

Ceramic flooring from the Cistercian Abbey of Santa Maria de Alcobaça, Portugal (13th and 14th centuries)

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This paper discusses the 13th-century mosaic floors from the chapels of the church of the Abbey of Santa Maria de Alcobaça. These mosaics follow the formal European Cistercian model, but are unusual in several aspects of their decoration, namely due to their tin and turquoise glazes. An examination of the technology employed in the production of the mosaic floors from the Abbey supports the hypothesis that they were produced locally. It is further argued that these mosaics provide an important strand of evidence through which the introduction of tin glaze on the Peninsula and in north-western Europe can be examined. Continuities in other aspects of the mosaics' decoration are then discussed (e.g. the incised line technique), linking these floors to architectural and design features from other civic and religious buildings throughout Portugal.

Introduction

The Cistercian Order was established in Portugal at the monastery of Tarouca around 1144, followed by the foundation of the monasteries of Lafões and Salzedas. The order gradually expanded as further houses became affiliated with the Cistercians. During this first phase Tarouca was the 'mother house' for the monasteries of Sever, Fiães, Aguiar and São Pedro de Águias. The importance of these monasteries was minor and it was only from 1153, with the founding of the Abbey of Santa Maria de Alcobaça, that Portugal witnessed a strengthening of the order. In a donation letter addressed to Bernard of Clairvaux, dated to April of that year, Afonso Henriques (r. 1139–1185), the first king of Portugal, authorised the foundation of Alcobaça, enabling the works to be initiated in 1178 (Ferreira 1994).

Built in the image of Clairvaux II, the abbey became the most important Cistercian monastery in Portugal and a model for the founding of other religious houses. The personal donation from D. Afonso Henriques to Bernard of Clairvaux contributed to the political recognition of the kingdom and established a link to medieval Europe.

By the 14th century Alcobaça had founded the monasteries of Tamarães (1172), Bouro (1174), Seiça (1195), Maceira do Dão (around 1200), Estrela (1220), and Almaziva (1221). He also founded female houses, with Lorvão being refounded in 1206, alongside the development of Celas (1214), Arouca (1223), Bouças (1244), Castris (around 1257), Almoester (around

1287), Odivelas (1295) and finally Cós (1300) (Cocheril 1986).

The foundation of Santa Maria de Alcobaça attracted settlement around the abbey, within a kingdom recently reconquered from the Moors (Ferreira 1995). The opulence of the Cistercian Order stemmed from its patrimony and the immense income from agricultural production and its manufacturing operations, which included the potteries that made tiles and crockery (Gonçalves 1989). The potteries produced pottery for everyday use, but they also made the paving mosaics that decorated the floor of the church ambulatory and radiating chapels, as is the case at other European Cistercian foundations (Eames 1992).

The mosaic floors of Alcobaça Abbey

The mosaic floors from Alcobaça provide evidence for Portuguese tile production and are certainly part of the assemblage referenced in Friar Pedro Serrano's visit to Alcobaça Abbey in 1484 (S. Gomes 1998). The variety of tile shapes place Alcobaça's floors at the level of aesthetic and technical quality of its European counterparts, where similar shapes can be seen in the preserved tiles from English abbeys such as Fountains (North Yorkshire) and Meaux (Humberside).

The glazes

In 1939, the mosaics from Alcobaça Abbey were removed during construction works at the monastery.

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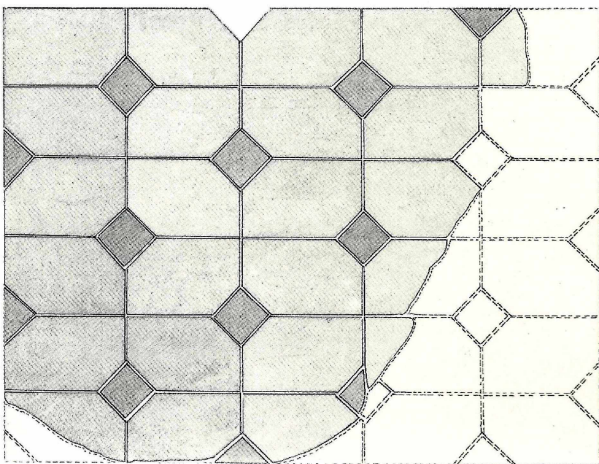
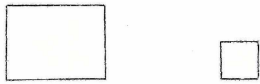
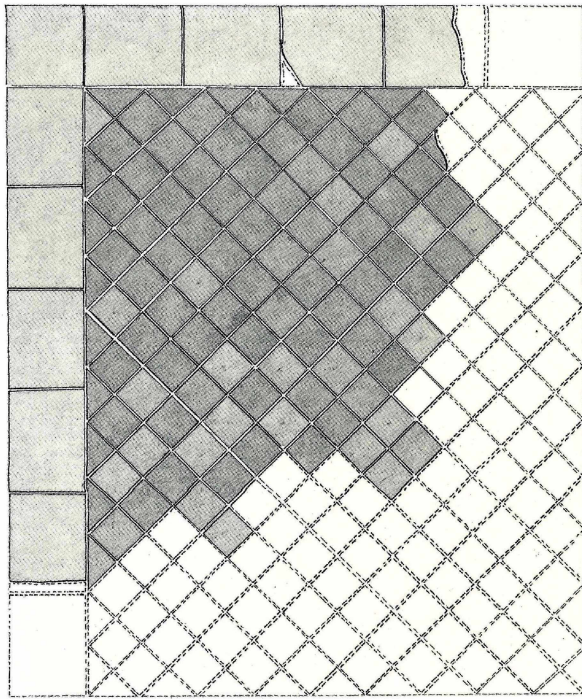


Figure 1. Examples of floor tiles with different patterns. (Image: Author).

Some panels were preserved, having been identified as an important collection of Cistercian tiles, being similar to other tiles from the order in Europe (Simões 1944). The eleven panels comprise 52 mosaic formats of varying size and shape (rectangular, regular and irregular polygons, circles, triangles, etc.) (Fig. 1), testifying to the richness of the collection. In the commendable work of Santos Simões (1944; 1990), the pieces that present traces of glaze were overlooked, as they were in the author's previous studies (Trindade

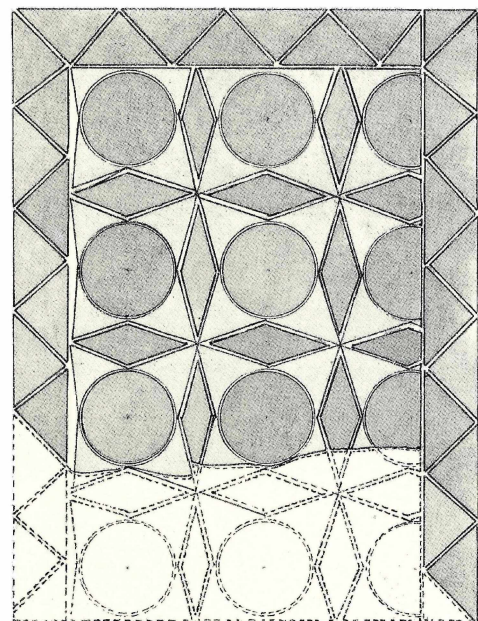
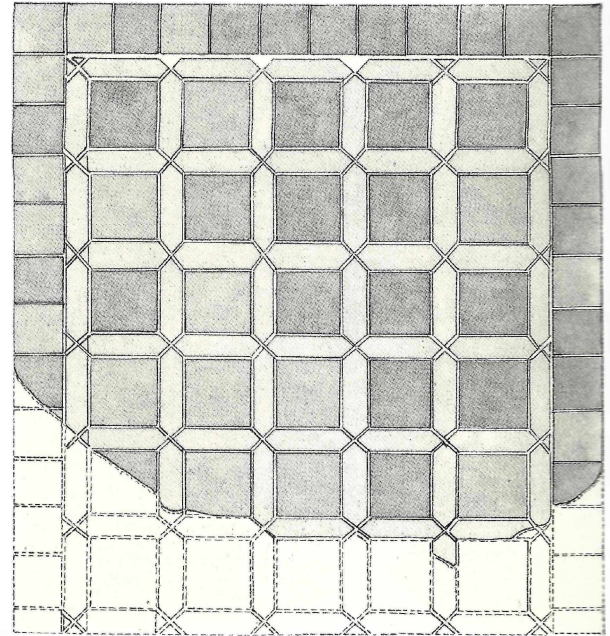


Figure 2. Examples of floor tiles with traces of green, manganese and yellowish brown glaze. (Image: Author).

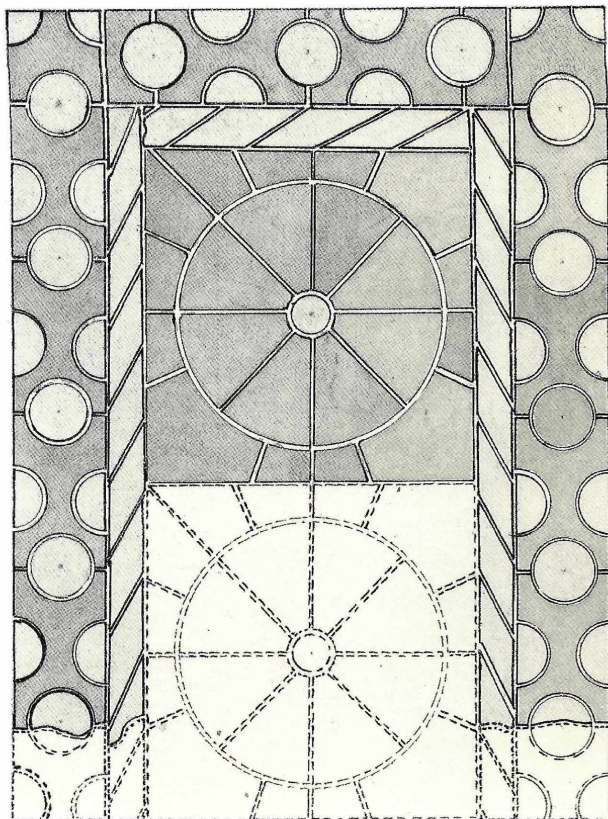
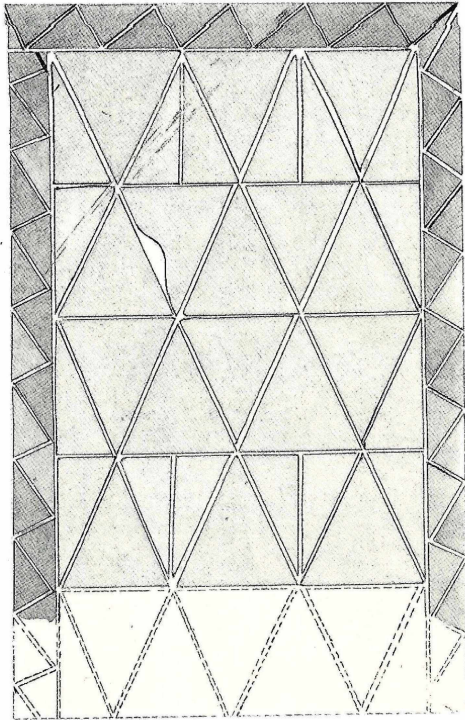


Figure 3. Examples of floor tiles with traces of green, manganese and yellowish brown glaze. (Image: Author).

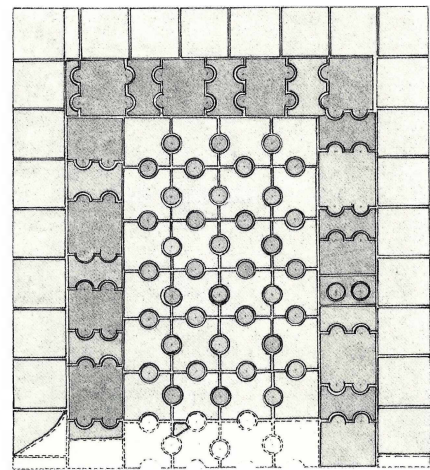
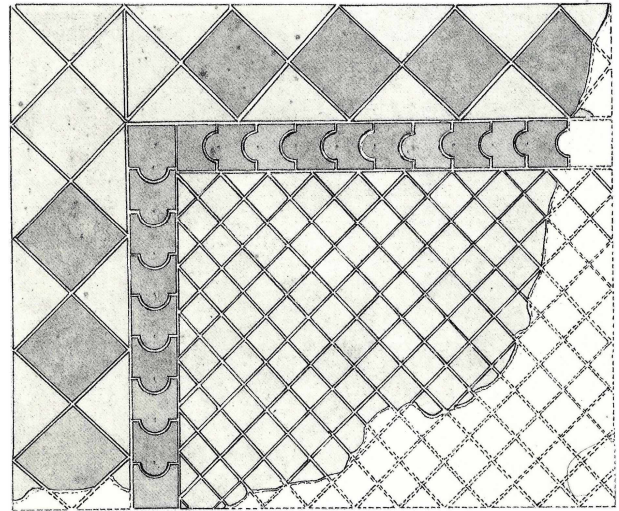


Figure 4. Examples of blue and white floor tiles. (Image: Author).

2007). In some cases, the glazing had completely disappeared from the mosaics. However, others retained traces of glaze on the edges and on the surfaces and I consider this to be of great importance.

There are traces of green, manganese, and yellowish brown glaze on the tiles (Figs. 2 and 3). The use of these colours followed the medieval European tradition. Unusually, some tiles also feature turquoise alkaline glazes or white tin glazes, raising questions about the manufacture and use of these floors (see Fig. 4) Evidence of traces of such a varied palette of colours in the mosaics from Alcobaça was less relevant than the discovery of white tin glaze, believed to be absent from Portuguese tiles prior to early 16th century (Fig. 5).

The pavements of Alcobaça are integrated into the Cistercian aesthetic movement of the mid 12th century and their production is intimately related to the language of the architecture and decorative art of the monastic buildings. Alcobaça's floors have

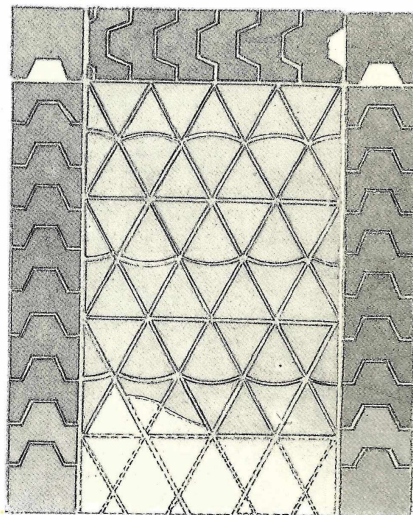
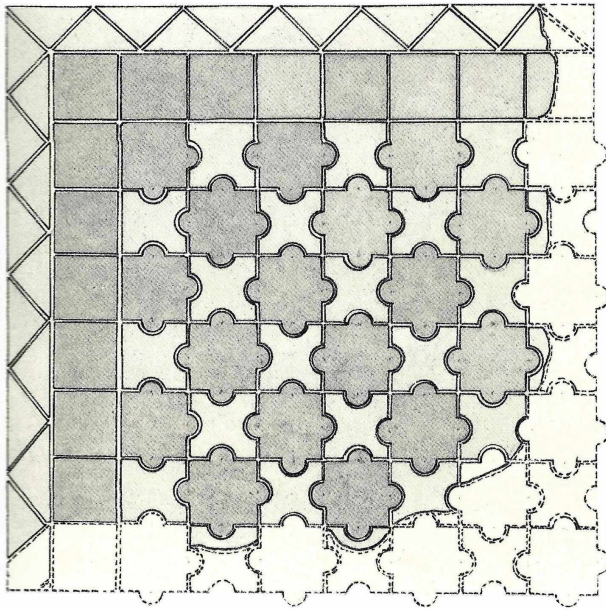


Figure 5. Examples of blue and white floor tiles.
(Image: Author).

been undervalued in the Iberian Peninsula. Generally seen as individual pieces, dismembered from the general pavements, the glazed Cistercian mosaics are simple plaques of earthenware glazed with a single colour whose decorative meaning is only understood within their wider spatial contexts. It is therefore understandable that, when compared with other tiles with polychrome decorations, the monochrome versions have been dismissed as low-quality archaic products (Simões 1944), rather than being seen as belonging to another aesthetic paradigm.

The wider European significance of the glazes

The use of white tin glazes has not been acknowledged to have occurred in Portugal prior to the mid 16th century, when maiolica was introduced, although earlier imported examples are present. This is in contrast to Spain, where tin-glazed lustreware was produced in the early 11th century at Malaga and Almeria (Aguado Villalba 1983). The first evidence of the importation of tin from England to Levantine Islamic pottery workshops also dates to this period. From the 12th century its use became common in dishes as well as in tiles, with the technology being fully integrated into ceramic production in the Spanish Levante and Andalusia (González Marti 1944).

In Portugal the first evidence for the use of tin oxide in glazes within a Christian context is the floor tiles from Alcobaca Abbey, which can be dated to the second half of the 13th century. Tin-glazed ceramics were used in southern Portuguese Islamic contexts around this time (R.V. Gomes 1998). The beauty of the ceramics produced in Silves and Castro Marim presumably played a major role in Afonso III's decision to maintain the Islamic potteries from these localities into the heritage of the Portuguese crown in 1249 following the *Reconquista* of the Algarve (Herculano 1863). The confirmed use of white tin-glaze in the Alcobaca tiles is important for our understanding of the development of tin glaze technology in Christian contexts, being suggestive of the mixing of cultures – Christian forms, glazed using technology of Islamic origin.

The high number of motifs inspired by other European Cistercian floors is certainly indicative of artisans coming from the north. The presence of these craftsmen is evident in various stages of the Abbey's construction, with there being clear northern architectural influences which impacted upon the future of Portuguese Gothic architecture. Little is known about these builders as documentary evidence on the subject is scarce. The phases of construction of the building have been identified by observing the marks of stonemasons, some of which appear to have been (unexpectedly) engraved by Moorish craftsmen (Martín-Romo 1992).

The presence of tin glaze in north-western Europe is observed in the glazed bi-chrome tiles of late 13th-century date present in at least 28 buildings in the south of France and in England (Norton 1990). For example, in the Cistercian foundations in Toulouse, the paving of the Jacobins church (1296) and in Moissac (1296), the use of turquoise glaze in monochrome floor tiles demonstrates that its use in ceramic flooring was not exclusive to the Alcobaca mosaics. In addition to the white glaze, the turquoise colour of Hispano-Moresque or Mediterranean origin was introduced to southern France (Norton 1990).

The wider European evidence suggests that tin

glaze technology was introduced in Europe through the Iberian Peninsula as it was commonly used in some Iberian ceramics during this period (Norton 1990). Within the Cistercian context, the abbey of Santes Creus near Barcelona appears to be of some importance. Here it is proposed by Norton (1990, 118) that an itinerant French tiler from the Garranne valley produced inlaid tiles using a wooden mould that he brought with him. Whilst the presence of this tiler seems to have had little implication for the Iberian tile industry, it is thought that it was upon the craftsmen's return to France that the manufacture of tin-glazed tiles was mastered and spread to the potteries of the Garranne valley from the middle of the 13th century (Norton 1990).

Given the large number of tiles present at Alcobaça, their importation from France or England seems unlikely. Alcobaça is geographically isolated from the centres known to have been producing similar tiles, being, for example, on the opposite side of the Iberian Peninsula to Catalonia (where Santes Creus Abbey is located). Two possibilities can be proposed for the transfer of tin glaze technology to Alcobaça. The first is that the technology was spread through the Cistercian network, with artisans coming from the north. The second is that the potters came from the recently conquered city of Santarém (1147), located nearby. Santarém had a long-lived Moorish pottery community and the Abbey had owned ceramic and tile kilns there since the early 13th century. The coherent character of the tiles suggests that production was organized at the workshop scale, which would only have been possible if the ceramic manufacture was sustained over a long period of time (Trindade 2007).

The wider social and religious significance of the Alcobaça mosaics

The mosaics are a part of the deep spiritual context of Bernard of Clairvaux's theological movement and of the influence that he exerted on artistic thinking regarding Gothic architecture. The ideological effect of Bernard of Clairvaux is expressed in the *Apologia ad Guillelmum* where he directs severe criticism towards ostentation and the exaggeration of temples through the use of images he dubbed monstrous. St. Bernard aligned himself with purism of faith in order to rekindle the ascetic and mystical ideal of Benedictine rule (Trindade 2007). No direct artistic determinations are known but the theological influence of Bernardo went beyond purely doctrinal aspects and eventually had a decisive influence on the course of Cistercian art in the first phase of the order's existence.

The purifying fight against imagery slowed down after his death in 1153, but did not diminish the order's General Chapters close monitoring regarding the following of defined ascetic ideals. Thus in 1205, the Abbot of Pontigny was reprimanded for allowing

an offensive floor to be laid and was forced to tear it up and replace it with a completely new one. In 1210, the Abbot of Belbec in Normandy had to serve penance for letting his monks manufacture a 'frivolous' floor in collaboration with craftsmen hired from outside – *Pavimenta quae et levitatem curiositatem praeferunt*. In the General Chapter of 1213, strict specific instructions were given about artistic intervention in the abbeys that were reinforced in the General Chapter of 1218. It was forbidden to put *varietates pavimentorum* or *pavimentorum curiosum* in the monasteries (Cothren 1982).

Following the General Chapter of 1235 there appears to be a relaxing of control, which may represent the inability of the General Chapter to react against the use of 'inappropriate' flooring. On the other hand, certain floors produced after 1235 depart from the previous purer forms and were produced outside of orthodoxy, being the products of localised developments in manufacture (Cothren 1982).

By the mid 13th century, the geographical coverage of Cistercian ceramic glazed tiles included France, England, Germany, Hungary, Spain and Portugal. It is around this time that the return of figurative motifs can be observed, as seen in the French Cistercian abbeys of Bonport, L'Escale-Dieu and Fontenay (Aubert 1947). The period coincides with Cistercian expansion in the extremes of Europe and with the first phase of construction in the founding of Alcobaça, leading us to assume that the flooring was produced after the mid 13th century.

Continuities in decorative techniques

The use of white tin glaze and turquoise glaze technology in the pieces from Alcobaça widens the known distribution of the use of these technologies within Cistercian contexts (Norton 1990). The suggestion of local production of the medieval paving in Alcobaça is reinforced by the existence of later glazed tiles made using the incised line technique. Their identification in 1997 constituted a scientific novelty since the incised technique was not known to have been used in Portugal at the time (Trindade 1998).

Preserved *in situ* in the apse aisle ambulatory of Santa Maria de Alcobaça these square-shaped pieces, decorated with incised line technique and dating from the 14th century, escaped the ravages of the 1939 building works. They feature red or black clay and incised freehand motifs. The tiles have bevelled sides (Fig. 5) and the high rate of surface wear shows that the drawings were deeply etched in the clay and subsequently covered with glaze. It is still possible to identify several shapes: interweaving, pentagrams, Solomon's knots, phytomorphic decoration and eventually anthropomorphic figures, all of which are closely paralleled in the illuminated manuscripts of the Library of Alcobaça (Trindade 2007).

Similar examples have been found in Shaftesbury Abbey (Dorset, UK), and are considered to be related in some way to the genesis of printed line decoration (Emden 1997). Their existence in Alcobça is consistent with the development of tile use in other European abbeys such as glazed tiles used in the transition to the production of a more developed type of printed line tiles that lasted until the 16th century (Emden 1997).

A lack of precision in dating the architectural development of Alcobça Abbey means that these tiles can only be dated by analogy with examples elsewhere. Furthermore, their current placement in the ambulatory can be called into question due to the use of modern cements. The incised line technique is similarly expressed in circular mosaic tiles found in the abbey, engraved with the use of stonemason's callipers. What remains of the glaze that once completely covered the tile is visible in the designs. The glaze of these designs has a metallic appearance which suggests a high firing temperature. The hardness of the glaze, due to the high thermal plateau of the ceramic cooking, volatilised the flux and evidenced the metallisation of the oxides, this led to concavities in the ceramic clay of the tile due to continuous wear (Trindade 2007).

Paving ceramics and the related coatings originating from the European Gothic continued to be produced in Portugal, evolving over the following centuries, but eventually forgotten or destroyed due to the surge of imports and counterfeit Hispano-Moresque ceramic coatings from the Levante and Andalusia. These became deeply entrenched in the Portuguese Late Gothic and integrated into the aesthetic aspect of the fascination for the Moorish, which arose in Portugal after the conquest of Ceuta in 1415 and reached its height in the 16th century.

Conclusion

Prior to this research, ceramic glazed pavements of this type were discussed and interpreted in relation to the decoration of the floors of religious architecture and medieval Portuguese palaces as part of the history of Portuguese art. This was based on documentary records, as exemplified in the building works of the palace and the private chapel of Abbot D. Estevão Aguiar in Alcobça in 1438 (S. Gomes 1998). Contrary to the situation in northern Europe the construction of Alcobça abbey may have begun in 1178 with the direct influence of Moorish craftsmen, as evidenced in the technology of the tiles. Archaeologically, Alcobça tiles can be paralleled across Portugal: parts of the tiled floor from the early 14th century King Dinis' chambers, found in Sintra National Palace (Amaro 1992), were found to bear size similarities to the Alcobça mosaics; the floor of the ancient St. John's chapel, the cloister of Lisbon cathedral (early 14th century), parts of the flooring of the Palace of King

João I in Leiria castle from the late 14th century and the floor of King João I's chambers in Sintra National Palace are all Alcobça tiles. Within this tradition, Alcobça tiles have also been found abroad in Jacobins church (1296) and in Moissac (1296). With this study, the analysis of other Christian ceramics prior to the 16th century has gained a new importance in Portugal.

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References

- Aguado Villalba, J. 1983, *La Ceramica Hispano Mourisca de Toledo*. Madrid: s.n.
- Amaro, C. 1992, Silos Medievais no Palácio Nacional de Sintra, *Arqueologia Medieval* 1, 111–23
- Aubert, M. 1947, *L' Architecture Cistercienne en France*. Paris: Les éditions d'art et d'histoire
- Cocheril, M. 1986, *Routier des Abbayes Cisterciennes du Portugal*. Lisbon: Fundação Calouste Gulbenkian
- Cothren, M. 1982, *Cistercian Art an Architecture*. Michigan: Meredith P. Lillich
- Eames, E. 1992, *English Medieval Tiles*. London: British Museum
- Emden, A.B. 1997, *Medieval Decorated Tiles in Dorset*. Chichester: Phillimore
- Ferreira, M. 1994, *Mosteiro de Santa Maria de Alcobça – Roteiro*. Mafra: Elo Lisboa
- Ferreira, M. (ed). 1995, *Arte Sacra nos Antigos Coutos de Alcobça*. Lisbon: IPPAR
- Gomes, S. 1998, *Visitações a Mosteiros Cistercienses em Portugal. Séculos XV a XVI*. Lisbon: IPPAR
- Gomes, R.V. 1998, Contributo para o estudo das cerâmicas com decoração a «verde e castanho» de Silves, in *Actas das 2as Jornadas de Cerâmica Medieval e Pós-Medieval*, 43–56
- Gonçalves, I. 1989, *O Património do Mosteiro e Alcobça nos Séculos XIV e XV*. Lisbon: Universidade Nova de Lisboa
- González Marti, M. 1944, *Cerâmica del Levante Español*. Barcelona: Editorial Labor.
- Herculano, A. 1863, *História de Portugal desde o começo da Monarchia até ao fim do Reinado de Afonso III*. Lisbon: Aillaud & Bertrand
- Martín-Romo, R. 1992, Aproximacion a los constructores de Alcobça traves de suas marcas de cantaria, in *Actas do Congresso Internacional sobre São Bernardo e Cister em Galicia e Portugal*, 835–42
- Norton, C. 1990, The production and distribution of medieval floor tiles in France and England, in X. Barral I Altet (ed). *Artistes, Artisans et Production Artistique du Moyen Age*, Paris: Editions Picard, 101–31

Simões, S. 1944, Azulejos Arcaicos em Portugal, separata do *Congresso para o progresso das ciências*. Madrid, s.n.
Simões, S. 1990, *Azulejaria em Portugal* (2nd edition; 1st edition 1969). Fundação Calouste Gulbenkian
Fundação Calouste Gulbenkian

Trindade, R. 1998, Identificação de azulejos figurativos em técnicas de linha incisa na Abadia de Santa Maria de Alcobaça, *Olaria* 2, 144–8
Trindade, R. 2007, *Revestimentos Cerâmicos Portugueses. Meados o século XIV à primeira metade do século XVI*. Lisbon, Colibri

Résumé

Cet article traite des sols en mosaïque du XIIIe siècle provenant des chapelles de l'église de l'Abbaye de Santa Maria d'Alcobaça. Ces mosaïques suivent le modèle formel européen cistercien, mais sont inhabituelles dans plusieurs aspects de leur décoration de par leurs glaçures d'étain et de turquoise. Un examen de la technologie utilisée dans la production des sols en mosaïque de l'Abbaye soutient l'hypothèse qu'ils ont été produits localement. Il est en outre avancé que ces mosaïques constituent un élément important de preuve à travers laquelle l'introduction du glaçage à l'étain sur la péninsule et dans le nord-ouest de l'Europe peut être examinée. Les continuités dans d'autres aspects de la décoration des mosaïques sont ensuite discutées (par exemple la technique de la ligne incisée), reliant ces sols aux caractéristiques architecturaux et de conception d'autres bâtiments civiques et religieux à travers le Portugal.

Zusammenfassung

Dieser Beitrag behandelt die Mosaikfußböden aus dem 13. Jahrhundert in den Kapellen der Kirche im Kloster von Santa Maria de Alcobaça. Die Mosaikfußböden folgen dem förmlichen europäischen Zisterziensermodell, aber sie sind durch ihre verzinnte und türkise Glasierung in vielerlei Hinsicht ungewöhnlich. Eine Untersuchung der Verfahren, die in der Produktion der Mosaikfußböden im Kloster angewandt wurden, unterstützt die Hypothese, dass sie vor Ort hergestellt wurden. Es wird des Weiteren argumentiert, dass diese Mosaiken einen wichtigen Anhaltspunkt darstellen, anhand dessen die Einführung der Zinnglasur auf der Halbinsel und in Nordwesteuropa untersucht werden kann. Im Anschluss werden Kontinuitäten im Bezug auf andere Aspekte bei der Verzierung der Mosaiken (beispielsweise die Methode des Eingravierens von Linien) besprochen. Sie verbinden die Fußböden mit den Architektur- und Gestaltungsmerkmalen in anderen bürgerlichen und religiösen Gebäuden in ganz Portugal.

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