

# Infrastructure, Canning and Architecture

## The Case of Matosinhos

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### Abstract

In this article, we seek to reconnect architectural history with social and industrial histories as a strategy for understanding the relationship between infrastructure, fishing, and urbanisation by studying the emblematic case of Matosinhos. This paper traces the formation of the port area and the process of its subsequent transformation with the development of the fishing and canning industries, to understand the relationship between urban planning, the architectures of production (infrastructures, industries, and urbanism) and the architectures of reproduction (housing), and the dynamics of the physical and economic transformations, as well as the key role played by the port in supporting the urbanisation process. In the last decades of the twentieth century, the canneries almost completely disappeared and the gap left by its concentration and modernisation led to the creation of a new urbanisation plan, directed by Álvaro Siza Vieira. Recent works, such as the seaside platform designed by Eduardo Souto de Moura and built at the beginning of the present century, the redevelopment of Leça's shoreline in 2006 or the conversion of the ruins of a former winery into the new 'house of architecture,' are signs of growing functional disputes and symbolic transformations of a particular port city.

### Keywords

Fishing industry; canning industry; port city infrastructures; urbanisation; Matosinhos (Portugal)

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## Introduction

In the Portuguese context, Matosinhos represents an unusual experience of planned urban development that is interesting because of the causal relationship that the city developed with the port of Leixões, built in the late nineteenth century, together with the emergence and consolidation of the canning industry during the first half of the twentieth century. In gathering information about the construction and enlargement of the port, the creation and transformation of the various municipal urbanistic practices and the investments of the capital originating from the sea-based economy, we seek to understand and analyse the relationship between the urbanisation of the area and the development of an industrial activity based on the exploitation of a particular natural resource. This relationship resulted in the development of a series of functional capacities that were identified and stimulated in the successive plans drawn up for Matosinhos from the late nineteenth century onwards.

The description of this process of urban development clearly reveals the relationship between the port of Leixões and the main urban plans for the surrounding area,<sup>1</sup> enabling us to identify features of continuity and rupture in the relationship between the built environment and the sea through fishing, offering a new perspective from which to analyse the works produced by Portuguese architects who worked in Matosinhos during the twentieth century.

The concentration of the canneries around the port of Leixões during interwar period,<sup>2</sup> as well as their subsequent abandonment and reorganisation, had a decisive impact on the built environment, making the activities linked to fishing and the canning industry a fundamental aspect underlying the urbanisation of Matosinhos. Besides the impulses given by urban planning, there are various factors that should be borne in mind regarding the transformation of this landscape: the virtually unpredictable behaviour of the schools of fish; the quantities and the quality of the sardines that were caught along the north coast, favoured by the phenomenon of upwelling;<sup>3</sup> the spatial transformations arising from the introduction of new fishing techniques and new technologies for the propulsion of boats; and the presence of a rail and port infrastructure. The introduction of motor-powered seiners that could be used for purse seining, ideal for capturing pelagic fish like sardines, led to a concentration of fishing activities in natural harbours or in ports built by taking advantage of riverbeds and rocky bottoms, especially in Leixões. These ports gradually replaced the sandy beaches on which the *arte xávega* was practised (involving a purse-seine net being launched and dragged directly from shore) and led to the displacement of the fishing centres that supplied the canning industry.

While, along the sandy shore that runs from the mouth of the River Mondego to the mouth of the River Douro, the nets were dragged onto the beach, the port of Leixões offered better conditions for sheltering the larger diesel-powered seiners that had begun to replace the steam-powered seiners (Filgueiras, 1994, p. 68) from the 1930s onwards, capturing larger quantities of fish at further distances from the coast. Espinho and Furadouro, where the *arte xávega* was the main technique (Baldaque da Silva, 1891), gradually ceased to have any relevance, which made Matosinhos a fundamental fishing centre for the Portuguese economy during the years of the *Estado Novo* (1933-1974).

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1 For an analysis of the successive plans drawn up for Matosinhos, see Valente (2014).

2 During the First World War, most of the canned fish was produced and exported from the south of Portugal, mainly Setúbal and some ports in the Algarve, such as Lagos, Portimão, Olhão, Tavira, and Vila Real de Santo António. During the Second World War, however, these industries were established in the North of the country, being largely concentrated in Matosinhos. The *Estado Novo*'s "industrial conditioning" law is one of the factors that helps us to understand the decision to concentrate the fishing and processing of sardines in Leixões from a political point of view. The same can be said regarding the concentration of the cod industry in Ílhavo.

3 The rising of nutrients towards the surface of the water due to the interactions between the winds and the ocean currents, providing a favourable environment for pelagic fish.

The increased fishing pressure, or, in other words, pressure from the investments made in the activity and its greater development through the widespread introduction of seiners and purse-seining, corresponded to a greater productivity per fisherman in terms of the number of kilos of fish captured and to an increase in the productive capacity of the canneries, in response to the expansion of the consumer market for canned fish, mainly for export. In this way, the geographical shift in fishing activities arose both from the appearance of new fishing techniques and navigation facilities and from the geomorphological characteristics of the environment in which this activity was practised, attracting fishermen, manual workers, industrialists and their capital to Matosinhos.

The sea thus offered an enormous growth potential that took advantage of the conditions available at the port of Leixões for export and simultaneously justified the strategies included in the 1896 and 1944 Plans based on investments in the urban fabric and the development of the land for industrial use. These were decisive factors in attracting companies from the canning sector that had initially been established at other points along the coast.

Some recent works emphasise the exploration of the sea as the main element in the spatial configuration of port cities to understand and face contemporary challenges.<sup>4</sup> Even a discipline – Marine Spatial Planning<sup>5</sup> – has been created recently (Marine Spatial Planning, n.d.), but the relations between fishing and processing staple food with architectural and urban histories remains almost unexplored, with the exception of the Ellefsen and Lundevall's (2019) book on North Norway. The distinction between “architectures of production” – port infrastructures and fishing processing facilities – and “architectures of reproduction” – the housing areas linked to the port – was developed by them and helps us to organise our perspectives on Matosinhos.

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## **Infrastructure, industry, and urbanism as architectures of production**

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Shortly after the port of Leixões began to be built in 1884, the engineer Licínio Guimarães drew up the first Matosinhos Urbanisation Plan in 1896, following the decision to transform the haven for the ships that demanded the quays of Douro river in Porto be transformed into a full commercial port (Alves & Dias, 2001).<sup>6</sup> The plan introduced a structure of blocks and the consequent network of streets, which covered an area located to the south that was nothing more than a large expanse of sand occupied by a hippodrome, proposing a new sector for the city linked to the pre-existing urban structure. The 1896 plan was the support structure for the installation of an industry that was well developed in Portugal by then, boosted by the economy of both wars and fed by the massive presence of large schools of pelagic fish, especially sardines, on the northern coast. The growth of the cannery and fishing sectors and consequent attraction of the labour force to Matosinhos, together with the expansion of the port, made a new plan necessary before the end of Second World War.

In the 1944 Urbanisation Plan for Matosinhos-Leça, the coastline, which, at the beginning of the twentieth century and in Licínio de Guimarães' plan, was an ill-defined space between the water and the grid of streets that gave way to the construction of an avenue along the seafront. With the 1944 plan, new urbanistic parameters were introduced and the area's functional specialisation was accentuated. The pragmatism of

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4 For instance, some articles published on the *European Journal of Creative Practices in Cities and Landscapes*, including Hein et al. (2019) and Hein (2018).

5 <http://msp.ioc-unesco.org/about/marine-spatial-planning/>

6 See also the historical recapitulation of the history of the Douro-Leixões system included on the 73-A law project presented at the National Assembly in 1913.

the 1896 plan was supplanted by the notion of a “rational land use”,<sup>7</sup> following the premise of functionalist urbanism (Pires, 2012). The 1944 plan marked out the industrial, port, and residential zones, as well as a beach area where no new constructions were permitted, a measure that proved decisive for determining the urban framework not only of the architectures of production, but of the architectures of reproduction too.

The 1944 plan multiplied the area given over to industry fivefold (Valente, 2014, p. 130) and, at the same time, invested in the development of the region by proposing the construction of various public facilities, whose locations largely corresponded to the ones that we can still see today: the school, the library, the hotel, the swimming-pools – namely the tidal pool designed by Álvaro Siza (#12 in Figure 1) and built two decades later, in 1966, as part of the tourism development plan devised for the seafront avenue of Leça da Palmeira.

If the brineries and canneries were, in the beginning, simple warehouses built with a sense of pragmatism that relegated architecture to the task of summarily decorating the façades, Matosinhos saw the emergence of a modern type of cannery, organised in accordance with the stages of production and the flow of workers and activities in a rational fashion. Gradually, architects began to play an active role in the organisation of the territory and its industrial buildings, as proposed by Arménio Losa in the thesis that he presented at the 1<sup>st</sup> National Congress of Architects, in 1948 (Losa in Sindicato Nacional dos Arquitectos, 1948, p. 127).

The theoretical model for a modern canning factory designed by ARS studio and published in 1946 in the magazine *Conservas de Peixe* incorporated technological improvements such as the Massó evisceration system, brought from Galicia by the shipowner and industrialist Adão Polónia (1901-1964), creating a liquid assembly line connecting the spaces of production. This typological change is the most evident materialisation of the relationship between fishing and architecture, which can be developed on various levels from the equipment and buildings involved in the activities of capturing, processing, and distributing the fish<sup>8</sup> to the urban fabric of port cities like Matosinhos.

In the 1960s, the construction of the three piers at the port of Leixões strengthened the determination to organise the productive activity, with the formal regulation of the landing of the fish and the control of the fish auction. The informal landing of the fish on the beach disappeared, together with the practice of transferring the fish onto small rowing boats. However, the modern enclosed industrial spaces, associated with the rules outlined in the 1944 plan establishing the importance of creating green lanes of protection for the factories and special areas for the loading and unloading of fish away from the streets, confirm the industry’s increasing loss of visibility.

The apparent modernity of the port and urban infrastructures, as well as of many of the factories built in this decade, contrasts with the economic and productive conditions of the canning industry. According to Luísa Valente, “In 1960, Portugal’s accession to EFTA<sup>9</sup> was to find the canning industry decapitalised, antiquated and scattered into a series of inviable companies that were only able to survive through state protectionism.” (Valente, 2014, p. 89). Shortly before that, in 1955, the engineer and director of the Port Authority, Henrique Schreck, presented his plan for expansion of the port with the construction of another dock in the Leça valley.

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7 David Moreira da Silva (1909-2002) was the first Portuguese architect to study at the Institut d’Urbanisme at the University of Paris, before settling in Portugal and joining forces with Maria José Marques da Silva Martins (1914-1996).

8 On the typological transformation on the Matosinhos canneries, see Tavares and Inglez de Souza (2020, pp. 238-253).

9 *European Free Trade Association*, founded in January, 1960, in Stockholm.

The decline in the presence of the canning industry in the industrial area next to the port ended up creating space for a new type of urbanisation arising from the increasing popularity of bathing habits. The state's investment in the productive potential of the port and the industry contrasted with the municipal investment in the development of the region's residential and bathing capacity, especially along the then unpopulated coastal strip of Leça da Palmeira. In Leça, as contemplated in the 1944 Urbanisation Plan, the project for the Avenida dos Centenários included two structural works designed by Álvaro Siza (1933-): the Boa Nova Tea House (#11 on Figure 1) and the Tidal Swimming Pool (#12 on Figure 1). The inauguration of a massive petrochemical refinery in Leça, decided at the national level, only three years after the Tea House and shortly before the construction of the swimming pool, reveals functional disputes between the residential and bath areas imagined by the municipality and the infrastructural plans for the Leixões port decided in Lisbon.

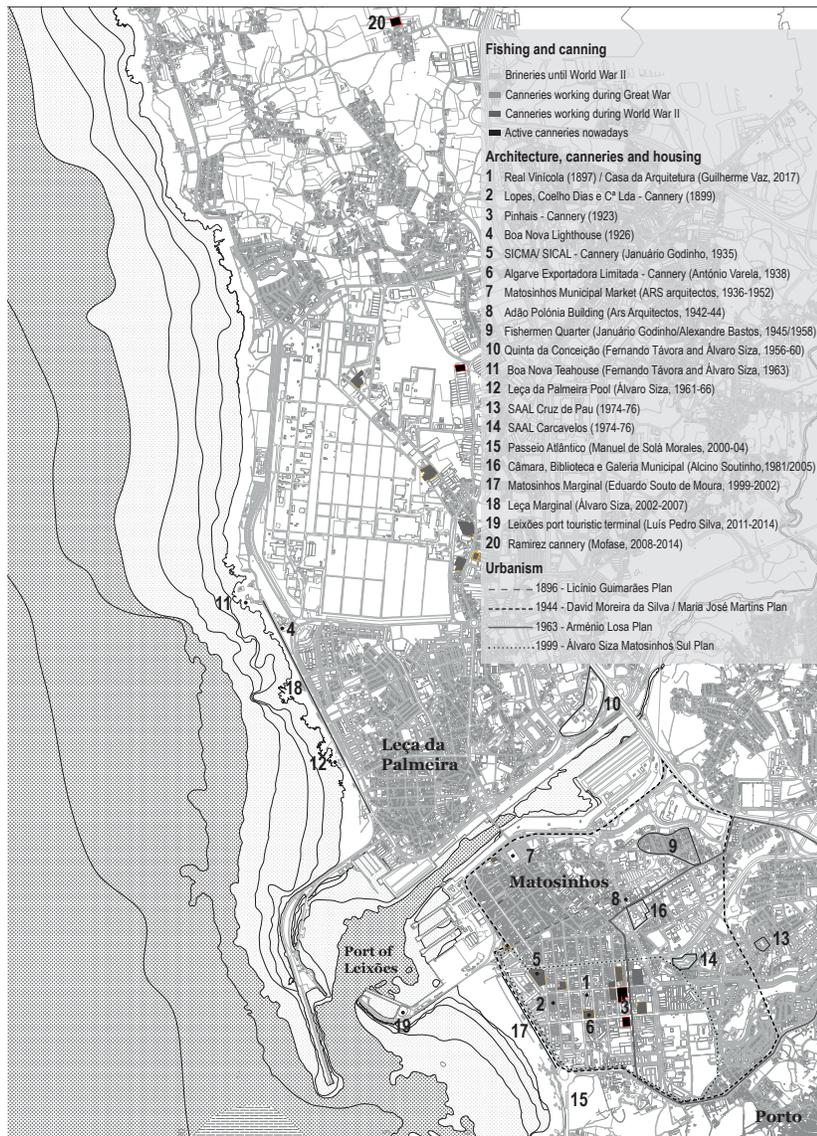


FIGURE 1 Map of Matosinhos

Infrastructure, canning and architecture: the case of Matosinhos.

The residential area of Matosinhos was reinforced with the Matosinhos South-East Zone Urbanisation Plan produced by the architect Arménio Losa (1908-88) and presented in 1963. Besides contemplating the interstitial spaces between the municipal boundaries of Porto and Matosinhos, the plan proposed the building of large housing estates organised into neighbourhood units and destined to house families already living in precarious conditions or rendered homeless by the opening of new roads. This expansion towards the south-west was designed to produce an urban infrastructure capable of serving a population that had grown from 25,000 inhabitants at the beginning of the twentieth century to 110,000 by the time the plan was drawn up.<sup>10</sup>

The approval of the Matosinhos Municipal Master Plan in 1992 extended the coverage of the planning instruments to the whole of the municipal territory, consolidating new systems of relationship and providing new opportunities for urbanisation and real estate. The Matosinhos Sul Urbanisation Plan, designed by Álvaro Siza, sought to control the transformations arising from the activity of the property market and to establish a coherent process for the replacement of the canneries by apartment blocks, taking advantage of the pre-existing urban grid, its infrastructure potential, and its capacity to develop a higher quality urban public space.

The physical transformations of Matosinhos resulting from its land management can be interpreted in the light of the changes in vocation that were outlined and stimulated by the plans and their comparison with the state's strategies for building dominant port facilities that would be fundamental for the northern region. Although the port of Leixões is the basic infrastructure of the urban system, over time the confinement and protection of the port's activities and spaces opened up the adjacent areas to some highly interesting possibilities for interpreting the relationship between the sea and the built environment. In these areas, fundamental differences called into question a reading of this relationship that was based on the hegemony of the port, on a clear functional specialisation of the urban space, and inevitably on linear narratives for the urban and architectural transformation of Matosinhos.

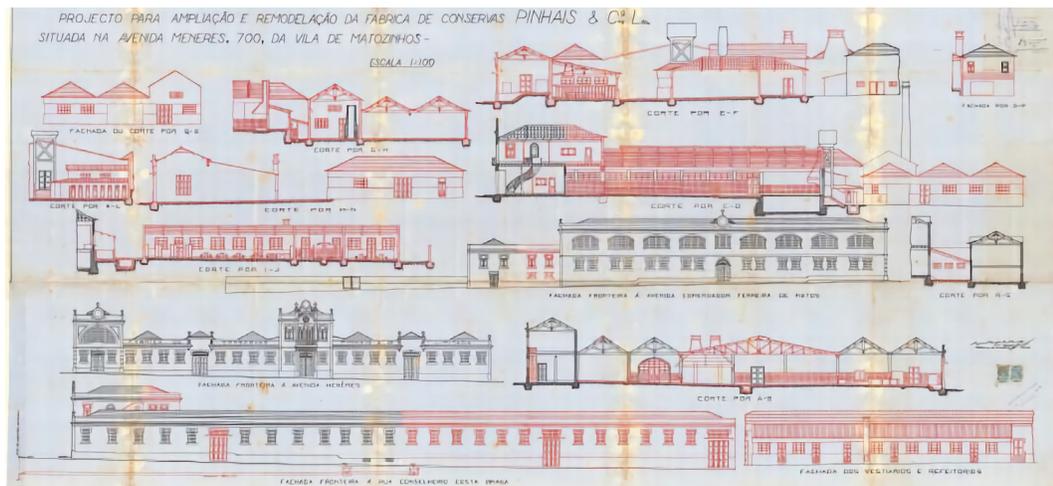


FIGURE 2 *Pinhais Factory Drawings.*

Project for expansion of the Pinhais Factory, built in 1920. Copyright 1945 by Historical Archive / Matosinhos Municipal Council

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In the early twentieth century, the resident population of Matosinhos amounted to 25,000 inhabitants; in 1920 it numbered 35,000 inhabitants; in 1950, 73,000 inhabitants; in 1970, 110,000 inhabitants; and by 2011 it had reached 175,000 inhabitants.

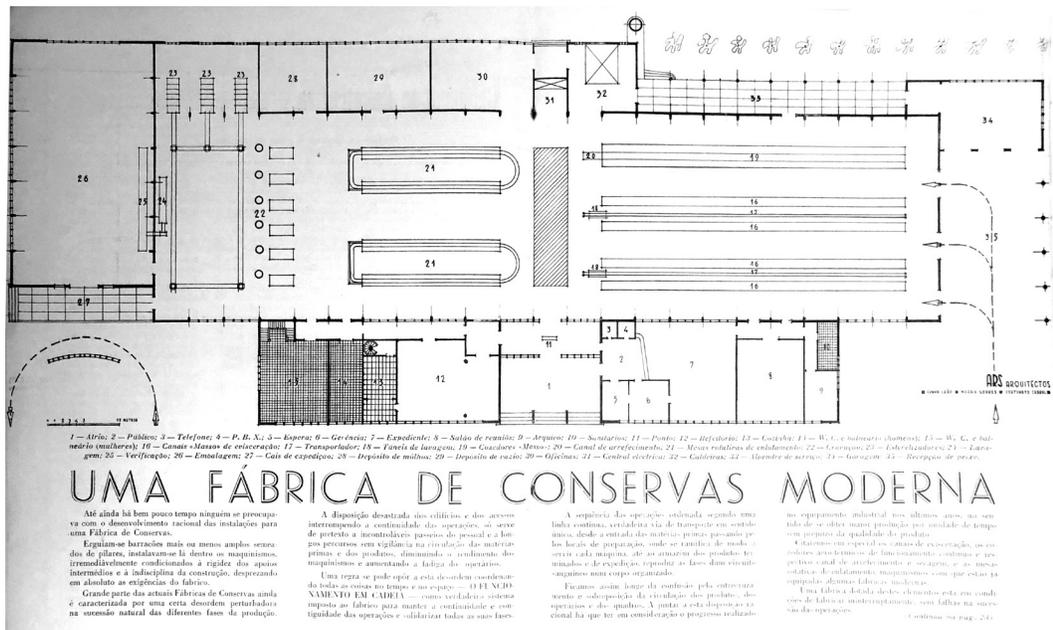


FIGURE 3 Theoretical model for a modern cannery

Theoretical model for a modern cannery, developed by ARS architects. Copyright 1946 by Conservas de Peixe, N° 6, p. 14-15.

## Housing and Urbanisation as Architectures of Reproduction

The concentration and organisation of production, as well as the reproduction of the labour force, called for interventions to be made in the infrastructure, canneries, and neighbourhoods that housed fishermen and workers, further extending the relationship between sea and shore at the regional level. The relationship between fishing and architecture was clearly shown, not only in the debate about town planning and in the urbanisation processes implemented in the residential neighbourhoods planned for fishermen, but also in the markets, in the welfare institutions developed for the support of fishermen and workers, and in various other buildings financed by the capital arising from this activity.

In the early twentieth century, the interstitial spaces of the residential blocks in Matosinhos housed around 180 inhabitants per hectare (Valente, 2014, p. 126), which is a surprising density if we take into account the average figures for other urban centres in the same period and the profile of the local landscape, dominated by one- or two-storey houses, punctuated vertically by the chimneys of the canneries.

Even before the state introduced any measures designed to provide housing for the fishermen of Matosinhos, there were clear associations to be made between the sea-based economy and the promotion of affordable housing, seen as a business opportunity, as in the case of the rental building designed by the ARS studio for Adão Polónia (#8 on Figure 1), built between 1942 and 1944. Also in the 1940s, the same studio undertook a study for the building of a housing estate for the canning factory workers, consisting of 111 houses, as well as a chapel, nursery, schools, washhouses, and sports fields (Miranda, 2004), which was given the name of Bairro Adão Polónia, and was to be sited in the area of Cruz de Pau. The association between Polónia, whose industry occupied the premises of the first canning factory (#2 on Figure 1) to be established in Matosinhos Sul (Tato, 2008) and the ARS studio reflects a link between the canning industry and modern architecture, which also came to be regarded as an instrument for the transformation of the productive conditions and the landscape of Matosinhos. Between 1937 and 1946,

Polónia commissioned more than 40 architectural projects from the ARS studio, according to the studio's archives (Soares, 2004). The relationship between the studio and Polónia may have arisen from the design presented for the Matosinhos Municipal Market (#7 on Figure 1), built as the result of a competition promoted by the Council in 1936, when the canning factory owner was serving as a councillor and was heavily involved in the realisation of this project (Delgado, 2015).

Although the houses were built under the strict scope of the 1944 Plan, the urbanisation of Bairro dos Pescadores (#9 on Figure 1), the fisherman's residential quarter, seems to have followed its own autonomous logic, probably arising from the lack of articulation between the municipal sphere and the *Junta Central das Casas dos Pescadores*<sup>11</sup> [Central Board of Fishermen's Houses] which was the body responsible for promoting such operations. The first phase began construction in 1945, in accordance with a design by Januário Godinho, and consisted of the building of 146 homes, divided into two-storey housing units, either semi-detached or grouped together in a row, as well as smaller units placed on top of one another and accessed via a gallery supported by an arcade. Apparently, this solution was reminiscent of the proposals made by Carlos Ramos for the *Bairro Municipal de Olhão* (Agarez, 2013, pp.150-161), and undertaken by Inácio Peres Fernandes at the Fishermen's Quarters built in the Algarve, another early manifestation of the relationship between modern architecture and the canning industry, mediated by the State (Agarez, 2018). The second and third phases of the *Bairro dos Pescadores* in Matosinhos were planned and designed in 1958 by Alexandre Teixeira Bastos, divided into two types of units, grouped together in blocks of two houses (56 homes) and four storeys (104 homes) (Ramos et al., 2009). The relationship between the housing estates and the urban fabric was altered with the 1963 plan by Arménio Losa, who proposed the creation of neighbourhood units adjacent to the then-urbanised area, as well as in Cruz de Pau. In the period following the revolution of 25 April 1974, operations of the so-called Local Ambulatory Support Service (*Serviço de Apoio Ambulatório Local - SAAL*) in Matosinhos were undertaken there (#13 and #14 on Figure 1).<sup>12</sup> This service was created as a reaction to the corporative and technocratic logic that had dominated housing production until then. The land available around the neighbourhood units proposed by Losa would gradually be filled with developments promoted by different housing cooperatives between 1973 and 1998. These new logics of housing production and the consequent increase in the population ended up contributing to the growing dispersal of fishermen and canning factory workers around the urban area, contributing to their relative invisibility. At the same time as the production of the housing cooperatives drew closer to the characteristic practices of the real estate, offering various typological configurations for the urban middle classes in accordance with their different income levels, the production of social housing in Matosinhos ceased in the course of the 1980s, only being resumed in the next decade, when it was financed by European funds.

When Portugal entered the European Economic Community, most of the canneries were unable to meet the demands imposed by the sudden modernisation of the economy and the State, abandoning many of the buildings that had once expressed the strength and vitality of the sardine civilisation in Matosinhos Sul. Those that were concentrated in economic groups moved to peripheral places that were easier to access and closer to the new traffic infrastructures, in keeping with their high productive capacity. The corporative policies of the *Estado Novo* had ended up delaying the dynamics of the new economic demands, which, in turn, marked the end of a means of production that was highly dependent on State protectionism.

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11 Law No. 1953 of 11 March 1937 authorised the creation of the Fishermen's Houses; Decree-Law No. 35732 of 7 April 1946 authorised the Junta Central das Casas dos Pescadores to obtain loans from Caixa Geral de Depósitos, Crédito e Previdência for the building of fishermen's houses.

12 Besides the operation at Cruz de Pau, other housing estates were built under the scope of the SAAL programme in Matosinhos, Angeiras, and Carcavelos. A fourth operation, given the name of Ilhas de Leça, was not built (Bandeirinha, 2011).



1930



1963



2007

FIGURE 4 *Matosinhos Sul shore photographs*

Matosinhos Sul shore in 1930's, 1963, and 2007. Copyright Photographic Archive / Matosinhos Municipal Council



1900



1960



2017

FIGURE 5 *Leça da Palmeira shore photographs*

*Leça da Palmeira shore around 1900, 1960, and in 2017. Copyright Arquivo Fotográfico Municipal de Matosinhos / Portal da Freguesia de Leça da Palmeira*

## **Disputes, Consumption, and Evocation in Architectural Narratives**

*Matosinhos from thirty, forty years ago... The primitive seiners, the enlightened masters, the works being carried out at the port and the engineers, the chapel of Santo Amaro under demolition, the same characters, every day, standing in the doorways of Rua de Brito Capelo, the same priest, also the same mayor (...) Those who lived from the sea, or by looking at the sea, were forcibly tidied away in the Fisherman's Quarter, in pink houses with oriental eaves. The tenements that had been overcrowded during the campaign, and then abandoned, the pawnshops, the drunken sailors from the oil tankers, the fires at the Mobil depots, near the sawmill, the first bars, the brothels, the festivities of Senhor de Matosinhos with their paper decorations and wooden arches, the 'factory women', in large groups, encouraging people to sing, also the winery, the warehouse filled with workers and disease. This Matosinhos has disappeared, transformed by itself, also by me, by my eyes. (Siza, as cited in Salgado, 1985, pp.135-136)*

The architectural map published by the Matosinhos Municipal Council (n.d.), with the support of the *Casa da Arquitectura* devotes little attention to the construction associated with fishing and the canning industry, giving much greater emphasis to the relatively recent projects developed by the heroic generation of the so-called Porto School: Siza, Eduardo Souto de Moura (1952-), and Fernando Távora (1923-2005), besides some projects developed by Alcino Soutinho (1930-2013), another architect born in the city and trained at ESBAF, the Porto School of Fine Art, such as the town hall, the municipal gallery, archive, and library (#16 on Figure 1). The only direct reference to the sardine civilisation is the inclusion of the Pinhais cannery (#3 on Figure 1), besides the designs of the ARS studio for the Matosinhos Municipal Market and for the rental building built by Adão Polónia.

It seems reasonable to state that, in the late 1950s, with the construction of the works designed by Távora and Siza, there was a deepening of the disputes between the expectations of urban functions and the increasingly reduced visibility of the economic activities and social dynamics linked to fishing and the production of canned fish. The displacement, reduction, and confinement of sea-based activities led to the beach asserting itself as a place of leisure and to the seaside being inhabited by the urban middle classes whose professional activity was not related to the sea, while, at the same time, the fishermen and manual workers ceased to be the predominant groups in these areas.

The four canneries that still continue to operate in the municipality of Matosinhos reveal possible strategies for dealing with the transformation of the canning industry, ranging from anticipation – as in the case of the market leader, Ramirez (#20 on Figure 1), which has moved to an industrial area close to the airport – to resistance, as in the case of Pinhais, which continues to use its traditional character as a marketing feature and remains installed, as before, in Matosinhos Sul.

Siza's plan accompanied the final phase of these functional disputes, the end of the large spaces dedicated to the canning industry and the increase in new residential typologies. Siza maintained some features that evoke the memory of the place's previous functions, as is the case with the footpath along the now disused railway line that brought the stones from São Gens quarries with which the Leixões breakwater was built. Today, the urban and spatial expression of the canning industry has changed. Siza's plan also contributed to a process that has turned the presence of the canning industry in Matosinhos Sul into an important feature of the local heritage. The other industrial spaces have either disappeared or been transformed into supermarkets, furniture shops, discothèques, and restaurants.

The *Casa da Arquitectura*, rehabilitated in 2017 by the architect Guilherme Machado Vaz, which occupies the facilities of the *Real Companhia Vinícola* (#1 on Figure 1), a milestone of 'modern' Matosinhos, was designed by the engineer António da Silva in 1897 and built by Licínio Guimarães. Having been left abandoned for several decades, its ruins were part of the same block occupied by SICMA (#5 on Figure 1), a modern canning factory designed by Januário Godinho in the 1930s, whose façade has now been preserved and which currently houses a fitness centre. The transformation of this block quite clearly shows the different phases in the development of Matosinhos Sul. Although Matosinhos Municipal Council is committed to preserving the memory of the canning industry through publications, homages, and exhibitions, besides using the highly reputed quality of the fish that is landed at the port of Leixões as a marketing feature, these subtle coincidences and contradictions that can be read through the built environment seem to reveal a certain degree of incompatibility between the continued presence of the fishing activity and the past history of the canning industry and the image that the city has projected for itself.

In Matosinhos Sul, the informal occupation of the beach and the public space, which lasted until the 1960s and was marked by the bustling and noisy presence of the fishermen and the female workers from the canneries, has been slowly disappearing. The announced end of many of the continuities and promiscuities that until then had been established between the beach, the boats, the fishing gear, the railway, the industry, and the vast expanse of sand that separated the urbanisation of the coastline was confirmed with the construction of the avenue that runs along the seafront. It is an area that in the 1980s and 1990s was afforded a design that highlighted its growing functional specialisation and was dominated by the roadway. It was transformed once again in the first decade of the twenty-first century with the building of the new seafront avenue. Souto de Moura, who designed the new waterfront of Matosinhos Sul (#17 on Figure 1), which was developed between 1995 and 2002 under the scope of the plan coordinated by Siza, sought to establish a relationship with the formal repertoire associated with the port of Leixões. By presenting a design for an enormous granite platform, which would later be accompanied by various facilities intended to enhance the use of the beach and its bathing area, most of which were not constructed, Souto de Moura evoked forms and materials that were characteristic of the port's activity, although he also made reference to the language of industrial architecture:

*The materials that are planned to be used will mainly be iron, wood and glass, being supported by a language that is close to that of industrial architecture. The overall image comes from the fact that it appears to be a continuation of the port of Leixões.* (Souto de Moura, 2019)

As a space that is fought over between bathing activity and property development, the Matosinhos coastline has been consolidated to the south with Souto de Moura's intervention and to the north, in Leça, with Siza's successive interventions. The seafront avenue in Leça (#18 on Figure 1), recently subjected to another intervention by Siza, was extended to the north and dotted with the urban facilities of the Boa Nova Tea House and the Tidal Swimming Pool, but it still remains a disputed urban space. The apparent functional continuity of the most recent interventions, which have marked a return to the pioneering initiatives of the English families who settled there at the beginning of the twentieth century, is also disturbed by the presence of the Boa Nova Lighthouse, built in the 1920s, and by the successive expansions of the infrastructure of the port of Leixões and the petrol refinery. There are frequent tensions and disputes over the expansion of the port's activity and the maintenance of the refinery, as well as moments when bathing and tourist activities seek to advance into spaces that were previously linked to the port of Leixões.

The dynamics and administration of the port of Leixões were determining factors of the occupation of this territory, becoming progressively constrained by international safety rules and by the urbanistic pressure of a city in search of spaces. Today, the conflicts between its wishes to expand and the new uses established in Matosinhos are entirely different from before.<sup>13</sup>

Siza's interventions since 2000 on the port facilities surrounding the marina, the construction in 2015 of the Cruise Ship Terminal (#19 on Figure 1) on the port's jetty, designed by the architect Luís Pedro Silva, and the installation in 2017 of the *Casa da Arquitectura* in the *Real Companhia Vinícola* winery are clear examples of the most recently adopted strategies. The rational planning of the territory and its infrastructures as an urban development strategy based on the architectures of production has been losing its influence in the decision-making processes, which are dominated today by marketing strategies geared towards the promotion of tourism and the attraction of real estate, a situation in which architecture again plays an accessory role.

## **Conclusion**

In presenting these moments of convergence and divergence between the aspects suggested by the urbanistic plans and the actual constructions promoted by the fishing economy, our intention has not only been to establish a distinction between the notions of urbanism as a professional practice, but also urbanisation as a process in which the whole of society plays a part. After playing their part in a cycle characterised by the port's function as a platform for the exploitation of natural resources and a basis for the development of a particular industrial economy, both architecture and the production of canned fish seem to have lost the protagonism that they enjoyed as forces for the transformation of the urban space adjacent to the port, and have themselves been transformed through marketing into products for cultural consumption.

As Ellefsen and Lundevall (2019) suggest, in analysing the transformations and dilemmas that have become typical of the fishing ports of northern Norway, with other characteristics and at different times,

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The mobilisation of some inhabitants and beachgoers of Matosinhos Sul against the extension of one of the jetties of the port of Leixões because of the foreseeable environmental impact of this operation is one of the examples of the various functional disputes that are now alive in the city.

depending on the particularities of each place, there may be identifiable patterns to be discovered between the trajectory and condition of Matosinhos and other port cities in different locations on the shore of the Atlantic Ocean.

*“Even though the fisheries followed patterns and techniques that were relatively identical along the entire coast, each place differed from the next, depending on the local nature, property conditions, modes of production, and building culture.”*  
(Ellefsen & Lundevall, 2019, p. 51)

The territory that has developed from the fish canning industry is today fed by a rarefied collective imagination in which the visibility of the links to fish and fishermen now tends to be restricted to gastronomy and restaurants. Nowadays, to seize the connections and spaces of fishing and canning, we would have to look to a regional or even Atlantic scale, as the activities that characterised Matosinhos' urban evolution now involves wider connections. The comprehension of the most recent relations between land and sea call for new scales and other places.

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