Teresa Morna, João Miguel Simões, Maria de Lurdes Esteves, Ana Margarida Cardoso, Sílvia R. M. Pereira, António Candeias

ABSTRACT

The azulejos of the São Roque (Saint Roch) chapel, in the church dedicated to the same saint in Lisbon, are justly considered one of the major majolica works made anywhere during the last quarter of the 16th century. This earliest known surviving ensemble of Portuguese manufacture signed and dated ("Francisco de Matos : 1584") has long puzzled art historians mostly because it seems to be a quite unique case in Portugal.

In this paper we consider the individual panels that make up the lining, pointing to the fact that at least two painters worked on them. We also review José Queiroz' references to the panels made in 1913, when a hitherto unknown part of the lining was uncovered, and his information is compared with what is visible today. Finally, we use analytical means to characterize the tiles and based on the results we discuss whether the panels are all coeval or eventually have different chronologies. The information obtained points to a definite technological affiliation.

RESUMO

Os azulejos da capela de São Roque, na igreja da mesma invocação em Lisboa, são justamente considerados uma das maiores obras de arte em majólica produzidas no último quartel do século XVI. Este conjunto azulejar é a mais antiga produção portuguesa presentemente conhecida que está assinada e datada ("Francisco de Matos : 1584") e tem confundido os historiadores por parecer um caso único no Pais.

Neste artigo, consideramos os painéis individuais que compõem o revestimento parietal notando que pelo menos dois pintores terão trabalhado nele. Também revemos as notas de José Queiroz, escritas em 1913 quando uma parte dos painéis até então desconhecida foi descoberta, e as informações que dá são comparadas com o que é visível hoje. Finalmente, usamos meios instrumentais para caracterizar os azulejos e, com base nos resultados, discutimos se os painéis são todos coevos ou, eventualmente, têm cronologias diferentes.

Sob o ponto de vista da tecnologia empregue na sua produção, a informação obtida afasta a noção de que os painéis azulejares que revestem a Capela de São Roque são um caso único.

João Manuel Mimoso
LNEC - Laboratório Nacional de Engenharia Civil, Lisbon, Portugal, jmimoso@lnec.pt

Alexandre Pais
Museu Nacional do Azulejo, Lisbon, Portugal

Teresa Morna
Museu de São Roque, Lisbon, Portugal

João Miguel Simões
Museu de São Roque, Lisbon, Portugal

Maria de Lurdes Esteves
Museu Nacional do Azulejo, Lisbon, Portugal

Ana Margarida Cardoso
Laboratório HERCULES - Universidade de Évora, Portugal

Sílvia R. M. Pereira
LNEC - Laboratório Nacional de Engenharia Civil, Lisbon, Portugal / Laboratório HERCULES - Universidade de Évora, Portugal

António Candeias
Laboratório HERCULES - Universidade de Évora, Portugal

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1. INTRODUCTION

The azulejo panels lining the São Roque (Saint Roch) chapel in the church dedicated to the same saint in Lisbon are justly considered one of the major majolica works of art made anywhere during the last quarter of the 16th century [1]. The earliest known surviving group of Portuguese azulejos signed and dated ("Francisco de Matos / 1584") has long puzzled art historians mostly because their magnificence seems to be an almost unique case with no predecessors and few immediate successors in Portugal.

The set may be considered composed of four panels: two lower panels, facing each other, have the attributes of the saint painted on them. One of these, on the Gospel side of the chapel, depicts the most recognizable attribute: a dog with a loaf in the mouth (we call it *panel of the dog*) and it bears the date and signature on the lower left side (Figure 1). The panel is 17 tiles high and at its top seems to call for a continuation because the design is not concluded and the frame is not closed but the upper wall is covered by a large painting.

Although the design is not actually symmetrical, the facing panel is a sort of mirror image of the first and depicts another attribute: the staff of a pilgrim (we call it *panel of the pilgrim*).

Figure 1. The signed panel of the dog on the Gospel side of São Roque chapel

Figure 2. The lower panel of the pilgrim, the panel of the cardinal over it (the white arrows mark the boundary) and the panel of the putti over the door

As we look up, this panel is not interrupted and continues to the ceiling depicting the miraculous cure of the English cardinal by St. Roch (the *panel of the cardinal*). Side by side with this panel, over a door, is the fourth panel depicting two winged children looking back to the chapel (the *panel of the putti*) – Figure 2.

Until 1913 only the two lower panels were visible but at the insistence of José Queiroz, a noted artist and historian of Portuguese ceramics, a large painting that covered both the panels of the cardinal and of the putti was removed in that year and the upper side of the lining was thus discovered [2]. The same was attempted on the Gospel side of the chapel, but only an empty wall was found under the painting and it was subsequently re-applied.

Queiroz reported that the panels of the cardinal and of the putti were damaged because of the careless perforations needed to support the heavy painting and a restoration of all the panels was entrusted to António Luis de Jesus, an aged third-generation master painter much praised by Queiroz who also states that all fragments of the cut and perforated tiles that could be saved were reapplied by the restorer, but yet 47 reproduction tiles had to be made plus a number of fragments and that, although the blue and violet were satisfactorily reproduced, the yellow and green did not match the original [2, p. 110]. An observation of the panels confirms his statements (Figure 3).

Figure 3. A detail of the panel of the putti showing two restored areas repairing a perforation (1) and evincing the different hue of the yellow pigment used (2)

2. MACROSCOPIC OBSERVATION OF THE PANELS

Observing the lining carefully, it will be noted that the panels facing each other (dog and pilgrim) are identical in style and colours. However, the panels of the cardinal and of

the putti show some remarkable differences: their background colour is of a noticeably darker yellow than the panel of the pilgrim and the motives are painted in a softer manner with, seemingly, a less concentrated blue. The apparent border line between the two hues of yellow is noted by white arrows in Figure 2 and the image clearly shows that the upper panels were very likely painted by a different hand. If we examine the corresponding area in the panel of the dog, a similar boundary will be recognized (white arrows in Figure 1) and it may be noticed that the floral designs below the boundary actually terminate shortly above this line and are independent of the "upper" design – only the vase connects both (Figure 4). But on both sides of the chapel the "lower" and "upper" designs are interlocked in the sense that even if the motifs do not connect, the design itself flows across the boundary as a whole.

Figure 4. The red line shows that the upper and lower floral designs do not actually connect except through the vase (boundary band seen here in the panel of the dog)

When the upper and lower yellow hues, that are noticeably different from a distance, are inspected at close range they are seen to be a consequence of the painting technique rather than derive from different pigments. In some cases, as in Figure 5, both hues seem to co-exist in the same tile depending on the number of superimposed brushstrokes or the pigment concentrations used in two instances or by two painters.

Figure 5. Boundary band in the panel of the dog depicting darker (D) and lighter (L) yellow areas in the same tile

The close observation of the panel of the dog also reveals technical issues during production including staining of some tiles, possibly caused by contamination by copper pigment for being fired in the same kiln as green-glazed pottery, and running of some

dark outlines (Figure 6), showing that many, if not all, azulejos were fired in an upright position, also attested by the agglomeration of glaze often seen along one edge. The panel of the pilgrim only shows a slight greenish staining of some tiles and those problems are seemingly absent from the other panels.

Figure 6. Evidence of technical issues in the panel of the dog: 1) running of the dark blue outlines; 2) blue or green staining

At this instance, a question inevitably comes to mind: if the panel of the dog (and presumably the panel of the pilgrim) were painted in 1584 and the other two panels (cardinal and putti) are different and were only brought to light in 1913, when were they painted? Do they even date from the 16th century? Or are they a much more recent addition to the original lining? The research was aimed to clarify these important questions as well as determine technical characteristics that might establish an eventual affiliation with other productions already known through the instrumental observation and analysis of samples from the panels of the dog, cardinal and putti.

3. EXPERIMENTAL

3.1. Samples

A total of fourteen samples (Table 1) were carefully collected with a scalpel from spots where the glaze was already detaching or from edges of incomplete tiles, including the panel of the dog, the panel of the cardinal, the panel of the putti and the pattern tiles that frame the panels. All samples were identified with the reference Az068 (corresponding to the lining of São Roque chapel) plus an additional numeric code to individualize each sample. Examples of the exact sampling locations are shown in Figure 7.

Samples Az068/04 and Az068/07 are from restoration fragments made in 1913. Sample Az068/03 (panel of the dog) and Az068/11 (cardinal) included the dark blue outlines of the designs. Sample Az068/08 (the left side of the loaf carried by the dog) is from a tile of a darker yellow (Figure 7) whose sketch does not exactly match the surrounding tiles. Samples Az068/12 and Az068/14 are from fragments (patches) used to bridge the distance from the panel of the dog and the altar (lower right side of Figure 1) and the top

of the panel of the putti (Figure 2). Samples Az068/01/02/03/13 from the dated panel of the dog were used as reference for comparison purposes.

Figure 7. Locations from where samples were collected - from left to right and top to bottom – Az068/01 and Az068/02 (dog near the signature); Az068/03 (dog); Az068/08 and Az068/13 (dog); Az068/04 and Az068/05 (cardinal); Az068/06 and Az068/07 (putti)

Table 1. Samples collected from the São Roque chapel azulejo panels

Sample ref.	Panel	Notes
Az068/01	Dog	white
Az068/02	Dog	yellow
Az068/03	Dog	blue outline
Az068/08	Dog	yellow
Az068/13	Dog	dark blue
Az068/05	Cardinal	yellow
Az068/11	Cardinal	dark blue outline
Az068/06	Putti	light blue
Az068/14	Patch right of Dog	dark blue
Az068/12	Patch over Putti	dark blue
Az068/09	Frame of Dog panel	frame tile- purple
Az068/10	Frame between Cardinal & Putti	frame tile- blue / purple
Az068/04	Cardinal (restoration)	restoration tile (blue/white)
Az068/07	Putti (restoration)	restoration tile (yellow)

3.2. Equipment and analytical methodology

The fragments detached from the azulejos were stabilized in epoxy resin, lapped and polished to obtain a flat surface for observation and analysis by scanning electron microscopy coupled with an X-ray energy-dispersive spectrometer (SEM-EDS).

Optical images of cross sections were obtained with a Leica DFC295 digital camera coupled to a Leica M205C stereomicroscope.

SEM-EDS observations and analyses were made at the HERCULES Laboratory in Évora using a HITACHI 3700N SEM coupled to a BRUKER XFlash 5010 EDS. The specimens were uncoated and the observations were made in backscattered electrons mode (BSE) with a chamber pressure of 40 Pa and at an accelerating voltage of 20 kV. The acquisition of X-ray spectra was done with the detector set at ca. 8 mm working distance.

The selection of areas for EDS analysis avoided inclusions in the glaze or biscuit representing more than ca. 5 % of the full area analysed. The area sizes were ca. 200 x 200 μm^2 for glazes and 500 x 500 μm^2 for biscuits but acceptable repeatability was verified in areas four times smaller. For comparison purposes, only the elements usually representing the major contents were considered, excluding tin (Sn) in the glaze and lead (Pb) in the biscuit due to their variability with the area chosen (in the case of Sn because of local aggregations of SnO_2 crystals; in the case of Pb because its content in the biscuit increases with proximity to the interface with the glaze). The results of the EDS analyses are given in weight % of each element identified.

The pigmented glaze was analysed *in situ*, over the face of the tiles, by energy-dispersive X-ray fluorescence (ED-XRF) with a hand-held Bruker Tracer III spectrometer at 40 kV and 30 μA over 180 s acquisition times. Spectra were interpreted with the ARTAX software.

Principal component analysis (PCA) was made of EDS results using the SPSS® software platform by IBM Analytics.

3.3. Results

3.3.1. Glaze and interface morphology

Figure 8 illustrates microscopic images of four of the sections prepared. All biscuits are of a reddish colour. No *coperta* (a transparent glaze layer sprinkled on top of the painted glaze [3]) was used over the yellow painting.

Samples Az068/03 and Az068/11, from different panels, correspond to dark outlines and although these are not markedly protruding, it is seen that the sections have patches of a brownish colour, indicated by arrows in Figure 8.

Figure 9 shows SEM images of sections of samples Az0068/02 (panel of the dog / yellow); Az068/11 (panel of the cardinal); and Az068/06 (panel of the putti) exemplifying the main micro-morphologic characteristics generally associated with the glazes: relatively few inclusions, mostly large-size grains of sand and some feldspars; glaze-biscuit interface with many crystals of neoformation.

The interfacial outgrowth is a particularly striking characteristic that up to recently we had seen only in some Hispano-Moresque tiles [4; 5]. All the sections from the samples (except the restoration tiles) are morphologically similar irrespective of the panel, although the profusion of the interfacial crystals and their exact shape may vary, as seen in Figure 9.

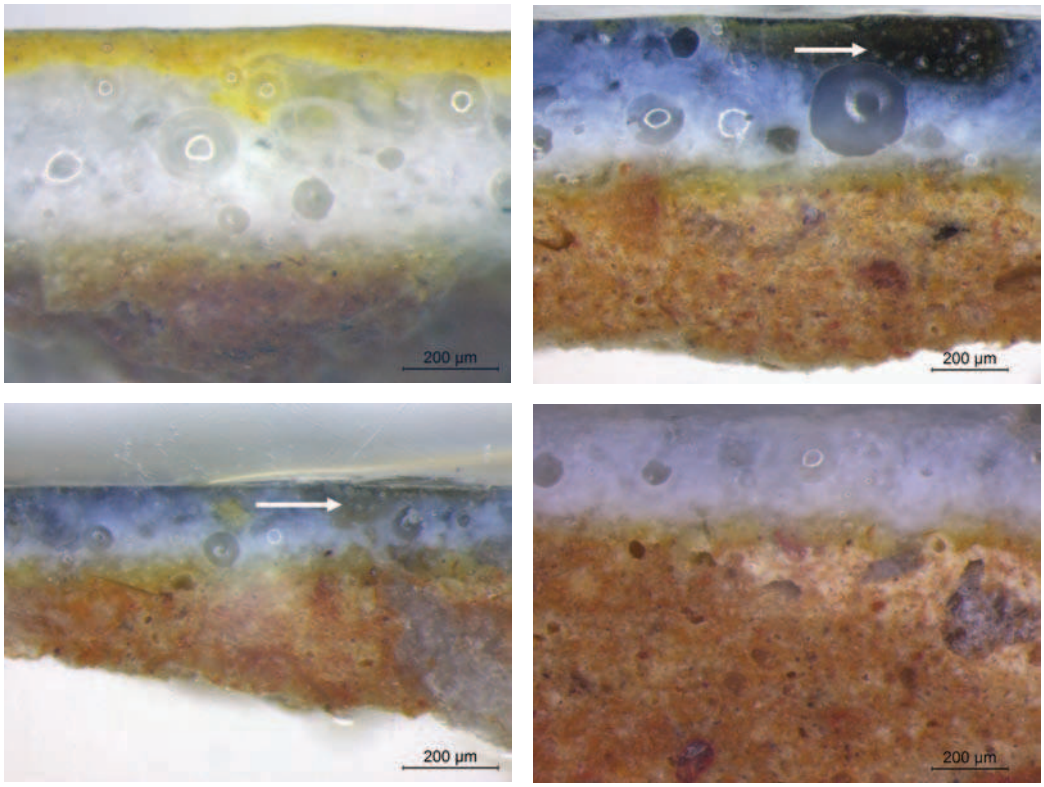

Figure 8. Sample sections in optical microscopy – top to bottom and left to right: Az068/02 and Az068/03 (dog); Az068/11 (cardinal) and Az068/06 (putti)

When observing the sections of samples Az068/03 (panel of the dog) and Az068/11 (panel of the cardinal) under the SEM, the brownish areas seen in Figure 8 resolved into many small inclusions of a mineral apparently added to the smalt with which the dark outlines were painted, possibly to give it body and oppose the running of the colour when the tiles were fired upright. Figure 10 shows a detail of Az068/03 and the spectrum of a point analysis of one of the inclusions. A high content in Ca was found, together with a higher content in Si than can be explained by the glass matrix. The same result was obtained for Az068/11. The mineralogy of the inclusions has not yet been identified but may correspond to a calcium silicate.

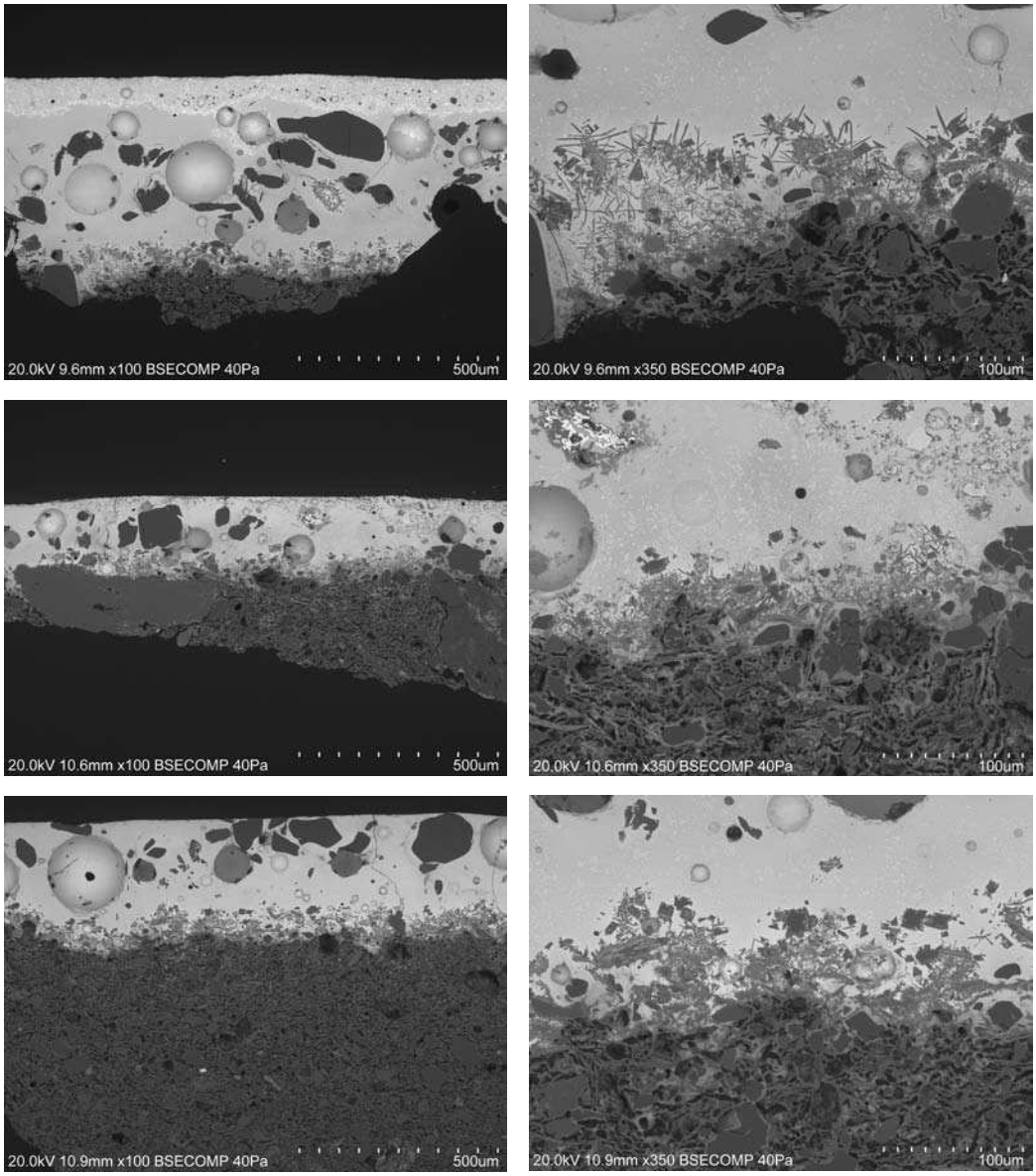

Figure 9. SEM images of samples exemplifying the main micro-morphologic characteristics generally associated with the glazes of these panels. From top to bottom, on the left a view of the glaze and on the right a close-up of the interface of each sample: Az0068/02 (panel of the dog); Az068/11 (cardinal); Az068/06 (putti)

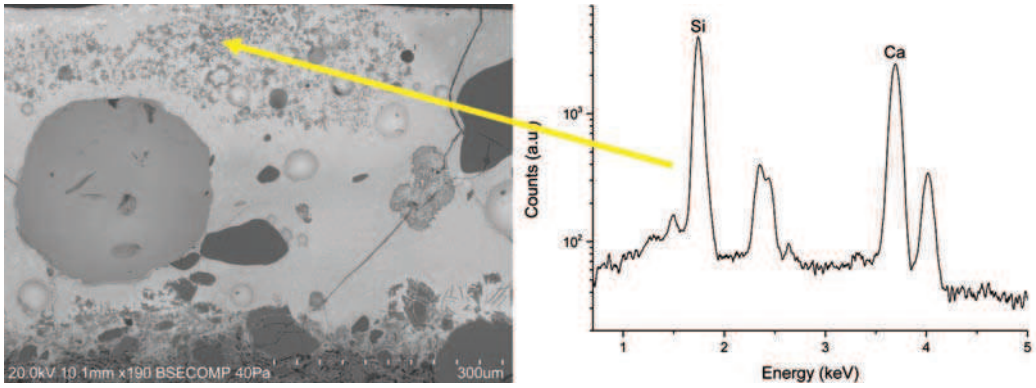

Figure 10. Selection of an inclusion of the dark outline in Az068/03 (panel of the dog) and relevant part of the resulting EDS spectrum

3.3.2. Glaze composition

Table 2 includes the semi-quantitative results of analyses of the glazes by EDS in weight %. Sn was excluded for the reasons pointed out in section 3.2. The amount of oxygen was calculated through the remaining elements stoichiometry of their most commonly considered oxides (Na_2O, MgO, Al_2O_3, SiO_2, K_2O, Fe_2O_3 and PbO). The results were normalized to 100 % and the table also indicates the ratios Si/Pb.

Table 2. Semi-quantitative composition (% w/w) of the glazes determined by EDS (weight of elements normalized to 100 %) and Si/Pb ratio

Samples	Panel	Na	Mg	Al	Si	K	Fe	Pb	O	Si/Pb
Az 068/01	Dog	1.2	0.7	2.7	18.3	1.9	0.5	46.5	28.3	0.39
Az 068/02	Dog	1.2	0.8	3.3	18.6	2.0	0.8	44.3	29.1	0.42
Az 068/03	Dog	1.3	0.8	3.5	17.6	1.9	0.9	45.6	28.4	0.39
Az 068/08	Dog	1.1	0.6	4.2	19.2	2.2	1.2	41.0	30.5	0.47
Az 068/13	Dog	0.7	0.1	2.3	19.4	1.4	0.8	46.6	28.7	0.42
Az 068/05	Cardinal	0.8	0.5	3.0	18.3	1.6	0.7	46.6	28.4	0.39
Az 068/11	Cardinal	1.0	0.3	4.3	21.9	1.9	1.1	36.7	32.9	0.60
Az 068/06	Putti	1.0	0.5	2.7	18.7	1.4	0.6	46.8	28.5	0.40
Az 068/14	Patch right of Dog	1.0	0.4	2.7	18.7	2.0	0.5	46.2	28.5	0.40
Az 068/12	Patch over Putti	0.8	0.1	3.8	19.0	2.7	1.1	42.8	29.7	0.44
Az 068/09	Frame Dog	0.9	0.4	2.4	16.2	0.8	0.7	53.1	25.7	0.30
Az 068/10	Frame between Cardinal & Putti	0.8	0.4	3.7	19.4	1.2	1.0	43.8	29.9	0.44
Az 068/04	Restoration	1.2	0.3	2.1	19.3	1.6	0.6	46.3	28.6	0.42
Az 068/07	Restoration	1.0	0.2	2.8	21.6	3.2	0.7	39.2	31.5	0.55

Figure 11 shows the results of a log-based principal component analysis (PCA) of the glazes of all samples, considering the analytical results in Table 2, through a plot in the plane of the two first principal components (PC1 and PC2). PC1 explains 45 % of the variation and PC2 explains 26 %. The PC1 vs. PC2 plot of Figure 11 does not suggest separate clusters for the different panels nor for the frame tiles. Also, the restoration tiles are not separated.

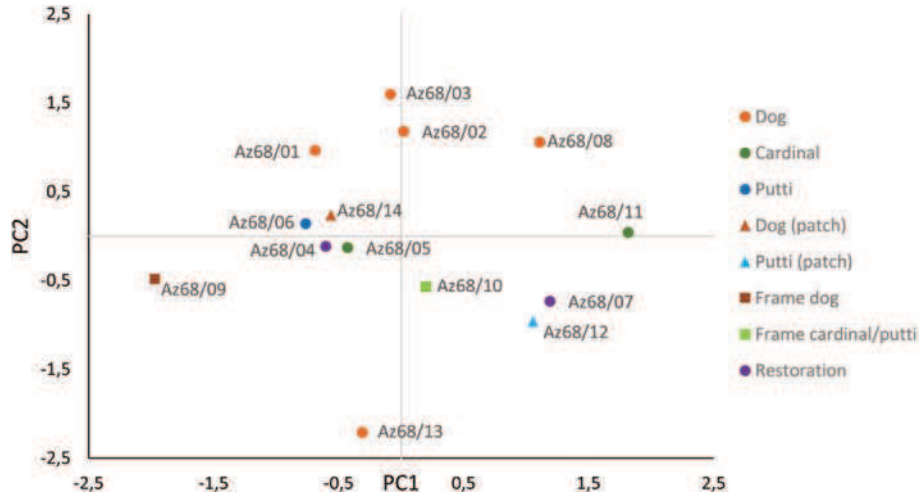

Figure 11. Score plot PC1 vs. PC2 of the PCA analysis of the glazes

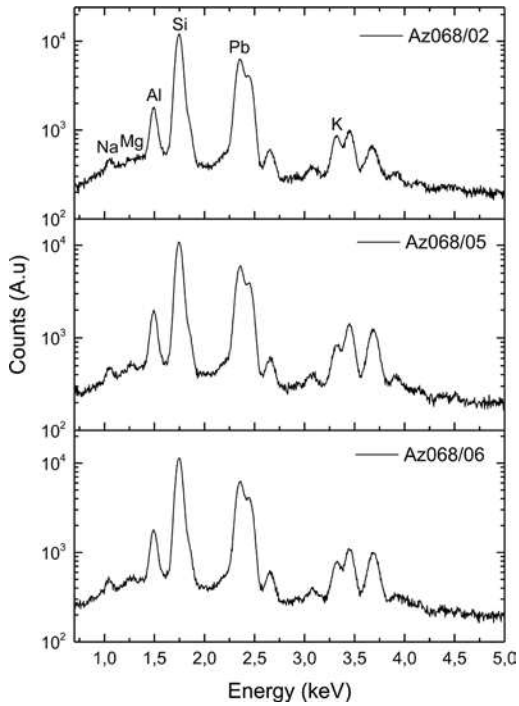

Figure 12. Comparison of EDS spectra of the glazes of Az068/02 (panel of the dog), Az068/05 (panel of the cardinal), and Az068/06 (panel of the putti). The low Na and Mg peaks impart an easily recognizable configuration to all three spectra

The low content of the glazes in Mg and, particularly, in Na is noteworthy, resulting in spectra with a very characteristic profile (Figure 12) and easily separable from later Portuguese productions [4].

3.3.3. Biscuit composition

Table 3 includes the semi-quantitative results of analyses of the biscuits by EDS in weight %. Pb was excluded for the reasons pointed out in section 3.2. The amount of oxygen was calculated through the remaining elements stoichiometry considering their most commonly used oxides (Na_2O, MgO, Al_2O_3, SiO_2, K_2O, CaO and Fe_2O_3). The results were normalized to 100% and the table also indicates the ratios Ca/Si.

Table 3. Semi-quantitative composition (% w/w) of the biscuits determined by EDS (weight of the elements normalized to 100 %) and Ca/Si ratio

Samples	Panel	Na	Mg	Al	Si	K	Ca	Fe	O	Ca/Si
Az68/01	Dog	1.0	1.1	9.2	25.3	5.0	8.7	4.8	44.7	0.34
Az68/02	Dog	1.4	1.3	8.9	27.5	3.4	8.6	2.9	46.0	0.31
Az68/03	Dog	1.3	1.3	7.7	28.9	2.5	8.7	3.2	46.4	0.30
Az68/08	Dog	1.5	1.3	9.3	24.9	3.7	10.2	4.4	44.7	0.41
Az68/13	Dog	0.7	0.9	7.9	28.5	4.0	8.7	3.2	46.0	0.31
Az68/05	Cardinal	1.0	1.1	7.3	27.8	3.0	10.7	3.4	45.6	0.39
Az68/11	Cardinal	1.4	1.7	10.0	23.0	3.5	12.5	3.7	44.1	0.54
Az68/06	Putti	1.3	1.4	8.5	27.9	2.6	9.0	3.3	46.1	0.32
Az68/14	Patch right of Dog	1.4	1.2	8.3	29.9	3.4	6.1	2.8	47.0	0.20
Az68/12	Patch over Putti	1.3	1.6	9.1	24.1	2.9	12.4	4.2	44.4	0.52
Az68/09	Frame Dog	1.7	1.8	9.1	27.1	2.9	7.1	4.3	46.0	0.26
Az68/10	Frame between Cardinal & Putti	1.7	1.4	10.0	26.2	3.2	7.2	4.5	45.7	0.28
Az68/04	Restoration	1.2	2.5	7.8	20.6	1.6	20.3	3.6	42.4	0.99
Az68/07	Restoration	1.1	2.3	7.6	23.1	1.5	17.1	3.6	43.7	0.74

Figure 13 shows the results of a log-based principal component analysis (PCA) of the biscuits of all samples, considering the analytical results in Table 3, through a plot in the plane of the two first principal components (PC1 and PC2). PC1 explains 45 % of the variation and is controlled in the positive sense by the contents in Mg and Ca and in the opposite sense by the contents in K and Si, as can be seen from the loadings plot of Figure 14 in which the projections of the vectors on an axis show the contribution of each element to the respective principal component. PC2 explains 32 % of the variation and is controlled in the positive sense mostly by the contents in Al, Fe and Na and in the opposite sense by the contents in Ca and Si (Figure 14).

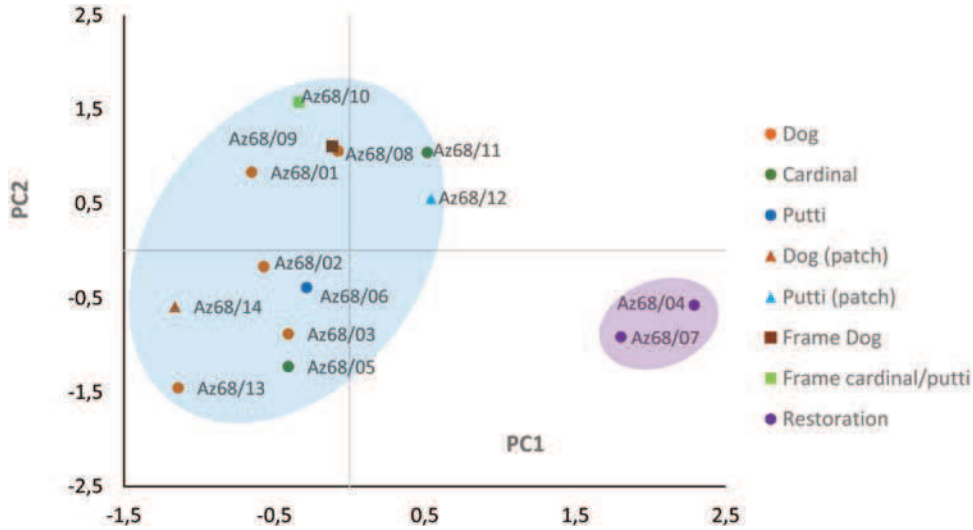

Figure 13. Score plot (PC1 vs. PC2) of the PCA analysis of the biscuits

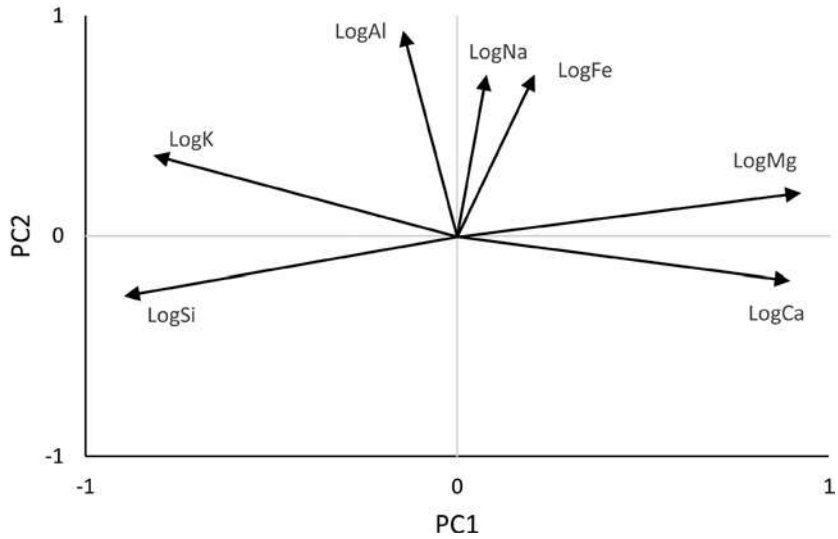

Figure 14. Loadings plot of the PCA analysis of the biscuits

3.3.4. Analyses of pigments under and above the colour boundary

Figures 15 and 16 compare ED-XRF spectra obtained of yellow and blue areas in the panel of the pilgrim (under the colour boundary) and in the panel of the cardinal (above the colour boundary).

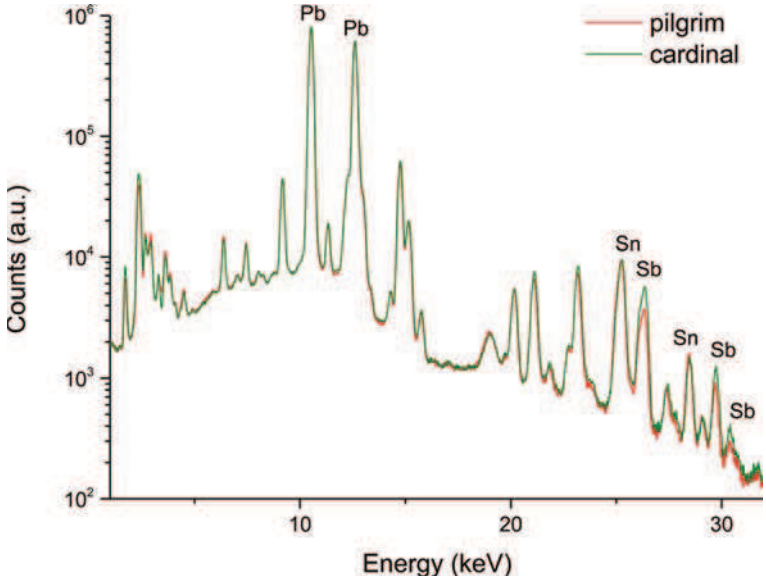

Figure 15. Comparison of XRF spectra of the yellow background colour in the panel of the pilgrim (red spectrum) and in the panel of the cardinal (green spectrum)

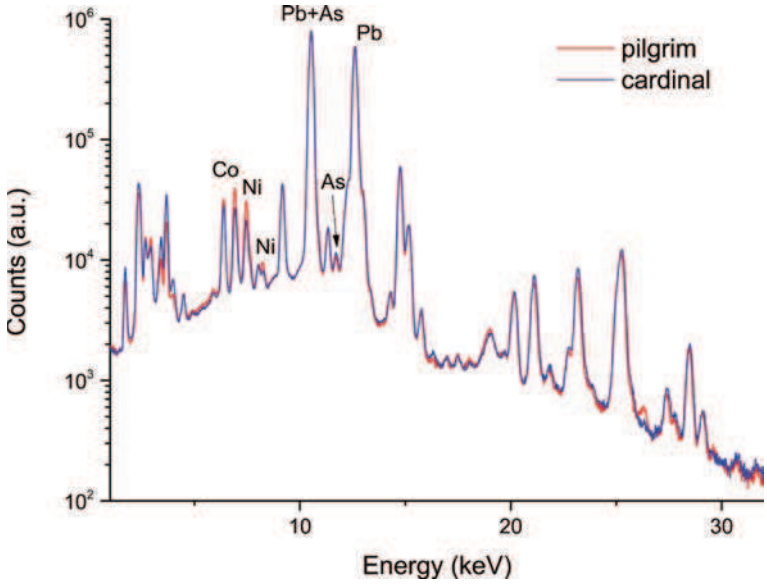

Figure 16. Comparison of XRF spectra of the blue colour in the panel of the pilgrim (red spectrum) and in the panel of the cardinal (blue spectrum)

4. DISCUSSION

Given the necessity to limit the sampling, both in number and dimension of the fragments taken, and choose accessible areas in which the glaze was already detaching, the material available for study was limited except in the panel of the dog where the easy accessibility allowed a detection of suitable sampling points. Therefore, the discussion has to be based on a small number of results.

The morphology observed in the interface of the glazes (Figure 9) strongly suggests that the tiles were fired in a cycle including a long cooling period resulting in a characteristically well-developed interface with extensive growth of K-feldspars already found by other authors as well as by us in reproduction studies [6; 7]. The SEM images of sections from all the panels reveal very similar morphologies, an affinity usually associated to the work of a single workshop. No sign of *coperta* could be seen over the colours in any of the panels.

The analytical results of the glazes (Table 2) do not show substantial differences between the panels. The Si/Pb ratio is distributed around an average of 0.4 and even the restoration tiles fall in line with the rest.

However, as regards the biscuits a clear difference was found between the restoration tiles (Az068/04 and Az068/07) and the others, mainly resulting from their higher content in Ca and Mg (Table 3 and Figure 13) as was normal in later production tiles [4]. The score plot of Figure 13 also shows that the biscuits of the remaining tiles can be joined in a single cluster. Some of the samples are positioned above the others according to PC2 but the differences can be ascribed to the variability of the clays. However, the separation does not correspond directly to different panels, as may be seen from Figure 13, and therefore it does not substantiate a chronological difference in the manufacture of the panels.

The ED-XRF spectra of the colours in the glaze matrices are remarkably similar when acquisitions from the panel of the pilgrim are compared with corresponding spectra acquired from the panel of the cardinal (Figures 15, 16) suggesting that the same or very similar batches of pigments were used. The discrepancies seen in the superimposed spectra (content in Sb in the yellow areas and coincident contents in Co and Ni in the blue areas) suggest that the only differences lay in the pigment concentrations corresponding to lighter or darker hues. In particular the content in antimony is higher above the boundary marked in Figure 2 coinciding with the darker yellow of the upper panel.

Therefore, all present results point to a coeval production of all panels, or else to a production within a relatively short lapse of time, but the analysis of a more extensive set of samples, particularly collected from the panels of the putti and of the pilgrim, is recommendable to further validate this result.

5. CONCLUSIONS

Authors [e.g. 2; 8] praised Francisco de Matos both for his painting skills and for the technical quality of the tiles in the panels. However, the painter and the workshop master may well be two different persons and there are reasons to believe that the workshop master signed the work, as shown by panels involving the skills of several painters that

in the end are signed by a single person [3; 9]. In this case, the observations revealed two different painting styles in the panels while the analytical results did not discriminate between them, indicating that their chronologies should not be very different and that all panels may even have been made in succession. Even if a more extensive research is recommended to give weight to this conclusion, São Roque was very likely the work of at least two different painters.

The observations suggest, as a working hypothesis on the phases of the lining of São Roque, that initially only the two lower panels were ordered of which the panel of the dog was the first to be executed. But soon after, probably before the panel of the pilgrim was applied, the order was amplified to include full linings. On both sides a transition affecting two or three lines of tiles was sketched, which in the panel of the dog is noticeable because the new tiles were grafted on to the already completed sill panel. Maybe because the panel of the pilgrim was still in the workshop, the side of the Epistle was the first to be continued upwards and was duly completed, but for some reason the work was interrupted and although the connection was prepared, the panel lining was never prolonged on the Gospel side of the chapel.

Figure 17. Remains of two panels with similar floral ornaments on a yellow background: left side, Cathedral of Setúbal; right side, framed loose tiles conserved in the Theological Seminar of Almada

The panels of São Roque do not stand alone, either technologically, or artistically. Technologically they can be related with several others including those at Graça church, signed with the monogram of João de Góis [3] and the panel Nossa Senhora da Vida, which we believe is also signed by João de Góis [9]. Artistically, we came to recognize through a number of new findings that in the 16th century there seemingly was a demand in Portugal for azulejo linings with blue ornaments on a yellow ground, as prove the panels recently identified at Sé de Setúbal [10] and the few remains of another panel

conserved at the Theological Seminar of São Paulo in Almada – Figure 17. Both can also be technologically related to São Roque [to be published] but depict different styles of painting.

The painting that inspired the scene inside the medallion in the panel of the cardinal is known – it was identified by José Queiroz after its unveiling [2] and is today on display at *Museu de São Roque* (Saint Roch Museum) – Figure 18. This was once part of the altarpiece of the São Roque chapel and therefore two graphic representations of the same event (the miraculous cure of the English cardinal) were laid within the same religious enclosure – a very unusual feature at that time that may have justified the fact that a similar undertaking was interrupted on the side of the Gospel and the posterior covering of the panel of the cardinal as something superfluous. However, the painter of the panel of the cardinal did not follow exactly the earlier painting, particularly in the facial representation of Saint Roch (Figure 18) and in it lays an important connection because the drawing used for the face of St. John in the panel Nossa Senhora da Vida, conserved at the *Museu Nacional do Azulejo*, was also used for the face of St. Roch (Figure 19). The sketches for the panels were usually done on paper and the lines were perforated with pins so that the drawing could be passed on to the raw glaze with carbon black. Seemingly, in this case the stencil was conserved and the same drawing was used on both panels.

The panel Senhora da Vida is believed, on documental grounds, to have been made before 1582 [9] and therefore, either the artist himself, or (more likely, because the painters were seemingly different) the workshop conserved the drawing and used it once again in the ulterior panel of the cardinal. The fact that the same stencil was used connects indissociably both panels, suggesting independently that the panel of the cardinal, albeit older, should not be much older than Senhora da Vida itself.

Figure 18. Miracle of the English Cardinal (Jorge Leal / Cristóvão de Utreque ca. 1520) vs. panel of the cardinal (Image source: Museu de São Roque)

Figure 19. The remarkable resemblance between the paintings representing the face of Saint Roch (left side) and St. John in the panel Nossa Senhora da Vida (right side) is not coincidental: although the head of St. John looks larger on account of the beard and hair, both faces have the same size and were seemingly transposed from the same stencil

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