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João António de Aguiar and the Waterfront Avenue: The Seaside City Idea in the Last Phase of the Portuguese Empire

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Abstract

João António de Aguiar was one of the most prolific Portuguese architect-planners of the twentieth century, producing an extensive body of work within the framework of the 1934 legislative reform. He employed Urban Development Plans as a key scientific and technical instrument for territorial intervention, both in mainland Portugal and in the overseas territories. Despite his significance, Aguiar's contribution remains relatively understudied, frequently overshadowed by the reformist ministry of Duarte Pacheco and by the dominant ideological narratives of the period. This article advances a critical analysis centred on urban composition and city design, with particular emphasis on the transformation of coastal urban structures and on Aguiar's interventions in the Portuguese colonial context. Through a comparative and interpretative methodology, the study examines the formal and spatial principles underpinning his plans, while addressing the cultural challenges involved in adapting European urban models to non-European contexts. By shifting the focus from a merely descriptive inventory of planning instruments to a deeper investigation of urban form, this research offers a more nuanced reading of urban transformation processes in overseas coastal settlements. It contributes to a clearer and more structured understanding of Aguiar's influence on African and Asian urbanism and on colonial planning practices more broadly.

Keywords: urban heritage; urban form; urban development plans; waterfront regeneration; African urbanism; colonial urbanism; João António de Aguiar

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1. Introduction

The research problem articulated in this article is clearly delineated: to analyse João António de Aguiar's strategy for the urban transformation of a twentieth-century coastal city through a morphological reading of the introduction of the Waterfront Avenue as a new structuring element of urban form.

Conceived as a transformative urban axis, this intervention operated at the scale of the city centre, restructuring the waterfront as a strategic element of the urban fabric and redefining the spatial organisation of the historic core.

The proposal reflected broader international urban planning currents of the first half of the twentieth century, synthesizing several influential planning traditions, between the formalist and academic design of the nineteenth-century Fine Arts and the theories of the English garden city, assimilated by the French architects and urban planners that worked in Portugal such as Alfred Agache, Gaston Bardet, or even Robert Auzelle [1]. These included Ebenezer Howard's principles concerning the integration of landscape and urban form; particularly their emphasis on urban design composition, the recreational avenue, and the use of framed perspectives as focal elements of urban intervention, as exemplified by the work of Forestier.

At the same time, the scheme embodied an infrastructure-led and functionally driven planning approach, prioritizing economic development and industrial production [2]; which can be associated with Patrick Geddes's regional planning approach, which stressed the significance of coastal cities within a wider geographical consideration and the industrial port as the economic driver of the territory [3].

João António de Aguiar stands out as the Portuguese urban planner with the most extensive body of work in the twentieth century. Operating within the context of the 1934 legislative reform [4], he employed the Urban Development General Plan (UDGP) as the prime instrument to formalise his proposals, both in mainland Portugal and in the overseas territories. Between 1940 and 1960, benefiting from the ministerial drive promoted by Duarte Pacheco and the ensuing institutional reorganisation aimed at imparting a systematised dynamic to the development of the nation's urban centres, Aguiar played an active role in some of the most significant planning processes of the period [5]. This circumstance granted him a central position in the reflection on the transformation of Portugal's principal cities, establishing him as an unavoidable reference in the production of plans for the vast majority of district capitals and municipal seats [6].

One of João Aguiar's most significant contributions is associated with his participation in, and leadership of, the Colonial Urban Development Office (CUDO), later renamed the Overseas Urban Development Office (OUDO). The CUDO was a technical state body established in 1944 with the aim of planning and guiding urban development in the Portuguese former colonies: Angola, Mozambique, Guinea, Cape Verde, São Tomé and Príncipe, Goa, Macau, and Timor [7]. Despite differences in local contexts and resources, its team of professionals sought to systematically implement the guidelines established in the 1934 legislation, which had introduced the legal figure of the UDGP as a new urban planning instrument, adapting it to the overseas territories. Although the Office's mission was arguably overambitious, it generated an intensive production of plans, reaching the height of its activity in the 1950s and 1960s and involving collaborations from a significant number of distinct technical experts [8]. In the first phase, from 1944 to 1951, the CUDO was subordinated to the Ministry of the Colonies, which was responsible for the political administration of the overseas territories. From 1951, following the Ministry's restructuring and its renaming as the Ministry of the Overseas Territories, the body was redesignated as the Overseas Urbanisation Office. After 1958, still under the same ministerial oversight, it was again renamed the Directorate of Urbanism and Housing Services of the Directorate-General of Public Works and Communications, although this change had little impact on its internal structure or practical approaches [7]. In all of these administrative frameworks, João Aguiar played a central role, ensuring coherence and continuity in the production of plans.

Until the early 1960s, the UDGP's were prepared by the Office; from that period onwards, responsibility shifted to local urbanisation offices and municipal councils. Local authorities then began contracting qualified private professionals, either from Lisbon or resident in the colonies. The body's influence gradually declined during the 1970s, becoming particularly diminished during the final phase of Portuguese colonialism and

up to the beginning of the independence process in the overseas territories. This fragile and unstable context was further compounded by a general revision of the Urban Legislation framework, which released cities from the obligation to implement Urban Development General Plans [9]. The official termination of the OUDO occurred between 1974 and 1976, with its functions being absorbed into institutions such as the Institute for Development Support or ministries related to territorial planning and cooperation. Despite João Aguiar's professional prominence, his activity was marked by a tense relationship with the state authorities involved and, in particular, with local administrations, which adopted a sceptical stance due to the formal pragmatism of his proposals. Criticisms were chiefly directed at: the widespread disruption of historic urban fabrics; the implementation of high-capacity road infrastructures; the formalisation of civic centres, imposing and monumental, which standardised cities according to the values of the regime; and the implicit social segregation embedded in their programmatic distribution [6]. According to Eng. Mário de Azevedo, interviewed in 2004, coordinator of the 1967–69 Master Plan for Lourenço Marques, it may have been precisely these design principles that led to greater receptivity to Aguiar's proposals in the overseas provinces. In a very extensive territory, with large areas of unconsolidated urban space, difficult population management, and strong dependence on maritime connections, the formal lexicon of João Aguiar's plans facilitated the relatively swift implementation of infrastructure, controlled urban densification through major facilities and services, and simultaneously reinforced the image of the Imperial city based on Lisbon's relation with the Tagus river (Figure 1), reminiscent of its connection to the metropole [10].



Figure 1. Lisbon's riverside as a reference, 1719, drawing by Filippo Juvarra.

João Aguiar, as coordinator of the CUDO and one of its most prolific technicians, formulated a set of proposals in which references to Lisbon are implied, and in particular to *Praça do Comércio*, which is repeatedly cited in his plans both as a founding and fundamental urban model for riverside urban structures, and as a reference in the monumental treatment of the waterfront of existing settlements [11]. In doing so, he recovers the concept of the harbour-front square or seagate square as an iconographic element of the imperial urban image of the city of Portuguese tradition [12]. As presented in Figure 2, *Praça do Comércio* embodies the tradition of the European *Place Royale*, defined by a regular polygonal layout in which one side is entirely open to the landscape, framing the vast estuarine expanse of the river. The remaining fronts are formed by a continuous and homogeneous architectural ensemble, purpose-designed for the square, articulated

through a Pombaline arcade set at a uniform elevation and terminated by two isolated corner turrets, whose formal lines are not extended into the adjoining buildings [11].

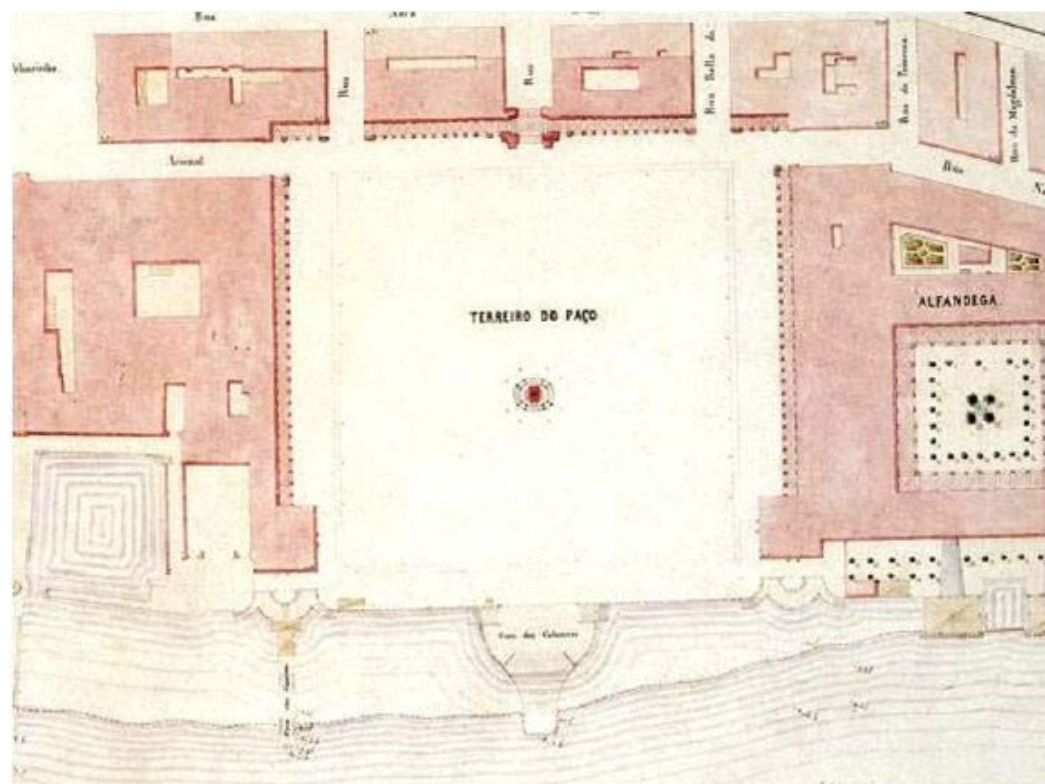


Figure 2. The *Praça do Comércio* as the model for The Portuguese seagate square, 1856–1858, Topographic survey by Filipe Folque.

João Aguiar’s work, presumably due to the extent and dispersion of his archive [6], has largely been interpreted through a monographic and historiographical approach [13], with rare exceptions related to the specificity of production in particular historical periods or to the evolution of certain geographical contexts [14]. Furthermore, the perspective adopted is observed to be almost exclusively confined to a national framework, primarily associated with Portuguese urban development during the period in question.

The urbanistic legacy of João Aguiar, as well as the paradigmatic transformations that occurred during the period under study, call for a more in-depth approach to questions of urban form design and a less compilatory reading of intervention instruments. This article undertakes a reading of his proposals, identifying in particular his general understanding of the Riverside City [15]—as a model; the prevailing technical priorities—as a problem; his compositional and formal resources—as a solution; and their specific adaptation to the particular context of the foreign geographies [16].

The study therefore examines the transfer of an urban model of European origin, rooted in Mediterranean tradition, to colonial territories with contrasting geographies and climates, such as Dili in Timor or the city of Praia in Cape Verde [17]. It seeks to understand how João Aguiar adapts this model to peripheral contexts, namely through its transfers and cross-contaminations, integrating them into an urban network of the Portuguese overseas empire, marked by fragmentation and cultural diversity [18].

In addition to addressing the existing gap in the systematization of this particular period of urban planning history, the present paper examines the significance of waterfront redevelopment through the careful integration of sensitive interventions that reconnect existing urban grids without disrupting their fundamental morphological structure. At a time when urban heritage is often treated as a static and rigid system,

particularly in vulnerable contexts exposed to climatic, technological, and social transformations, there is an urgent need to explore strategies that preserve the identity, spatial coherence, and intrinsic values of cities [19]. Despite its obvious formalistic and ideological traces, the legacy of João Aguiar can constitute a key layer for the future planning of such complex contexts.

In summary, from an international perspective, this article seeks to assess the adaptation of European urban planning models to African and Asian colonial contexts, highlighting processes of transfer, hybridisation and cultural transformation [20]. It compares the formal and spatial principles adopted by Aguiar with twentieth-century international trends in coastal planning and colonial urbanism. It also contributes to the broader international debate on colonial urbanism, urban morphology and waterfront planning in contexts of modernisation. Finally, it positions the Portuguese case within the global discussion on modern urban heritage and urban transformation processes in historically sensitive territories [21].

2. Materials and Methods

The methodology and resources employed in this article were selected to address, in a broad sense, two interrelated research questions. First, what lessons can be drawn from these historical cases to guide contemporary interventions in waterfronts and urban fabrics experiencing intense transformative pressures? Second, to what extent can the analysis of urban form contribute to the development of a theoretical and operational framework for sustainable, heritage-sensitive urban regeneration policies?

The study is developed from the construction of a reference framework for João Aguiar's conceptual and technical doctrine, tracking the development of plans for certain seaside cities, selected to establish a coherent chronological and geographical sequence of consolidation, which allows for some hypotheses regarding his formulation of cities in the Portuguese former colonial territories (Figure 3).



Figure 3. Location of the selected seaside cities.

The Urban Development plans considered were for the following 6 littoral cities: Ponta Delgada (1942–1946), Luanda (1945–1946, plan revised in 1952), Dili (1948–1951), Mormugao (1951–1953) Lourenço Marques (1952–1956), and Mindelo (1957–1959).

The case studies were selected from among the most historically significant urban centres and port cities within each territory, prioritising locations that maintained a strong

port activity throughout the twentieth century and consequently faced the dual challenge of modernising port infrastructures while redefining their relationship with the waterfront. With the exception of Mindelo and Mormugao, the selected cases correspond to the administrative capitals of their respective territories and to their principal ports, as in Luanda, Lourenço Marques and Dili. All case studies comprised major industrial port cities located in natural bays, characterised by significant demographic growth, relevant pre-existing urban structures, and strategic integration within the main itineraries of the CUDO and OUDO surveying and urban planning missions [12]. Furthermore, they concentrated the highest volumes of heavy cargo traffic within their respective provinces (Table 1).

In addition to the written analysis, these studies are accompanied by the creation of graphic composition diagrams of the waterfront's public space reconfiguration, in order to substantiate the demonstration of the extracted considerations and to facilitate the subsequent systematization of results [22].

The analytical diagrams are based on the recognition of the urban layout proposed in each plan, namely through the interpretation of the system of public spaces and its relationship with the pre-existing urban fabric.

The diagrams aim to provide a formal characterisation of the waterfront avenue as a linear system of public spaces and to identify its role in structuring an urban network organised around a new interface between the city and the water, invariably materialised through a coastal promenade. Beyond characterising the new urban edge and the formal redefinition of the waterfront, the diagrams explore the integration of the waterfront avenue within the pre-existing urban fabric, examining its relationship with existing main streets and public squares, as well as with the new maritime gateways that marked the principal points of arrival to the city. The synthesis diagrams employ a consistent set of representational criteria in order to facilitate comparison between the different proposals for a new waterfront urban structure, in which the waterfront avenue constitutes the primary element of urban composition.

The plans are presented in the article, not geographically, but according to the chronological sequence of their preparation. The sequence in which the plans are presented is intended to follow the systematic development of Aguiar's approach. It assumes, based on the subsequent analysis, the progressive consolidation of fundamental principles in the redesign of the city, grounded in the implementation of a structuring framework whose adaptability varies according to specific circumstances [2].

The article was developed using documentary analysis, mostly composed by graphic elements, consulting the Sketches, Preliminary Plans, and Urban Development General Plans proposed by João Aguiar for specific representative sites. The qualitative analysis was primarily based on the observation of the technical processes, highlighting the 1:2000 scale plans and their complementary descriptive reports. Additionally, historical, graphic, and written descriptions were consulted, as well as aerial photographs and satellite images. The sources consulted were primarily municipal archives and the collection of the research project "Colonial Urbanism: Urban development Plans of the Former Overseas Provinces, 1934–1974" (FCT ref: POCTI/AUR/42710/2001), carried out between 2004 and 2007 under the coordination of Professor Maria Clara Mendes [9].

The analysed material was further supplemented with a series of more recently discovered documents, made available through doctoral theses [13] and individual archives. In this context, particular attention is given to the resources provided by researcher Joana Bastos Malheiro and the ARCH/VES research group at FA.U.Lisboa, whose ongoing work aims to map, preserve, and disseminate the collections of Portuguese architects, including João António de Aguiar.

Equally relevant was the consultation of the legal decrees that framed the general Urbanisation Plans and established the respective bodies responsible for their development or approval [23].

Table 1. List of the selected seaside cities and the dates of the Urban Development Plan development.

City	Country	Date
Ponta Delgada, Azores	Portugal	1942–1946
Luanda	Angola	1945–1946/1952
Dili	East Timor	1948–1951
Mormugao	Goa, India	1951–1953
Lourenço Marques ¹	Mozambique	1952–1956
Mindelo	Cape Verde	1957–1959

¹ Maputo.

João Aguiar began his professional career by joining the Lisbon City Council in 1923. At the age of 19, he took on the role of draftsman and was quickly promoted to municipal urban architect (AML-AC). At the age of 38, at the time of the creation of the Colonial Urban Development Office (CUDO), he already held a remarkable curriculum and institutional experience, which legitimized his appointment as coordinator of the organization [5].

The period between 1944 and 1960 simultaneously marks the beginning of the preparation of the General Plan for Ponta Delgada and the creation of the CUDO, establishing Aguiar's direct involvement in reflections on the Portuguese overseas maritime city. This initial confrontation with colonial waterfront space took place in a practical manner during the mission he undertook in 1945 to the former overseas provinces, a journey that coincided with his request for resignation from his post in Lisbon. This experience, documented in technical reports and personal writings, proved decisive in the development of his urban vision [13].

Among the most significant aspects is the perception of the city from arrival by sea, the ship being the main means of access to cities of the Empire, which motivated the reformulation of waterfronts and the monumental seascapes treatment of the axes between the port and the civic centre. These central public spaces take on an almost scenic function, becoming iconic in the first contact with the city, with the bay assumed as the structuring territorial support of the intervention proposals [24].

For this reflection, plans were selected that are representative of two distinct groups of capital cities:

(a) Ponta Delgada, Mindelo and Dili are insular smaller-scale cities, developed as strategic hubs for supply and logistical support of greater commercial itineraries.

Historically, under Portuguese administration, they were developed as intermediate stopovers, providing few local economic impacts, therefore leading to proposals of a more restrained formalization, although not entirely dispensing with a certain display in their urban image and infrastructure modernization [25].

(b) Luanda and Maputo (Lourenço Marques) are coastal cities of great economic importance, enhanced by the intense outflow of African hinterland resources and their foreign dispute. Therefore, the plans assume intense international activity via industrial economy, which, although based on the same urban premises of all the overseas territory, correspond in complexity and scale [26].

3. Reformulating the Seaside City: From the Atlantic to the Pacific

3.1. The City of Ponta Delgada, Azores, Portugal

João Aguiar's proposal for the city of Ponta Delgada (Figure 4), in the Azores, constitutes his first plan for an insular territory outside mainland Portugal. This experience anticipated several strategies that would later be applied in overseas coastal cities under Portuguese administration.



Figure 4. Preliminary Urban Development General Plan for Ponta Delgada, 1944.

Aguiar's simultaneous involvement in liberal professional practice and public service was common among technicians of the period, who combined private, municipal, and state commissions, as often confirmed by architects who contributed more intensely in the main overseas territories during the following period [27]. This situation stemmed from a shortage of technically qualified professionals in architecture and urban planning in Portugal, exacerbated by weak economic development and the resulting limited urban production, which in turn intensified territorial asymmetries [28].

The Ponta Delgada plan focuses on the reconfiguration of the waterfront through the creation of an extended seaside street of significant section, promoting regular public usufruct, frequently interpreted as an avenue [29]. This new urban element consolidates areas with deficient connections and integrates pre-existing zones, such as the historic centre and the port, with new residential expansions and public buildings [30]. The waterfront avenue involves land reclamation and the longitudinal regularization of the coastline, functioning as a unifying axis of public space predominance that redefines the city's urban image [31] (Figure S1).

João Aguiar, despite his limited international recognition, thus emerges as one of the pioneers of what appears to be the subsequent trend in major European coastal cities, namely the reconfiguration of the industrial city model, which was progressively transformed towards the end of the twentieth century [32].

The scale of the buildings proposed along the waterfront avenue introduces a rupture with the previous urban landscape. Despite the geometric compatibility between the new layout and the existing urban fabric, the plan represents a profound shift in paradigm [33]. Public space is shaped according to the ideological principles of the *Estado Novo*: modernity in infrastructure, monumentality in public buildings, and a historicist language in ornamental elements [34].

From a programmatic perspective, the plan is organized along two directions: transversal and longitudinal. Transversally, the sector adjacent to the port is designated for industrial uses and logistical services; the denser central zone concentrates public services and collective housing; the eastern sector is configured as an expansion area with low density, single-family housing, and green spaces with recreational or sporting functions [35].

Longitudinally, three zones can be identified. The first, closest to the coastline, forms a continuous frontage of large urban blocks and coastal squares that articulate new and existing elements. These coastal squares usually acted as focal points of new interior penetration streets, generally axial, cut through the existing urban fabric (Figure 5). The second zone, with intermediate occupation, features smaller blocks and higher plot density, revealing the coexistence of pre-existing structures and new interventions. The third zone corresponds to peripheral expansion, characterized by low density, where single-family housing predominates, integrated into landscaped areas and tree-lined streets.



Figure 5. Integration of the Waterfront Avenue into Ponta Delgada's Public Space Fabric.

Despite the inspiration drawn from the garden city model in this latter zone, the rigidity of the layout and the road connections contrasts with the organic character typical of that model, revealing a planned rationality adapted to the urban logic of the *Estado Novo* [36].

Note that, although the date of this plan coincides with the establishment of the CUDO, the Azores archipelago, like the island of Madeira, was not considered an overseas territory; therefore, the Ponta Delgada Plan constituted a process parallel to this body in administrative terms, despite the recruitment of its author [37].

3.2. The City of Luanda, Angola

The Urban Development plan of Luanda, developed by João António de Aguiar, emerges in a context of strong demographic and economic growth, driven primarily by the increasing value of coffee production from the 1940s onwards [38]. This demographic and territorial dynamic created, even before the establishment of the CUDO, the need to provide the Angolan capital with an urban planning instrument appropriate to the city's new scale and complexity. According to Simões de Carvalho, responsible for the Urban

Office of the city after 1961, interviewed by the authors in 2004, this circumstance may even have been at the origin of the CUDO itself.

The first institutional response appeared in 1942, with the commissioning of the first Urban Development Plan of Luanda to the duo Étienne de Groër and David Moreira da Silva, two prominent figures in European urbanism (Figure S2). The proposal envisaged segmented development of the urban frontage and introduced the idea of a large Waterfront Avenue, supported by extensive land reclamation, aimed at regularizing the bay-front and enhancing its urban image [8].

The Urban Development General Plan, prepared by João Aguiar within the framework of the CUDO, represents a critical revision of the 1942 plan (Figure 6).



Figure 6. Urban Development General Plan for Luanda, 1946.

While retaining some of its structuring principles, the new plan proposes a more integrated vision of the city and assigns a central role to the Waterfront Avenue. Aguiar significantly enlarges the previously planned profile of the avenue, transforming it into a structuring element of the city, both functional and symbolic. The Waterfront Avenue connects the historic centre with expansion zones and industrial areas, expanding public space along the Bay while preserving much of the pre-existing urban fabric (Figure 7).

The plan demonstrates a sensitive approach to local specificities, with particular attention to urban transitions and the landscape integration between the waterfront and the overlooking promontory, addressing a longstanding issue in Portuguese-founded cities: the connection between the maritime hub of the bay and the primary settlements on higher ground [39]. This separation functioned as both a physical and cultural barrier. It constrained the expansion of existing urban nuclei and the connection of their peripheries, consciously disregarding their progressive occupation by the indigenous population [40].



Figure 7. Integration of the Waterfront Avenue into Luanda's Public Space Fabric.

The Waterfront Avenue thus emerges as the key element of the proposal, embodying modern planning principles and expressing Aguiar's compositional framework. More than a mere roadway, it constitutes an urbanistic gesture of reconciliation between city and water, reaffirming the Bay as the principal symbolic and functional stage of the capital [41]. The Luanda plan therefore confirms the centrality of the Waterfront Avenue in Aguiar's design repertoire and its relevance as an instrument of modernization and representation of urban authority in the overseas territories.

3.3. The City of Dili, Timor-Leste

Dili, the capital of Timor-Leste, is located in the easternmost province of the former Portuguese colonial empire, within a very particular geographic and political context. Isolated between the Indonesian archipelagos and the northern coast of Australia, the city in the mid-20th century appeared as a devastated territory, with an ill-defined form, rugged relief, no significant urban structures, and low economic development [42].

When João Aguiar arrived in Dili in 1946, he encountered a devastated place, reflecting the Japanese occupation during World War II, without significant pre-existing conditions that could constrain the city project. Nevertheless, the sheltered bay and strategic location justified its continuity as the capital—a decision still uncertain at the time due to the precariousness of the foundational core [43].

The plan conceived in 1951 had as its primary objective the reconstruction of Dili, aiming to endow it with the monumentality befitting a (maritime) capital (Figure 8). Despite good navigability conditions, Dili lacked a functional port near the administrative centre. Main access was via the peripheral airfield, as highlighted in the plan, or through small piers serving connections to Ataúro Island. The absence of a central port infrastructure contrasted, at the time, with other overseas capitals [44].



Figure 8. Urban Development General Plan of Dili, 1951.

Taking into account the monsoon regime, Aguiar incorporated the stabilization of the main streams and the alignment of streets perpendicular to the coast to ensure natural drainage. The Waterfront Avenue is structured around a large square parallel to the bay, connecting the Church, the Governor's Palace, and administrative services, simulating a built frontage without formal enclosure (Figure S3).

The Waterfront Avenue adapts to the coastal shape of the territory, assuming a sinuous layout that contrasts with the straight streets dominant in the geometrized plan. The relative flatness of the territory allowed the implementation of an extensive and cadastrally systematic layout, oriented along an east–west axis. The plan proposes elongated plots, perpendicular to the streets, designed for detached buildings, rejecting the traditional compact block dominant in other CUDO plans. This approach generates open urban pockets, defined by the surrounding streets (Figure 9).

Unlike other colonial cities, in Dili it is the plan itself that determines the cadastral organization, rather than adapting to pre-existing divisions. The territory is divided between private residential areas and state reserves, evidencing a foundational and structuring action. However, this lack of systematic cadastral registration still represented, as of 2007, a serious limitation to urban development, as documented in the Master Plan prepared by GERTiL-FAUL [45].



Figure 9. Integration of the Waterfront Avenue into Dili's Public Space Fabric.

3.4. The Mormugao Peninsula, Goa, India

The State of India, more specifically the overseas provinces of Goa, Damão, and Diu, appears fragmented and dispersed along the Indian Ocean coast. These territories functioned as enclaves, effectively independent from one another. They were embedded within the British imperial sphere and were therefore strongly influenced by its political and economic dynamics [46].

As a result, they came to represent a form of urban development that was weakly systematized and anachronistic when compared with other overseas territories under CUDO's authority [16]. Their evolution responded primarily to specific logistical pressures and contingencies, driven by external industrial investment and by persistent local social contestation [47].

The General Urbanisation Plan of Mormugao (Figure 10), located in the south of Goa, was conceived to address rapid population growth in the early 1950s. It also responded to the territorial fragmentation of a region with significant industrial potential. This fragmentation hindered the integration of emerging logistical infrastructures with existing settlement patterns.

The plan aimed to articulate the Mormugao Peninsula, where a major port facility was located, with the continental areas at its base. These included the northern bank of the Zuari River and the southern edge along the Indian Ocean. A railway line traversed this territory, separating these areas and acting as a major physical barrier.

The peninsula's promontory was to be densified through a sinuous street layout. Residential functions were prioritised. These were primarily intended for administrators, settlers, and European traders, answering to the port increasing relevance. The result was a clearly defined urban unit, marked by both physical and social segregation. The planned occupation of the promontory was clearly the main objective of the plan [48].



Figure 10. Urban Development General Plan of Mormugao, 1953.

On the ocean-facing side, another urban unit was proposed. This area developed along the beach and assumed a more hybrid character. It combined leisure functions with services, commerce, and limited residential uses. However, the railway acted as an infrastructural hinge. It prevented integration with the adjacent settlement and disrupted spatial continuity (Figure 11).

The urban design of João Aguiar proposed the construction of a large seafront promenade in this area. The intervention aimed to connect existing urban elements. It also introduced a central civic square as a key point of reference. This space was designed to terminate a principal avenue. The avenue extended inland towards the administrative centre of the region, the city of Vasco da Gama.

This situation, despite lacking the programme-based hierarchical significance and the corresponding graphic clarity of the other plans, largely due to the peninsula's irregular configuration, nevertheless reinforces the structuring role of the Waterfront Avenue as a key element in consolidating the principal urban centres and supporting the social use of the coastal seafront [13].

On the river-facing side, the plan sought to consolidate the existing urban fabric. It also proposed the longitudinal expansion of a settlement inhabited by local residents. This produced a narrow urban strip. It was bounded by the beach to the front and the railway line to the rear. The settlement extended inland, parallel to the shoreline. It formed a distinct urban unit structured around a central axial avenue. This avenue connected the railway station to the riverfront. Containing the beach, Aguiar formalized another Waterfront Avenue, of modest definition, expressed in a short width, with clear widening and different urban layout at the intersection with the mentioned station avenue, thus giving it a point of exceptional geometric alignment.

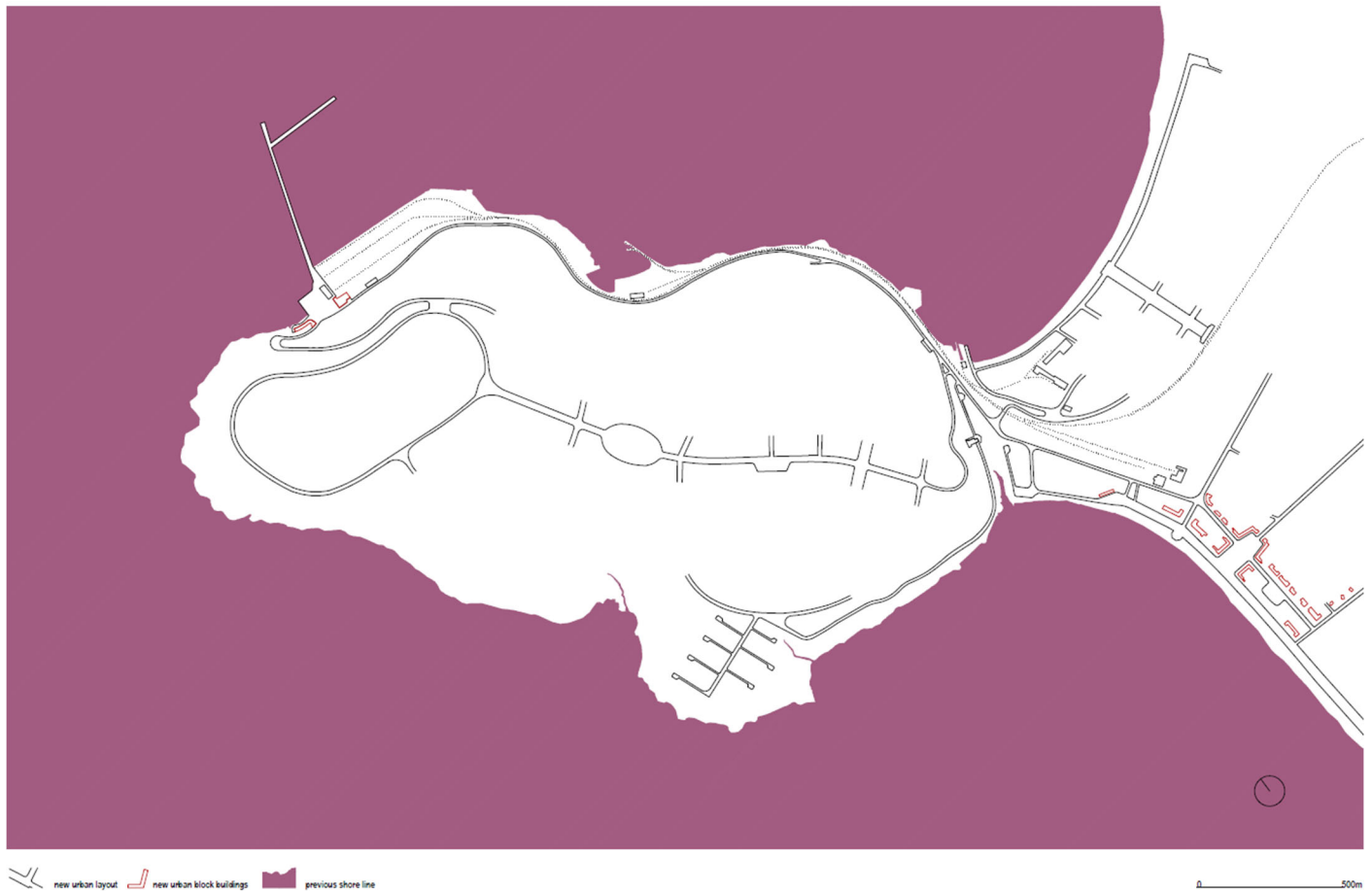


Figure 11. Integration of the Waterfront Avenue into Mormugao's Public Space Fabric.

3.5. Lourenço Marques (Maputo), Mozambique

The Urban Development General Plan of Lourenço Marques represented the most extensive and detailed process among all João Aguiar's proposals for overseas cities [9]. The plan's report highlights the strategic importance of the Mozambican capital, whose privileged location in the south of the territory, close to South Africa and connected to the African hinterland, gave it a central role in the export of raw materials for international trade [49] (Figure 12).

The cosmopolitan and multicultural environment of the city was widely valued, cited as one of the best examples of Portuguese management in the overseas territories [9]. As in Luanda, the size and potential for urban growth required dividing the plan into formally defined but interdependent sectors [50].

Aguiar's proposal focused on four main objectives: resolving the altimetric difference between the Lower and Upper city; integrating large private estates into the urban grid; expanding the built fabric beyond the core concrete areas; and extending it eastward along the oceanfront. The first two issues, both technically and bureaucratically complex, would influence urban growth for decades [51].

The city displayed a dual structure, with port and railway areas in the lower city and residential occupation on the promontory. To link these zones, Aguiar proposed the occupation of lands granted to politically influential companies and the creation of a new civic centre on the marshy lowland, at the altimetric transition between the promontory and the coast [9].



Figure 12. Urban Development General Plan of Lourenço Marques (Maputo), Civic Centre's Plan, 1956.

The Waterfront Avenue emerges as a structuring element: it consolidates landfills, redefines the waterfront with an artificial seawall, connects the port to a second civic centre to the east via a 6 km coastal strip, and organizes the transition between public space and heavy infrastructure. The avenue includes a small maritime square perpendicular to the urban core, functioning both as a boundary and an articulating element (Figure 13).



Figure 13. Integration of the Waterfront Avenue into Lourenço Marques Public Space Fabric.

At the heart of the plan lies a monumental square, with a longitudinal garden preceding public buildings and symbolically marking the 'gate to the sea' (Figure S4). A large, organic block accommodates administrative services, while to the rear, preceding the transition for the arborized slope, lies the sports area, which still today defines a significant part of Maputo's urban structure [48]. Despite the CUDO's effort in the Urban Development Plan, it was not implemented, primarily due to the high costs that such an ambitious plan would entail, costs that the metropolitan authorities were unwilling to bear, even partially. Nevertheless, it is noteworthy that, despite never being formally adopted, and in the absence of any alternative urban management instrument, this Plan effectively served as the city's regulatory reference until the Master Plan was developed in the 1970s. This was confirmed by its coordinator, Mário de Azevedo, in an interview with the authors in 2004. Interestingly, the later Master Plan would go on to incorporate several of João Aguiar's key strategic proposals, albeit in more context-sensitive formulations and with a stronger social awareness, particularly in relation to housing and public space [9].

3.6. Mindelo, Cape Verde

In the workplan for the city of Mindelo, João Aguiar proposes the Coastal Promenade as a consolidation of the city core's expansion along the coast, thereby creating the possibility of connecting the two extremes of the bay [52]. This connection is constrained to the south by the former Millers industrial area, which established the city's southern limit, and to the north by the natural promontory, around which the avenue would run along the shoreline at its lowest elevation, extending as a coastal road to link the city's Central Zone with the Port/Industrial Zone [53] (Figure 14).



Figure 14. Urban Development General Plan of the city of Mindelo (workplan), 1959.

The study also takes into account the presence of the existing military enclosure to the north, which occupies a significant portion of the current urban core, constraining the development of the city grid in that direction and encouraging residential expansion at

the opposite end [54]. This bipolarity is in some way mitigated in the plan through the proposed location of major educational facilities and the adjacent sports complex, incorporated within an urban park—characteristic of plans from this period, particularly in Aguiar’s proposals [55].

Developed over a much gentler slope and oriented almost parallel to the bay, the historic core of the city develops in a more regular and connected manner, allowing for a proposal for occupation and expansion of the original core in a more homogeneous and continuous way. It is clearly terminated by two small squares perpendicular to the waterfront, marking its edge and the start of the interior access streets—one aligned with the hotel, the other with the police station [56].

The central square, shorter than in other proposals, corresponds in area and alignment with the wharf platform, functioning as a single formal element within the planned layout. This element thus mediates the role of the Waterfront Avenue, with its profile differentiated between the northern and southern sides of the Coastal Promenade, not only in terms of street width, pavement, and tree planting along the respective avenues, but also regarding the programmatic functions allocated to each side of the seagate square [57].

This central urban square also constitutes an exception to the urban grid: it crosses the central fabric of the core and extends east–west, terminating in a road linking the interior of the island. This element was intended to reposition the city’s urban centre further south, thereby balancing the new city between the existing fabric and the expansion area, enhancing the value of the new plots [7] (Figure 15).



Figure 15. Integration of the Waterfront Avenue into Mindelo’s Public Space Fabric.

4. The Systematization of João António de Aguiar’s Approach: The Consolidation of the Seaside City, the Invention of the Waterfront Avenue and the Re-Invention of the Seagate Square

The urban production of João Aguiar between 1944 and 1960 reveals a systematic and coherent approach to the design of coastal cities, guided by morphological principles adapted to the geographic, social, and political realities of the Portuguese Empire [58]. His plans for Ponta Delgada, Luanda, Dili, Mormugao, Lourenço Marques, as well as the Cape

Verdean city of Mindelo, share a conceptual framework centered on the relationship between the city and the sea, structured around the idea of the 'port city' [59]. The waterfront assumes a fundamental role, functioning as a symbolic and functional interface between the maritime frontage and the previous urban fabric, emphasizing the interconnection of public spaces, reshaping the water's edge both as a circulation corridor and an urban promenade [60].

Interventions along the coastline frequently rely on land reclamation operations, which regularize the topography and create new urban platforms.

In Ponta Delgada, this allows for the integration of the port, historic centre, and residential expansion [33]. In Lourenço Marques, the landfill enables the creation of a new civic centre, articulating different urban elevations. In all these interventions, the Waterfront Avenue emerges as a structuring and terminating element of the city, functioning not merely as a traffic route but as a visual and functional unifying gesture of the coastal territory, most extensive in Ponta Delgada and more restrained in Dili or Mindelo. In the case of Mormugao, owing to its sectorised layout, the two proposed waterfront avenues do not emerge as the principal articulating elements of the plan. Rather, they function as consolidating fringes for the pre-existing urban nuclei, reinforcing their formal and functional independence and thus constituting a clear exception to Aguiar's overall approach [2].

The seagate square, as a transitional space between the port and the urban fabric, assumes a constant symbolic and ceremonial role in Aguiar's plans, similar to the concept of the marginal square of the mediterranean cultural tradition [61]. Framed by institutional buildings, this structure organizes the city's entry from the sea, as seen in Dili and Mindelo, the latter marked by a clear urban division between north and south. Another recurring feature is the introduction of avenues perpendicular to the coast, aimed at connecting the reconfigured seaside urban layout with the interior of the urban layout and facilitating the development of new neighbourhoods.

The plans also reveal a clear functional compartmentalization of the city, with distinct sectors for housing, industry, and administration. Road hierarchies and the integration of port and industrial zones ensure the smooth flow of movement and effective land use.

Aguiar also applied garden-city principles in urban peripheries, promoting low-density neighbourhoods with tree-lined streets influenced by the Radburn model [13]. In Ponta Delgada and Dili, these urban fabrics facilitated the transition between the city and the surrounding countryside (Figure 16).

In Mormugao and Mindelo, such ideas were adapted as buffer areas surrounding pre-existing military and industrial facilities, resulting in asymmetrical or segregated residential expansions. Although developed within a colonial and ideologically limited context, strategies for integrating the local population appear in the low-density housing schemes, albeit still marked by spatial and social hierarchies.

While this issue does not constitute a primary focus of the present study, it is important to acknowledge that the plans developed by the CUDO, and the OUDO, (1944–1958) are representative of practices of spatial and functional segregation [2]. They reflect the ideology of the period, the Estado Novo regime in Portugal, and propose the organisation of neighbourhoods according to the socio-economic and cultural profile of their inhabitants, distinguishing between neighbourhoods intended for European settlers and those designated for the local indigenous populations [62].

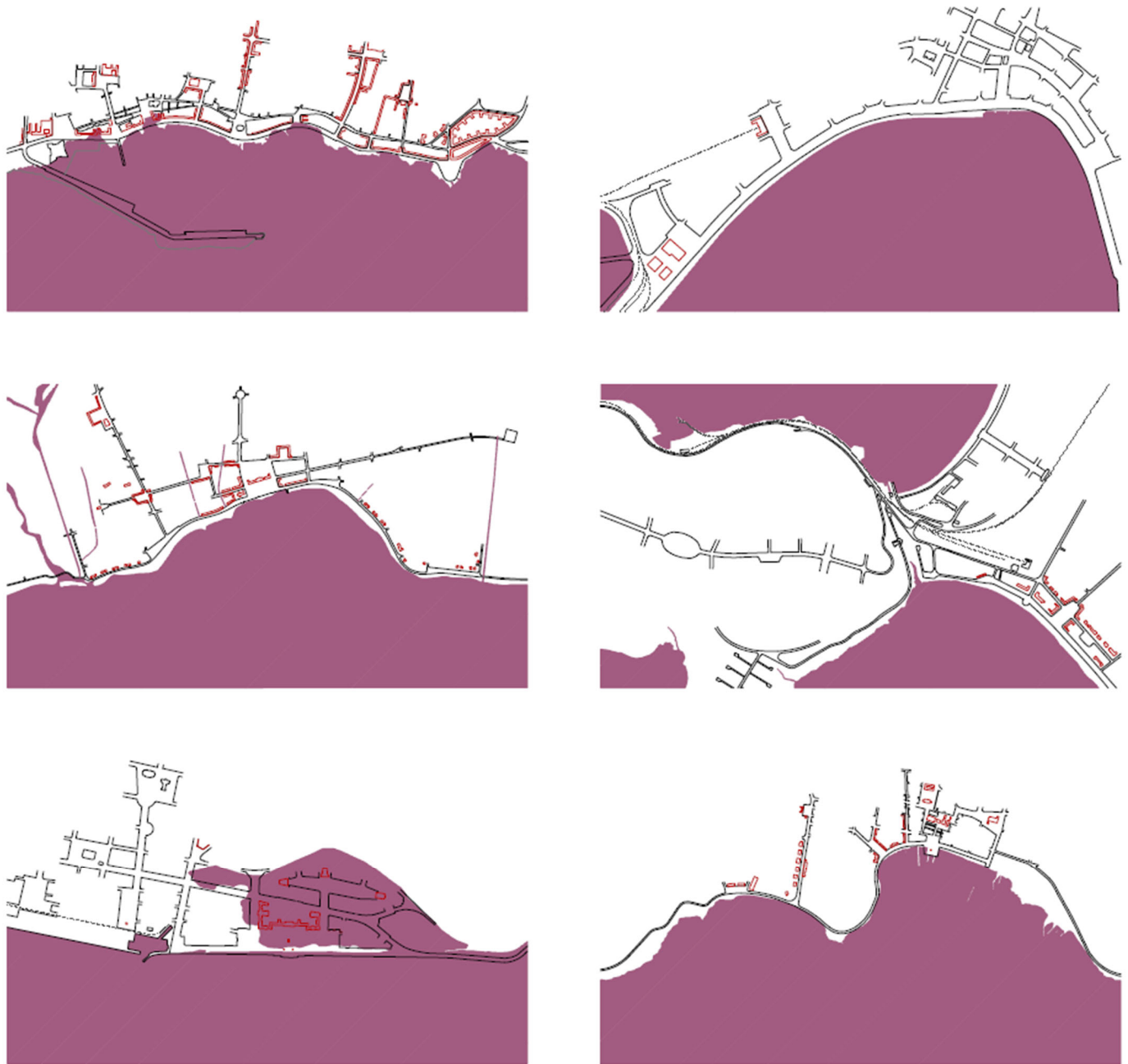


Figure 16. Comparative Framework for Waterfront Avenues integration.

In these plans, the territory beyond the formally recognised urban areas is defined through more generic occupation perimeters. These areas are nevertheless structured by regional road networks intended to guide patterns of peripheral growth [63].

The incorporation of these areas, which accommodated ‘non-European’ populations, occurred primarily through peripheral absorption and local economic pressure, largely driven by the demand for labour in close proximity to business activities [64]. Where present, they consistently reveal rudimentary forms of urbanisation that remained disconnected from the surrounding urban fabric.

The plans for the cities of Lourenço Marques and Mormugao (Vasco da Gama) constitute some of the most explicit examples of deliberate spatial segregation in relation to local culture.

To better understand João Aguiar’s approach and the urban principles underpinning it, it is important to compare the proposals developed under the CUDO, and OUDO, with

selected plans he produced for riverine cities in mainland Portugal. Such a comparison allows an assessment of whether, and to what extent, the colonial context constitutes a distinct condition.

From Aguiar's extensive body of work, and in line with the evolution of his thinking and the maturation of his practice, it is instructive to examine examples drawn from the chronological extremes of his engagement with waterfront territories.

The first example is a partial study for the city of Figueira da Foz, dated 1938, identified as the earliest instance in which Aguiar addresses this issue. In this early proposal, the reconfiguration of the seafront is treated only superficially (Figure S5). The scheme is largely self-contained, lacking an articulating relationship with the wider urban fabric and, consequently, exhibiting limited formal definition [65]. It effectively resolves the closure of several central urban blocks, incidentally oriented towards the beach, reflecting concerns more closely aligned with architectural scale than with broader urban structure. Aguiar's terminology in this instance is correspondingly ambiguous and terse [13].

Shortly thereafter, on the eve of his integration into the CUDO, the proposal for the riverfront urbanisation of Santarém, developed between 1943 and 1945, signals the emergence of a more integrated strategy for waterfront spaces (Figure S6). Here, the riverfront is conceived as a privileged area for public use, primarily in a landscaped capacity formalised as a public park, while already assuming a clear role in consolidating urban structure. Although a formal promenade is not yet defined, the solution is fully articulated with the principal axes of both the existing and proposed urban grids, functioning as a key transitional and buffering element in mediating contact with the water [66].

Finally, the consideration of the 1961 revised UDG for Viana do Castelo, selected as representative of a mature phase in Aguiar's career (Figure S7), reveals a confident application of the same urban design principles employed in colonial contexts. Notably, the port of Viana constituted one of the most significant industrial hubs in Portugal at the time, thereby demonstrating the operational viability of these strategies, an issue of particular sensitivity in overseas territories. In Viana, as in Ponta Delgada, Luanda, and Mindelo, the avenue is established upon reclaimed land in front of the original urban core, linking the port to the city without severing its relationship with the water. In this context, the importance of spatial continuity is evident: the avenue assumes transitional configurations without formal rupture, operating as an articulating element between different urban fabrics and uses through a regulating public continuum that connects both existing and proposed urban structures [67].

5. Conclusions

Aguiar's plans demonstrate methodological consistency and an ability to respond to local conditions, reflecting a modern urban vision shaped by the constraints of the colonial regime, including social segregation and disregard for indigenous building traditions. His proposals reveal a distinct urban vocabulary centred on key port-city elements, such as the Waterfront Avenue, harbour squares, sea gates, and public service block-buildings, which together construct a modern, functional, and paradoxically monumental urban image, reinforcing their historical role within the urban structure [34]. These elements remain structurally significant in the cities analysed, simultaneously articulating the existing urban fabric and new interventions, towards which the principal axes of urban penetration converge, thereby establishing a continuous network of public space [59].

Central to his approach is the Waterfront Avenue, incorporated as a defining compositional device in the twentieth-century coastal city. Aguiar employed it to redefine the urban image while ensuring continuity with existing circulation networks, embedding it within specific geographical contexts. In cities such as Mormugao and Mindelo, these strategies reflect careful adaptation to local topography and socio-economic conditions.

Aguiar applied this model with formal restraint and technical rigour, using the Waterfront Avenue to connect fragmented urban areas, overcome natural constraints, and consolidate the coastline as public space. His approach emphasised the adaptive assembly of urban fragments and the integration of natural features, valleys, plateaus, and promontories, guided by functional and contextual logic [8]. As an heir to the pragmatic Portuguese urban tradition, Aguiar demonstrated particular sensitivity in insular contexts, favouring restrained interventions over explicit monumentalism while prioritising territorial cohesion over social equity, notably concentrating public facilities in areas designated for inhabitants of European origin [9].

Interpreting Aguiar's work through the lens of the Waterfront Avenue highlights its analytical relevance and opens broader reflections on the contemporary challenges faced by port cities shaped by European urban traditions [68].

Coastal cities are subject to multiple pressures arising from the combination of their strong attractiveness and the environmental challenges they face. They constitute highly desirable territories for both private and public investment [69]. On the one hand, private initiatives are generally associated with the high-value property market and the hospitality industry; on the other, public investment is particularly significant in port-oriented cities, where large-scale infrastructure development plays a central role [70].

The challenges addressed by João Aguiar in the plans he developed during the mid-twentieth century focus on themes that remain recurrent within waterfront studies and which may today be explored through several distinct lines of research.

One line of enquiry concerns the waterfront as an instrument of environmental regulation, particularly in relation to the impacts and future transformation of large-scale industrial and port land reclamation projects. Tidal estuaries and delta systems provide a notable example of the integration of environmental dynamics and urban development [71]. This was an issue that Aguiar sought to address in the Plan for Lourenço Marques and one that continues to represent a major challenge in some of the most densely populated regions of the world [72].

A second line of research may focus on the capacity of urban waterfronts to articulate multiple scales and multiple temporalities. João Aguiar recognised that waterfronts function as devices of mobility and are, by their very nature, catalysts of urbanity that historically developed as the epicentres of urban life.

Within the context of waterfront cities, the quay square and maritime gateway, particularly because of their infrastructural character, have always been places of functional and programmatic accumulation and overlap. Today, they accommodate logistics centres, markets, quays, customs facilities, embarkation terminals, and multifunctional platforms that enable the transfer and articulation of the various systems upon which the city depends. As such, they constitute an urban element whose study may contribute to the symbolic enhancement of waterfronts and coastal urban territories [73].

A further line of enquiry may examine the intrinsic capacity of the quay square and Seagate to operate as symbolic references in the construction of urban and territorial identities.

Symbolically, the quay square and Seagate represent a claim to citizenship over the city: a point of articulation both within the city and beyond it. This is a concept with which contemporary passenger terminals, whether associated with recreational navigation or commuter transport, have struggled to engage effectively, as can be observed, for example, in Lisbon itself [74].

Recent interventions in the bays of Luanda and Mormugao respectively illustrate these conditions, particularly in contexts where economic structures are highly asymmetrical or where the resident community has been drastically reduced or replaced.

The reclamation of public access to waterfront space therefore depends upon the permeability of the built fabric, the sensitive articulation of land subdivision and property boundaries, avoiding the creation of barriers or urban enclaves, and, above all, the continuity and connectivity of public space [72].

Today, a critical analysis of Aguiar's plans, in their particular formal expression, allows for a renewed interpretation of his concept of the permeable city, in which the waterfront constitutes the city's principal recreational space. It serves simultaneously those who inhabit the city, as a space of convergence, and those who visit it, as the city's principal urban interface and main gateway of entry.

In conclusion, this study contributes to a more nuanced understanding of the transposition and adaptation of European urban models within colonial and post-colonial coastal contexts, highlighting the Waterfront Avenue as a key analytical device for interpreting the spatial logic of port cities. By tracing the continuity between design principles applied across different geographical and political settings, it clarifies the operational coherence of João Aguiar's urban vocabulary and its enduring influence on the structuring of coastal urban fabrics. Importantly, the research also recognises the significance of the ongoing digital documentation and dissemination of João Aguiar's archival corpus, which remains insufficiently acknowledged in international urban heritage discourse. From an applied perspective, this body of work offers valuable insights for contemporary urban management entities responsible for these cities, particularly in addressing the challenges of preservation, adaptation, and redevelopment of waterfront areas shaped by layered historical processes [75].

Supplementary Materials: The following supporting information can be downloaded at: <https://www.mdpi.com/article/10.3390/urbansci10060336/s1>, Figure S1: Ponta Delgada's Waterfront, before and after the UDGP implementation; Figure S2: Groër and Moreira da Silva's Urban Development Plan for Luanda, 1943. Figure S3: Perspective of Dili's Square, part of the UDGP; Figure S4: Perspective of Lourenço Marques Civic Centre's Square, part of the UDGP; Figure S5: Study for the Waterfront Avenue in Figueira da Foz, Portugal, 1938; Figure S6: Riverfront Urbanisation Plan of Santarém, Portugal, 1945; Figure S7: Urban Development Plan of Viana do Castelo, Portugal, Revised presentation plan, 1961.

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Abbreviations

The following abbreviations are used in this manuscript:

UDGP	Urban Development General Plan (<i>Plano Geral de Urbanização</i>)
UDP	Urban Development Plan (<i>Plano de Urbanização</i>)
PUDGP	Preliminary Urban Development General Plan (<i>Anteplano Geral de Urbanização</i>)
CUDO	Colonial Urban Development Office (<i>Gabinete de Urbanização Colonial</i>)
OUDO	Overseas Urban Development Office (<i>Gabinete de Urbanização do Ultramar</i>)

References

- Lamas, J.M.R.G. *Morfologia Urbana e Desenho da Cidade*; Fundação Calouste Gulbenkian: Lisboa, Portugal, 2010; ISBN 978-972-31-0903-3.
- Aguiar, J. L’Habitation dans les pays tropicaux. In Proceedings of the XXIe Congrès de la Fédération Internationale de l’Habitation et de l’Urbanisme, Lisbon, Portugal, 1952.
- Young, R.F. “Free Cities and Regions”—Patrick Geddes’s Theory of Planning. *Landsc. Urban Plan.* **2017**, *166*, 192–201. <https://doi.org/10.1016/j.landurbplan.2017.03.007>.
- Camarinhas, C.T.F. The construction of modern scientific urban planning: Lisbon under French urbanisme influence (1904–1967). *Planning Theory & Practice* **2011**, *12*(1), 11–31. <https://doi.org/10.1080/14649357.2011.546667>
- Lôbo, M.S. *Planos de Urbanização: A Época de Duarte Pacheco*; FAUP e DGOTDU: Porto, Portugal, 1995.
- Milheiro, A.V. O Gabinete de Urbanização Colonial e o traçado das cidades luso-africanas na última fase do período colonial português. In *Urbe. Revista Brasileira de Gestão Urbana*; Pontifícia Universidade Católica do Paraná: Curitiba, PR, Brazil, 2012; Volume 4.
- Fernandes, S. *Cidades Imaginadas nos Planos de Urbanização: Cabo Verde 1934–1974*; Argumentum: Lisboa, Portugal, 2016.
- Fonte, M. *Urbanismo e Arquitectura em Angola—De Norton de Matos à Revolução*; Caleidoscópio: Lisboa, Portugal, 2013.
- Mendes, M.C.; Dias Coelho, C.; Carneiro, L.; Fonte, M.; Fernandes, S.; Rizzone, A.; Proença, S.; Carlos, G. Os Planos Urbanísticos no Contexto Africano: A Experiência Portuguesa. In *Cidades Africanas—UR Cadernos da Faculdade de Arquitectura da Universidade Técnica de Lisboa, No. 5*; Faculdade de Arquitectura, Universidade Técnica de Lisboa: Lisboa, Portugal, 2005; pp. 40–47.
- Acciaiuoli, M. *Os anos 40 em Portugal: o país, o regime e as artes*. PhD Thesis, Faculdade de Ciências Sociais e Humanas, Universidade Nova de Lisboa, Lisbon, Portugal, 1991.
- Dias Coelho, C.; Lamas, J. (Coordinators) *A Praça em Portugal. Continente—Inventário de Espaço Público*; Vols. 1–3; FAUTL and DGOTDU: Lisbon, Portugal, 2007.
- Silveira, L. *Ensaio de Iconografia das Cidades Portuguesas do Ultramar*; Ministério do Ultramar/Junta de Investigações do Ultramar: Lisboa, Portugal, 1956.
- Malheiro, J.B. *A Cidade no Estado Novo: O Desenho Urbano na Obra de João António de Aguiar*. Ph.D. Thesis, Faculdade de Arquitectura da Universidade de Lisboa (FAUL), Lisbon, Portugal, 2018.
- Morais, J. *Arquitectura Moderna Tropical—Uma Lição Sobre a Construção da África Lusófona*; Caleidoscópio: Lisbon, Portugal, 2015.
- Caetano, C. *A Ribeira de Lisboa na Época da Expansão Portuguesa (Séculos XV a XVIII)*; Pandora: Lisbon, Portugal, 2004.
- Proença, S.B. *Macau, Índia and Timor Urbanism—Continuity and Rupture on the Establishment of Urban Planning Between 1934 and 1974*; CURB—Center for Architecture and Urbanism: Macau; Lisbon, Portugal, 2024.
- Fernandes, S.; Fonte, M. *Urbanismos de Influência Portuguesa*; UCCLA/FAULisboa; Imprensa Nacional—CML: Lisbon, Portugal, 2021.
- Fernandes, J.M. *Arquitectura Portuguesa: Uma Síntese*; Imprensa Nacional—Casa da Moeda: Lisbon, Portugal, 2000.
- Guida, C.; Gargiulo, C.; Papa, R.; Carpentieri, G. Vulnerability and Exposure of Mediterranean Coastal Cities to Climate Change-Related Phenomena. *Environ. Sci. Proc.* **2022**, *21*, 79. <https://doi.org/10.3390/environsciproc2022021079>.

20. Al-Sayyad, N. A Conceptual Framework for Analyzing Hybridity in Architecture: Colonial and Postcolonial Spatial Transformations. *Sustainability* **2025**, *17*, 4154. <https://doi.org/10.3390/su17094154>.
21. Li, S.; Heath, T. Contextual Sensitivity Analysis for Urban Industrial Heritage Quarter Regeneration: Shanghai as a Pilot Case Study. *Heritage* **2025**, *8*, 190. <https://doi.org/10.3390/heritage8060190>.
22. Coelho, C.D. (Coordinator); Coelho, C.D.; Costa, J.P.; Leite, J.S.; Trindade, L.; Proença, S.B.; Pereira, P.; Silva, J.M.; Fernandes, S.P.; Monteys, X. *Os Elementos Urbanos*; Argumentum: Lisboa, Portugal, 2013; ISBN 978-972-8479-78-7.
23. Governo de Portugal. Decreto-Lei n.º 24 802, de 21 de Dezembro de 1934; Diário da República, 1.ª Série, n.º 299, 21 December 1934. Available online: <https://diariodarepublica.pt/dr/detalhe/decreto-lei/24802-1934-447162> (accessed on 4 March 2026).
24. Rodrigues, M.J.M. Fundamentos da Teoria do Urbanismo Colonial Português. *Boletim da Academia Nacional de Belas-Artes*, Lisbon, Portugal, 1987, pp. 165–175.
25. Pereira, J.A. A Economia de Cabo Verde no contexto do Estado Novo (1940–1960). *Ler História* **2004**, *47*, 55–79.
26. Clarence-Smith, W.G. *The Third Portuguese Empire, 1825–1975: A Study in Economic Imperialism*; Manchester University Press: Manchester, UK, 1985.
27. Fernandes, J. *Geração Africana: Arquitectura e Cidades em Angola e Moçambique, 1925–1975* [The African Generation: Architecture and Cities in Angola and Mozambique, 1925–1975]; Livros Horizonte: Lisbon, Portugal, 2002.
28. Tostões, A. *Os Verdes Anos na Arquitectura Portuguesa dos Anos 50*; FAUP Publicações: Porto, Portugal, 1997.
29. Anderson, S. (Ed.) *On Streets: Streets as Elements of Urban Structure*; MIT Press: Cambridge, MA, USA, 1986.
30. Giovinazzi, O.; Moretti, M. Port Cities and Urban Waterfront: Transformations and Opportunities. *TeMA. J. Land Use Mobil. Environ.* **2010**, *3*, 57–64.
31. Sharifi, A. Resilient Urban Forms: A Review of Literature on Streets and Street Networks. *Build. Environ.* **2018**, *147*, 171–187.
32. Portas, N. Novas Margens na Estratégia da Cidade-Metrópole. In *Os Tempos das Formas*; Departamento Autónomo de Arquitectura da Universidade do Minho: Guimarães, Portugal, 2005.
33. Fernandes, S.; Silva, J.M. “Portas de Mar”. *Atlântida—Rev. De Cult.* **2021**, *LXVI*, 59–68.
34. Domingos, N. Colonial Architectures, Urban Planning and the Representation of Portuguese Imperial History. *Port. J. Soc. Sci.* **2015**, *14*, 235–256. https://doi.org/10.1386/pjss.14.3.235_1.
35. Cabral, J.P.R.F. *Análise Urbana da Cidade de Ponta Delgada: O Papel dos Planos de Urbanização no Crescimento da Cidade*. Master’s Thesis, Universidade do Porto, Porto, Portugal, 2013. <https://doi.org/10.34626/94bx-xp13>.
36. Carvalho, R.A. Ideology and Architecture in the Portuguese ‘Estado Novo’: Cultural Innovation within a Para-Fascist State (1932–1945). *Fascism* **2018**, *7*, 141–174. <https://doi.org/10.1163/22116257-00702002>.
37. EVE—Encyclopaedia of Portuguese Expansion (CHAM, FCSH/NOVA University of Lisbon & University of the Azores). Ponta Delgada. Available online: <https://eve.fcsh.unl.pt/index.php/en/places/ponta-delgada> (accessed on 15 April 2026).
38. Amaral, I. Apontamentos sobre Luanda: Uma capital colonial imperfeita. *Cid. Afr.* **2005**, *5*, 48–55.
39. Portas, N. Interrogações sobre as Especificidades das Fundações Urbanas Portuguesas. In *Os Tempos das Formas*; Departamento Autónomo de Arquitectura da Universidade do Minho: Guimarães, Portugal, 2005; pp. 15–22.
40. Tomás, A. *In the Skin of the City: Spatial Transformation in Luanda*; Duke University Press: Durham, NC, USA, 2022.
41. Schubert, J.; Sumich, J. Unseeing urban divides in Luanda and Maputo. *Urban Stud.* **2025**, *44*, 227–242. <https://doi.org/10.1177/02637758251344823>.
42. Durand, F. *História de Timor-Leste: Da pré-História à Actualidade = História Timor-Leste nian: Husi pre-Istória to’o Atualidade*, 2nd ed.; LIDEL: Lisboa, Portugal, 2009; p. 108, ISBN 978-972-757-342-4.
43. Gunn, G.C. *History of Timor*; Centre for African and Development Studies: Nagasaki, Japan. Available online: https://web.archive.org/web/20191226141209/https://cesa.rc.iseg.ulisboa.pt/History_of_Timor.pdf (accessed on 15 April 2026).
44. Cinatti, R.; Almeida, L.; Sousa, M. *Arquitectura Timorense*; Instituto de Investigação Científica Tropical; Museu de Etnologia: Lisboa, Portugal, 1987.
45. Mendes, M.C. Timor Leste, a mais jovem nação do mundo. *Timor Leste. Ar Cadernos da Faculdade de Arquitectura da Universidade Técnica de Lisboa* **2004**, *3*, 6–9.
46. Malekandathil, P. City in Space and Metaphor: A Study on the Port-city of Goa, 1510–1700. *Stud. Hist.* **2009**, *25*, 1–23.
47. Wilson, B.C. The City as Façade in Velha Goa: Recognising Enduring Forms of Urbanism in the Early Modern Konkan. *South Asian Stud.* **2021**, *24*, 320–352.
48. Ressano Garcia, F.; Seabra, A.S.; Figueiredo, R. *Memória Descritiva da 1ª Fase do Plano Director da Cidade de Vasco da Gama (Mormugão)—Estudo Base*; Technical Report; Direção-Geral de Obras Públicas e Urbanismo: Lisbon, 1959. (Completed reference. Available at the Overseas Historical Archive, Lisbon, Portugal (Reference code: PT/IPAD/MU/DGOPC/DSUH/2081/14674))

49. Morais, J. *Maputo: Património da Estrutura e Forma Urbana, Topologia do Lugar*; Livros Horizonte: Lisboa, Portugal, 2001.
50. Jenkins, P. City profile: Maputo. *Cities* **2000**, *17*, 207–218. [https://doi.org/10.1016/S0264-2751\(00\)00002-0](https://doi.org/10.1016/S0264-2751(00)00002-0).
51. Barros, C.P.; Chivangue, A.; Samagaio, A. Urban dynamics in Maputo, Mozambique. *Cities* **2014**, *36*, 74–82. <https://doi.org/10.1016/j.cities.2013.09.006>.
52. Papini, B. (Coordinator) *Linhas Gerais da História do Desenvolvimento Urbano da Cidade do Mindelo*; Fundo de Desenvolvimento Nacional—Ministério da Economia e das Finanças; Ministério da Habitação e Obras Públicas: Praia, República de Cabo Verde, 1984.
53. Correia e Silva, A. *Espaços Urbanos de Cabo Verde, o Tempo das Cidades Porto*; Comissão Nacional para as Comemorações dos Descobrimientos Portugueses: Lisboa, Portugal, 1998.
54. Amaral, I. Santiago de Cabo Verde:—A terra e os homens. In *Memórias*; Junta de Investigação do Ultramar: Lisboa, Portugal, 1964.
55. Padrão Fernandes, S.; Duarte Carlos, G. Cidades imaginadas em Cabo Verde no último fôlego do império. In *Arquipélagos em Diálogo*; Rodrigues, P., Čavić, L., Farias, H.L., Eds.; Academia de Escolas de Arquitetura e Urbanismo de Língua Portuguesa: Lisboa, Portugal, 2025; pp. 432–448. Available online: <https://aeaulp.com/index.php/en/arquipelagos-em-dialogo-en> (accessed on 25 April 2026).
56. Fernandes, J.M.; Janeiro, M.L.; Milheiro, A.V. *Cabo Verde. Cidades, Território e Architecturas*; CIAUD/FCT: Lisboa, Portugal, 2014.
57. Morais, J.S. *Mindelo. Património Urbano e Architectónico. Assentamento Urbano e os seus Protagonistas*; Caleidoscópio: Lisboa, Portugal, 2010.
58. Portas, N. *Os Tempos das Formas*; Departamento Autónomo de Arquitectura da Universidade do Minho: Guimarães, Portugal, 2005.
59. Duarte Carlos, G.; Padrão Fernandes, S. João António Aguiar e o projecto da cidade em Cabo Verde. In *Arquipélagos em Diálogo*; Rodrigues, P., Čavić, L., Farias, H.L., Eds.; Academia de Escolas de Arquitetura e Urbanismo de Língua Portuguesa: Lisboa, Portugal, 2025; pp. 260–279. Available online: <https://aeaulp.com/index.php/en/arquipelagos-em-dialogo-en> (accessed on 25 April 2026).
60. Kostof, S. *The City Assembled: The Elements of Urban Form Through History*; Thames & Hudson: London, UK, 1992.
61. Venezia, F. Marginal squares. *Lotus Int.* **1979**, *22*, 16–25.
62. Oliveira, M. de. O “Habitat” nas Zonas Suburbanas de Quelimane: Um Caso Positivo de Formação de Sociedades Multirraciais. *Geographica* **1965**, *3*, 65–75.
63. Caria, M.E.; Seabra, A. *Relatório da Missão do Grupo de Trabalho Urbanismo e Habitação na Província de Cabo Verde*; Technical Report; Direção dos Serviços de Urbanismo e Habitação: Lisbon, Portugal, 1965.
64. Serrazina, B.P. Building an Empire: Space, Connections and Architecture in Diamang, Angola. Ph.D. Thesis, Institute for Interdisciplinary Research, University of Coimbra, Coimbra, Portugal, 2024.
65. Marques, B. *Faria da Costa e o(s) Plano(s) de Urbanização da Figueira da Foz*; Caleidoscópio: Casal de Cambra, Portugal, 2018.
66. Amado, C.; Mata, L. (Coordinator) *Urbanidade: 150 Anos de Elevação de Santarém a Cidade*; Câmara Municipal de Santarém: Santarém, Portugal, 2021.
67. Lopes, J.C. Espaços ajardinados da cidade de Viana do Castelo: Contributos para a sua divulgação e importância para a fruição pública. In *Cadernos Vianenses, Tomo 48*; Câmara Municipal de Viana do Castelo: Viana do Castelo, Portugal, 2014; pp. 133–172.
68. Wei, W.; Liu, L.; Niu, Z.; Qiao, S. Research on the Historical Spatial Characteristics and Conservation Strategies of Colonial Cities in Asia and Africa: A Case Study of 21 Typical Cities. *Herit. Sci.* **2024**, *12*, 272. <https://doi.org/10.1186/s40494-024-01392-1>.
69. Avni, N. Urban Waterfronts: Contemporary Streams of Planning Conflicts. *J. Plan. Lit.* **2019**, *34*, 408–420.
70. Boland, P.; Bronte, J.; Muir, J. On the Waterfront: Neoliberal Urbanism and the Politics of Public Benefit. *Cities* **2017**, *61*, 117–127.
71. Beatley, T. *Blue Urbanism: Exploring Connections Between Cities and Oceans*; Island Press: Washington, DC, USA, 2014.
72. Meyer, H.; Nijhuis, S. *Urbanized Deltas in Transition*; Techne Press: Amsterdam, The Netherlands, 2014.
73. Rahman, M.M. (Ed.) *Handbook of Waterfront Cities and Urbanism*; Routledge: London, UK, 2023.
74. Gaspar, J. As Portas de Lisboa no VALIS. In *A Lisboa que Teria Sido*; Miranda, A., Silva, R.H., Eds.; EGEAC/Museu de Lisboa: Lisbon, Portugal, 2017.
75. Chakraborty, S.; Ji, S. Imperial Imprints: Unraveling the Spatial Tapestry of 17th-Century Colonial Port Cities in India for Sustainable Urban Development. *Open House Int.* **2024**, *50*, 158–190. <https://doi.org/10.1108/OHI-01-2024-0011>.

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