

## **The UNOR 40 Plan (1971-1972) by Hestnes Ferreira - as a more structured expansion proposal for a planning unit in Lisbon**

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### **Abstract**

The aim of this paper is to present the work of Hestnes Ferreira and his team, namely for the UNOR 40 planning unit in Lisbon, as a study case of an infrastructural enhancement in Mainland Portugal during the early 1970s. The UNOR design teams were recruited outside the municipal staff. For UNOR40 the team was coordinated by Raúl Hestnes Ferreira and included architects Rodrigo Rau and Vicente Bravo, landscape architect Gonçalo Ribeiro Teles, and urban geographer, Jorge Gaspar. These oversaw the planning of a large area between Campo Grande and Benfica, using a traffic study developed by French consultants. The main results of the UNOR 40 Plan were to redefine the layout of the North-South Hub, Combatentes and Lusíada Avenues, as a way of ordering the urban network of this sector, including the urban access to Telheiras. The plan also comprised the creation of an institutional square, based on a program that included museums, institutes, office buildings, and a church. However, the applicability of the UNOR 40 Plan was practically nil, with the exception of the layout of some road links.

**Keywords:** UNOR 40 (1971-1972); Institutional Square UNOR 40 (1973); Hestnes Ferreira; Lisbon

### **Introduction**

This article highlights the importance of the various plans developed for Lisbon, after reviewing the PDUL (Urban Development Plan of Lisbon, 1959), focusing the research on the Unit of Spatial Planning - UNOR 40, coordinated by the architect Raúl Hestnes Ferreira. Thus, the proposal presented by the team is analysed, which included, besides the planning of this unit the creation of an Institutional Square. However, political inertia and lack of public investment, prevented this UNOR plan from being implemented. However, it is important not to forget the importance of this study and the impact that it would have had on the city of Lisbon, if it had been implemented.

## Urbanism and Hestnes Ferreira

The educational and professional background of transcultural Hestnes Ferreira, from Finland to the United States of America, provided a distinctive understanding of the urban issues.

In Finland, in the 1957/58 school year, Urbanism classes with Otto Meurman and those of Architecture Studio with Heikki Siren, were fundamental to realize that urbanism did not depend only on the relation between buildings, but also on the establishment in the city and economic and social issues.

In 1960 the first conference focusing on the problem of housing<sup>1</sup> was held in Portugal. Among the various presentations, Nuno Portas stressed "... *the need to establish a "Section of Psychosociological Problems of the Habitat "and of an "Institute of Housing and Urbanism [...]"*". (Bandeirinha, 2011: 65)

In March 1960, Hestnes Ferreira knowledge of Finnish Architecture led to the invitation to hold a conference and the publication of an article in the magazine *Arquitectura* during the Finnish Architecture Exhibition<sup>2</sup>. Hestnes Ferreira refers to the importance of this exhibition as one of the few "*events capable of contributing to the elucidation of a non-specialized public*" with the aim of finding out about the "*importance of the modern architectural movement and the vast field architects have for their achievements*". (Ferreira, 1960: 60-61) In the article Hestnes Ferreira describes the atmosphere of the exhibition, where there was a recreation of a universe that suggested the Finnish landscape, as a way of understanding the nature of that architecture. Before going to the United States of America, Hestnes Ferreira collaborates in Urbanization office of the Municipality of Almada, between 1960 and 1962, coordinated by architect José Rafael Botelho, in the design of the Master Plan for the Municipality of Almada. (Saraiva, 2011: 119)

In the United States of America, in 1962, he attended Yale University as a fellow of the Calouste Gulbenkian Foundation. And the following year he attended the University of Pennsylvania to study at the Architecture Studio, with Louis Kahn, with the support of Rice and Le Ricolais. He attended the subjects of City History, Gutkind, Urban Structure, Perkins, Urban Sociology,

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<sup>1</sup> This conference was organized by the National Union of Architects, at Galveias Palace, between February 11th and 14th. In addition to Nuno Portas, Peres Fernandes, president of the Union, Rui Mendes Paula, Raul Ramalho, Bartolomeu Costa Cabral, Octavio Filgueiras and Coutinho Raposo attended. Besides, architect and urban planner Robert Auzelle and sociologist Chombard of Lauwe attended as guests.

<sup>2</sup> Architects like Aalto, Meurman, Kivinen, Lindgren, Kraström, Ervi, new generation of Ahola took part in this exhibition, as well as those directly linked to the architecture school: Siren, Kraks, Tröm, Petäjä.

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Rapkin, Concrete, Komendant, and Patton Landscaping Structures, which contributed to increasing his knowledge of Urban Planning. Between 1963 and 1965, Hestnes Ferreira collaborated in the office of Louis Kahn in Philadelphia and participated in different projects. After returning to Portugal in 1966, Hestnes Ferreira shares some thoughts on the American city in the national magazine, *Arquitectura*, number 91, dividing the article into five points: "*Conflict and Dilemma*", "*Dispersion and Increase of Suburban Life*", "*The current situation of large cities*", "*Needs for structural reforms for urban planning*", "*The city, technological evolution and location of cultural centers*" and "*Leisure and remodeling urban life*".

The following year, Hestnes Ferreira's published in the same magazine, number 99, an article on "*The aspects and currents of American architecture*", where he demonstrates the need to adapt cities to the new experiences and demands of modern society, reflecting on the importance of urban planning, and the intervention of sociologists, geographers and anthropologists in the teams of designers other than planners and architects.

Nine years later, in 1969, the first Conference on Housing Policy was held, an important milestone as far as the analysis and the influence of the interpretation and solution of the housing problem are concerned. The main objective was to "*establish a set of measures*" and try to outline an "*integrated strategy for problem solving*", which Hestnes Ferreira describes with some regret in his essay on the National Meeting (Ferreira, 1969).

In Portugal, Hestnes Ferreira works in the Housing Technical Office (GTH) of the Lisbon City Council, in the Lisbon Master Plan and in projects for Chelas between 1966 and 1967. In 1969, during the preliminary stages of the revision of the Chelas Urbanization Plan (PUC) Hestnes Ferreira already indicated that there was a need to make corrections to the integration of Chelas and to the internal articulation of the fabric, proposing a more coherent linking system, achieved by the exchange between the outer cores. As Ana Moreira states, for Hestnes Ferreira the solution, "*would allow the increase of the density that the fabric needs to stabilize, generating activities that would direct the population movement to the residential areas*". (Moreira, 2010: 79)

During the 70s he integrated the General Administration of School Buildings, participating among other projects, in the review of the Plan of the University City of Lisbon. Coinciding partly with this period, between 1976 and 1986, he was an external consultant of the Municipality of Beja, supporting the Department of Urban Management.

In the area of Physical and Urban Planning, in 1971, he developed the UNOR 15 plan for Campolide (Fig. 1); as an integral part of the Lisbon Master Plan, interrupted in 1972 due to indecisiveness of the municipality. In the same period, he develops the Plan for the new Administrative and Institutional Center UNOR 40, until 1972, which is the focus of this article. This introduction contributes to framing the academic and professional path and justifying the solutions adopted by Hestnes Ferreira for the development of the UNOR40 plan.

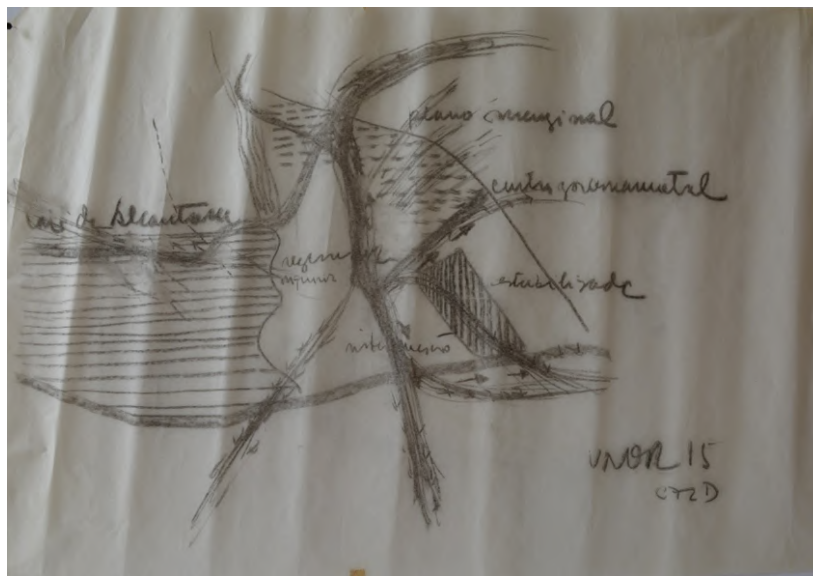


Fig.1 Masterplan UNOR 15

(Dimension: 74x50cm; Support: Vegetable and charcoal pencil)

Source: Raúl Hestnes Ferreira Estate, Marques da Silva Foundation

## The Lisbon Urban Development Plan (PGUCL)

Between 1959 and 1967 Lisbon underwent many changes, such as increased car traffic, the start of operation of the subway, the construction of the bridge over the *Tejo*, the proposal for *Olivais Sul*, the growth of the peripheral areas of the city (*Olivais*, *Moscavide*, *Sacavém*, *Ameixoeira*, *Lumiar*, *Pontinha*, *Carnide*, *Benfica* and *Amadora*) and the tertiarization of the centre.

During this time, with the explosion of the peripheral centres, the need to create a ring road, the current 2<sup>nd</sup> ring road, already covered by the PGUEL<sup>3</sup> plan 1948 of Etienne de Gröer. Although it was built in a phased way, it is possible to observe, through the comparison of the military

<sup>3</sup> In 1938 under the presidency of Duarte Pacheco, the architect and town planner Étienne de Gröer, defined the main lines of development of the city. In 1948 the plan was completed and approved by the CML, although it never received governmental approval.

letters of 1951 and 1971, the intense urban explosion that followed and the total construction of the road links that would conclude the entire ring road of the city.

In 1967, the Lisbon City Council (CML) commissioned the architect and urban planner Meyer-Heine to review the PDUL<sup>4</sup>, which again resulted in a plan that had strategic lines of intervention in Lisbon, adopting the name General Urbanization Plan of Lisbon (PGUCL). As a result, a territorial planning instrument covering the entire area of the county between 1963 and 1967 was created, but only published in 1977, with some changes, enforced through Ordinance No. 274/77, dated May 19.

The main strategies were the creation of a traffic hub with a link to the north to Porto motorway (A1) and to the south to the *Tejo* Bridge, passing through the airport (current north / south link); the creation of Avenida da Liberdade which would be a freeway, with the purpose of reducing traffic in the city centre through a direct connection to *Sete-Rios* at the top of the park (this solution was not implemented in its entirety); continuation of the criterion zoning proposed by De Gröer in 1938, through the Creation of Territorial Planning Units (UNOR), which divided the territory into "*base planning units*"; and building a ring road to connect all the main links of the city (future 2nd Ring Road).

We can state that the UNOR plans were a consequence of the Urban Development Plan of Lisbon (PGUCL), developed by the architect and urban planner Meyer-Heine. This, in turn, was conceived as an instrument that would respond to new urban realities, the increase of car traffic; the start of the metro network; the construction of the *Tejo* bridge; the process of the service industry moving to the city centre; and the growth of its surroundings.

Between 1968 and 1970, the president of the Lisbon City Council, Santos and Castro, following the drive of the so-called "*Marcelista's Spring*", and after seeking internal advice, decided to hire some young architects to develop urban plans for the city, UNOR plans.

### **The Territorial Planning Unit - UNOR 40**

The UNOR 40 team was coordinated by Raúl Hestnes Ferreira and included the architects Rodrigo Rau and Vicente Bravo, the landscape architect Gonçalo Ribeiro Teles and the urban geographer, Jorge Gaspar with the cooperation of the 3rd Bureau (Master Plan) of Urban

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<sup>4</sup>The 1959 Urban Development Master Plan (PDUL) kept most of the proposals of the previous Plan, although it made important changes. It was held at CML, in the Office of Urban Studies (GEU) by Engineer Guimarães Lobato.

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Development Services (D.S.U.) of the Lisbon City Council (CML), including the Sector of Traffic Studies.

According to Hestnes Ferreira the proposed plan respected the existing fabric, integrating it, but at the same time trying to respond to the constraints imposed by the construction of the Lisbon University City, the *Universidade Católica*, Santa Maria Hospital, as well as the presence of the 2nd Ring Road and the scheduled link *Eixo Norte -Sul*, the two main roads.

The base program, provided for the establishment of an Institutional Square, located at the confluence of two urban roads of great importance. In addition to the physical space of the square, there were spaces for leisure and culture, a temple, as well as administrative spaces - public and private -, commercial and *Torre do Tombo*<sup>5</sup>.

Hestnes Ferreira (1972) states that the general guiding principle of the proposed plan was "*the coexistence of tertiary and residential activities*", pointing out that the separation of uses "*is contrary to the urban Lisbon tradition*" leading to imbalance in the cycle of day-night life, residential marginalization and the excessive specialization of leisure and work areas. However, he stressed that each of these functions should have both accessibility and environmental conditions.

The plan proposed the delimitation of the area of intervention, by means of a definition of priorities. Therefore, they defined subareas, emphasizing a new proposal for a road system. Thus, the plan proposed occupancy and quantification bearing in mind the previous constraints, ensuring a definition of the location and number of facilities and green areas to be built, not forgetting promotion, as well as the expected stages and the suggestion of the necessary foundation works to implement, for the success of the plan. Thus, we describe these elements, based on the specification of the first plan delivered by the designer team in 1972, which are part of the legacy of the architect, consulted at Marques da Silva Foundation.

Essentially the proposed team of designers evidenced the Institutional Square as an aggregator and driver of the whole plan. The square was delimited to the North by the 2<sup>nd</sup> *Circular* (Ring Road) to the East by the Games Park of the University City, by Street 2, parallel to *Avenida do Centro Governamental* and to the West by the road, which was the main regional distributor link.

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<sup>5</sup> This public facility was later built in the University City.

As previously mentioned, the road traffic systems for this UNOR resulted from the overlapping and interconnection of two systems, following the principles of the Master Plan and the new requirements for east-west communication systems. They were comprised of the Traffic Distributors at the level of metropolitan areas, and the other of urban routes of general importance, and finally of local roads.

The first corresponded to the future North-South link, the Ring Roads and the *Via de Telheiras*, the second *Avenida do Centro Governamental*, currently called *Av. Lusíada*, *Av. António Augusto de Aguiar* and *Av. dos Combatentes*, and the latter would correspond to the secondary streets proposed in the plan. (Ferreira, 1972: 3-4)

This concept was supported by the team created in the 3rd Bureau of Urban Development Services (D.S.U.) of Lisbon City Council (CML), for the design of these two overlapping systems, allowing the desired hierarchy of routes and the definition of the most suitable routes. (Fig. 2). Thus, they contemplated the extension of *Av. António Augusto de Aguiar*, to *Avenida do Centro Governamental* and to *Av. de Telheiras*, and the intended direct link to *Av. da Liberdade- Fontes- Av. República*. (Ferreira, 1972: 4)



Fig.2 Road Network Study Plan

(Dimension: 74x50cm; Support: Vegetable and Felt Pens)

Source: Raúl Hestnes Ferreira Estate, Marques da Silva Foundation

The proposed Institutional Square would be located at this junction granting "*physical, visual and psychological viability of the new axis of expansion of Lisbon*" (Ferreira, 1972: 4). The



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*Avenida do Centro Governamental, future Av. Lusíada, would directly connect to the Av. da Liberdade axis and the Av. da República to Carnide and Benfica areas. This link offered a new urban meaning, facilitating connections, by means of both public and private transport.*

The descriptive report also stresses the importance of this new route to public transport, connecting different points of the city and the Santa Maria Hospital, designated as a School Hospital. In the descriptive document we see the importance of the local parking areas, from the road to the pedestrian system, and at the same time we perceive how environmental quality was foreseen and respected, with the creation of exclusive routes *"from the park areas to the areas of urban concentration, from the tracks along the urban avenues to the exclusive routes, the pedestrians will find in this zone a real receptivity, documented in the square where pedestrians and cars will move to different levels."* (Ferreira, 1972: 5)

The Institutional Square (Fig. 3) proposed an independent road and pedestrian system, linking shopping areas, museums and cinemas, providing a panoramic view of the south of Lisbon and the *Monsanto* area.

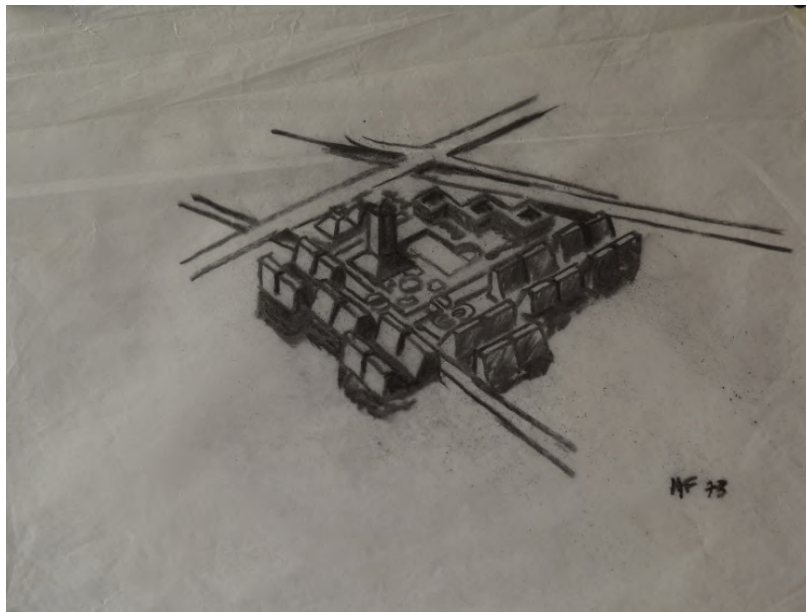


Fig.3 Perspective of the Institutional Square

(Dimension: 33x25cm; Support: vegetable paper and charcoal pencil)

Source: Raúl Hestnes Ferreira Estate, Marques da Silva Foundation

In terms of balance, the occupation structure of UNOR 40 contemplated keeping the green areas in the flat areas at the highest level and that the densified Tertiary zones were distributed along



the main urban roads, while the Residential areas would be located on the slopes and valleys, involving the Institutional and Tertiary zones, and the proposed Institutional Square.

Green and sports areas were distributed throughout, relating to each other from the Campo Grande to the green area that stretched between the Zoo and the eucalyptus *Quinta de Bensaúde*, expanding their cultural and leisure areas.

In the descriptive document, point "3.5 - *Promotion of the Project, stages and land policy*", the team stressed the relevant role of the Lisbon City Council to ensure the coordination and execution of the plan, so that "*foundation works*" of the project "*according to the best interests of the city, of its municipal body, that is, ultimately of its present and future inhabitants*". (Ferreira, 1972: 11)

Nevertheless, the design team assumed that the priority of the area to be studied and programmed depended on the absence of definitive studies of occupation and the start-up of the viaduct of *Av. António Augusto de Aguiar*.

The material produced for this Plan was vast and diversified, in addition to the various models at different scales, several oils were also made with different variations of the urban fabric as well as a large number of rigorous designs with different scales that included plants, cuts and elevations.

### **Concluding note on non-implementation of UNOR 40**

Between 1960 and 1964, the Master Plan of the Lisbon Region was concluded and the "*purpose of the Administration was to articulate the economic development in a model of Planning for the Region*". (Pereira, 2004: 138)

However, the first objective analysis on the dynamics of soil transformation in the metropolitan area occurred between 1972 and 1973 by Juan António Solans in the framework of the Review of the Master Plan of the Lisbon Region. In terms of dynamics, the city of Lisbon could not resist the pressure and land and real estate speculation, which had great impact at political and social level. There were consequences for the planning and management of the Public Administration which generated permanent contradiction between collective and private interests, in addition to conflicts between developers, citizens / users and public administration. This meant the required objectives to generate balanced and sustainable changes were not achieved.

The UNOR 40 plan was not completed in its entirety, only some of the proposed road characteristics were used and implemented. The global understanding of an area and the creation of multidisciplinary teams was very important for the success of the projects. Likewise, this success depended on the commitment and effectiveness of government policies relating to land policies to be promoted by the executive city council, as well as national agencies. The understanding of mixed zoning as a driver of the current urban experience, associated to the recognition of the automobile as a decisive factor in the development of the city, was very important, as well as the definition of the hierarchy of roads, by quantifying traffic and urban design established for its profile and the location and number of parking lots provided for the entire area of intervention. The main point was to favour the creation of a large institutional Square as a factor adding to the whole plan of this UNOR.

The development of the Plan of the new Administrative and Institutional Centre UNOR 40 had an impact on the work of Raúl Hestnes Ferreira and was the main reason for his nomination as the leader of the SAAL team, for the Fonecas and Calçada Neighborhood, due to his prior knowledge of the site.

### **Acknowledgements**

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