Urban Form together with Architecture have proved to play a main role in the city image and therefore in citizens’ life. Historically associated to Urbanism, although left aside by the more recent Anglo-Saxon Urban-Planning concept, the urban morphology is back. Throughout cities’ history, the role of urban design and built environment has been changing assuming moments of conceptual unification as well as phases of detached conceptions. According to Roberto Fernandez, one can establish arguments on a methodological differentiation between urban plans and architectural projects, considering that different “scale” dimensions of the spaces justify different disciplinary approaches. Conceptual periods are also proposed considering different perceptions of Plan and Project relationship and consequently diverse urban forms. Another approach to plan and project matter is defended by Oriol Bohigas, assuming the need to ‘unplan’, proposing a city of projects, where scale is no longer a key factor in the projectual methods.

This paper aim to i) understand the connection existing between plan and project, urban form and architecture and ii) identify the urban outcomes associated to each methodological approach.

The research focus on two case study assessment, of Lisbon’s 20th century public promoted housing neighbourhoods, setting on opposite poles in what concerns to urban and architectural approaches - Encarnação | 1940 and Telheiras | 1973/74.

A classification is proposed considering the different projectual dynamics and the associated urban outcomes.

**Keywords:** Housing, Urbanism, Architecture, Lisbon

**Introduction**

The approaches conceived to face the severe housing needs in the first two thirds of the twentieth century in Lisbon, evolved from small neighbourhoods’ projects to large scale urban plans. These both perspectives of housing neighbourhoods designed facing towards hygienists concepts, based on the Garden City concept and in the Athens Charter, faced harsh criticism and were then left behind.

In a pre revolutionary period, new urban concepts start to come out, as a reaction to the existing criticism. Later, with the 1974 democratic revolution, the housing policies have changed and also the urban process and the urban form. The design methods and the urban shape are also reinvented, resulting in new urban and architectural languages.

The choice between different models or forms is made by architects and urban planners, depending on the urban lifestyle that is intended to reach. As such, “It is convenient to keep present the sociological criticism and the demonstration of the fact that not all urban forms have an equal potential, if any, to promote social life.” (Lamas 1993: 26, author's transl.).

Reinforcing this idea Baptista (1999:8) argues that public entities producing housing according to the dominant ideologies in a specific moment, lead to physical and social planning and control.

However along with the choice for a particular urban model, the design methods and tools – plan and project - play an important role in the definition of the built environment.

The analysis consider form as “(…) an objectification of the process through which architecture [and urban form] has been conceived, produced, transformed (…)”(Marzot 2010:58) and also that despite the basis urban model, a mutual support relationship can be found between urban morphology and building typology. (Marzot 2005:30).
Considering that “The Public Space is the City”, Oriol Bohigas (2001) extends the notion of public space to public buildings, not limiting it to the streets and squares, and defining as an essential issue to address in urban space the – identity and the legibility.

One can also add that besides the public services buildings, essential for the public space construction and important factor for the legibility of the city, also residential buildings that embody the urban fabric, have a key role in defining the character and identity of city.

The present paper focuses on public housing neighbourhoods planning and project methodologies during the Estado Novo1 regime: 1933–1974.

The theoretical discussion is complemented with two case studies of public housing neighbourhoods, setting on opposite poles in what concerns to the established planning and project methodologies. The aim is to identify the urban outcomes associated to specific methodological approaches of Urbanism and Architecture - and its conventional tools – Plan and Project.

1. Public Housing Neighbourhoods in Lisbon | two case studies

1.1 Public housing neighbourhoods in Lisbon during the dictatorial regime | 1933-1974

With the Tajo river standing in south side, Lisbon’s urban growth was, in the 19th century structured towards north of the city centre. During the 20th century, this growth was mainly coordinated through public urban plans. In this period the expansion of the city was largely composed by public housing neighbourhoods, which urban plans reflected foreigner models.

Through the reading of the actual urban tissue, one can clearly identify the theoretical influences as well as the different times and political frames that originated each plan and overall the city growth.

In the sequence of the 19th century hygienist intentions, the urban growth, especially in Lisbon and Oporto, was notorious and drew attention from the Portuguese Republicans. Although there was legislative intervention during the Portuguese First Republic, one can establish the beginning of an intentional public housing policy with the beginning of the establishment of the fascist dictatorial regime – Estado Novo. These legislative achievements “(…) will not cause significant effects in terms of a social housing policy, but rather serve to start an administrative engine, causing the onset of systematic public intervention in the housing field.”(Baptista 1999:26, author's translation).

In Lisbon the exceptional urban growth started in the 20th, combined with a unusual public capacity related to the presence of an authoritarian political regime allowed the implementation for several decades of a public housing policy in the Portuguese capital. The Estado Novo Regime established in 1933, ultimately falling in 1974, with the 25 de April Democratic Revolution initiates the Economic Housing Program2 in 1933.

Within this period of time several housing experiences took place. Influenced by foreign ideas, the production of urban tissue is rich and can be clearly identified in distinct periods.

1rst period:
The public housing dynamic started in the early 30’s with the construction of social housing neighbourhoods, promoted by the State, framing specific urban and architectural options reflecting the conservative regime, headed by Oliveira Salazar (1932-1968). These neighbourhoods were like small villages in the city, totally composed by individual detached and semi-detached houses with an urban form that reinforces the sense of isolated units, emphasising the rural character defended by the regime. These ensembles were projected from the urban design to the architectural detail and located apart of the city center. Therefore each neighbourhood could promote (and control) their own life style, closed to the “big” city urban way of living. Framed by the Economic Housing Program, 1933, its population target was exclusively public employees selected by the State services.

According to Fernández the first phase accomplishes the pre-modern period. Here, plans are defined as Topic Plans (Planes Tópicos) that formally embody the ideals of the installed Power. Projects are defined as Typological Projects (Proyectos Tipologistas) considering that they are a result of the pre-established typologies’ plans and contribute to its materialization.

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2 Economic Housing Program: Decree-Law n° 23 052 (1933)
These are conceived as an absolute and deterministic vision of "urban object". This rigid point of view emerges as an obvious manifest of a power strategy and it is composed by a **Formal Plan** that fixes strong architectural ideas "pro-Plan".

**A step forward:**

*Alvalade* neighbourhood (230 ha), planned in 1945 by the architect Faria da Costa, is a concretization of a new paradigm in Portuguese urbanism (COSTA 2002). *Alvalade* plan, representing also in the legislation field a step forward, integrates modernistic concepts like cellular structures, the hierarchy of public spaces, the intersection and contiguity of “neighbourhood units” and simultaneously applies the notion of an expansion plan connected to the consolidated urban tissue.

Its architectural language is also diverse, showing the evolution of aesthethical concepts, mainly following the institutional image, associated to the **Português Suave**³ style. At the same time *Alvalade* received some of the precursor architectural projects of the modernistic movement in Portugal.

The modern models:

After *Alvalade*’s conceptual step forward, the North and South *Olivais*⁴ large expansion plans emerged in 1955/60, both following the modernistic model. North *Olivais* is a faithful example of the *Athens Charter* (1933) guidelines implementation, while South *Olivais* already reflects some echoes of disapproval, both developed by the Lisbon’s City Hall Urbanization and Edification Cabinet, are also a mirror of the strong criticism occurred in 1948, at the 1st National Architectural Congress⁵.

In the following years was approved the *Chelas*⁶ urban plan (1965), anticipating the urban growth in 510 ha, in a rural area nearby South *Olivais*. In this plan the application of the modern models already integrates the criticism and the balance made from the results of the previous experiences of *Olivais* plans. Nevertheless *Chelas* concretization has suffered several difficulties resulting in an unfinished urban area where the theoretical conception cannot be evaluated because it stands until today as an unaccomplished task.

For this Modern period, Fernandez classifies plans as Utopian Plans (Planes Utópicos) once they search the accurate built form to repeat and materialize the utopian ideals. The return to traditional city:

A final phase, in the years of the transition to the democratic regime, is characterised by the rupture with the modernistic urban models and the return to the classic urban forms. This phase correspond to a new form of urban management – the start of Lisbon’s Public Urban Enterprise ⁷ (EPUL). *Alto do Restelo*⁸ and *Telheiras*⁹ neighbourhoods are the urban response to the general criticism faced by the modern experiences.

This neighbourhoods designed spaces considering the traditional urban forms – street and square – adapted and reinvented to respond to the new lifestyle demands.

According to Fernandez, the third moment defined as *Post-Modern* refers to Fragmentary Plans (Planes Fragmentários) connected to Realistic Projects (Proyectos Realistas), where

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³ *Português Suave* – translated as **Soft Portuguese** - Style definition, a result from the Portuguese World Exhibition in 1940, later altered to **Portuguese Style** by Decree Law no. 33.278 of 24 November.

⁴ *Olivais* Urban Plan (1955/60) | authors: Arch. José Rafael Botelho and Arch. Carlos Duarte | area: 227 ha (40 ha North Olivais and 187 ha South Olivais) | Legal Base: Decree-Law n.º 42454 August 18th of 1959.

⁵ 1st **National Architectural Congress**, 1948 - a milestone in the Portuguese architectural referential, promoting an open discussion on the current urban models and appealing to the *Athens Charter’s* modernistic ideals.

⁶ *Chelas* Urban Plan (1965) | Arch. José Rafael Botelho and Arch. Francisco Silva Dias | area: 510 ha | Legal Base: Decree-Law no. 42 454 August 18th of 1959.


the identity of the plan is characterized by its isolated, non-repetitive and non-exemplar architecture.

One can then consider that the housing growth driven by the public sector reflects the urban models existing in Europe, despite the notorious décalage.

1.2 The start and end of the dictatorship, two times two realities

Recognising the deep transformations that occurred during this period, the present paper focuses on the study of the urban forms and process in two specific moments – the beginning and the end of this dictatorship.

The **Encarnação**\(^{10}\) neighbourhood (1940), being an example of the 1rst period of public promoted housing, illustrates the use of a closed urban projectual methodology of approach, opposing to the interpretative plan methodology used in the conception of **Telheiras** neighbourhood (1973/74), the example that represents the Estado Novo regime’s closing proposals.

Therefore two case studies illustrate different conceptions of the cities design process, linked with its political and economical context, with reflex in the built urban outcome.

As many other regimes like it, the Portuguese totalitarian State also upheld, within the social and residential arena, such concepts as: “order”, “stability”, “family”, and “nationalism”. Under these circumstances, the Regime saw housing as a way to ensure order and social pacification. Alongside these political objectives, housing also played other parts of interest to the State. On one hand, it is seen as a way of rebuilding a national workforce aligned with the economic interest of increasing national production; on the other hand, housing is seen as a way to stimulate reproduction, thus serving the socio-political interest in promoting the family institution. These were the objectives that the **Estado Novo** Fascist Regime’s residential promotional activities sought to attain.

Gros refers to these objectives establishing a direct comparison to the Nazi regime: “The attention that the Nazi regime paid to housing, with the objective of promoting pro-natal politics is, in itself, revealing. Additionally, housing ensures that social relationships are also multiplied: a) by controlling the way spaces are organized and located within the urban space, spatial segregation may be employed, thus housing can enable and contribute towards the social and technical division found in capitalist societies. b) as the place of choice to cultivate the family institution, houses reinforce this concept as a form of individualization, as an acceptance of repressive authority, and as the private appropriation of assets and people; all of which reinforces the dominant ideology. c) as sizeable assets, houses allow the bourgeoisie to reinforce the juridical recognition of private property, thus ensuring its dominance (…)” (Gros 1982:17, author’s trans.).

In the 30’s and early 40’s, several were the built neighbourhoods, in Lisbon’s area promoting the single family villas outcome. **Alvito**\(^{11}\) (1937), **Caramão da Ajuda**\(^{12}\) (1938), **Alto da Serafina**\(^{13}\) (1940), **Encarnação** (1940) or **Madre de Deus**\(^{14}\) (1942) are some of the most representative. As a result of these practices, a new architectural style was defined in the Portuguese World Exhibition, in 1940, labelled **Português Suave** according to a standard project. Later the **Portuguese Style** was defined as a single villa, distant from the city, emphasizing the rural experience in opposition to urban aggregation.

The **Estado Novo** Regime used the concept of Family House in order to maintain social order and to cultivate the traditional rural family concept. These promotions had, mainly, a political and symbolic function associated to the idea summarized in binomial “individual home/social virtue” (Baptista 1999:12).

\(^{10}\) **Encarnação** (1940) | author: Paulino Montez | construction 1940-1943 | area: 50ha | 1112 single geminate villas.

\(^{11}\) **Alvito** (1937) | author: Paulino Montez | 152 single geminate villas and collective housing.

\(^{12}\) **Caramão da Ajuda** (1938) | author: Luís Benavente and Couto Martins | inaugurated in 1958 | 544 single geminate and aligned villas.

\(^{13}\) **Alto da Serafina** (1940) | author: Raul Lino | construction: 1933-1938 | 220 houses.

\(^{14}\) **Madre de Deus** (1942) | author: Paulino Montez | inaugurated in 1944 | 472 single isolated, geminate and aligned villas.
A first period is associated with the *garden-city* concept, implemented through the assembly of independent houses within confined neighbourhoods located away from the urban center. This concept was contaminated by the rural morality that existed during the *Estado Novo* Regime, and it was established in Decree-Law\textsuperscript{15}, being defined as the *Portuguese Style*, ultimately dominating the construction arena between 1933 and 1945 (Heitor 2001).

After the failure of modern models, there is a return to the idea of city as a set of spaces and forms with meaning based on the understanding of a European metropolis (Toussaint 1994). A final urban experience came up in the culmination of this last phase in the dictatorship period – the *Telheiras* neighbourhood (1973/74), while traversing the referred political substitution. The plan was supported by critical reviews of previous housing experiences and reflects the political and social turning point to the democratic regime; therefore becoming an example of new working methodologies and urban typologies.

With the implementation of the democratic regime in 1974 the *Telheiras* neighbourhood (1973/74, 63.5 hectares) appears with an attitude of openness as a transition in the approaching methods, with reflexivity on the form of urban space.

As previously shown, before 1974, the *Olivais* and *Chelas* plans were undertaken, seeking new ways to develop the city along with contestation intends “(...)the official prototype of the social neighbourhood – tiny individual isolated houses (because individual property and inheritance are the most prized values by the Portuguese people, according to the dictator), far from the city’s center and from the workplace, without public transportation nor social equipment, and proposing new types of housing and new concepts of city, always fighting against the followers of the regime, that saw in collective housing and in the spreading of social equipment, the wicked mark of community ideals, internationalism, and subversion.” (Dias 1985:104, author’s transl.)

After analyzing previous urban models, the city could be re-evaluated and reflected upon. The Project (urban and architectural) developed by the *Estado Novo* Regime, using classic rural models, proved to be expensive and segregating, and as, controversially, the modernist urban models revealed to be distant from the human scale and the effects of their mass use became devastating to the city. *EPUL* and Arch. Pedro Vieira de Almeida thought to achieve a new urban language, through the *Telheiras* Urban Plan, thus attempting to build a balanced city. Conceptually reflects the countless criticism towards the modern paradigm, exploring new concepts based on the classic urban elements – street, block and square.

The new type-morphological concepts are not radically different from the old, but in its continuity, *Telheiras* tried to promote a relationship between the shape and dimension of urban space with precise treatment volumes with the clear desire to create streets, open blocks and also a central plaza. The new urban area had the clear intention of encompass the existing rural settlement.

Also in what concerns to the intended receivers, the new neighbourhood had the intention to mix diverse social groups. Being the medium class the main target, the promotion also included people with less economic capacity, elder, young or disables people throughout different architectural typologies.

### 2. Legal framework and urban tools

The promotion of public housing was always supported by specific legal programs. Since the Economic Housing Program from 1933 to the Special Rehousing Program of the 80’s several were the public housing programs. Also in its implementation a huge diversity and evolution (?) in the used urban tools can be noticed in this time period.

Concerning housing promotion, dictatorship times were strongly defined by public intervention. The program that gave the first step in a public housing policy in Portugal and promoted numerous examples of old or *Topical Plans* and its architecture “pro-plan”, representative of instituted political power (Fernandez 1996), can be acknowledge in Lisbon’s

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\textsuperscript{15} Decree-Law n.º 33.278 November 24\textsuperscript{th} of 1943
30’s and 40’s neighbourhoods with the *Economic Housing Program*, being Encarnação one of the most representative of this kind.

One can easily identify a first moment - the period between 1933 with the *Economic Housing Program* and 1945. In this period, illustrated by Luis Baptista as a *ownership society* (Baptista 1999), the public housing policy was mainly directed to the most needed families that, even though, can afford to by a house. This program defines different housing classes - A and B - in order to differentiate the social level. The slogan was “to each according to his ability”, reflecting the previously known and predictably unchangeable social distinction, according to Baptista (1999:48, author's translation).

Later, in order to complete the allocation of houses to those who couldn’t afford the minimum rent defined to access the Economic houses (and came from very poor illegal housing), a new legislation16 promotes the construction of temporary dismountable houses. As the law preamble defines, “the Portuguese economic house is an excellent defence of the family institution and preserves the existing social order” (Baptista 1999:49, author's translation). In addition to the previous, the Decree-Law n.º 33 278, November 24th (1943) tries to put end to the dismountable, that turned definitive, houses problem, already acknowledged. In the continuity of the Economic housing program, new classes are introduced – C and D classes of houses. This are intended for the lower social classes, named in the decree-law preamble as “middle class”.

Therefore the entire program was intentionally characterized by the Regime’s as a rural housing neighbourhood concept – single family housing endorsing the traditional relation to the land. Planed and Projected considering one only and specific idea in both scalar approaches - architectural and urbanistic, the global design conception reflects the institutional values.

In 1933, the existing public polices, with the *Economic Housing Program* (Heitor 2001) laid on isolated family house, reinforcing the traditional family concept. In order to affirm the Regime’s capacity and social providence and the reinforcement of social normalization, rural style housing promotion gains a strong symbolic power. According to Teresa Heitor quoting Diogo Freitas do Amaral, referring to the Prime Minister Oliveira Salazar’s ideas about the processes of city growth and the rural housing characteristics importance:

“(...) when Salazar enunciates the urbanism negative consequences, in the moral plan (crescent criminality and prostitution) in the political plan (social claims and crescent working class social live participation), in order to conclude that urbanism is one of the worst evils of our time.” (Heitor 2001:120, author's transl.)

So, the proposals were carried out to the garden city style in order to satisfy the Portuguese family minimum needs “opposing the big buildings – phalansteries -, considered a social and moral danger for the proportionate connections between the habitants.” (Ferreira 1987:61, author's transl.)

In 1945 a new step forward is given becoming clear the change in the course of housing policies. The appearance of Law n.º 2 007, May 7th of 1945, establishes the *Economic Rent Houses Program*. The clear incapacity of the previous policies to solve the emerging housing needs, are assumed with the implementation of a policy of renting instead of buying, and also with the another important change in the typologies promoted. Is the start of the use of collective buildings in the public promoted housing neighbourhoods.

Therefore the beginning of the dictatorship is marked by the initiative of the first phase of the Economic Housing Program, also noticing the first coherent public housing initiative. This first period on Portuguese housing policies left clear results in Lisbon’s urban fabric – the defined as “Village Neighbourhood”.

After several other urban experiences, it was still in a pre-revolutionary context and responding to the State’s incapacity to solve the housing problem that EPUL – Lisbon Public Urbanization Enterprise, was established in 1971.

As such, EPUL’s mission was to “(...) help and extend municipal action in studying and executing urban developments, having the additional advantage of applying enterprise

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16 Decree-Law n.º 28 912 August 12h (1938)
management principals to the development and remodelling projects that it was confided with.” (Pita 1980:48, author's transl.).

The Telheiras Urban Plan, designed by architect Pedro Vieira de Almeida and architect Augusto Pita, at the request of Lisbon’s City Hall, was designed in the sequence of the previous studies and approved by that institutional entity in 1974 and later in 1975 by the Housing State Cabinet.

The first one from 1969 - Programme D’Aménagement de la Maille de Telheiras - consists in a written report focusing on the urban analysis, the goals settings and finally in the action strategy. The report lay out: “Telheiras offers conditions for a good quality housing development allowing the construction of a balanced housing program with social and private housing, in accordance with the general objectives of social non-segregation as well as the operation’s financial stability” (OTAM/Interlande 1969:7, author's transl.).

This first report had sequence with – Plan de Masse (OTAM/Interlande 1972) – again designed by Architect Gilles O’Callaghan that although not realized, became the basis for future urban proposals.

The Preliminary Plan (1972) designed by Arch. Pedro Vieira de Almeida team, despite the limited scope, already covers the essential parameters that would reach the entire intervention area. (Almeida and Pita)

The development of this Preliminary Plan gives origin to the actual Telheiras Urban Plan. It is defined as a Detail Plan considering the intervention area and the information contained. Given the described path, Telheiras Urban Plan is a result of a Plan de Masse (1972) review and an appliance of Preliminary Plan (1972) concepts to the whole area. Despite the inheritance, the plan defines an entirely new proposal. This aims to integrate the neighborhood in the city’s network based on systemic strategies like: 1. the rehabilitation of the historic nucleus – Old Telheiras – in an alive and non-museum way; 2. extension of existing Old Telheiras urban axis as a new structuring urban element; 3. design a footpaths network, with uneven passages in the streets of intense traffic; on social strategies like: 4. mixing of different housing categories, and later the unique category together with the category differentiation abolishment; 5. integration of supported houses for the disabled and elderly; on typological innovation with: 6. designed buildings in order to assemble the urban character demands, without compromising the future development of different projects; 7. the definition of distinct characteristics to buildings facades, so that they constitute a front-street side with features that contribute to the creation of a street-space and a front facing the collective green areas in the block’s interior; 8. innovation in architectural and urban typologies; and ultimately methodological issues as: 9. avoid the sense of superficiality and detachment, aiming for an accelerated aging process without recourse to the picturesque and fake casualness but instead exploring new working methods; 10. the Spatial Layout Code definition (Almeida and Pita 1974; ALMEIDA 1994).

In this context of change, the authors committed to the exploration of new methods of project approach. Thus a projectual metalanguage was created. According to P. Vieira de Almeida, the search intends to distinguish the Plan’s concept from the Project’s concept, operating with the image perception instead of the form conception. The projectual metalanguage has been translated in the Spatial Layout Code, which organizes a series of analytical schemes and partial visions that built a virtual city, a notion of pre-existence (ALMEIDA 1994).

The new projectual approach itself would be the promoter in the achievement of the above objectives. In this context, reference schemes have been developed for each proposed urban cell along with the usual information in this sort of urban plans (detail urban plan), such as construction area, number of floors or use. The new method experience two complementary approaches: the illustration, through an urban environment drawing, as if it were a pre-existence and the Spatial Layout Code appliance, leading the future designers in search of an integrated architectural solution, considering a sense of consolidated environment. These tools seek to provide input to future designers to promote conceptual freedom in order to accomplish a “(…) controlled level of internal incoherence (…)” seen in the futures project’s non-convergent and non-rigid options (Almeida and Pita 1974:3, MD células 1 a 7, 16 e 17, author's transl.). The achievement of these goals depends on leaving some leeway in the various planning levels. Since the building’s implantation area, this can vary within the established framework, to the ambiguity and complexity promoted by the Spatial Layout
**Code,** a scheme that is originally defined as a language that is "(...) inferred therefore approximate, inaccurate, redundant in some respects, and even contradictory." (Almeida and Pita 1974:9, peças gerais, author's transl.).

The plan allowed since the outset the possibility of changes to the original design. The initial settings provide a "management area" concept, leaving a leeway that allowed the individual designers to develop freely their projects, without undermining the urban structure (Pita 1980). This was one of the strategies found by the Plan’s authors with the purpose of allowing such a variable regulation defined by Portas (Portas 1996). The Spatial Layout Code a complementary tool to the Urban Plan, working in partnership could itself qualify as a support tool to variable regulation given its appetency, to regulate and set up guidelines for possible changes to the established rule. As Portas regards in the Telheiras Urban Plan one can find designed and defined elements "(…) "to comply" and non designed spaces or elements, to interpret, propose and, if necessary, contractually (...) " (Portas 1996:106, author's transl.).

This tool works much in line with what Alberto Mioni also argues, relating to the adaptive plan concept whereas plans and projects should include features of manual since they give directions to future interventions. Mioni defends this thesis in a framework on behalf of adaptation to circumstance and current models, referring to the ability to interpret the identity of a place, i.e. the morphogenetic chain, following systems of values and behaviours, which defines as “structural genius loci”.(Sanz 1996:13)

Hence, a wider, open and integrated planning process starts, leading to Telheiras implementation and transitioning from the old regime to democracy. The urban design and the Telheiras neighbourhood implementation and management conduction represent a new leap forward in Lisbon’s urban practices.

**Telheiras** is one of the two examples defined as the “Pre-Revolutionary Neighbourhoods”, characterized by the regimes capacity of coordination but opened to new urban procedures, goals and design.

### 3. The Urban and the Architectural Housing Project

The housing landscape is responsible for the most part of the city fabric. The study identified several political, social, legal, procedural, location, morphological and typological, invariants in the public housing neighbourhoods planed and built in the period between 1933-1974 in Lisbon, that establish clear urban growth patterns.

This review advocates the approach to the areas in question through in two scales or dimensions of urban form suggested by Lamas (1993) - the city scale and the neighbourhood scale, considering the neighbourhood scale as an identifiable urban area or a city part, assuming a clear urban structure and the city scale as the form through the articulation of different urban dimensions and neighbourhoods linked. “The shape of cities is defined as the distribution of their primary or structural elements: the macro system of streets and neighbourhoods, residential areas, central or productive, which articulate with each other and the geographical support.” (Lamas 1993:74, author’s translation)

**3.1 The existing city and the city created**

**Encarnação, 1940 - the “Village Neighbourhood”**

The Encarnação neighbourhood is located close to the airport, near the limits of the city, far from its urban center and slight slope topography. With a total area of 50ha, it has well defined boundaries and is easy to single out from its surroundings.

Designed by Arch. Paulino Montez, symbolize the adaptation of the garden city concept to the Portuguese reality in accordance with the contemporary Portuguese Constitution that established in the article 14, paragraph 1, that the State must “(...) favour the construction of healthy independent residencies, as well as the creation of the ‘family couple’ institution, with the clear objective of defending the family, ‘the basic institution of society’” (Gros 1982:117, author's transl.). As such, during this period, the urban morphologies that were developed were characterized by neighbourhoods of single villas segregated from the city’s center, representing the ideals defended by the Regime.
Location and Infrastructure

As one can see the location of the neighbourhoods demonstrate the clear intent of the power instituted to remove the residents of these housing projects from the consolidated city. The identification of general access of the city reinforces the notion of isolation. Whereas many of these residents would not have access to a car, the difficulty of residents’ mobility was additional. The railway network opened in Lisbon in 1959 is just now planning to extend the network to the neighbourhood of the Encarnação, so it can evaluate the transport isolation that the neighbourhood has been subject over its 70 years of existence.

Aside from the objective of promoting private property and social segregation, another fundamental goal is achieved – social control. This control is exerted from the beginning, since the careful definition of the criteria for the candidate selection process. “In accordance with the Decree-Law of 1933, the houses are distributed to the head of household that belong to one of the following social categories: employees, workers or other individuals on payroll, members of national unions (…), government employees, civilians, or the military (…)” (Gros 1982:122, author’s transl.) “(…) employment regularity – the unemployed are automatically eliminated, - moral and professional behaviour (for example, single mothers are seen as unworthy to benefit from economic housing), - age, - family composition, - family salaries.” (Gros 1982:124, author’s transl.).

17 in: http://www.metrolisboa.pt/
The social control effect is more effective given the small size of these neighbourhoods and reinforced by the urban design that promote order and easy control of actions. Encarnação proposed urban design is oriented symmetrically around a central strip, with secondary concentric roads that are parallel amongst themselves, creating a unique vision of what is perceived as a butterfly. Apparently, the author was concerned with what the neighbourhood would look like from the air, considering the proximity of the airport (COELHO 2001).

The entire ensemble contains a central area with public equipment and public spaces that clearly show the hierarchical nature of the design. The existence of basic public buildings in the ensemble minimizes the need for relationship with the consolidated town, promoting a rural village lifestyle.

The irregular winding nature of British garden cities is not used as the original model, being adapted according to the tendencies of the Portuguese style.

**Urban Structure and Public Buildings**

![Figure 2: Encarnação’s urban structure outline and public facilities (1. Church; 2. Basic School; 3. Market)](image)

Base map: Aerial photography, 2009 | author’s scheme.

Being the largest of these kinds of neighbourhoods, Encarnação has a total of 1112 homes, using only single detached and semi-detached houses to create closed blocks that are based on the individual private properties model. Each parcel is built with a back-yard and a small garden in front of the house.

The urban form and architectural image build a global image, through the repetition of architectural typologies, reinforcing the sense of order and constancy promoted by the regime. In this case, urban process and urban form can not be disconnected. The existing dependence of both architecture and urban design is clear in the promotion of a specific image. One depends on the other to achieve the final goal.

**Telheiras, 1973/74 – the “Pre-Revolutionary Neighbourhood”**

Telheiras, designed by Arch. Pedro Vieira de Almeida and Arch. Augusto Pita is located in an extended area north of Campo Grande and is physically limited by Lisbon’s and metropolitan area’s three major road axis – Segunda Circular, eixo Norte-Sul and Calçada de Carriche – shaping a triangular area with a gentle slope, offering good development conditions. Telheiras old nucleus has references going back to the sixteenth century, at the time, known as a palace, garden and farm area. The older urban structure is the Telheiras old road around which a small rural village settled.
The proposal consists in the implementation of an expansion urban plan in the continuity of existing urban structures, including the ancient foundation of the core Telheiras.

Location and Infrastructure

In a clear logic of opposition to the beginning of the dictatorship neighbourhoods, these new urban proposals structurally have in consideration the link to the existing city. At this stage the objectives are clearly distinct from those established in the ’30s, being governed by concerns classified as both social and physical integration, promoting continuity with the existing city and miscegenation of different populations.

During the design of this new 63.5 ha neighbourhood, a set of objectives were defined, namely urban morphology concepts such as: the revival of the Telheiras historical settlement - Núcleo Antigo de Telheiras, the creation of pedestrian circuits, and a new typology and concept of the street profiles (Pita 1980).

Although based on the classic urban models, conceptual differences can be acknowledged in Telheiras. The global urban structure is organized in cells, influenced by the modernistic structure; however these cells are composed by classical urban elements. The public urban space results from a new street-space concept, rather than the antique street-corridor strictly flanked by buildings. It is also based on the idea of building towards the block interior, associated with parking lots and gardened areas that are set up within common accessible blocks. As for the buildings, a typological diversity can also be found in connection with urban options, namely the old nucleus buildings rehabilitation, high-rising and mainly collective housing open blocks that form a succession of accessible and lively sets of
buildings in semi-opened forms that grantee perception of continuity and complementarities between sequences of public spaces.

Urban Structure and Public Buildings

Therefore, Telheiras combine several improvements in what concerns to urban conception, as well as in projectual methods, constructing a all new idea of city (Pita 1980).

3.2 The proposed architectural project

*Encarnação*, a typological conception

The methodological approach of Plan and Project, of Urban and Architecture merge projecting a unique entity representative of an institutional image. It configures an urban process, following the pre-modern plans references connected with the Typological Projects (Fernandez 1996). Therefore, one might consider these unique entities - urban and architectural - as a single Project, since the uncertainty factor, considered by Portas (1996) an essential element to define the nature of a Plan, does not exist. Instead, both scales – urban and architeconic - have resolved all the uncertainly along with the conceptual approach. Reinforcing this idea, of a global and united entity, plan and project are compose has only one body, with a straight connection between them.

Along the years, the construction of several neighbourhoods of this category and the legislative update several typologies were designed dedicated to various social classes. All of them (with rare exceptions) are organized based on the relationship between individual house and private courtyard. The *Encarnação* proposed typologies are organized according to the original Law of 1933, in classes and types, corresponding, respectively, to the economic capacity and to the size of the family.
In one of Encarnação’s original plans (-: Bairro Económico da Encarnação), one can identify the distribution of two classes - A and B and three types of each - type 1, 2 and 3.

The class A was dedicated to the least economic capable and the class B to those how were more economic capable. Concerning the types the differentiation was due to the family size, being the type 1 dedicated to the smaller families and the types 2 and 3 to the larger families with children of one or both gender.

This neighbourhood planed in 1940 is one of the faithful examples of the economic neighbourhood’s philosophy, translating the goals of social differentiation by distinguishing two classes and correspondence to family needs by type.

Telheiras, an open conception

Considering the Telheiras Urban Plan interpretative characteristics, a parallelism could also be established with the approach used in the Amsterdam Expansion Plan (Amsterdam Algemeen Uitbreidingsplan – AUP) 1934, defined by Sabaté as a relational matrix, considering the “(…) replacing [of] the univocal relationships, implicit in the urban hub for flexible and variable [ones] (…)” (Sabaté 2004: author's transl.)

These interpretative characteristics are set thru a new urban tools made-up and implemented in this plan. The Spatial Layout Code is a new urban tool witch promotes the mediation between the urban scale and the architectural scale. It aims to introduce information to guide future designers of the built and public space, promote designers freedom and responsibility, define urban structural articulations and finally give a sense of pre-existence to an empty area with few references as Telheiras was (Almeida and Pita 1974). This system presents a framework that establishes parameters articulated in three perspectives:1. volumetric characteristics, 2. spatial characteristics and 3. use characteristics. Each of these sets parameters and levels of accentuation, graphically presented. The classification appliance occurs through a set of drawings, applied to each neighbourhood cell, as shown in fig.10.
The **volumetric characteristics** are mainly dedicated to the built environment and its relationship with public space. Propose four parameters: 1. the façade straightness, 2. volumetric dynamic, 3. vitality and exterior contact and 4. building superior contour. Each of those has three possible accentuation levels graphically represented.

The **spatial characteristics** are related to the public and private urban space classification. The space was considered neutral in order to establish moments of fluctuations, trends and correction factors. This category proposes again four parameters, two of then, sub-divided: 1. consistency, divided in compression zone and decompression zone; 2. geometry which can be centred or oriented; 3. spatial barriers and 4. the sense of dense nucleus and decompression directions.

The third and final notation perspective is related to the use of urban spaces, intending to identify the spaces with 1. a sense of corridor and 2. the important crossing in what concerns to global urban structure.

![Figure 11](image1.png) ![Figure 12](image2.png) ![Figure 13](image3.png)

Figure 11: *Spatial Layout Code, Volumetric characteristics* | Figure 12: *Spatial Layout Code, Spatial characteristics* | Figure 13: *Spatial Layout Code, Use characteristics* (Almeida and Pita 1972)

The Spatial Layout Code expresses an open conception opposing to the close typological conception applied in *Encarnação* neighbourhood. In this plan, both urban and architectural designs have a same base of conception allowing, however, a certain amount of flexibility that allows projectual autonomy within a global logic of conception.

**Conclusions**

Although with such distinct genesis, both areas are presently part of the consolidated urban system being highly sought by upper-middle class of Lisbon. The urban design and development and, therefore, the urban environment offered by each are quite different and keep an important part of the original assumptions.

Considering the above analysis *Encarnação* is defined as “Village Neighbourhood”, as all the other identified neighbourhoods of the Economic Housing Program, considering its spatial characteristics and accordingly the promoted lifestyle. The social segregation is no longer a reality even because a population stratum with greater economic power find in this neighborhood single-family typology that are hard to find in the city of Lisbon. Thus, the original residents and their descendants are mixed with the new market demand for this neighborhood.

On the other hand, Telheiras planned in a pre-revolutionary period built an open city with a strongly coherent plan. The location, access and spatial quality achieved, firstly dedicated to an educated middle class, opened doors to an attractive life style with reflex in the demand for this neighbourhood. The open projectual methods connected to a more open political system, allowed the construction of a open way of life, promoted by a specific urban design. Telheiras took advantage of two worlds - the ability to develop an idea in a closed system although entirely influenced by open ideals and work methods. Hence the propose to define it as the “Pre-Revolutionary neighborhoods”.


References


