

Edited by Carlos Nunes Silva

Urban Planning in Lusophone African Countries



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Chapter 6

Modern Colonial: The Urban-Architectural Laboratory of Luanda

Inês Lima Rodrigues

Introduction

The main goal of this chapter is to examine the urban proposals for Luanda and the architecture produced in the field of collective housing during the modern period. The modern period, although relatively short, was marked by intense planning and architectural activity and occurred at the same time as the Portuguese dictatorship regime known as *Estado Novo*.¹ The social condition that led to massive migration towards the city of Luanda, the relationships with the local population as well as the natural characteristics of Luanda were responsible for the specific conditions that made possible the development of a city in the capital of Angola that is unique worldwide. The period covered by this chapter starts in the 1940s and ends in 1974, the year of April's Revolution in mainland Portugal that made possible the independence of Angola in 1975. The choice of this time period is directly related to the importance that urban dynamics has had in the Angolan territory, when compared with the previous half-century, a period marked by relative neglect towards the colonies by the government in the metropolis.

Angola's urban history is directly linked to Portuguese urban history. This link is greatly based on the fact that both had the same basis of education, used the same international references and indeed were, in many cases, the product of the same groups of persons. Yet, is it possible to identify a Portuguese-influenced tropical urbanism? In Luanda, a Portuguese-speaking tropical city was planned, with the intent to merge the local culture with an international image, this being known as the Modern Movement, a movement which reached its pinnacle both at the urban and architectural levels. More specifically, how were modern values introduced in Luanda? How was this modern expression able to assert its values of freedom in a colonial and oppressive dictatorship regime? Mostly from the 1950s onwards, a project to rebuild and reshape the city fabric emerged in Angolan society, where European urban models had already been developed.

But was Luanda planned simply contemplating the European population's best interests or was it also compatible with the natives' interests? In this chapter we will try to analyse and acknowledge the existence of a self-established identity in the Portuguese-Angolan urban and architectural landscape practised in the three decades that preceded Angola's independence.

We support the idea of acknowledging history and culture as key factors for architectural practical conception and production, and, consequently, for each city's own cultural identity. The city keeps the mark of a culture and a time that also manages to embrace the major events throughout its existence. Learning from history, it is not about copying, but observing and understanding the shift-changing events that altered the way Luanda evolved. We must also consider the unifying influences that bond each culture, as they help to understand territory and architecture as an inseparable event, impacting social, economic and cultural values, and which are located in such distinct geographical regions as Portugal and Angola.

This work arises from a restlessness common to many architects and historians: to study and divulge what once was, is and could be the modern architecture in the tropics. The deepening of this knowledge allows us, in turn, to shed some light on the path to be taken in moving forward in a way that, from the study of history, we may further contribute not only to what we know about the past, but also to help build the future. By uncovering the origins of the events that preceded us we can best extrapolate the future.

The Portuguese-Angolan Modern Manifesto

In light of the impossibility of understanding any given era as an isolated phenomenon, we present the history of Luanda's modern process that jointly encompasses quite a multitude of factors. This context reference thus becomes one of the most important considerations to be understood in order to legitimate any work. We firstly highlight Angola's inherent connection to the 'metropolis', as this was the place where most of the key players in the urban growth of the capital came from. Between 1930 and 1950 Portugal intensified its political strategies to further define its 'colonial space', mainly in regard to the so-called third empire, the African one.

Many strategies involved how to advertise the colonies – either through expositions, events or congresses – as being part of a great Portuguese 'empire'. An example of this is seen in the political propaganda in using a world map to depict Portugal and its African colonies in comparison to Europe or the United States, complemented by the sentence: 'Portugal is not a small country'.² Despite the fact that the national context of the Salazar regime imposed a kind of neo-traditional architecture, especially between the years 1930–1940, the modern dimension of international influence eventually imposed itself in the following decades and across all areas, from architecture to urban development. If we were to assign a date to mark the start of the Modern Movement in Portugal, we might consider two possibilities: the first would obviously be the First National Congress of Architecture held in Lisbon in 1948. It occurred during an important shift and moment of affirmation in modern Portuguese architecture, focusing on the 'serious' problem of housing. Moreover, this problem extended for the first time into thinking of the city, including territory planning and land management, as being one where 'the housing problem is primarily a problem of urbanism' (Gomes, 2008: 290). For the first time, Le Corbusier's *Ville Radieuse* and, particularly, the *Athens Charter* (1943) are quoted and the importance of the architect in the colonies is addressed (Simões, 2008: 147). We hence highlight the time lag of the great architectural event that occurred 15 years after the approval of the *Athens Charter* in the fourth CIAM conference (1933). The other crucial moment that indicates the start of the Modern Movement in Portugal encompasses the two exhibitions about Brazilian Modern Architecture held in Lisbon; the first was held at the Instituto Superior Técnico, in 1949, and the second in the Sociedade Belas Artes, as part of the Third Congress of the Union of International Architects, in 1953.

Both events triggered a series of articles in the pages of *Architecture* magazine,³ and had a huge impact on the Portuguese architectural environment: Brazilian Modern architecture ended up being echoed in Angola, by Francisco Castro Rodrigues, who was assigned to take the exhibition to Angola. To paraphrase Mies van der Rohe, the exhibits are thus instruments of industry and culture, and so they should be used.

At the same time there arose a generation of Portuguese architects who believed in the most humane and ideological dimension of the profession, and who had the courage to confront the dictatorial regime of Salazar, despite being aware that 'talking about modern architecture is talking of a political problem' (Botelho, 1987: 7). These architects embraced all things modern in the years of their training (a definitely more intense training at the Porto School, with Carlos Ramos, than at the School of Lisbon, with Cristino da Silva) and matured their ideas and principles in the later stages of the post-Second World War period. They built in a lucid manner based on their teachers' contributions, but filtered information gained in their training in order to implement and achieve new objectives. This was a generation of architects who sought to conquer civil and political liberties, who believed it was possible, through the machinations of their profession, to change the fate of the deprived sections, to address the lack of access to adequate housing and to create a future for the cities through the knowledge and dissemination of social values. A beautiful utopia!

The *African generation*, formed from the 1948 Congress (Fernandes, 2002), was largely responsible not only for the arrival of modernity in Luanda, but also for the construction of much of the city itself. The trip to Africa was seen as the path to the land of opportunity, having more freedom of speech and of personal realization, where the Angolan territory gained undoubtedly another dimension with a huge and attractive capacity. The Portuguese architects emigrated with the illusion of implementing everything that was censored in Portugal, and for some it was even the only possibility to escape the PIDE's⁴ repression. However, it was also noticed that many architects settled temporarily as state officials, sent as experts in matters of development. Many ended up staying. From the 1950s onwards there was also a huge migration of Portuguese who were attracted to Angola either alone or through the recruitment of couples from all over continental and insular

Portugal, leading to the establishment of new settlements or the expansion of existing ones. As Manuela Fonte shows 'it was the immigration of the poor white man who would compete with the low income native professionals; Portugal was probably the last colonial power to take advantage of organized mass emigration to its colonies ...' (Fonte, 2007: 87).

Whatever the reason, the truth is that the Portuguese-Angolan modern legacy has a huge dimension, not only on a territorial scale, but also by the natural quality of its architecture. However, these works are virtually unknown, marginal to the national and even international interests of the architectural critics. We notice that when Kultermann discovered modern African architecture,⁵ Luanda already housed exceptional Portuguese-Angolan examples, well worthy of being open to public viewing. But history did not play along and so today unfortunately they are a forgotten or simply an ignored architecture. We recognize that the historiography of the Modern Movement focused on the works of the great masters and the places they built, gives only a partial picture of a phenomenon that has a breadth and depth far greater than that, which was disclosed by the canonical histories of architecture.⁶

An inevitable consequence of this neglect is the theoretical, physical and social devaluation of a major cultural heritage, with all that this implies in terms of loss of heritage and historical memory. We understand that recovering this hidden modernity, besides being an act of justice and historical knowledge, is important in these times of change and uncertainty since modernity, despite its errors, was a movement that attempted something so necessary and yet so forgotten these days: understanding the city and architecture as instruments of well-being, development and social transformation. Fifty years after the surge of the modern movement in Luanda, this sort of research work continues outside the interests of Luanda's society, even if it is a clear reference to its urban heritage. The genesis of modern strategies itself confirms that architecture can and should be the main organizer of the city. So we like to think of the modern project as an unfinished canvas, like a continuous broken architecture, one that we cannot do without in the rebuilding of the city.

Somewhat as a response to the Colonial War initiated in 1961, a belated attempt to implement the idea of a multiracial nation developed. This way, a response was given to the international pressure pushed by the Charter published in December 1960 by the UN, in which was recognized the right to self-determination of all countries with a declaration that would allow the organization of African liberation movements. Rather than what initially could be imagined, the Colonial War led to a new phase of public investment for the modernization of infrastructures, promoting the planned urban expansion. On the other hand, the modern architectural achievement attained diversity, homogeneity and urban wealth, partly due to private investment that allowed greater openness to modernity.

The Urban Plans for the City of Luanda

Associated with the political and social changes introduced by the colonial policy of the *Estado Novo* was the need to plan urban growth in the Portuguese African colonies. This led to the first generation of urban plans that would later support the construction of what we now know as the colonial city in these countries. The Colonial Act of 1930, effective until 1951, and the creation of the *Gabinete de Urbanização Colonial* (GUC) (Colonial Urbanization Office)⁷ were two important moments in this process. The GUC was an entity created by the then Minister of the Colonies, Marcelo Caetano, for the preparation of urban plans for the main urban centres in all Portuguese colonies in Africa.⁸ It aimed to organize and plan urban growth and to solve the housing problems in the Portuguese tropical regions. Nevertheless, most plans were developed without prior knowledge of the site, ignoring topography or climate characteristics. Being the GUC, a state organism, it was subordinate to and manipulated by state officials and due in part to that the plans made in this period adopted extremely conservative designs. Despite that, the 'generation of the 1948 Congress' was able to show the virtues of modern architecture and urbanism. The desire to learn more about urbanism was the reason why so many Portuguese architects attended the *Institut d'Urbanisme de l'Université de Paris*⁹ and, afterwards, were able to practise in Luanda. The Gaston Bardet and Robert Auzelle classes, the importance of carrying out surveys involving the people and the site, along with the teachings of Le Corbusier¹⁰ resulted in the alteration of Luanda's urban design, giving another dimension to the plan:

The plan is generating. Without it, there is disorder and lawlessness. It carries in itself the essence of feeling. The big problems of tomorrow, dictated by collective needs, put again the plan in question. Modern life demands and expects a new plan, for the house and for the city. (Le Corbusier, 2002: 30)

However, regulatory instruments are means, not a recipe. The choice of strategies becomes an integral part of the architectural process. If, on one hand, the international models were applied in Luanda by Portuguese architects, on the other, some foreign architects working in Portugal at that time also worked in Angola. This was the case of Étienne de Groër, from whom the City of Luanda commissioned the first Urbanization Plan for Luanda, in 1942, prepared jointly with the Portuguese architect and planner David Moreira da Silva. The influence of Ebenezer Howard on Étienne de Groër's work is visible in his urban approaches to the polycentric city, comprising a set of garden cities connected by an efficient transport network that would form the urban tissue. In his theoretical framework, Étienne de Groër developed this urban expansion model based on satellite towns. Such a plan was one of the first major Portuguese urban planning experiences in the tropics during the *Estado Novo*,¹¹ with an approach similar to the one Étienne de Groër was developing for Lisbon and which he would later conclude in 1948. The road network was based according to the basic principles of circulation on three distinct levels: fast, slow and pedestrian movement. It also applied the meaning of zoning, with well-defined urban sectors: the trade zone was separated from residential areas and industries with agricultural areas on the peripheries. Another proposal was brought forward by Vasco Vieira da Costa, just after having completed his training at the famous studio of Le Corbusier, in 1949. He presented for the final course project at the Faculty of Architecture of Porto the thesis 'Design of a Satellite Town to Luanda' (Costa, 1984). Despite the academic nature of the exercise, it constitutes an elaborate modern reflection with the Corbusierian methodology and guiding principles of the Étienne de Groër and Moreira da Silva plan.

The first phase of urban growth in Luanda, the excessive concentration in the city centre and the lack of space would eventually lead to an untenable situation that became the main reason for the development of the first City Master Plan, in 1963. The rapid and haphazard growth of the city demanded, firstly, the organization of the road network, which implied an effort to locate industries in strategic places with a good relationship with residential areas. Simões de Carvalho and his multidisciplinary team¹² at the Luanda Urbanization Office changed the planning guidelines inherited from Étienne de Groër and Moreira da Silva. The proposal would end with the radial city and satellite towns and anticipated a linear city. Carvalho advocated the proper articulation of the main roads of the city, based on Le Corbusier's 7V rule (1959) and on Auzelle's classes at the Institute of Urbanism in Paris, which were the theoretical support behind the development of his proposal. The Master Plan defined two main axes linking the city centre to the interior, running NE-SW and NW-SE, whose intersection coincided with the 'civic centre', the city's main centre. Four circular routes established a good relationship between the main road system and the city's key element: the neighbourhood unit.

The completion of the Master Plan clearly anticipated the Partial Plans. Carvalho's futuristic vision was based on the division of Luanda into neighbourhoods, each consisting of three or four neighbourhood units, comprising between 5,000 and 10,000 inhabitants. Each unit was a complete functional set with residential, working, shopping and leisure areas. These four main functions were within walking distance of each other. The neighbourhood units supported the urban and social system, based on three basic principles: hierarchy, nucleus and miscegenation.¹³ They were located close to the main avenues and near major urban facilities in the city. With these approaches, traffic was transferred from the city centre through an open, continuous and congestion-free road system. This logical planning, elaborated in accordance with the guidelines of the *Athens Charter*,¹⁴ was applied not only in the central areas (Portas do Mar and Kinaxixe), but was also to plan new areas of urban expansion. West of the city were located the Neighbourhood Units of São Paulo and Marçal. For the latter, Simões de Carvalho, in collaboration with Lobo de Carvalho, designed a housing project with a rational structure that enabled the creation of different spaces and that, in due time, would become potentially a new solution. They were organized according to an urban logic, in which the dwellings did not meet only the space between the streets, but were also converted into formal elements of the city. From this set only a residential block was built, which is, today, a lost building amongst the city mesh. Still, it keeps the singular nature of the application of Modern Movement fundamentals to an urban and architectural scale. The block was built entirely in exposed concrete, exploring the constructive and plastic potential of this material, adapted to the creativity of the project. The building is composed of four bodies, where the nucleus

of access to the building is set back, in relation to the façade plan, serving as a kind of hinge that links the different elements in relation to the place.

Unfortunately, the projected path was not followed and barely anything has been done. However, the city's need for expansion to the south, towards the airport, led to the creation of Neighbourhood Units 1 and 3.¹⁵ Of all the proposed units the most successful example is Neighbourhood Unit 1: Prenda. Carvalho supported the balance of different people in each unit, as in the city. For the Prenda, he tried the ratio two thirds native population and one third European population, but only ended up with the opposite proportion.¹⁶ The search for elements in order to generate complicity between the building and the dwelling was the means used by the architect to provide a rootless place with city features, thus avoiding the separation of its inhabitants.

The surface of the Prenda neighbourhood was between 25 and 30 acres and included 5,000 to 10,000 inhabitants. The hierarchy of the 7V system¹⁷ organized the movement of the entire unit. In the centre, facilities could be found, with direct access to the shopping street (V4), where one could easily go for long walks. With the intention of increasing the open space and adjusting typologies to the population's *modus vivendi*, Carvalho and Cunha Pereira ordered, along the shopping street, the collective housing blocks,¹⁸ vertically higher (A), and at the two ends of the pedestrian street perimeter located the other lower sets of collective housing of five or six floors (B and D) (see Figures 6.1 and 6.2). Each set had its square with its meeting spaces and all buildings were supported by pillars, among which the free space flowed, in extension, through the unit.

The authors opted for a collective residential vertical programme, balanced by the freedom of the ground floor to form squares, gardens or parking lots, connected by a huge green platform. At the lower



Figure 6.1 Prenda neighbourhood, photo by Simões Carvalho. Foreground – buildings of type B; background – buildings of type A

Source: Author, 2010

sets small squares stimulated the collective sense among the different types of families. The villas, unlike the residential blocks, formed more or less consolidated textures, intended for the upper class and the local population. Of these, the sets for the indigenous people were never built. There was indeed an urban proposal for continued development that attempted to create a sufficiently attractive environment favouring meeting with the community and promoting neighbourly relations between the different social classes. Despite the diversity of each cluster, recurring to a homogeneous materiality in all building, Carvalho provided the set with uniqueness and identity.

One cannot fail to mention the insistence of Simões de Carvalho on the *Modular* system: 'a harmonious system of measures on a human scale' (Le Corbusier, 1980: 30). With this in mind, the different sized residential buildings of Prenda were dimensioned, defining the typology of a semi-duplex, which translates into an inner street providing access to two half floors of the building. Going upstairs one could access the bedrooms and the other half-height communicated with the most sociable area of the house. This articulation allowed cross-ventilation through the core of the stairs, without the need for air conditioning. There was an inversion of the system on floors 1–3 and 4–6 and so on, which allowed a more diverse housing set, as well as collective spaces, both important in the configuration of the place. Houses ranged from one to four bedrooms, most of them half-duplex typologies with two fronts, while one-floor apartments occupied the full volume of the half-floor and extended to the façade. The roofs were collective and, whenever possible, incorporated green spaces.

All buildings shared a search for the best possible implementation according to typology: the free plan on stilts, cross-ventilation, a constructive solution in the application of *betón brut*, evident from the structure to the plasticity of the *brise-soleils*. The typology went beyond the simple functional solution and demanded interactions with the surroundings and the city's expansion. Overall, they reached a great constructive level, able to relate the form in a coherent and logical way, making it available to the service of a certain way of living. Nonetheless, did it prevent the birth of intentions and shapes for a specific model of land occupation and therefore the construction of the city? Built between 1963 and 1965 the Prenda Neighbourhood Unit currently occupies a place that could be considered complete in relation to urban infrastructures: hospital, university and other services. It was thought to be a fragment of the city: urbanely self-sufficient and sustainable, considering the walking paths. However, it had a dispersed formation, the result of green spaces being suppressed, for example, during the construction process as an urban place. We found that none of the designed facilities incorporated into the plan were built and, unfortunately, Prenda is now a degraded neighbourhood in terms of its formal, architectural and social composition. The empty spaces led to the proliferation of *musseques* (slums) becoming progressively occupied. The virtual reconstruction of the project allows us to imagine the original intentions of the spaces and the importance of the ground plan, once open and continuous. The rebuilding of the urban model also reveals its contribution to the idea of a more complete project of Angolan modernity. The (re)construction of this neighbourhood could be a great opportunity to restore the architectural identity of the city, on one hand returning the collective spaces and quality of housing to the population that lives there and, on the other, making it an unprecedented reference to add to the world's modern historiography.

Another plan important in its concept, and frustrated in its application, was the Master Plan '*Futuro de Belas*', for the south of Luanda, also coordinated by Simões de Carvalho. Its purpose was to give the people of Luanda, especially the upper middle class, a recreational area for the weekend. It included sports clubs and a forest park that contemplated a number of outdoor activities (playgrounds, camping and picnic areas). It also placed at the disposal of society various recreational facilities such as: restaurants, nightclubs, cinemas and even a chapel and a forum. The civic centre had a major role in the logic of the organization and was located in a large plaza, surrounded by commercial and administrative areas. In the modern circumstance, the civic centre recognized the role reserved for the traditional town square as the collective space *par excellence*.

Carvalho intended to 'raise people's income thanks to Urbanism', which 'is only valid when it promotes development' (in Goycoolea and Núñez, 2011: 243). This was his policy. However, as so often happens in history, the experience was incomplete. Currently, we can only speak of the existence of dispersed fragments that due to subsequent interventions are sometimes difficult to recognize. Nonetheless, one must acknowledge one of the paradoxes of this history: the colonial city tried to reproduce the models of the metropolis, but developed in a much more modern way: in structure, ideology, form and typology. In this context, we

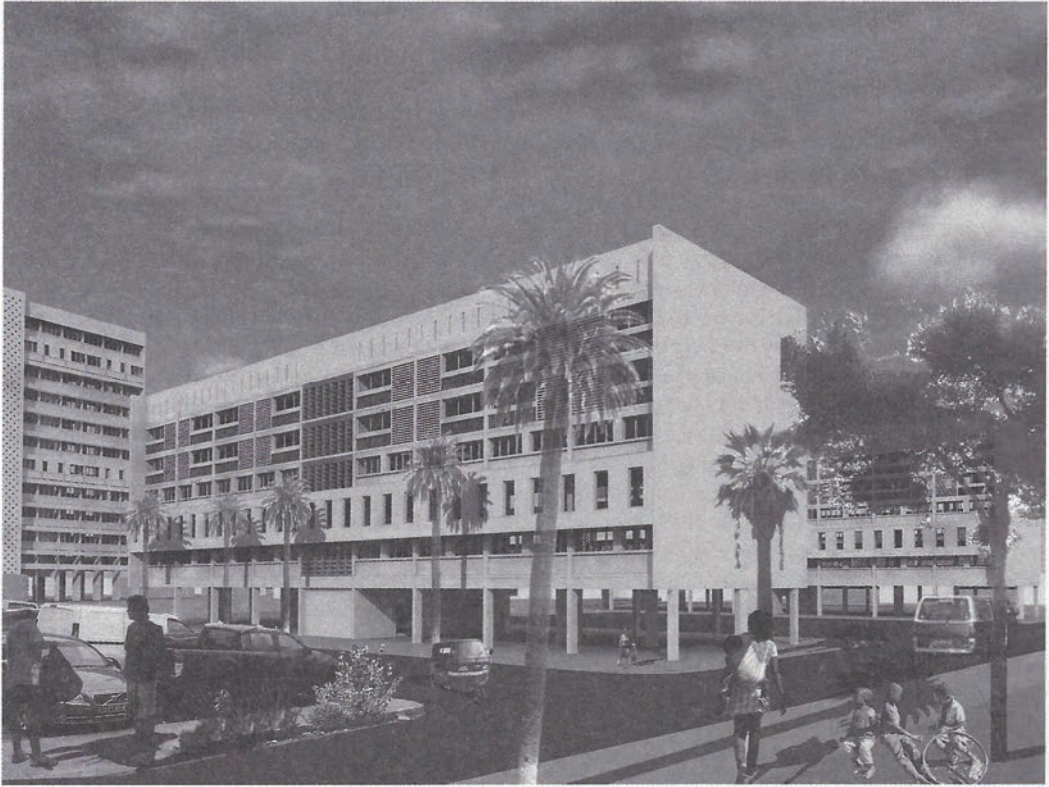


Figure 6.2 Prenda neighbourhood, three-dimensional model. Foreground – buildings of type B; background – buildings of type A

Source: Author 2011

emphasize the importance of the *Athens Charter* as an undisputed theoretical document, but also its enormous practical impact in the Portuguese-Angolan urban process. The modern ideals were the engine of various actions and endless transformations of the city and its habitat, translated into several unique buildings and urban structures based on the trilogy ‘sun, space and greenery’ (Le Corbusier, [1943]).

Tropical Modern Architecture: ‘Collective Housing’

Collective housing is considered, in the history of modern architecture, one of the main factors in the creation of city life. In this context, Luanda is no exception. During the twentieth century, the city redefined itself through urban planning, namely through an intense and rapid process of urban and metropolitan expansion and also by an intense architectural renewal process, both processes accompanied by a large population increase. To control the random growth, architecture was grounded on the construction of *villas* neighbourhoods, sets of collective housing, neighbourhood units, cooperative and private blocks for the poorer and the middle classes. Collective housing played an important role in the definition of urban places in the city. However, its role as a structural element was, on many occasions, subjected to political wills and economic interests, losing, in this way, its potential role in the construction process of an urban place.

Among the plans Simões de Carvalho was not able to conclude is the plan for the Bairro dos Pescadores (the Fishermen’s neighbourhood) on the island of Luanda.¹⁹ It was a draft plan resulting from the *Luanda Urbanization Master Plan*, which foresaw the island as the future major tourist and recreational area of

Luanda (Carvalho, [1963]). The two proposed clusters were organized by a well-defined road structure with total separation between fast and slow circulation through the separation of pedestrians and road traffic. The interest of this project lays precisely in how the concept of the family unit was organized, which would eventually give rise to a new urban city category. Two settlements were projected with a total of 500 dwellings for a maximum of 2,200 inhabitants. In the organization of housing, the search for minimum dimensions, cross-ventilation, sun-protection and functional separation played relevant roles. The simple composition expanded and multiplied, giving rise to four typologies, all under the same concept: the social and intimate area organized into one body and the services located next to the patio, independently. Although the urban and architectural quality of the project is unquestionable, we only have knowledge of the model home construction. Today this is a totally inconspicuous neighbourhood.

Luanda currently maintains the old urban structure that divides it into two major parts: downtown, which stretches along the bay, forming a splendid natural harbour protected by the Island of Luanda, where traditionally commercial and industrial activities are focused; and uptown, including San Miguel and Miramar, an area that takes advantage of the wind direction, which makes it the preferred location for residential zones. The Marginal Avenue, downtown's main axis, binds the port area to the Island along the bay. It has witnessed the change of its urban image, mainly from the 1950s onwards, when a new urban façade emerged, with a distinctly modern look. In the former Rua Direita, curved and parallel to the coastline, Pereira da Costa built the remarkable Building Cirilo, in 1959. Inspired by the Unité de Marseille it presents not only functional and formal similarities, but, above all, an urban model proposal. Costa proposed a large block of houses and offices, freeing the ground floor for commercial use, protected by a huge flap over the whole length. General access to homes via a common gallery, the existence of double-storeys visible on the façade, cross-ventilation, the use of *betón brut*, and a regular structure associated with a strong system of protective grilles and balconies are enough elements to show the great value of modern residential architecture in Luanda.

Thus, even in the 1950s, the urban façade of the Avenue Marginal consolidated and made its way to the surrounding areas of the city centre, with newly expanded neighbourhoods that defined plans for collective housing, which included not only private housing but also social housing. From the Largo Mutamba, the city's civic centre, to Largo Kinaxixe there are several notable examples of housing, including the building of Luís Taquelim, A Cuca, a huge block of well-defined, horizontal lines on the façade with a ground floor based on pillars and covered by a huge flap that invited social gatherings. In 2010, when I visited Luanda, the Cuca building was still standing and was recognized as a symbol of the city. Today, unfortunately, it is nothing more than a huge hole. Next to it is the Kinaxixe market: a masterpiece by Vasco da Costa Vieira. The market was a huge box, elevated on pillars and consolidating one of the main squares in the city centre. It had two large courtyards inside the ventilated façades, protected from the sun through vertical blades that caused the building to be fully sustainable. However, despite the social pressure, economic values spoke louder and the market was demolished in 2008. The discreet but paradigmatic modern architecture would give rise to a large commercial and tourist resort, another urban model inspired by the metropolitan image of Dubai, which in no way fits the tropical climate of Luanda.

Following the New Avenues we witness an anonymous and contemporary architecture of excellent quality: brilliant opposite effects of full and empty, contrasts of light and shade, the protection of visors, protruding balconies, *brise-soleils* and ventilated roofing succeed in many residential buildings. The potential of concrete was considered nearly endless. Modern architects have introduced it into simple components such as pillars, framings, projected volumes, noting that it could be poured into moulds of any shape or size. New relationships between the exterior and interior are revealed; outside areas covered by the extension of porches and galleries are enhanced. The permanence of some of the key elements of the Modern Movement, such as the *pilotis* (stilts) or the *brise-soleils*, developed their scientific, functional and geometric sense. Vertical, mobile, fixed or inclined elements, which sought to better adapt to the geometry of the sun, were proposed. The openings on the façades were drawn up to detail, more or less subtly, the leaked levels and cross-ventilation ensuring the much desired air circulation was achieved. These are factors that Kahn realized on his first visit to Luanda:

... I saw that some of the buildings were conscious of the heat generated by the covers ... wide separations between the roof and vents ... small visible openings from the exterior and through which the breeze could

come to ventilate. And I thought how wonderful it would be if I could separate the issues of the sun and rain. And it came to my mind the possibility of having a cover for the sun and another exclusively for the rain. (Kahn, 1961: 10)

Intervening particularly in warm and humid climates, such as the one in Luanda, requires that buildings meet the specific needs dictated by these conditions. The average environmental factors play a very important role in determining the shapes. Luanda's adoption of the modern meant it was able to absorb these factors and apply them so that as a city on the African coast it was able to deal with a tropical climate, 'humid and without winter' (Fry and Drew, 1956: 32), avoiding large temperature variations and enjoying the high levels of moisture in the air, popularly known as *cacimbo* (mist). In a humid, tropical climate, the layout of buildings should never inhibit air circulation, but facilitate cross-ventilation and upper vents so the hot air can escape. In Luanda, it is recommended to build high-level buildings which are exposed to the prevailing winds that blow from the west-southwest all year and south-southwest from April to June (Quintã, 2007: 84). Facing north or south may be more convenient, as this position receives lower levels of solar radiation, however, and according to the movement of the sun, the east-west axis is preferential.

It is well known that the Neighbourhood Units were a failure with regard to their construction, since none were fully developed. Further, it is also true that Luanda followed several modern interventions, expressed mainly in isolated, standalone buildings. In the Largo Maianga, in the south, is one of the most emblematic buildings of Modern Movement collective housing in Luanda: the building of the 'Servidores do Estado' (1955) (Figure 6.3). Vasco Vieira da Costa, another prominent name in the African generation, projected parallel to Avenue Amílcar Cabral what is assumed to be an autonomous residential block, but one that goes beyond the simple block and raises a number of issues in terms of the structure of access and its relationship to the street. Da Costa supported the idea of building in a manner that adapts to and supports the natural slope of the land, whose intersection point acts as a hinge. The architect suspended the main body of the building just above the ground to allow the necessary ventilation. In order to control excessive sunlight onto the western façade, the one facing the avenue, Costa made huge frames with exposed concrete, ripped off by mobile shutters that act as *brise-soleil*, transforming the space from the balcony in a flexible environment, which can be open or closed, and at the same time constitutes the protective skin of the building.

The north-eastern façade exposes the whole 'skeleton' of the building, where the beam-column structure is imposed as a strong formal element, as well as longitudinal voids caused by the access galleries, interrupted only by the volume of the stairs. This was a social housing project, low-cost types ranging from one to three rooms, and working cleverly with minimum dimensions but for maximum comfort, designed on an urban and architectural scale, but also on functional and social levels. The galleries, the overall elegance of the building and the incorporation of façades not only work to solve climate issues but also ensure the functionality of the building in the modern context. Summing up the words of Maria João Teles Grilo, 'the work of Vasco Vieira da Costa is a statement of beauty achieved with the rigor that only one reality can give' (in Goycoolea and Núñez, 2011: 206). Similar examples could be provided, but there is not enough space to include them all. However, the case just referred to is a living testimony of the mainstreaming of the Modern Movement in Africa and the wealth of the modern heritage of Luanda.

Conclusion

Luanda was transformed into a huge urban laboratory, in an experimentation of Western modernity, reflected in global visions of urban and territorial transformation, either in a series of isolated buildings or scattered around the city: in both cases, always surprising. However, it did not achieve any real urban experience despite its size and scale, as only fragments of modern ideals were in fact implemented, notwithstanding the fact that some of them tend to be presented as finished projects when so much remains to be done. These experimentations were not only intended to resolve the housing problem, but were also applied in the field of urban design and urban planning.

It was intended to build more human cities, neighbourhoods and sustainable housing with ecological equipment in an area where everything was to be done. The modern revolution, looking for nothing more than



Figure 6.3 Southwest façade of the ‘Servidores do Estado’ housing built by Vasco Vieira da Costa
Source: Author, 2010

to create its own order, exhibits an ideal balance between the simplicity of individual citizens and the growth of the city in harmony with nature. Living in the city does not have to be equivalent to live poorly, quite the contrary. History will tell if this attempt was in vain or whether the expected results have been achieved. For the moment, the answer is no. Luanda is currently a chaotic city of almost 7 million people, according to some estimates, including more than three-quarters of the population living in slums, without the minimum in terms

of habitability or social infrastructure. Simultaneously, Luanda is today considered one of the most expensive cities in the world and the bay of Luanda is really starting to achieve the image of an African Dubai.

The principles of the Modern Movement, the Brazilian influence as a model for architecture and urbanism in Africa, and the fascination with Le Corbusier, are some of the factors behind the group of Portuguese architects that in the post-Second World War period until the independence of Angola in 1975 was committed to transform the city of Luanda according to the principles of the CIAM discourse on urbanism. The young Portuguese architects transformed the Angolan capital into a modern enclave never before witnessed in the Iberian Peninsula, or even in the rest of Europe. This generation knew how to apply modern values to the specific characteristics of a tropical climate, and where to use standardized models beyond the simple control of the urban form, in a context often dispersed or even chaotic. These works were not designed simply based on a modular system, but with principles of sustainability and wellbeing, as powerful urban and architectural proposals. In Luanda, the abstract language of the Modern Movement is assumed as a very personal expression of the tropics, helping to fulfil one of the purposes of modern culture: to become a new tradition. In search of a universal city, the climate is one of the key elements of the functional architecture.

In such a vast and rich historical process as that of the urban development of Luanda in the post-Second World War period much remains unsaid and unstudied. Modern architecture in Luanda continues to respond effectively to everyday needs, for which it was designed and built, and most of the buildings remain as an ethical and aesthetic model of a high concept of civilization. They are therefore references for our current architectural culture and certainly will remain so for the future. In this sense, there is a real need for the rehabilitation and (re)use of these modern architecture buildings and urban spaces, namely in the context of the current urban and architectural reconstruction in which the country has been involved since the end of the civil war in 2002. The initiatives towards the safeguard of this urban heritage, which is seriously threatened at the time of writing, are far from what is needed. It is therefore urgent to develop urban policy initiatives focused on the preservation and valorization of the Modern Movement built heritage in Luanda and in other cities of Angola.

References

- Botelho, Manuel (1987). Os Anos 40: a Ética da Estética e a Estética da Ética. *RA: FAUP*, Ano I, no. 0, October 1987.
- Carvalho, Fernão Lopes Simões (1963). *Luanda do Futuro*. Lisboa: Tapete Mágico.
- (1963). *Plano Director de Urbanização da Ilha de Luanda*. Luanda: Comissão Administrativa do Fundo dos Bairros Populares de Angola.
- (2004). Lisboa: Conference FAUTL, May 2004.
- Costa, Vasco Vieira (1984). *Luanda: Cidade Satélite n.3*. Porto: FAUP.
- Fernandes, José Manuel (2002). *Geração Africana – Arquitectura e Cidades em Angola e Moçambique, 1925–1975*. Lisboa: Livros Horizonte.
- Fonte, Maria Manuela (2007). *Urbanismo e Arquitectura em Angola – de Norton de Matos à Revolução*. PhD thesis in the Department of Urban Planning, Lisboa: FAUTL.
- Fry, Maxwell and Drew, Jane (1956). *Tropical Architecture in the Humid Zone*. London: BT Batsford.
- Gomes, Sérgio de Andrade (2008 [1948]). Relatório das Teses apresentadas sobre o tema II (O Problema Português da Habitação). *1º Congresso Nacional de Arquitectura. Maio / Junho de 1948. Relatório da Comissão Executiva. Teses, Conclusões e Votos do Congresso*. Lisboa: Ordem dos Arquitectos: 287–93.
- Goycoolea, Prado and Núñez, Paz Martí (eds) (2011). *La Modernidad Ignorada, arquitectura moderna de Luanda*. Madrid: Ediciones University of Alcalá, Spain, UAH; FAUTL Technical University of Lisbon, and University Agostinho Neto, Angola, UAN.
- Kahn, Louis (1961). Conversa gravada no escritório do Sr. Khan, na Filadélfia, Fevereiro de 1961 sobre o Consulado Americano em Luanda. *Perspecta7: The Yale Architectural Journal*, February 1961.
- Kultermann, Udo (1963). *New Architecture in Africa*. New York: Universe Books.
- (1969). *Nuevos Caminos de la Arquitectura Africana*. Barcelona: Ediciones Blume.
- Le Corbusier (1943). *La Charte d'Athènes, travaux du 4ème CIAM*. Paris: Plon.

- (1959). *L'Urbanisme des trois établissements humains*. Paris: Les Editions de Minuit.
- (1980). *El Modulor*. Barcelona: Ed. Poseidón.
- (2002). *Por uma Arquitectura*. 6th edition. São Paulo: Perspectiva.
- Martins, Isabel (2000). Luanda: a Cidade e a Arquitectura. PhD thesis. Porto: FAUP.
- Quintã, Margarida (2007). *Arquitectura de um Lugar: Luanda e a Obra de Vasco Vieira da Costa*. Porto: FAUP.
- Simões, João (2008). A profissão de Arquitecto nas Colónias. *1º Congresso Nacional de Arquitectura. Maio / Junho de 1948. Relatório da Comissão Executiva. Teses, Conclusões e Votos do Congresso*. Lisboa: Ordem dos Arquitectos: 147–50.

Notes

- 1 The New State is the name commonly given to the totalitarian regime led by Oliveira Salazar and which ruled Portugal for 41 years, from the 1933 Constitution approval, until its overthrow, on 25 April 1974.
- 2 Original title and reference: 'Portugal não é um país pequeno' – Postal ilustrado. Edição do Secretariado de Propaganda Nacional, Lisboa.
- 3 Included in the various articles published in *Architecture* magazine about the Portuguese-Brazilian relationship: Palla, Victor. 'Lugar da tradição'. *Arquitectura*, n. 28, April 1948; Sanchez, Formosinho. 'Arquitectura Moderna Brasileira, Arquitectura Moderna Portuguesa'. *Arquitectura*, n. 29, February–March 1949; Levi, Rino. 'A Arquitectura é uma arte e uma ciência'. *Arquitectura*, n. 36, November 1952; Niemeyer, Óscar. 'Bloco de Habitações na Praia da Gavea'. *Arquitectura*, n. 41, March 1952; Costa, Lúcio. 'O Arquitecto e a Sociedade Contemporânea'. *Arquitectura*, n. 47, June 1953; Rodrigues, Francisco Castro. 'O Pintor Burle Marx e os seus jardins'. *Arquitectura*, n. 52, February–March 1954; Souza, Wladimir. 'Exposição de Arquitectura Contemporânea Brasileira'. *Arquitectura*, n. 53, November–December 1954.
- 4 PIDE: International Police for the Defence of the State: this is the name used by the political police between 1945 and 1969 and it was the main tool of repression used by the regime to ward off any kind of opposition.
- 5 Udo Kultermann published in the 1960s the first books dedicated to modern architecture in Africa: Kultermann, Udo. *New Architecture in Africa*. New York: Universe Books, 1963; Kultermann, Udo. *Nuevos Caminos de la Arquitectura Africana*. Barcelona: Ediciones Blume, 1969.
- 6 In research work developed at the University of Alcalá, Madrid, created by Heidy Gonzalez under the title 'The Modern African Architecture in the Stories of Architecture', 14 works of reference of modern world historiography were analysed, in which 73 references were found to be about modern African architecture: 7 African countries were referenced – Algeria (41 references), Morocco (10) South Africa (5), Egypt (3), Angola, Mali and Nigeria (1). The most quoted African architects were South African Rex Martienssen (4) and Egyptian Hassan Fathy (3). All other projects correspond to Europeans or Americans with a project in Africa, but none has more than three references, except Le Corbusier, who has 45 entries. Forty-two projects of modern architecture are shown, of which 33 are from Le Corbusier and, interestingly, the most cited project (67 per cent of mentions) was the Obus Plan for the Mediterranean city of Algiers. These events reveal with clarity the perception of African modernity by European historians (cf. Goycoolea and Núñez, 2011: 34).
- 7 Minister Marcelo Caetano created the Office of Colonial Urbanization (GUC) in 1944. According to the constitutional changes in 1951, it would be renamed the Office of Urbanization Overseas (GUU) which would eventually be phased out in 1957 to form the Directorate of Urbanization and Housing (DSUH) under the competence of the General Directorate of Public Works and Communications.
- 8 Initially the African provinces covered by GUC studies were: Cape Verde, Guinea-Bissau, São Tomé and Príncipe, Angola and Mozambique. Subsequently, the action of GUC was extended to other Portuguese colonial territories: India, Timor and Macau.
- 9 There are several Portuguese architects who studied at the Institut d'Urbanisme de l'Université de Paris. Among them: João Faria da Costa (1906–1971), Luís Cristino da Silva (1896–1976), João Aguiar, Silva Moreira, Fernão Simões de Carvalho (1929–), Vasco Vieira da Costa e Francisco Silva Dias.
- 10 Several Portuguese architects collaborated in the studio of Le Corbusier. Among them: Vasco da Costa Vieira between 1946 and 1948, during which Le Corbusier developed the Housing Unit of Marseille (1946–1952); Simões de Carvalho from 1956 to 1959, with André Wogenscky and Le Corbusier, who invited him to work directly in the Housing Unit of Berlin, after collaboration on the Brazil Pavilion on the campus of Paris, or on the convent La Tourette.
- 11 The plan was never approved, not only because the City Council did not have the means necessary for its execution,

but also due to the lack of technical staff and political backing. See Martins, Isabel. *A cidade e arquitectura*. PhD thesis, FAUP-Porto/Luanda, 2000, p. 265.

12 Simões de Carvalho assembled a team which included professionals from various fields. Architects: Antonio Campino, Domingos da Silva, Taquelim da Cruz, Alfredo Pereira, Rosas da Silva and Vasco Morais Soares; three engineers; 10 designers; surveyor; model maker and painter.

13 Testimony collected by the author in an interview with architect Simões de Carvalho. Queijas, 27 July 2011.

14 The *Athens Charter* text makes reference to the preparation of plans and urban studies in Luanda.

15 The architect Luís Taquelim da Cruz was co-author of the detailed plan for Unit Neighbourhood no. 1 and the architect Domingos da Silva for Unit Neighbourhood no. 3.

16 Although there was a willingness on the part of the Portuguese authorities to pass to the world the idea that Portugal tried to integrate rather than segregate, it was not acceptable at the time that the European population, that is the colonizing country, stay in the minority.

17 The Neighbourhood Unit was limited by a V3. This kind of street has no sidewalks and is used exclusively by motor traffic (e.g. cars); buildings do not have doors opening directly to these streets. One of the consequences of V3 was the introduction of the concept of 'sector'. The next level was the V4, the shopping street of the sector; in this street was located the commercial facilities and activities needed to address all the needs of daily life, as well as other facilities such as cinemas, libraries, conferences halls, cafés and so on. The V5 links the V4 to the housing branches. The V6 is the street that actually provides direct access to the front doors, ending in small squares. The V7 connects the V6 and the V4 and provides access to the areas reserved for the 'culture of the body and spirit', that is to say the schools, sports parks and playing fields. Later the V8 for bicycles was introduced.

18 Despite the Urbanization Plan, Prenda neighbourhood had been a municipal initiative; the collective housing buildings were built by the private PRECOL, according to testimony of the author.

19 The Island of Luanda, which is a narrow tongue of land, about 7 miles wide, separates the city from the Atlantic Ocean and creates Luanda's bay. Such phenomena are common in cities along the West African coast to the great rivers, formed by the sedimentation of various types of sands.

Urban Planning in Lusophone African Countries

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Urban planning on the five Lusophone African countries – Angola, Cape Verde, Guinea-Bissau, Mozambique, and Sao Tome and Principe – has so far been relatively overlooked in planning literature. Bringing together a team of leading scholars, this book fills the gap by providing an in-depth analysis of key issues in the history of urban planning and discussing the key challenges confronting contemporary urban planning in these countries. The book argues that urban planning is a non-neutral and non-value free kind of public action and, therefore, ideology, planning theories, urban models and the ideological role urban planning has played are some of the key issues addressed. For that reason, the practice of Urban Planning is also seen as the outcome of a complex interrelationship between structure and agency, with the role of key planners being examined in some of the chapters. The findings and insights presented by the contributing authors confirm previous research on urban planning in the colonial and postcolonial periods in Lusophone African countries and at the same time break fresh ground and offer additional insights as new evidence has been collected from archives and in fieldwork carried out by a new generation of researchers. In addition, it outlines possible directions for future research.

Carlos Nunes Silva's edited volume gives an account of urban planning in Lusophone African cities for an Anglophone readership for the first time. It thereby contributes to overcoming the linguistic barriers that constrain planning discourse and practice in Africa. This makes it an important book for those interested in comparing colonial planning legacies and understanding their on-going impact on Africa's cities.

Lindsay Bremner, University of Westminster, UK

Have you ever wondered how history and culture shape current and future urban patterns and forms? Now you have a key reference with some good pointers and relevant answers from a range of well researched and rich experiences. This easy-to-read volume is a must for anyone aiming at understanding the urban planning legacies in Lusophone African countries and beyond. This publication will go down as one of the rare urban planning source books on Lusophone countries available to English-speaking audiences. In that way, it fills a huge language and scientific gap.

Remy Sietchiping, UN-Habitat, Nairobi, Kenya

The thematic chapters of this important volume blaze a trail in many respects. It is the first major comprehensive text in English on colonial and post-colonial urban planning in Lusophone African countries. Together, the chapters do a marvellous job of interrogating the avowed and covert aims of colonial and contemporary urban planning in these countries. It is a "must-read" for anyone with an interest in modernist urban planning from historical and contemporary perspectives. The editor must be commended for assembling the respected team of scholars that contributed to the volume.

Ambe Njoh, University of South Florida, USA

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