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THE *UNITÉ* AS UNIVERSAL MODEL: HOUSING IN ANGOLA AND MOZAMBIQUE

Ana Magalhães

Universidade Lusíada | CITAD; Lisbon; anaarezmagalhaes@gmail.com

ABSTRACT.

The Marseille Housing Unit designed by Le Corbusier contributed to the definition of collective housing typologies after 1945. The *Unité*, a mixed repeatable block, will be exhaustively explored, not only in the European reconstruction during the post-war period, but also in other geographies, seeking its adaptation to different climates, cultures and social contexts.

In Angola and Mozambique, Le Corbusier's work had a special impact on architectural production during the '50s and '60s. Although the predominant urban model in the main African Portuguese colonisation cities privileged single-family housing, here and there, we find a few detail plans issued from the Athens Charter and that foster the construction of collective housing units.

These buildings, addressed to an urban colonial middle class, make a significant mark in the largest cities between the '50s and the '60s. Although much smaller in size than the Marseille Housing Unit, these are mixed housing, service and shopping blocks that stem from the premises of their reference model and test new housing typologies fit for a tropical climate.

In Maputo, the Tonelli building, the Montepio de Moçambique building or in Lobito, the Universal building are good examples of an interpretation of the Corbusian prototype. These projects reflect not only an appropriate response to climate characteristics but also the colonial society's desire for modernisation.

Such works, a legacy of the *Unité* and of the modern principles, are however belated examples, at a time when a critical awareness as to the dogmatism of the Modern Movement was arising.

1. INTRODUCTION

The Marseille Housing Unit designed by Le Corbusier between 1945 and 1952 contributed, in a significant and universal manner, to the definition of collective housing typologies in the second post-war. The "Unité d'habitation de grandeur conforme", which was developed as a prototype that rethinks the functionalist dimension through the expression-statement of *the house as a dwelling machine*, will allow for a wide experimentation in the study of mass dwelling, by researching new forms of combination and internal organisation for homes, circulation schemes and space hierarchy.

The *Unité*, a mixed repeatable block, will be exhaustively explored, not only in the European reconstruction during the post-war period, but also in other territories and geographies, seeking its adaptation to different climates, cultures or social contexts. But if, as William Curtis explained, "as a prototype, the *Unité* was unavoidable, the problem was to transform its fundamental lessons into a terminology more flexible attuned to particular cities, societies or climates."¹

In the cities of Angola and Mozambique, former Portuguese colonies, Le Corbusier's doctrine and work had a strong impact on architectural production during the '50s and '60s. Although the predominant urban model in the main African Portuguese colonisation cities is characterised by a sector-divided city model with a design inspired by the Garden City, with extensive low density residential areas privileging single-family housing, here and there, particularly in Luanda or Maputo, we find a few detail plans that fall within the framework of urban models issued from the Athens Charter and that foster the construction of collective

housing units.

It should be noted that, all along such decades, the greater autonomy of the overseas provinces, particularly Angola and Mozambique, together with a growing investment by the parent state will ensure economic development, and consequently a significant population increase.

This greater settlement of population in the overseas territory was translated into a significant development of the cities, through a systematic building up of infrastructures and the redevelopment of the residential areas, by waging, notably, on collective housing units. These housing buildings, mostly resulting from private orders and mainly addressed to an urban colonial middle class, started to be designed by the end of the '50s, and make a significant mark in the largest Angolan and Mozambican cities during the '60s.

2. MODERN HOUSING IN ANGOLA AND MOZAMBIQUE

In Maputo, the Tonelli building (1954–58 / Fig. 1) by Pancho Miranda Guedes, the TAP building (1955–60 / Fig. 2) by Alberto Soeiro, or in Lobito, the Universal building (1957–61 / Fig. 3) by Francisco Castro Rodrigues, are good examples of an interpretation of the Corbusian prototype. Pancho Guedes, trained in South Africa, visited the Marseille *Unité* early on, in 1953. However, most architects living in the overseas African territories did not often made local reconnaissance travels to international works. It would be mainly through periodicals that architects became aware of international projects and works. We highlight *L'Architecture d'Aujourd'hui* magazine, the most read international periodical among Portuguese architects. The Portuguese magazine



Fig. 1. Pancho Miranda Guedes, Tonelli Building (1954–58), Maputo, Mozambique. © Ana Magalhães, 2008.



Fig. 2. Alberto Soeiro, TAP Building (1955–60), Maputo, Mozambique. © Ana Magalhães, 2008.

Arquitetura also played an essential role in disseminating the Modern Movement architecture. The Corbusian lineage and the influence of the principles of the CIAM are, however, dominant, and the publication of the complete *Charte d'Athènes*, which started in 1948, merely stressed such dominance. Le Corbusier's *Unité d'Habitation* building in Marseille inaugurated in October 1952, would be published on

the magazine immediately the next year.

Although much smaller in size than the 337 homes of the Marseille Housing Unit, these are mixed housing, service and shopping blocks that stem from the premises of their reference model and test new housing typologies fit for a tropical climate. Circulation in an external peripheral gallery, a clever composition of the housing cell combination



Fig. 3. Francisco Castro Rodrigues, Universal Building (1957–61), Lobito, Angola. © Ana Magalhães, 2008.

structure and a rational sense in the home internal organisation are common denominators to all those three projects and reflect not only an appropriate response to climate characteristics but also the colonial society's desire for modernisation.

The Tonelli Building, a housing building with twelve levels combining “duplex and single apartments”, can be said to have originated in the *Unité* housing cell. As Pancho Guedes says about his family of buildings, which he called “boxes and people shelves”, the Tonelli building is “the original human shelf”.² It is located in downtown Maputo and was ordered by the Italian engineer Franco Tonelli, a European post-war refugee. This work seeks to contribute to a modernisation of the city, both as to its urban image and as to a new dwelling way proposal.

From a three-floor basis intended for shopping, services and parking all the remaining floors evolve, i.e., 56 apartments, of which 40 are one-room apartments and 16 are four-room apartments.

The duplex and single typologies are distributed alternatively, as advertised on the gable, which materialises in a huge bas-relief mural. The vertical accesses serving the horizontal circulation galleries are located in the centre of the volume and mark the symmetry of the plan and building. It is important to stress not only the modular alternation of the dwelling cells but also the variation of the height of the galleries. Different heights mark the accesses to the flats: the main gallery has a double height and, in the service gal-

lery, access is made through an intermediate landing, which also shows the segregation of and distinction between the routes for “Europeans” and “indigenous” servants. Such alternation, made in a non-regular way, breaches the monotony of the façade. The North-eastern façade remains free for living spaces or bedrooms extended into balconies, which fall in a reticulated framework broken, here and there, by murals that approach the idea of an African identity in a contextual version. There is an apparent opposition between the functional clarity of the home organisation, which is translated into the modular design of the North-eastern façade, and the protruding framed windows irregularly spread along the gable, or the notched drawing murals with a geometry inspired in African decorative drawings on the base floors. Although the roof cannot be visited, just like the large volumes of the *Unité* terrace, the highlight goes to the huge parallelepiped chimneys and the intensely sculptural lift case.

Also in Maputo, we may find another example using the *Unité* premises, the TAP building (1955–1960), located at a corner in downtown Maputo, in the expansion area of the Araújo Plan (1887).

It is a mixed housing and service block, composed by a horizontal base body covering the whole plot, with four floors intended for offices and shops, and a parallelepiped body, with nine dwelling floors. As a housing unit, the building runs perpendicularly to the street axis, breaching the plane's urban design and asserting itself in the city.

The monumental scale of the block is stressed by the gable facing the street, through the use of a polychromatic ceramic mural (by Gustavo Vasconcellos), of an abstract composition, which granted it an iconic dimension in the city.

The base body is partially supported on circular section columns with bas-relief interventions, and forms a large covered portico hallway.

The treatment of the façades of the base volume, with the use of vertical “brise-soleil” that grant it an opacity character, is different from the composition of the height volume, intended for housing, marked by a grid with chromatic variations, which states the home organisation, and broken, in both façades, by balanced galleries.

The vertical volume combines *duplex* and *triplex* typology homes articulated with circulation galleries located in each façade. The North-eastern galleries are aimed at service circulation. Inscribed all along the façade, they jut out, every three levels, of a large vertical circulation tower located at the South-eastern top. They interconnect with the suspended balcony-galleries in the Southwestern façade, the nobler circulation, jutting out of a void of one of the block central modules corresponding to the main access.

The main and the service galleries are around 1.00m level apart, which corresponds to the partial organisation of the home in half-floor. As remarked in the case of the Tonelli building, this distinction of distribution spaces corresponds to the segregation between access and circulation spaces for “Europeans” and “indigenous people”, which will contribute as well to a hierarchized reading of the home.

The structure of the dwelling block is composed of 12 modules, where thirty *duplex* apartments, alternating an ascending or descending development from the galleries, and three *triplex* apartments, aligned next to the module intended to the nobler vertical circulation where the lifts are located, are organised.

This complexity and sophistication of the modular structure refers to the researches on housing cell combination developed by Le Corbusier in the *Unité* prototype. The duplex apartments are therefore organised from the base module with their access through each gallery, thus distinguishing the social area of the home from the service area. On the second floor, whether ascending or descending, is located the private area of the house which fills two base modules and is alternately extended into balconies that mark the full-emptiness of the façades. The façades have an eminently plastic composition, marked by the modular rhythm of the windows and balconies, which go forward and backward. The galleries, as well as the large polychromatic mural reinforce such plastic and composite meaning of the building.

In Lobito, a medium-sized town within the Angolan population context, the Urban Plan (1949) was subsequently revised until 1966, into a regulatory plan, which structured and ruled the growth of the town. The influence of the rationalist principles of the Athens Charter is clear, both in the

functional organisation of the city and in the concern for issues of suitability to site climate and geography.

It was within this framework, and in view of the significant demographic increase, that Francisco Castro Rodrigues, the then director of the Urban Planning of the Municipality, developed the Master Plan for the Town of Lobito between 1969 and 1972.

All along his extensive activity in Lobito, Castro Rodrigues designed several collective housing buildings, of which one might highlight a mixed block known as “Universal” Building.

In 1958, the plots were acquired by the “A Universal” Insurance Company, that established the program structure: large exhibition shops on the ground floor, on the first floor, office spaces; and on the upper floors, small-sized homes.

The “Universal” building is located on two adjoining L-shaped plots, and it makes the transition between two longitudinal street axes of the Commercial District and a large entrance square. It’s obvious that the author’s intent consists in assigning the building a monumental nature, justified by the location, thus dignifying the entrance to downtown Lobito, and the significance of the owner company.

The building is developed in nine floors in its main body, facing the Square, and closing the block, is extended sideways into a lower six-floor body in continuity with the existing buildings.

The foothold of the main body is drawn back and away from the street through a double height gallery, where a few shops and, on the mezzanine, offices and services are located. The protruding intermediate floor, intended for offices, in a “box” volume, makes the transition to the five floors intended for housing, in a 52-home total (Fig. 4).

The roof consists in a huge canopy supported by columns, thus creating a floor intended for studios and social relations spaces. In the sideway body, the roof closes with a large community laundry, which is partially roofed.

The whole building is served by a roofed gallery, in the back elevation, which is breached by two symmetrical staircases and an external service stairway. The two staircases allow for articulation of both L bodies and promote cross ventilation.

The composition of the façades is marked by a set of overlapping grids, which form balconies on the main façade and create shadow areas in the back façade gallery. The grid differentiation is stressed by the chromatic differentiation, as if in layers — marking the structure, the balcony, the flower holder, the railing.

On the main façade, the geometry of the grid reveals the building’s inside partitioning. On the back façade, the use of honey-combed grids allows for shading and ventilating portions of the gallery and breaches the homogeneity of the composition.

The main design reference for this work is, once again, Le Corbusier’s “Unité d’Habitation”, both as to its monumental scale in relation to the city, and as to the work’s composi-



Fig. 4. Francisco Castro Rodrigues, Universal Building (1957–61), Lobito, Angola. © Ana Magalhães, 2008.

tion process. The trial of the premises of the Modern Movement in their tropical version is claimed by its author. He easily develops all modernity themes: the exploitation of new dwelling ways, clearly shown in the inside organisation of the homes, the aggregation of homes around extensive open galleries, the proposal of community spaces, such as the laundry or social relations spaces on the roof; the combination of dwelling, leisure and work programmes.

The gallery is the large dominant constituent, which, in articulation with the various open-air staircases, permits the combination of the environment comfort requirements with the idea of a *promenade architectural*.

But the plastic expression as well glorifies the modern formal contents: the three-dimensional reticulated framework that marks the composition of the façades, the prolific use of colour that differentiates the structural elements, the concrete grids in different patterns and the plasticity of the canopies that shade spaces and routes. The grid on the building's monumental façade, as reinforced by the multiple colours that differentiate the "full" and the "empties" and defines the spaces and the volumes, is a visual reference to the '50s and '60s Le Corbusier's works, especially the 1959 *Salubra* catalogue. The predominant colours in the façade composition are vermilion, light blue, white and black. According to the architect's testimony, the colour, as a constituent characterising the architectural space and as an added value to the work within the urban context, must have always been an essential factor in the implementation of his designs. He also stresses the significance of colour use where

approaching the African context and underlines the use of colour, which, according to his analysis, was often used in Angolan vernacular architecture.

3. MODERN MOVEMENT LEGACY IN A TROPICAL AND COLONIAL CONTEXT

The clever organisation of a structure combining housing cells and a double rational and functionalist meaning in home organisation are the common denominators to all these works and show that their authors were well aware of international collective housing models. The galleries evolve on the back façade, thus distinguishing the main façade facing the street from a back façade intended for circulation and service areas. Generally, the buildings are located on the site according to the urban mesh, "making up the street". The exception is the TAP building, which is located on the site perpendicularly to the main thoroughfare and is structured through two horizontal circulation galleries. While being, among the works examined in this paper, the one that most cleverly exploits the space structure and the cell organisation within the *Unité* premises, it is, simultaneously and contradictorily, the one that underscores the idea of segregation in a colonial context.

It is precisely this ideological contradiction between the predominance of a formal modern vocabulary, associated to an idea of democracy and progress, and at the same time the adaptation of the designs to the context of colonial society, that characterise the housing private order architectural

production.

On the other hand, such works, a legacy of the *Unité* and of the modern premises, are however belated examples, developed at the end of the '50s and all along the '60s, at a time when architects in Europe were gaining a critical awareness as to the dogmatic positions of the Modern Movement.

Today, in a post-colonial context, these three exemplary collective housing works, although very degraded, are densely inhabited by a varied population, who appropriate them in different ways, but who undoubtedly recover their founding meaning of a collective life.

More than forty years after the independences of Angola and Mozambique, identity and heritage issues are still a sensible topic. Far beyond the difficulty of dealing with the memory of this modern heritage, we are confronted with the History of these countries in transformation. Only an in-depth knowledge of the cultural and scientific value of this heritage may overcome other priorities, whether of a political or a social or an economic nature.

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NOTES

- 1 William Curtis, *Modern Architecture since 1900*, 3^a ed., London, Phaidon, 1999, 443.
- 2 Francesca Ferguson (ed.), *S AM 03 Pancho Guedes – An Alternative Modernist*, Basel, Christoph Merian Verlag / Swiss Architecture Museum, 2007, 57.