

Unknown Porto - the use of azulejos in the modern architecture of the northern Portuguese town

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SUMMARY: During the 19th century azulejos started to be used mostly in urban façades, a novel application that opened the way for the “faience towns”. However, by the late 1930s, azulejos were considered something outdated, unworthy of integration in the modern architecture. Later, with the reintroduction of the azulejo in the Brazilian modern architecture during the 1940s, its role as a regional mark rooted in a prestigious history was also recognized by the young Portuguese architects who started integrating them in modern constructions in the first half of the 1950s.

Porto stands as a Portuguese town where modern azulejos were used not only in a striking number of works but also with great creativity. However, the references in the bibliography are scant, compared to Lisbon.

The aim of this paper is to present the use of modern azulejos in Porto, revealing some unknown cases that mark the period in the town. The discussion will be illustrated with an overview of the city's urban expansion in that period

SUMÁRIO: Durante o século XIX os azulejos começaram a ser utilizados principalmente em fachadas urbanas, uma nova aplicação que abriu o caminho para as “cidades de faiança”. No entanto, no final da década de 1930, os azulejos eram considerados ultrapassados, indignos de integração na arquitetura moderna. Mais tarde, com a reintrodução do azulejo na arquitetura moderna brasileira nos anos 1940, o seu papel como marca regional enraizada numa história de prestígio também foi reconhecido pelos jovens arquitetos portugueses, que passaram a integrá-los nas construções modernas na primeira metade dos anos 50.

O Porto ergue-se como cidade portuguesa onde não só os azulejos modernos eram utilizados num número impressionante de obras, mas também com grande criatividade. No entanto, as referências na bibliografia são escassas, em comparação com Lisboa.

O objetivo deste artigo é apresentar os azulejos modernos do Porto, revelando alguns casos desconhecidos que marcaram o período na cidade. A discussão será ilustrada com uma visão geral da expansão urbana da cidade nesse período

KEY-WORDS: Azulejos / Porto / Modern architecture / Portugal

INTRODUCTION

Whenever they could be afforded, azulejos were one of the favourite materials for the finishing and decoration of walls in Portugal over the centuries [1-3]. Some studies have been undertaken, specifically in the field of art history of the modern movement in Portugal, with the identification of modern azulejos in public spaces in the main Portuguese towns [4-10]. However, information relating to integrated modern azulejos in Porto city is scant.

After the Second World War, the process of urban expansion was particularly fast and intense. Portuguese urbanization was varied with a progressive concentration of people and economic activities along the coastline and around the two main cities, Lisbon and Porto [11]. The concept and style of cities altered from the 1940s to the 1950s due to the many technological, social and cultural transformations [11]. The industrial dynamism felt throughout Europe was reflected in the Portuguese ceramic industry where improvements in technology were matched by the increased integration of azulejos in architecture [12].

As earlier discussed by the authors [13], Portuguese azulejos have a continuous history of architectural integration spanning five centuries. During the 19th century, azulejos started to be used mostly in urban façades, a novel application that opened the way for the growth of “faience towns” in Portugal and Brazil. However, by the late 1930s azulejos were considered something outdated and unworthy of integration in the modern architecture while Modernism did not immediately assimilate their use [14, 15]. With the reintroduction of the azulejo in Brazilian modern architecture during the 1940s, its role as a regional marker rooted in a prestigious history was recognized by young Portuguese architects who started integrating them in modern constructions in the first half of the 1950s.

Porto stands as a Portuguese town where modern azulejos were not only used in a striking number of works but were also used with great creativity. However, written references are scant as compared to Lisbon.

This paper discusses the use of modern azulejos in Porto, illustrating a number of examples of use that marked the period in the city. The discussion will be illustrated with an overview of the city's urban expansion in that period.

OVERVIEW OF PORTO CITY URBAN EXPANSION

Until the middle of the 18th century, the city of Porto was centred within its walls [16, 12]. With the first signs of industrialization in the late 19th century, industrial structures and basic infrastructure began to be built, allowing a fast access to the most remote areas of the city. During the first years of the 20th century, the progress of Porto was marked by a significant urban expansion to the outlying areas with a progressive incorporation of the rural zones [16].

During the 20th century, the city of Porto saw the introduction of schemes, cartographic studies and developments related to the different political periods and inspired by three main figures. The early years of the Republican Regime as seen in the work of Barry Parker¹ who applies the principles of the "Garden City"; in the Estado Novo where the monumentality of the studies of the Italian urbanists, Piacentini² and Muzio³ is seen, and the influence of Robert Auzelle⁴ at the

¹ Barry Parker (1867-1941). British architect was part of the Arts and Crafts Movement, defending the Picturesque and practising the principles of the "Garden City" [17: p. 53].

² Marcello Piacentini (1881-1960). Italian architect and urbanist [17: p. 53, 18: p. 81].

³ Giovanni Muzio 1893-1982 graduated in Milan where he pursued his professional activity [17: p. 53, 18: p.81].

⁴ Robert Azulle (1913-1983). French urbanist [17: p.53].

beginning of the change to a democratic regime, when the premises of the Modern Movement were constructed [17, 19].

In 1932 the engineer Ezequiel de Campos⁵ produced the *Prólogo ao Plano da Cidade do Porto* where he defined a vision of the City as a whole, creating the first truly modern plan for the city. Although this project did not have immediate results, it represents an important stage in the urban development of Porto [16, 19, 22, 23]. In the plan of *Expansão da Cidade do Porto* four circumferences are drawn (figure 1): the first involved the old town, the second the access roads to the city, the third was called the "rural periphery", and the fourth was characterized by the abundance of "rural villages". However, 'de Campos' plan was not followed-up and in the 1930s the city still had a large rural area, while at the same time urban expansion was progressing at great strides although in a chaotic way [16, 19, 22, 23].

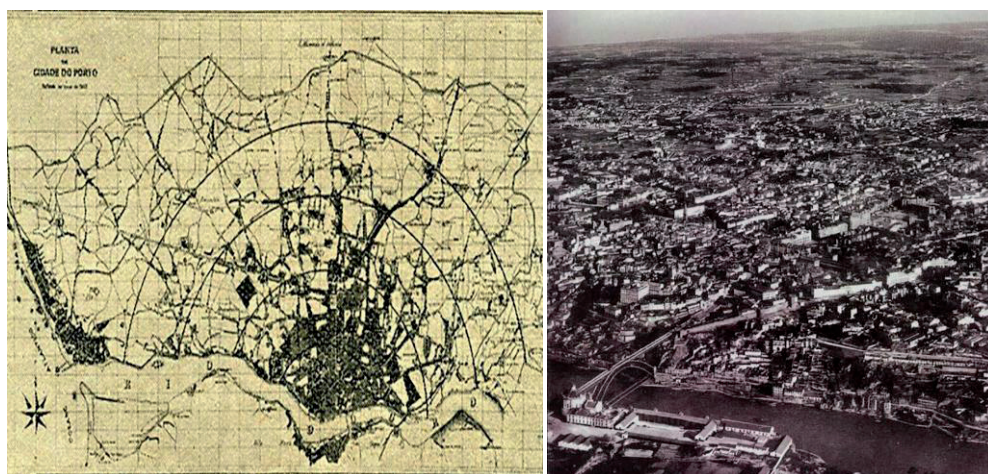


Figure 1: Left: Plant of Porto - Ezequiel de Campos' concentric circumferences [22], right: Panoramic view of Porto city in 1930 [19: p.69]

Under the Estado Novo regime, the cities suffered from the effects of an over-rational approach. Old constructions that were not monumental were unappreciated and the desire to highlight public works, for example with new large avenues, resulted in the sacrifice of older houses [24]. During the 20th century, the urbanism intensified and became crucial in the evolution and organization of the urban expansion of Porto [23].

From the 1940s, architects applied the fundamentals of the *Modern* using a radical and extremely considered approach. These developments enabled modernisation, especially in the field of housing, integrating new materials and construction systems [17].

The fragmented vision of the city gave place to a new perspective and the urban town began to be considered as a whole. To create a *Plano Geral de Desenvolvimento Urbano* the city hall recruited the Italian urban planner Marcello Piacentini, between 1938 and 1940 and later Giovanni Muzio, between 1940 and 1942 as technical consultants [18, 19, 20, 23]. However, the plan was suspended with the death of Duarte Pacheco⁶ in 1943 [19, 23]. A few years later,

⁵ Ezequiel Pereira de Campos (1874-1965). Portuguese engineer, economist, writer and politician [20, 21, 22].

⁶ Duarte Pacheco (1900-1943). Portuguese engineer and statesman. Public Works Minister of *Estado Novo* regime he led the development of a set of works that have changed the country [25, 26].

Antão de Almeida Garret⁷ was in charge of a new study and presented the *Anteplano Regional do Porto*, which was faithful to the ideas of Ezequiel de Campos, proposing an organization based on "nucleus of the neighbourhood" involving housing, services, trade and employment [19, 23]. The city also witnessed a growth in height in a process of "verticalization" that shows its splendour in Porto in the "skyscrapers" of a dozen of floors that were built in the Place D. João V in the late 50's [24].

After the first decades of the 20th century, there was a considerable increase of population in the peri-central and peripheral areas (figure 2). The already industrialized region saw a new phase of development, through the installation of new industries. The creation of these industrial complexes in the areas of expansion of the city lead to the settlement of the working population around these industries, first in the "islands" and later in the working-class districts [17].



Figure 2: Map of the city of Porto in 1950. Dark areas corresponding to the edified zone [28]

In 1956 the *Plano de Melhoramentos para a Cidade*, prepared by the technical services of the City Hall of Porto was introduced to eradicate the "islands" and to solve the problem of economic housing [19]. In 1962 the *Plano Diretor da Cidade* was elaborated by Robert Auzelle and approved in 1964. The plan was an attempt to combat the increase in traffic safeguarding the modernization of the urban network, creating a hierarchical structure [17, 19]. It was undoubtedly this urbanization that most marked the city of Porto in the second half of the 20th century [28].

The Fernando Távora⁸ study in 1969 to save the old part of the City, which Auzelle planned to demolish, raised awareness of the need to preserve the historic urban heritage [19]. Elsewhere the city continued to follow the concept of development of a modern metropolis with an increase in height from 1957 and the number of buildings with more than five floors as a result of the new urban plan approved in the 1952 Regulatory Plan [12, 19]. The azulejo was present as an element in the city architecture, often providing great architectural contrasts [12].

Number of examples of use that marked the period in the city

Porto stands out as a Portuguese town where modern azulejos were used in many cases and with great creativity. The authors believe that these cases are worth paying attention to, not only because they mark an architectonic period in the city, but also because of their originality at the European level.

⁷ Antão de Almeida Garrett (1896-1978). Civil engineer, artillery officer, town planner and teacher [27].

⁸ Fernando Távora (1923-2005). Portuguese architect graduated by the School of Fine Arts of Porto in the year 1952. Member of *Organização dos Arquitectos Modernos* (ODAM) [29, 30].

The discussion considers all use of glazed ceramics with decorative content. Table 1 shows the cases in Porto and Vila Nova de Gaia in a first review (48 and 3 respectively). Figure 3 illustrates the location of each building where integrated azulejos are found, the majority outside the historical centre of the city (the orange circle in the map), may correspond to the expansion experienced in that period from the centre to the periphery.

Table 1: Number of azulejos found in Porto and Vila Nova de Gaia

Cities	Number of cases
Porto	48
Vila Nova de Gaia	3

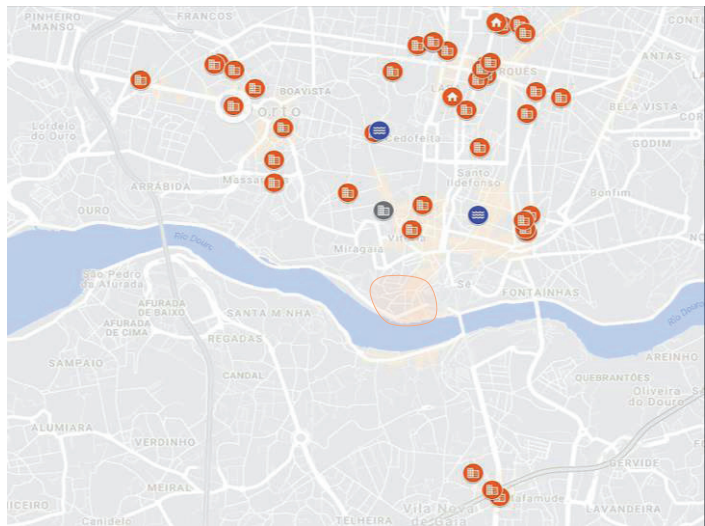


Figure 3: Map of Porto and Gaia with modern buildings with integrated azulejos considered for this paper.

In the following sections, examples of azulejos integrated in the modern architecture of Porto are presented. The relevant lining of walls is considered when the whole façade is finished for a significant percentage of the area, usually more than 50%, intended for aesthetic impact.

All cases are considered from the point of view of a street walker and sometimes a pattern can be found in several different buildings. At least three different buildings in distinct areas with the same pattern were identified, as can be seen in figure 4, where each group was defined with a different colour and the distances of each other vary between 600 m (minimum) to 6 km (maximum).

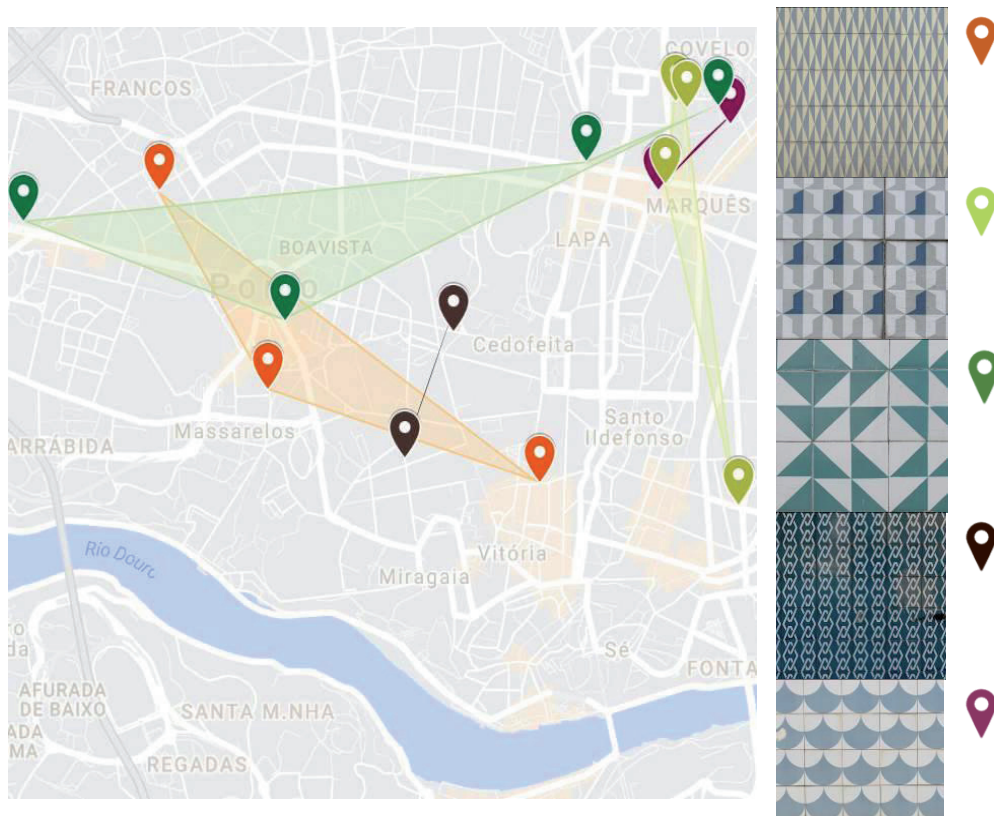


Figure 4: The map of the city of Porto showing different buildings in distinct areas, with integrated azulejos of the same patterns.

The cases that were considered relevant were those made up of a single repetitive pattern, as can be seen in figure 5, those made up of a single pattern but with unlined walls interrupting the continuity of the pattern, sometimes using glass mosaics known in Portugal by the name of the brand *Evinel* (figure 6) or *marmorite*⁹ (figures 7 and 8), which were options that often complemented or replace azulejos as linings of the modern buildings.

⁹ A mixture of aggregates (marble, granite, glass, quartz, ...) with a cementitious binder, a polymeric one, or a combination of both. After drying, it is sometimes polished to obtain a uniform surface [31].

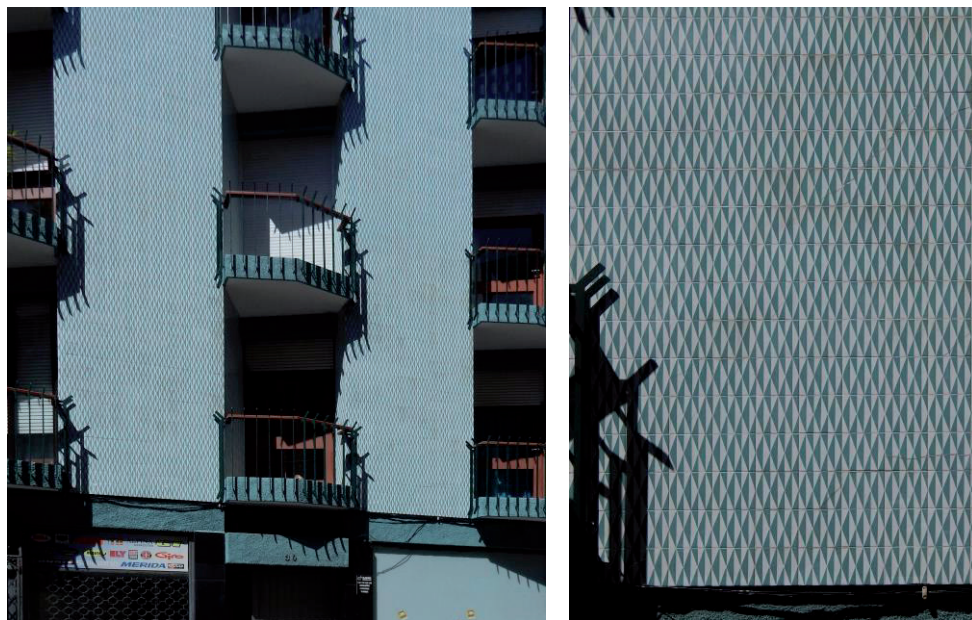


Figure 5: Building in Porto with integrated azulejos. *Rua da Constituição N° 30*

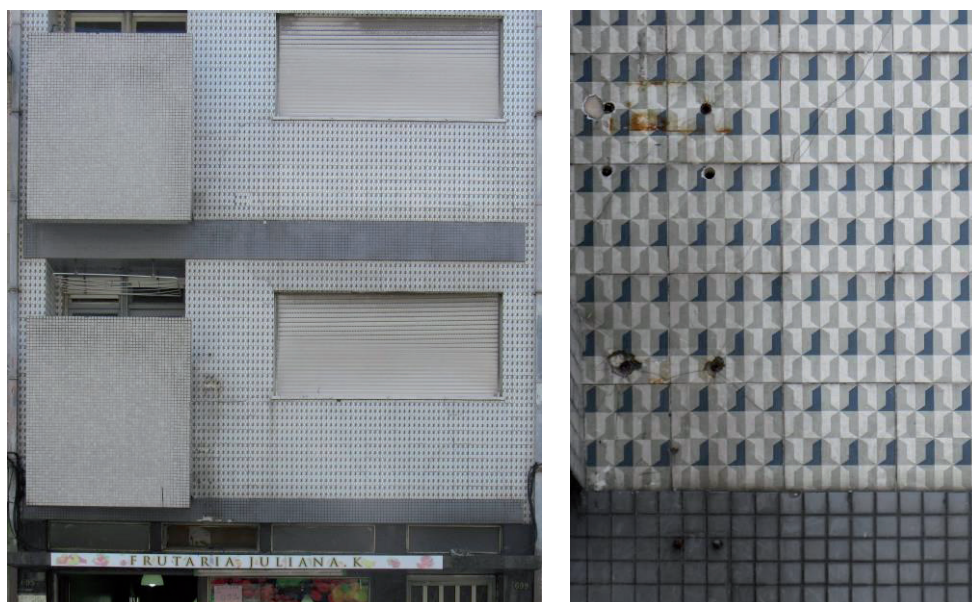


Figure 6: Building in Porto with integrated azulejos. *Rua da Constituição N° 699*

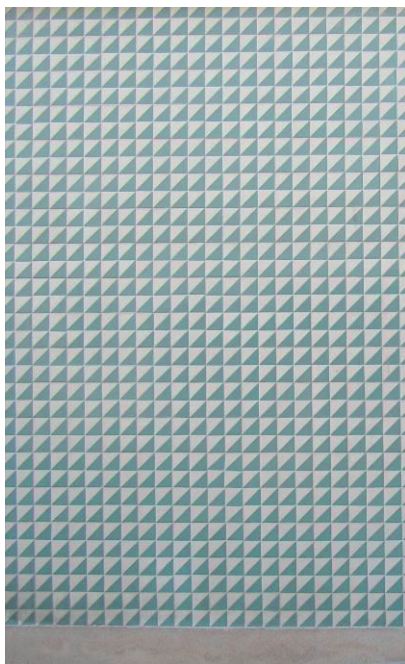


Figure 7: Several buildings in Porto with integrated azulejos. *Rua de Bento Júnior N° 97-99*

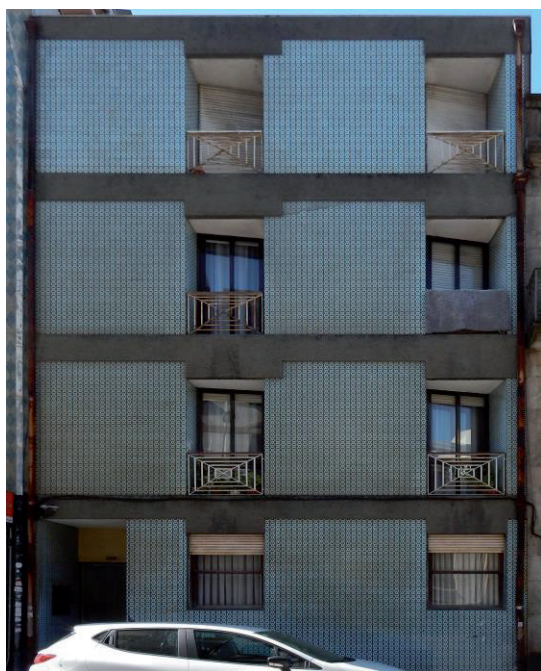


Figure 8: *Rua da Boavista N° 433*

The aesthetic value is decreased or even lost when the decorative glazing has decayed, as can be seen in figures 9 and 10. The impression is affected by both the alteration of colours and the design and even by the loss of azulejos themselves (figure 10), modifying the entire composition. Therefore, conservation is essential to enable the recognition of modern azulejo linings as a heritage asset representing a unique movement in Europe.

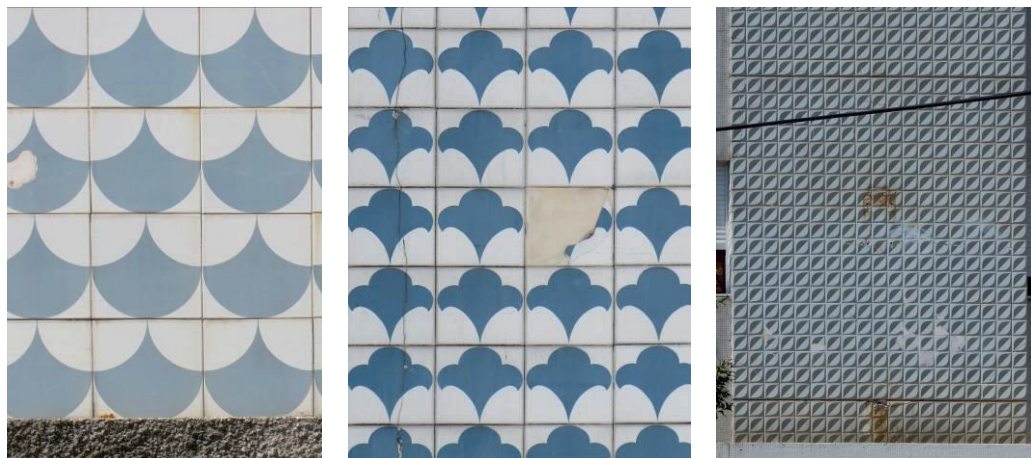


Figure 9: Integrated azulejos in Porto buildings depicting decay. Left: *Rua de António José da Silva N° 60*; center: *Rua da Constituição N° 699*; right: *Rua de 5 de Outubro N° 139*



Figure 10: *Rua Faria Guimarães N° 69*

One interesting aspect in Porto is the fact that several buildings even have interesting azulejo integrations in streets of low-cost housing where a cheaper solution might be expected.

Most cases depict a modern repetitive pattern, in general with a simple design that may be locally produced and often found at street level or covering most of the façade, as can be seen in the figures 11 and 12 respectively. In most of the cases, such patterns are rarely seen in Lisbon and, as far as we know, they are also not found in the literature.



Figure 11: Rua Dr. Alves da Veiga N° 21



Figure 12: Rua de Moreira de Sá N° 145

Interesting examples can be seen in figures 13 and 14 where, although the patterns used in the buildings are the same, the geometry of the application is different, and the perception of the composition is modified in each case. The azulejo used is very simple with a green background and a black line creating the design. By using this design and only changing the position of alternate azulejos, a new and totally different composition is created.



Figure 13: Building with integrated azulejos in *Rua Faria Guimarães N° 257*



Figure 14: Private house with integrated azulejos in *Rua Oliveira Martins N° 19*

In the modern azulejos, it is common to find a pattern that can be used in more than one position, creating a world of possibilities with the same azulejo. Figure 15 shows another example. Three different buildings were found in distinct areas, one being Vila Nova de Gaia, where the azulejos used have the same pattern and colour, white and green, while the position of application is different. In each case, the impact on viewers is very different as if it was a "game of position".



Figure 15: Three geometries of application with the same pattern. Left: *R. de Júlio Dinis N° 896*; centre: *Av. da Boa Vista N° 1624*; right: *Av. da República N° 1473 (Vila Nova de Gaia)*

Figures 16 and 17 show two examples where the integration of azulejos is somewhat different. In the first, the use of glazed ceramics with a protruding front and in shades of the same colour creates texture, variety and interest in façade areas that would otherwise be rather plain and uninteresting.



Figure 16: Building with integrated azulejos in *Rua de João das Regras N° 101*

In the second case, the azulejo has lines and shades in the same colour that create a pattern when seen from a distance.

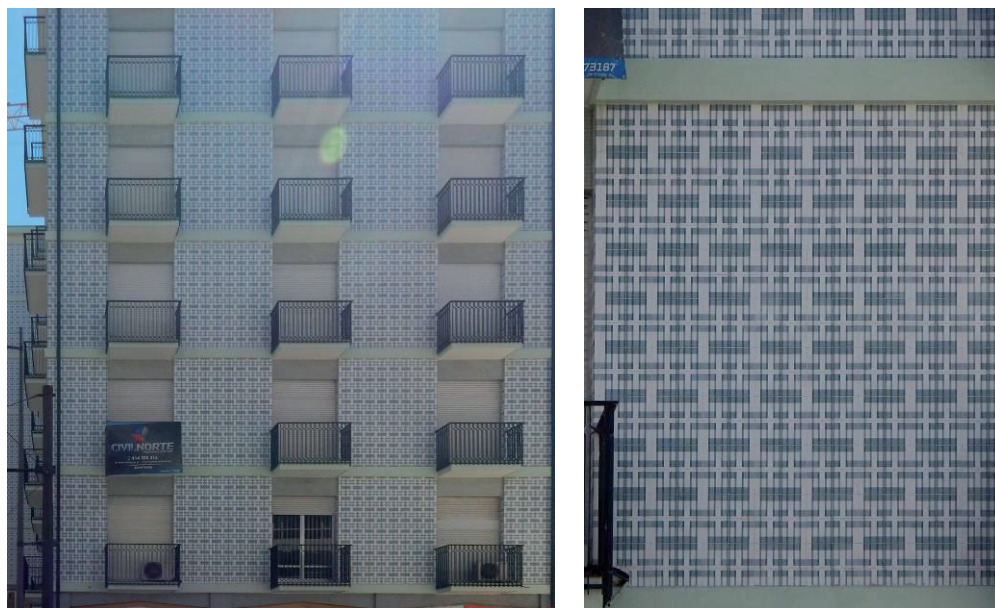


Figure 17: *Praça Guilherme Gomes Fernandes N° 90*

The following images demonstrate several modern azulejos with a single repetitive pattern integrated in buildings in the town. The patterns found are in general very simple and the beauty of the entire set results from the “game” of colours, or the manner in which the lined areas are harmonized with the rest of the façade.

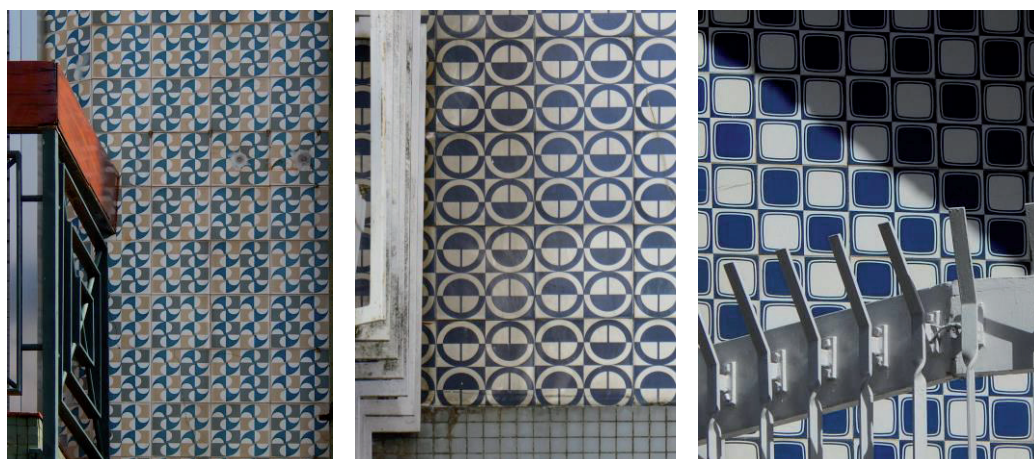


Figure 18: Left: *Rua do Bonjardim N° 832*; center: *Rua das Doze Casas N° 83*; right: *Rua de João Pedro Ribeiro N° 729*

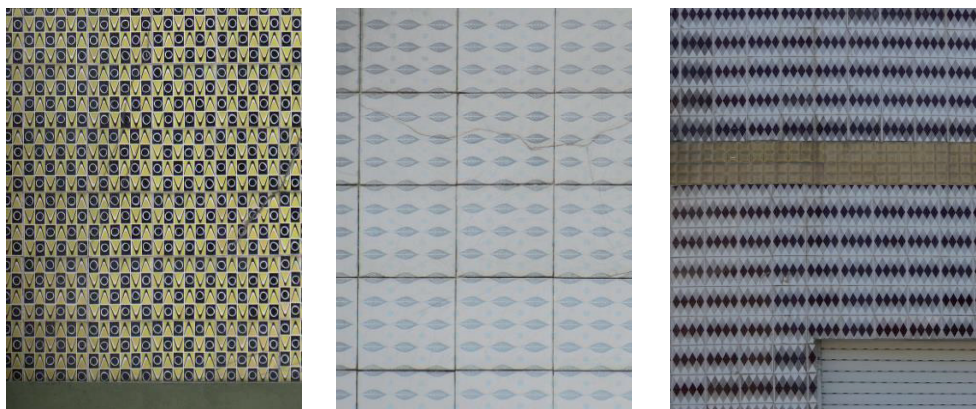


Figure 19: Left: *Rua Faria Guimarães N° 363*; center: *Rua Faria Guimarães N° 471*; right: *Rua dos Vanzeleres N° 334*

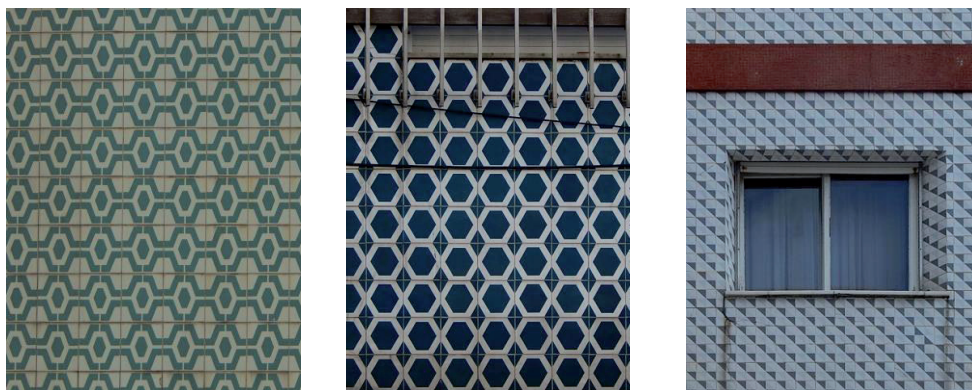


Figure 20: Left: *Rua de João das Regras N° 94*; center: *Rua de Latino Coelho N° 26*; right: *Rua do Bonjardim N° 1206*



Figure 21: Left: *Rua do Bom Sucesso N° 35*; center: *Rua Dr. Alves da Veiga N° 89*; right: *Rua de Cunha Júnior N° 50*

A slightly different case often not considered to be attractive (which is subjective) is the example in figure 22, where the building is lined with a rather uninteresting pattern and colour often seen in interiors. However, the entire ensemble acquires an inevitable aesthetic dimension for the viewer. Through the use of bold colours, yellow and orange, and because the lining covers most of the façade, it imposes itself on passers-by and, even though it cannot be really considered a modern pattern, the conception is relevant in terms of the impact created.

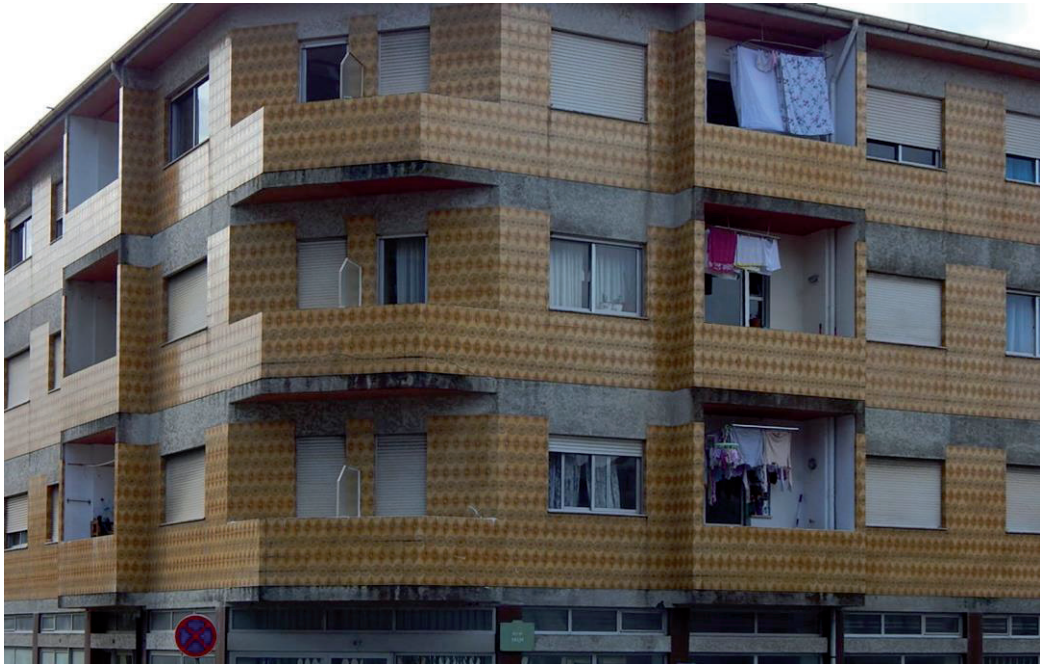


Figure 22: Building with integrated azulejos in *Rua do Monte Cativo N° 81*

CONCLUSION

Azulejos have been one of the favourite materials for finishing and decorating buildings in Portugal over the centuries. However, there has been scant mention of integrated modern azulejos in the town of Porto.

In this paper, the authors present a number of examples of integrated modern azulejos in the architecture of Porto. Due to urban expansion, which was particularly fast after the Second World War, Porto expanded significantly to the periphery during the second half of the 20th century. As reviewed by the same authors elsewhere [13] Brazilian modern architecture, influenced by an unexpected recommendation by none other than Le Corbusier, re-introduced the use of azulejos in the 1940s leading to the integration of Portuguese modern buildings starting in the first half of the 1950s.

The modern azulejos were used with great creativity in Porto. It was possible to verify that the azulejo is a predominant element of several buildings in the city, often in magnificent architectural contrasts, of which 48 cases located in diverse areas of the city (most of them located outside the historical center), were selected to provide a list of relevant cases in Portugal.

Sometimes, a single repetitive pattern is found in more than one building and with different choice of position, creating new compositions. Occasionally the glass mosaics *Evinel* or even *marmorite* were used in harmony with azulejos where they sometimes complement each other in modern buildings. Modern azulejos with a decorative content significantly modify the appearance of buildings, creating an aesthetic impact that enhances their uniqueness.

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