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Housing in Middle East - Iran

Towards Practicable Social Housing - Case Study: Portugal

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Abstract

Public housing is a form of housing occupancy in which the property is owned by a governmental authority, which may be central or local.

Social housing is an umbrella term referring to rental housing which may be owned and managed by the state, by non-profit organizations, or by a combination of the two, usually with the aim of providing affordable housing.

Although the common goal of public housing is to provide affordable housing, the details, terminology, definitions of poverty and other criteria for allocation vary within different contexts.

Within looking towards the history of social housing in western countries and its comprehensive answer to the demand caused by population inflation, necessity of it for less-developed countries is recognizable considering the democratic aspects of social housing that have made the non-democratic governments conservative.

Among the middle-eastern countries, Iran is chosen as the main theme of research because of the economic and housing problems after the 1979 revolution. In terms of case study, the research is based on last 50 years of Portuguese housing (policies, programs, built contributions) in general and SAAL program (1974-1976) in particular.

To sum up, the research tries to set the stages to reform some terms of laws and policies and suggest some practical principles and organization and finally get to the drafted proposal that will acquire a proper architectural proposal. The architectural proposal takes the advantages of three laws of Turner to analyze the city of Tehran and get to the district 20. The architectural proposal tries to apply the urban reshaping by following the concept of urban continuity in the proposed site.

Keywords: Housing, Iran, Middle East, Social Housing, Policies, Portugal, Porto.

Astratto

Il Public Housing è una forma di abitazione dove la proprietà è detenuta dall'autorità governativa, che sia essa locale o centrale.

Il Social Housing è un termine ombrello che può riferirsi all'affitto di abitazioni che possono essere di proprietà dello stato, di organizzazioni non-profit o di una combinazione delle due, generalmente comunque con lo scopo di fornire abitazioni a costi controllati.

Nonostante l'obiettivo comune del Public Housing sia di provvedere alla creazione di alloggi a prezzi accessibili, i dettagli, la terminologia, la definizione di povertà e altri criteri per l'assegnazione variano da contesto a contesto.

Guardando alla storia del social Housing nei paesi occidentali e alla sua complessiva risposta alla domanda causata dalla crescita della popolazione, nei paesi meno sviluppati è possibile riconoscere gli aspetti democratici del social Housing che hanno reso i paesi non democratici conservativi.

Tra i paesi del medio oriente, L'Iran è stato scelto come tema principale della ricerca a causa dei problemi legati all'economia e alle abitazioni sorti dopo la rivoluzione del 1979. In termini di caso studio la ricerca si basa in generale sugli ultimi 50 anni delle politiche sulle case Portoghesi (programmi, contribuzioni) e in particolare sul programma SAAL (1976-1974).

Riassumendo, la ricerca tenta di stabilire gli stadi necessari per riformare alcuni termini della legge e delle politiche, suggerendo principi pratici e organizzativi per arrivare infine a una proposta progettuale che raggiunga un'adeguata risposta architettonica. Suddetta proposta si serve delle tre leggi di Turner per analizzare la città di Tehran fino al distretto 20. La proposta architettonica si propone quindi di applicare una riformulazione urbana che segua i concetti di continuità urbana del sito proposto.

Parole chiave: Housing, Iran, Est, Social Housing, politiche, Portogallo, Porto

Introduction

The research is studied in three chapters. The first chapter implies 'state of the art' while the second one goes to policies, programs and built contributions and the third chapter applies interventions by taking the advantages of previous chapters.

The housing issue is and always will be a recurring theme, both in society and architecture. History has always shown the legacy of architecture and society which meets the development of various styles, emerging of new movements and concepts through society. The issue of social housing has been the matter of debate since 19th century which society and architecture tried the first experiences of social housing. In fact, the early experiences of social housing, the pioneers, and the matter of urbanization are regarded as the leading factors to reach to the legacy of social housing.

Chapter 2 shapes the main structure of the research where policies, programs and built contributions meet each other.

First of all, major policies of social housing will be argued due to the effective influence of social housing on a society in terms of economic, social and psychological aspects. On the other hand, the strong role of 'decision makers' on the society has made it inevitable to consider the interaction of public and private sectors and people (top-down and Bottom-up policies).

Secondly, All among the middle-eastern countries Iran is chosen because of the specific characteristics of the country such as low level of social freedom, conservative regime, extreme population growth, increasing rate of land and house cost, the issue of the ownership and etc. In general, the studies of 2nd chapter takes sequential steps. It starts from development programs considering descriptions, targets and the results to see the influence of different political parties on social freedom. The sequence continues with focusing on housing policies to see the role of government, private sector, land ownership and the supports from different organizations in terms of law. It ends with introducing MEHR project which is the first and the biggest governmental housing project. MEHR project can be reviewed in terms of policies, management, Identity, site location, public spaces, public services and etc.

The chapter ends by analyzing the Portuguese background throughout the last decades and focusing on housing policies on the urban poor as indicators of political orientations for shaping the city and reducing social vulnerability with focusing on the last 50 years of Portuguese housing in general, and SAAL project in particular. It is important to say, SAAL project plays an impressive role among the social, financial and technical procedure models, even though there is the possibility of meeting different approaches. The models for housing programs can be classified according to type of cooperation and support which are government support, municipality support and other organizations support.

Awareness of current political situation of Iran and focusing on development programs and housing policies and on the other hand opening up the Portuguese experiences can set the stage for proposing housing policies and architectural proposals.

The proposed policies can be in the form of 'new organizations' or 'housing programs' trying to suggest methods of cooperation of different public organization with private sector and people.

In terms of architectural policies identity, social and public spaces and location of the project are the most important criteria's.

As for architectural proposal, the specific characteristics of Tehran which is taken from atlas of Tehran, is classified to economic and socio-psychological analyses. The classification is taken from John F. Turner's theory about the influence of social housing on a society. Consequently, it takes the proposal site to a specific district of Tehran which is district 20.

In the second step, master plan of the municipality considers the main features of the district 20 which was formerly an industrial zone. The area is now mostly covered by abandoned factories and been isolated for 15 years. The master plan shows the municipality proposal on urban infrastructure and the functions which are mostly based on residential and commercial functions.

As the last stage of the research, the intervention tries to apply the architectural proposal taking the advantages of three laws of turner to analyze the city of Tehran. The laws of turner classifies the city according to economic and socio-psychological aspects on the basis of different districts. As the result, the analysis suggests district 20. In the next step, the architectural proposal which is based on urban reshaping tries to focus on urban continuity in the scale of the area and collective spaces in the scale of proposed urban quarter.

Chapter one: The state of the Art

1.1 Historical Background

The legacy of the nineteenth century

The rise of social architecture

The nineteenth century, when Britain came to rule half the world, was a time of massive industrialization and urbanization. The growth of empire abroad and of great cities at home brought with it wealth for the few. For much of the population it brought exploitation, poverty, overcrowding and squalor. Gross inequality and harsh treatment were the hallmarks of Victorian Britain. But the misfortune of the many also brought forth the seeds of social movements that attempted to improve the lives of industrial workers and the urban poor- initiatives that were to bear their fullest fruits in the twentieth century. Among these movements, attention was given for the first time to the application of architecture- of good design and construction- to social purposes.

The history of architecture has traditionally been seen solely in the legacy of important buildings- temples and cathedrals, palaces and mansions, civic buildings and cultural institutions- the icons that spelt out the development of the great styles of Western architecture. Although historians analyzed these landmarks in painstaking detail, only rarely did they lower their gaze to the mass of everyday buildings that surrounded them, the homes and workplaces of ordinary mortals; these were, quite simply, not architecture. This was partly disdain for the humble and vernacular, partly a reflection of historical fact: design was largely the prerogative of the rich. The holders of wealth- princes and merchants, the institutions of Church and State- were the patrons of the arts. The artists and architects served the wealthy. Slowly, during the nineteenth century, this situation began to change.

Once the sole preserve of the rich and powerful, architectural skills began to be used for the benefit of poorer members of society.

The pioneers

Perhaps the earliest example of social architecture was the work of Robert Owen (1771–1858) at New Lanark in Scotland (Fig 1). In a narrow valley of the fast-flowing upper reaches of the river Clyde, New Lanark was founded in 1784 by banker and industrialist David Dale. Dale brought to his newly built cotton mills orphans from workhouses, and destitutes displaced from the land. By 1796 Dale employed 1,340 workers, more than half of them children as young as six, who worked in the mills for 13 hours a day. Today, such conditions truly evoke the “Dark Satanic Mills” immortalized by William Blake. Yet by the standards of the time Dale was one of the more enlightened employers.

Robert Owen, a Welshman who had made his fortune in Manchester, bought New Lanark from Dale in 1800 and set about building a model community. In the mills he established a regime that was firm but fair, and set up a pension fund, levied on wages, for the sick and old. He built a school for the children, taking them out of the mills and into fulltime education from the age of 5 to 10. He built the Institute for the Formation of Character, where workers attended morning exercise classes and evening lectures. He built a co-operative grocery store, a bakery, slaughterhouse and vegetable market. He organized refuse collection and a communal wash-house. He improved the existing houses and built new housing to standards well ahead of the time, with large rooms, well lit and solidly constructed. The houses were a mixture of two-story cottages and four and five-story tenements (even then, multi-story flats were a common form of housing in Scottish cities).

Housing was built in a plain style from locally hewn grey stone. The public buildings were a little more elaborate, designed in a pared down classical style. New Lanark was an experiment in social progress, although it was by no means a democratic exercise. Owen was noted for autocratically imposing on his workers his own ideas for their self-improvement. He sought to prove that a good environment could mould a healthy individual with stronger character; that a well treated work-force was a productive one. And his experiment was an economic success, showing steady profits and increasing value. The many thousands of visitors who flocked to New Lanark during Owen’s 25 years in charge came not just to see the social facilities but, no doubt, to learn what enlightenment could do for their own self-interest. What Owen practiced, he preached at length. Later in his life, in his writings and speeches, Owen formulated many of the ideas that were to form the basis of the co-operative and trade union movements.

Although Owen’s ideas became widely influential, his foundation could not provide a physical model for what was to follow. New Lanark was a small community, never larger than 2,500 people. The mills of the early industrial revolution were dependent on water power and many were sited in

The mills of the early industrial revolution were dependent on water power and many were sited in steep and inaccessible valleys, with strict limits on their potential for expansion. Early in the nineteenth century, the development of steam power freed industries from the valleys. Long before Owen left New Lanark, the stage was set for the most massive upheaval in social geography.



Figure 01, New Lanark, the Scottish industrial settlement where Robert Owen conducted his pioneering experiment in enlightened social provision and co-operation.

Urbanization

Between 1800 and 1850 the population of England and Wales more than doubled and the number of households increased by 135 per cent. At the turn of the century 80 per cent of people still lived in the countryside or in small settlements. By 1851 over half were living in cities and 25 per cent of the population was packed into ten urban areas with a population of 100,000 or more. Much of this development took place around London, but growth was most rapid in the industrial cities of the north. During this period Glasgow's population more than tripled. In a single decade between 1811 and 1821 Manchester grew by more than 40 per cent. In the decade from 1821 Liverpool and Leeds grew at a similarly rapid rate. The development of the railways from the 1830s only served to accelerate urban growth. The urbanization of Britain has no parallel in terms of its scale and speed, and the effect on housing standards was disastrous. By the time Engels and Chadwick conducted their influential surveys in the early 1840s, much of the urban population was living in the most appalling conditions. A great deal of urban working-class housing was provided by the now notorious "back-to-backs". "An immense number of small houses occupied by the poorer classes in the suburbs of Manchester are of the most superficial character" reported Chadwick, "The walls are only half brick thick...and the whole of the materials are slight and unfit for the purpose...They are built back to-back; without ventilation or drainage; and, like a honeycomb, every particle of space is occupied. Double rows of these houses form courts, with, perhaps, a pump at one end and a privy at the other common to the occupants of about twenty houses". Thousands of these back-to-backs were built throughout the cities of northern England. Mostly they were two rooms about 12ft x 10ft built, "one up, one-down" in two-story terraces. Some also had a third story, some a cellar beneath.



Figure 02, A back-to-back court in Birmingham, photographed at the turn of the century.

Bad as they were, at least the back-to-backs provided families with the privacy of self-containment. Many lived in much worse conditions. Much urban housing was adapted. "Tenementing" was common—larger houses built for better-off families were divided up, let and sublet. Whole families lived in one room sharing such toilet and cooking facilities as there were. Many older houses became common lodging houses where letting was by the bed rather than by the room. Six or seven strangers might share a single room, with no furniture other than bare mattresses. Men were mixed with women, couples and families with single people. Often the beds themselves were shared, their users taking turns to sleep in shifts. Tenements and lodging houses could be found in all cities, but were most numerous in London where the slums they created reached into the heart of the metropolis. Soho, Westminster and Covent Garden contained areas of lodging houses—or "rookeries" as they were then called—as well as more outlying areas. Worst of all were the cellar dwellings. Poorly ventilated, poorly lit—sometimes without windows at all—cellars were always damp. Many were just bare earth or partly paved, and poor drainage often caused them to flood. Insanitary and often grossly overcrowded, cellars offered the barest form of shelter to the most destitute of the urban poor and were often a breeding ground for infectious diseases such as typhus. Throughout the older industrial towns thousands of families lived in cellar dwelling, but they were most prevalent in Manchester and Liverpool. Engels estimated that, in 1844, 40,000–50,000 people lived in cellars in greater Manchester, while in Liverpool 45,000 subsisted in cellar dwellings, more than 20 per cent of the city's population.

Small wonder that such conditions led Engels and Marx to prepare their revolutionary treatise. In the Communist Manifesto, first published in 1848 they declared "The bourgeoisie has subjected the country to the rule of the towns. It has created enormous cities, has greatly increased the urban population as compared with the rural and has thus rescued a considerable part of the population from the idiocy of rural life" and proposed a "Combination of agriculture with manufacturing industries; gradual abolition of the distinction between town and country, by a more equable distribution of the population over the country." But Marxism had no immediate impact and was never to have significant influence in urbanized industrial countries. More immediately two strains of reform started to develop during the 1840s. In the cities the emergence of the philanthropic movement and the beginnings of legislative control slowly began to try to improve life. On the other hand, many rejected the evils of the city altogether and proposed a return to the idyll of rural life.

Flight from the cities

The earliest practical attempt to rescue working people from the evils of the city was the Land Company founded by the Chartist leader Feargus O'Connor. The Chartists were mainly concerned with pressing for electoral reform and, in particular, the abolition of the property qualification for the franchise. Very few workers owned their homes at that time and the vast majority were thus deprived of the right to representation. As a working-class organization the Chartists were also concerned at the dire working and living conditions of their supporters.

In 1843 O'Connor attacked the evils brought by machinery and sought independence for the victims of the industrial revolution from employer and landlord. He proposed life on the land as a way out of the new industrial society. He planned to build 40 "estates" providing 5,000 families with a cottage and a smallholding from which they could earn a living and, in pursuit of Chartist aims, the entitlement to vote. Each estate would have its own community center, school and hospital. In 1845 he formed the Chartist Co-operative Land Society to carry out the plan. Each member held 2 or 3 shares at £2 10s. Like an early version of the football pools, these shares would entitle them to enter a lottery for a smallholding and an escape from urban life. The first estate was started at Heronsgate near Rickmansworth. In 1845 the Company completed 35 cottages built in semi-detached pairs, each in its own smallholding of 2, 3 or 4 acres. 1,487 members had sufficient shares to qualify for a home-stead, and a ballot was drawn for the winners. Over the next three years a further five estates were started in Worcestershire, Gloucestershire and Oxford shire. 250 houses were built, as well as schools and community buildings. The houses were designed by O'Connor himself, often as homes and farm buildings combined.



Figure 03, Cottage cum smallholding at Minster Lovell in Oxford shire, one of several settlements built by the Chartist Land Company to provide working people with an escape route from the industrial city

They were built from O'Connor's sketches by small builders, some of whom were members of the Land Company. And they were very well built. The great majority survived, suitable modernized, as twentieth century commuter homes.

O'Connor's project attracted national attention at the time, but its economic concept- of supporting a family on a smallholding and making enough to repay a debt-was always dubious and repeatedly attacked. Worse, the Land Company fell foul of the law and was never properly registered as a legal entity. In 1851 the Company collapsed amid allegations of disorganization and corruption. The project had largely failed, but it had raised the dream of escape from the cities.

The Arts and Crafts movement

That dream was shared by leading intellectuals of the day. The prolific critic of art, architecture and politics, Oxford academic John Ruskin, similarly despised machinery and modern urbanity. Ruskin emphasized the importance of craft work as an antidote to drudgery and the poor quality of machine production, and supported a somewhat authoritarian version of socialism. But it was his pupil William Morris, rather than the esoteric Ruskin, who was to popularize these ideas.

William Morris (1834–96) earned his living as an interior designer to the rich, but he was a polymath in the arts and politics and a major figure in the latter half of the century. Through his activities, Morris brought together the Pre-Raphaelite painters and poets and the Arts and Crafts architects. Through his membership of the Social Democratic Federation and as editor of *The Commonweal*, he propounded an idealistic view of socialism. Morris had strong views on the environment. He regarded the timeless domestic architecture of England as a model for future development, an architecture of simplicity that owed little to the historical styles. He believed in repair and conservation, and set up the Society for the Protection of Ancient Buildings.

Towards the end of his life, Morris set down the beliefs that had guided his work in the utopian novel *News from nowhere*. In it the narrator goes to sleep in a suburb of the hated industrial London and wakes up in an idealized socialist society in the twenty-first century, full of healthy, happy people living a co-operative life. He is taken on a journey into central London and he witnesses Morris's vision of the urban future. Morris's vision took as its model an idealization of the vanished medieval lifestyle and the replacement of the Victorian city by a dispersed agrarian craft economy. It has often been dismissed as backward looking and romantic, but it was an ideal many were to come to share. In many ways *News from nowhere* was a retrospective manifesto for the Arts and Crafts movement in architecture. Morris worked only briefly as an architect, as a pupil of G.E. Street in 1856, but he undoubtedly had an influence on the house that Philip Webb designed for him in 1859. The Red House, with its steep pitched roof and traditional materials and details; its simple and informal approach to design is normally seen as the key influence that started the Arts and Crafts movement. The movement did look backwards and it revived such traditional features as expressed pitched roofs, bay windows, casement windows, tile-hung walls and expressed timber beams, all of which had been obliterated by the classically inspired Georgian and Regency urban housing. It was to take these features, and a traditional approach to detailing and use of materials, forward into a new synthesis of British vernacular architecture in which new buildings respected the environment and were designed to fit in with their surroundings.

Model towns

From mid-century onwards a handful of employers became concerned about the living conditions of their workers. Whether from philanthropic motives or from interest, the idea, pioneered by Robert Owen, of building good housing for a company workforce, began to take physical shape in new settlements. First was the Halifax worsted manufacturer Edward Akroyd. He built two model villages at Copley (1849) and Akroydon (1859) on virgin land in the Yorkshire Dales. In 1888 the soap manufacturer W.H. Lever founded Port Sunlight near Birkenhead (Fig. 04). The model village he built for his workers was designed by several architects and drew on a mixture of styles. Predominantly, though, it is a romantic and evocative revival of domestic Gothic, authentically replicating the design and construction of Tudor housing. A little later came the chocolate towns: Cadbury's Bournville near Birmingham (1893) and Rowntree's New Earswick near York (1901). In all these model foundations working conditions were good and high quality housing, public buildings and facilities were provided all on Owenite lines.

In many ways the model towns were the embodiment of Morris's vision and the later ones in particular were strongly influenced by Arts and Crafts architecture. Unwin was active in this movement and, with his partner Barry Parker, went on to design the first Garden City at Letchworth in 1903. The Model Towns and the Garden Cities movement were to form an important influence on twentieth-century planning. All the models attempted to solve urban problems by running away from them and starting afresh on greenfield sites. While the nineteenth-century socialists and enlightened employers turned their backs on the cities, it was left to the conscience of the establishment to instigate urban reforms.



Figure 04, Port Sunlight, most picturesque of the model industrial towns which generated a new ideal as an alternative to the industrial city.

The urban philanthropists

Conditions in the slums had given rise to increasing concern among the establishment. This was not just distress at the appalling living conditions of the poor, but concern at effects on the rest of society of crime, vice and, in particular, disease. Repeated outbreaks of cholera, typhoid and other infectious diseases were a major threat to public health. Attempts to reform urban housing began in the early 1840s with the formation of two societies. In 1841 the Metropolitan Association for Improving the Dwellings of the Industrious Classes (MAIDIC) was founded by the Rector of Spitalfields. In 1844 came the more high-powered Society for Improving the Condition of the Labouring Classes (SICLC). SICLC's Honorary Architect was Henry Roberts, who carried out several model schemes on its behalf. Roberts's first scheme was a double row of two-story houses in Clerkenwell, but more important was his Model Homes for Families, built in Streatham Street, Bloomsbury in 1849 (Fig. 2.5). This was a five-story block of flats with basement workshops. The flats were of a standard unheard of at the time. Each was self-contained with a living room, two bedrooms and a kitchen. Off the kitchen a separate compartment was provided for a WC and refuse storage. The flats were approached on each floor by the access galleries in the open air, an innovation that Roberts suggested would "Obviate the evils to be apprehended from internal staircases common to several families".

SICLC also sought to establish new standards for lodging houses. It acquired and improved lodging houses in Charles Street, Drury Lane—described by Roberts as "one of the worst areas of London"—and built new model lodging houses in George street, Bloomsbury. SICLC's role was to exemplify and campaign for improved housing rather than to provide it on any significant scale.

The activities of the more commercial philanthropic societies was put in the shade by an American merchant. In 1862 George Peabody gave £150,000 to found a Trust dedicated to providing working-class housing. Unlike its rivals, the Peabody Trust was non-profit making and was able to use all its resources to developing housing, and within 25 years the Trust had built more than 5,000 dwellings. Its early developments, however, fell far short of the standards set by Henry Roberts. Most were of a type called "associated dwellings", in which tenants shared sculleries and toilets. Nonetheless the fully philanthropic Trust proved more successful than the 5 per cent societies. It was to become the model for the future.

The Peabody Trust was soon followed by others, such as the Guinness and Samuel Lewis Trusts, which were to provide the forerunners for modern Housing Associations.

Many of the early philanthropic developments were undistinguished repetitive barrack-like buildings, although in some of the later developments considerably more effort was put into the designs. The contribution of philanthropic housing was considerable, but it fell far short of a decisive impact. By the time of the 1885 Royal Commission on the Housing of the Working Classes, philanthropic societies in London housed 147,000 people—just 4 per cent of the population of the capital. They were also socially divisive: most of those they housed were the families of the better-off skilled workers. Partly this was because their rents were relatively high, partly because they were highly selective in their choice of tenants, preferring those who would conform with their strict rules of cleanliness and behaviour and would not create problems for their managers and rent collectors. Philanthropy created a new class of housing, below that of the growing middle class but above that of the slums which remained as pressing a problem as ever.

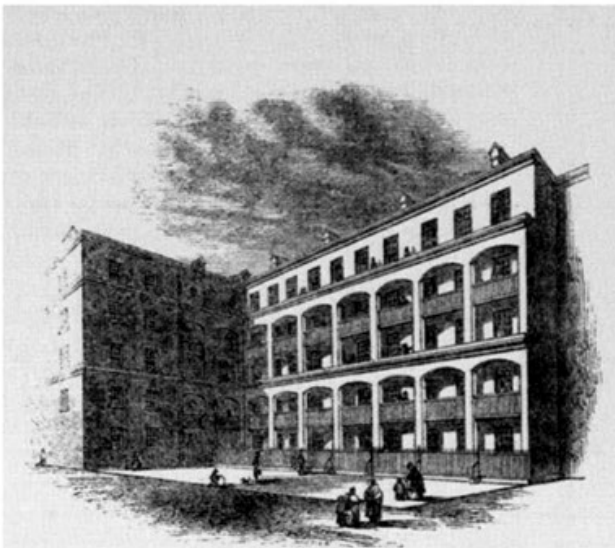


Figure 05, Henry Roberts's drawings for his influential model flats in Bloomsbury. The block still provides good.

Enter the State

For much of the nineteenth century, voluntary action and philanthropic reform were the only sources of addressing the burgeoning urban problems. Urbanization had exposed the weakness of a State primarily geared to defence and foreign relations and ill equipped to improve conditions for its own people. In 1830 the 656 members of the House of Commons represented just 465,000 people, 2 per cent of the adult population. Major cities such as Manchester, Leeds and Sheffield were entirely unrepresented, while Members were returned for “rotten boroughs” with no population at all. The Reform Act of 1832 partly redressed the situation but, by the maintenance of the property qualification, still restricted the electorate to barely 4 per cent. Rising public concern over housing conditions did produce one legal reform -the Common Lodging Houses Act sponsored by Lord Shaftsbury in 1852- but, other than that, there was no significant State intervention until the 1870s.

The Reform Act of 1867 doubled the electorate. Suffrage was still far from universal, it was not until 1884 that the vote was extended to all adult males. But the wider representation produced by the 1867 Act gave a new stimulus to action. Before the 1860s, local authorities had very limited powers to control building standards. Gradually, bylaws had been introduced, but it was the 1875 Public Health Act that gave local authorities powers to make building bylaws and introduce much more stringent controls on the layout of developments, the construction of buildings and their sanitary provision. This Act was permissive rather than mandatory, but its progressive adoption was to change the face of urban Britain. A new type of terraced housing became predominant. The “tunnel-backs” (sometimes called “bylaw housing”) gave each house a front and back with through ventilation and a private yard or garden at the rear, reached by a narrow alley.

Dustbins and privies were now confined to the back tunnel, greatly improving health and sanitation. The new type became the normal standard for working-class housing, In the new cities it gradually replaced the back-to-backs, although these were not finally outlawed until 1909. Also in 1875 came the first legislation to start clearing the slums. The Artisans and Labourers Dwellings Improvement Act gave urban authorities powers to clear “unhealthy areas” by compulsorily purchasing the buildings, evicting the occupants and demolishing.

Once cleared, however, local authorities had no powers to redevelop and the sites had to be sold to one of the philanthropic societies or trusts. The State fought shy, for the time being, of direct involvement in providing housing. In fact, the first large-scale State intervention in social provision was not in housing but in education.

Municipal housing

Where education led the way, social housing was soon to follow. The earliest example of local authority housing dates from 1869 when Liverpool City Council built St Marlin's cottages, a small tenement block. At that time, though, local government had no specific powers to provide housing. Some authorities became involved in a small way with housebuilding or improvement, but it was to require legislation before local government would make a significant impact. The Royal Commission on the Housing of the Working Classes had identified the urban problems of the metropolis as the most serious. Once again London was to be given the lead.

The Housing of the Working Classes Act of 1890 empowered the metropolitan authorities to buy land for improvement schemes with the obligation to rehouse at least half those displaced. These powers were not to be extended to the rest of the country until 1900, and the initiative given to London was seized by the London County Council. Founded only a year before the 1890 Act, the LCC was controlled by the Progressive Party -an alliance of radical Liberals, Fabians and Socialists- which had been elected on a programme of housing initiatives. The LCC set up an architects department, under the direction of Thomas Blashil, committed to social improvement.

The LCC inherited about 15 cleared sites from its predecessor, the Metropolitan Board of Works, and in its first few years acquired two dozen or more slum clearance areas. Its first development was Beachcroft Buildings in Brook Street, Limehouse (now demolished).

But the most significant of its early schemes was the Boundary Street Estate in Bethnal Green (Fig. 06). Here "Old Nichol", a maze of narrow streets covering 15 acres, was demolished and replaced with a comprehensive new development.



Figure 06, Boundary Street Estate, Bethnal Green. Built by the London County Council in 1895, one of the earliest local authority slum clearance schemes.

A new radial pattern of wide treelined streets was laid out focused on a raised open space at the centre. Housing for 5,000 people was built in five-story blocks of flats. There was a deliberate attempt to raise standards and the flats provided considerably better accommodation than the philanthropic housing developments of the time. The LCC was also keen to ensure that what was provided was not just housing but included other necessary facilities: open spaces, shops on the ground floor of some blocks, and two schools built by the London School Board.

Similar tenement developments followed, notably the Millbank Estate behind the Tate Gallery, but from 1902 the LCC adopted a policy of rehousing all those displaced by its developments. This meant that not everyone could be accommodated on urban sites, and a series of cottage developments took place on the less densely populated fringes of the county. This began with the Totterdown Fields Estate in Tooting, and further cottage estates were developed in Norbury, Tottenham and at the Old Oak Estate, Hammersmith. Old Oak, built in 1911, is the most celebrated of the early LCC cottage estates. Built to a relatively high density but without high buildings, great attention was given to the visual quality of the estate and its amenity. It was as if William Morris's disciples had returned to the site of News from nowhere and realized his dream (Fig. 07).



Figure 07, The LCC's early cottage estate at Old Oak Common, Hammer-smith, forerunner of many peripheral council estates.

1.2 The legacy

At the close of the nineteenth century, Britain was more urbanized than at any time before or since. The rapid urbanization in the first half of the century, which had created such enormous problems, was continued in the second half. In 1851, 54 per cent of the 18 million people of England and Wales lived in cities. By 1911 this had risen to 79 per cent of 36 million.³¹ Over the century as a whole the urban population which, in 1801, had stood at 1.7 million had increased to 28.5 million. The massive amount of development required to house these millions was almost entirely unplanned.

Almost all of it took place around existing roads and settlements, carried out by speculative builders and developers. They laid out new estates and provided such roads and public services as there were for most of the century the State stood back unable or unwilling to intervene. Nowhere, even in London, was there exerted the State control of planning and development that lends such distinction to continental cities such as Paris and Berlin. Only in the last quarter of the century did the State become active and even then its intervention in housing was mainly through the negative sanction of legislative controls. By the end of the nineteenth century, new development, at least, was under better control, produced to better standards with much better services.

The influence of the philanthropic movements and the intervention of the State had begun to improve conditions for the teeming millions in the cities. But they had barely scratched the surface of the problems created by the first waves of urbanization.

In London the philanthropic movement had completed just 40,000 new homes by 1905, while the combined efforts of the London local authorities produced just 13,000 by 1914. In the provision of social services the positive intervention of the authorities in the late nineteenth century was more effective. Free education was been provided for all -rich and poor alike- in the fine new buildings produced by the school boards. The educational potential of the population as a whole was fostered by the construction of public libraries. Local councils had intervened to improve health and sanitation with the installation of piped drinking water and public sewers and public baths had been constructed in most urban areas. Nevertheless, for the vast majority of people, late Victorian cities were extremely unpleasant places in which to live grossly overcrowded, notoriously polluted and riddled with vice, crime and disease.

In spite of slow and limited progress in social improvement, the fledgling field of social architecture yielded a positive legacy. The pioneering work of Henry Roberts had established the forerunners of improved urban housing for the poor, although very few architects were involved in such work until the last quarter of the century. The key influences had come from non-architects—Robert Owen and William Morris. Owen had shown by example the benefits of enlightened employment practices, education, health and a good environment. Morris had helped create a new architecture based on humble traditions, and his idealism had inspired both the builders of new communities in the country and the architects engaged in improving conditions in the cities. By the end of the century a new generation of architects led by such as Robson, Blashill and their staff were committed to using their skills for social purposes. They sought to demonstrate that the city environment could, after all, be made pleasant for the mass of ordinary people.

But the ideals of urban reformers were only one half of the coin. Many early socialists and radical intellectuals rejected, altogether, urban industrialization and all its works. They sought a new pattern, where industry would be contained in smaller-scale settlements and where people could live in closer proximity to, and in harmony with, the countryside. Already, those who could afford to had begun to forsake the overcrowded cities for the relative tranquillity of the new satellites and suburbs which had sprung up along the railways. These two trends were to form the pattern of developments for more than half a century the flight from the cities and the continuing problem of humanizing the degraded urban conditions which were the main legacy of the Victorian era.

Date	Client/Architect	Location	Users	Public/Private ownership	facilities
1784	Robert Owen	New Lanark	Workers Max. 2500 people	Private	Communal wash-house, market
1843	O'Connor	London	Workers 5000 families	Private	Community center, school, hospital
1849	Henry Robert	Bloomsbury	-	Private	Open air galleries, basement workshops
1862	George Peabody	London	Working class 5000 people	private	-
1885	Royal Comission on the Housing	London	Better-off skilled workers	Public	-
1902	Liverpool City Council	Liverpool	5000 people	Public	Open spaces, shops on the ground floor

Chapter Two: Policies, programs, built contribution

2.1 General policies

The moment that housing, a universal human activity, becomes defined as a problem, a housing problem industry is born, with an army of experts, bureaucrats and researchers, whose existence is a guarantee that the problem won't go away.

His three laws of housing summarize the psychological, social and economic basis of his thesis.

Turner's first law says when dwellers control the major decisions and are construction or management of their housing both the process and environment produce simulate individual and social well-being. When people have no control over nor responsibilities for key decisions in the housing process, on the other hand, dwelling environments may instead become barrier to personal fulfillment and a burden on economy.

Turner's second law says that the important thing about housing is not what it is, but what it does to people's lives, in other words that dweller satisfaction is not necessarily related to the imposition of standards.

Turner's third law says that deficiencies and imperfections in your housing are infinitely more tolerable if they are in your responsibilities than if they are somebody else's.

It is sometime said of his approach to housing that it represents a kind of Victorian idealization of self-help relieving governments of their responsibilities so far as housing is concerned, and that it is therefore what Marxists would no doubt describe as objectively reactionary. But that is not his position. But in the real world the resources are in the control of governmental or propertied elites. Consequently it concludes that 'while local control over necessarily divers personal and local goods and services such as housing in essential local control depends on personal and local access to resources which only central government can guarantee.

Who decides?

the issue of who and who does what for whom, is a question of how we house ourselves, how we learn, how we keep healthy.

The chapter that follow are about two sets of ways and means- the way and means of centrally administrated systems, and those who of self-governing, local systems which each ends to different ends. No one denies the universal needs for homes any more than the importance of learning or keeping in good health.

The mirage of a development

It is argued that housing, and by application, all other personal and locally specific services, must be autonomous. Autonomy is far from absolute- for it depends on access to essential resources. In housing for instance, local autonomy and direct or indirect dweller control depends on availability of appropriate tools and materials (or technology), of land and finance. In general, the accessibility of these basic resources is a function of law and its administration, and these in turns of function of central authority.

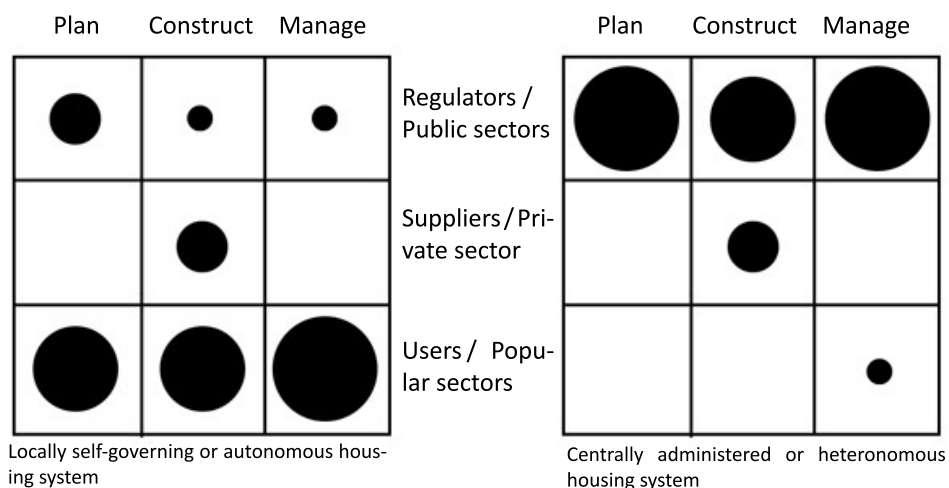
The very wealthy can effectively demand costly simulations or traditional forms, while relatively wealthy government can often be persuaded by their advisors to balance social against additional material cost. where local groups and associations of ordinary citizens have formed to act for themselves such as "asociaciones de padres de familia pro-vivienda in Peru, or even self-build housing associations in Britain they are either unaware of th good intentions and potential contributions of planners and architects, or distrustful, or scared off by fees which their professional associations obliged the architects to charge. So in almost all countries, the great majority of professionals, in this and most other fields, are tied to centrally administered systems. The number of professionals large organizations employ is naturally limited and, when they are efficient it is a relatively small number in proportion to the population. To clarify the differences between an institutionalized and a would-be grass roots professional, the decision making structures in each system must be understood. The simplest way of doing this in housing is to divide the process of decision-making into three easily recognizable sets of operations:

1. Planning or operations that generally precede construction
2. Construction or building operations
3. The management and maintenance of what is built, necessarily following the greater part of the operations. These three operations should be distributed between the three common sets of actors that is, those persons groups, enterprises, or institutions that control the resources for the process itself.

Three sets of actors with three sets of sectors:

1. The popular sector, the users
2. The private commercial sectors, the suppliers
3. The public sector or government, the regulators

The pattern of decision and control describing the two opposite systems are mirror of one another, as their diagrammatic representations shows.



2.2 Middle east - The case of Iran

2.2.1 Policies and Programs

Development plan – descriptions, goals, results (1989-2014)

The 1st development program (1989-1993) - Constructing

The first program began with the main aim of 'Free Economy'. The regime task to government was to be focused on fixing the destruction of the IRAQ war.

The main goals of the program

- investment on local production and industry and getting free from importing
- controlling the rate of inflation
- decreasing the rate of population and death
- Imposing Islamic social justice
- focusing on the cultural issues of the society in general, and young generation in particular
- fixing the destructions from war and reinforcing the Army
- reformation of the supreme-court

Result

In terms of **economy**, it had a huge successful hit in the beginning. By passing of time the economic growth rate decreased from 10.1 % in 1991 to 4.9 % in 1993. It shows that the program did not take a constant improvement. Significant increase in the oil income due to the occupation of Kuwait and encouraging the exporting.

In terms of the **society**, it had a huge achievements such as decreasing the rate of population growth from 3.5 % to 2 % , decreasing the rate of death, increasing the educational level in quality and quantity.

In terms of **Culture**, the radical regime and government tried to impose the Islamic culture on the society.



Figure 08, Ahvaz, Destruction of war of Iran-Iraq



Figure 09, Ahvaz, Destruction of war of Iran-Iraq

The 2nd development program (1995-1999) - stable economic program

The second program was again based on the economic growth, as the result, the action was to stabilize the first program. Stabilizing the economy, and decreasing the financial burden on the shoulder of the society was playing the leading role in the economic policies.

Generally the first and second program were based on economy and supporting private sector.

The main goals of the program

- Imposing Islamic social justice
- increasing the cultural level of the society thanks to Islamic roots
- Islamic orientation
- reinforcing of the army
- supporting agriculture
- increasing the efficiency of natural resources
- economic independency from the oil income
- foreign affairs

Result

In terms of **economy**, the country was facing enormous dept. to the foreigners. On the other hand the rate of inflation was rising in an unmoral speed. The other factor was the international drop for the oil price while the national budget was mainly based on oil income. The natural drought which happened in that period was the other effective factor which failed the program in terms of economy.

In terms of the **society**, the rate of population growth was almost logical and under control. The achievement for employment was half of the rate that was in the program.

In terms of Culture, the radical regime and government tried to impose the Islamic culture on the society.

The 3rd development program (2000-2004) - Structural Reformation

The issues of the first and the second development program changed the attention of the government for the third one. Therefore the main concern of new program was a long-term stable development and it was based on a "*competitive economic program*"

The main goals of the program

- reforming the governmental structure
- increasing the efficiency of natural resources
- creating the job opportunities
- supporting the private sector
- independency from oil income
- cancellation of the exclusive importing such as sugar and cigarette
- boosts in non-oil production exporting
- using the local experts in constructions
- reformation of the direct tax system
- achieving more freedom with respect to the constitution
- increasing the cultural level of the society and respect to humanity

Result

In general this government was the first from the left party which also had different orientations from the regime and because of more freedom the government was so popular among young generation.

In terms of the economy, the government tried to set the stages to encourage national and international investment by reformations that was done in rate of currency, stock support, bank support, private banks, supporting international investments, taxing system, private insurance.

The main focus was productivity and more investment.

In terms of the society, the rate of population growth was totally under control. The achievement for employment much better than the previous programs.

In terms of Culture, as the orientation of was to reaching the maximum possible freedom, it set the stages for the following struggle with the regime and popularity among young generation. Changing the priority of the Islamic rules was also taken by the government for the first time. Encouraging young generation to participate social events and socializing more.

The 4th development program (2005-2009) - stable development with the global approach

The right party get back. The main difference between this program and the ones before is that in this period the government decided to have also the program for the next 20 years that was getting confirmed by the leader. The purpose was to have a long-term plan which can last more than one government. The program includes the economic, social and cultural aspects.

The program was written in four chapters:

- cultural, science and technology affairs
- social, political, military and national security affairs
- political and relation with the world
- economy

The main goals of the program

- competitive economy
- economic growth
- cultural growth
- national security
- expanding the court affairs
- increasing the power of the country in Middle East
- increasing the quality of life
- Imposing Islamic social justice
- increasing the power of the government

Result

In terms of economy, the annual rate of economic growth was 6.7 % which was lower than what the program predicted 7.4%. And it was an unsuccessful performance by government. On the other hand, the rate of the investment decreased to 6 %. Checking the main three factors of economy which is the rate of unemployment, the rate of inflation and the rate of job opportunities shows a negative impact on the economy.

The other effective factor that was international sanctions against the country.

In terms of Culture, the radical regime and government tried to impose the Islamic culture on the society and even tried to set some rules to control the orientation of the next governments.

The 5th development program (2010-2015)

The huge differences between the approaches of the current government with the previous one opened up the conversation of cancelling the 20years program and huge changes in the direction of the 5year program.

2.2.1.2 The policies of housing

Implement regulations of organizing and supporting of the housing construction and supply

These regulations are divided into 10 sections:

Definitions:

First sections defines technical words that are used in the following sections

Land transfer programs:

A. Program of rental housing construction and supply:

Ministry of Housing and Urban Development in order to enhance investment in rental housing construction and supply must provide requirements in different regions of country and by supporting private sector, to help this program to be accessible for low income people.

B. Program of construction and supply renting by ownership conditioned

Land is supplied in order to rent only through real or legal persons to families with mentioned conditions in previous laws. In this program the land is supplied with discount and for a period of maximum five years. If after six months the construction phase is not started yet, Ministry of Housing and Urban Development will take it back in give to other applicants.

C. Program of land usage's right with cheap rent for 99 years :

This program is for investors Who form a group with at least three families together.

D. Program of mass housing construction by private sector with respect to new techniques :

This program would be accessible through three directions:

- Program of attracting and directing mass construction through loans
- Program of supporting investors in mass construction plans
- Program of supporting industrial construction and new techniques

Architecture and urban regulations:

Ministry of housing and urban development in cooperation with cultural heritage and tourism organization find valuable urban patterns, buildings which can influence contemporary constructions and make documents and present them.

Ministry of housing and urban development needs to review development plans of cities in order to be accordance with Iranian-Islamic architectural values.

Ministry of housing and urban development should develop a superintendence system with municipalities' help in order to control construction in cities.

All governmental buildings must use Iranian-Islamic architectural style and the scheme needs to be proved before construction by experts.

Preparation of the Land:

All ministries, and governmental organizations must give their lands that are located in the areas that are titled as housing areas in development plan of the city.

In case of private ownership Ministry of Housing and Urban Development must provide facilities for them if they want to do housing otherwise Ministry of Housing and Urban Development must buy or exchange their lands.

Tax on Arid Lands:

Municipalities in every city must provide a list of arid lands in their region and give it Tax Organization. All real or legal persons in cities with population more than 100,000 people must pay their taxes for arid lands that have been considered as housing land in development plan of the city.

New technologies:

Ministry of Housing and Urban Development in order to encourage new technologies in mass housing construction does the following actions:

- A. Facilitating and accelerating the process of survey in case of new techniques and technologies
- B. Supporting of manufacturing units, investors and elites that are committed to industrialized construction

Central bank of Republic Islamic of Iran must accelerate the process of loaning through its banks.

Ministry of Housing and Urban Development must find and allocate lands that are located in industrial areas to manufacturing units.

Ministry of Housing and Urban Development, Ministry of Science and Ministry of Job and Social Security must provide outlines for education and practical research in industrialized construction and new technologies.

Allocating bank facilities:

This concludes programs that are supported by the government in order to give bank facilities for housing construction like preparing lands and all the programs for housing construction in urban and rural areas.

Renovation and restoration of old urban patterns:

Following actions need to be done in order to accelerate the process of renovation and restoration:

-With municipality's observation, restoration and renovation offices would be established in the mentioned areas.

-Royalty of infrastructures like gas and water would be preserved after renovation or restoration and all the related organizations must provide the extra need as soon as possible.

-Real Estate Registering Office must put priority for these areas.

Rural Hosing:

All the related organizations must find the potential lands and do all the requirements like land's transfer in order to prepare them. And all the actions must be on the technical observation of Housing Foundation.

Other Cases:

Discounts would be considered for all the contractors who will build housing units for low-income people in old urban patterns that have been proved.

In order to enhance the quality of rural and urban construction, Ministry of Housing and Urban Development needs to do the following actions:

- Encourage people to insure new residential buildings with discounts
- Help engineering services for low-income people
- Controlling the construction with the help of private sector
- Education and promotion of National

All the related organization must report their operations every three months to Workgroup Housing Secretariat.

This resolution has been proved by the President of Islamic Republic of Iran in 25/04/2009.

2.2.2 Built Contribution- MEHR governmental housing program

2.2.2.1 Aims and the necessity of the government attendance

The 1st priority

The economic possibilities, the social possibilities, possibility to be built, housing for low-income people, public recreational spaces, the services of the public housing

The 2nd priority

reaching to maximum economic efficiency, proper way of using lands, having true city connections, protecting about the environment, cultural and educational facilities, proper expansion of city services, creating beautiful cities,

The 3rd priority

-lowering the extreme rise of the dwelling cost:

Handing the responsibilities and the whole investment of the dwelling to the private sector can end to change the concern of the dwelling to a heated business. As the result the low-income families cannot effort the house cost

-the priority of the social justice

The total control by private sector divert the goal of the housing and ownership to private benefit and economic aspect of the project

-considering the lack of urban land

The increasing rate of immigration to the cities and at the same time the fast population growth consumed most of the great lands of the cities.as the consequence the government can take the control that how city can grow

-lack of long-term budget

The government can unite the different groups of people from low-income level to collect the budget and start the project.

-supporting the inner market in the period of the sanctions

the housing sector is highly effecting the economy and the social aspect of a country.in the period of the sanctions, as the materials for building industry is not imported and totally produced by interior market , construction is considered as one of the best ways to create jobs.

2.2.2.2 Pathology of MEHR Housing Project

The concept of housing does not include only the physical place, but also the whole living space; which concludes all the services and possibilities necessary for good living of family, hygiene and other cultural, social and economic parameters of every individual. But what is now presented under the title of “Mehr Housing” all across the country emphasizes just on the physical dimension of housing and its main aim is to inhabit the working class. This project does not consider the creative and active element of a city, i.e. human; and tries only to inhabit it.

In the following the necessity of using the site selecting studies, physical, cultural and social identification, and also shows the effects of ignoring such studies in Mehr Housing.

This part insists on site-selecting, cultural-social and anthropologic usage of native architecture in every different area. Topologic congruence of architecture in these inhabitations to every single area’s culture, beside the ecologic remarks, ends to achieving the identity in architecture, plausible urban view, raising the sense of attachment and spreading the social interest in inhabitants. Therefore, all the noticed elements can increase the success of this project. To reach the aims of the study, a functional methodology has been used. The methodology of gathering data is both field and librarian study: field work, by visiting the project’s sites, to diagnosis site-selecting; and librarian study to study and analyze theoretical bases.

Locating

The most significant items that need to be considered for locating housing units are social-economic, physical, environment and political aspects.

In forming of city’s visage, natural and artificial aspects and also cultural, social and economic aspects play an important role.

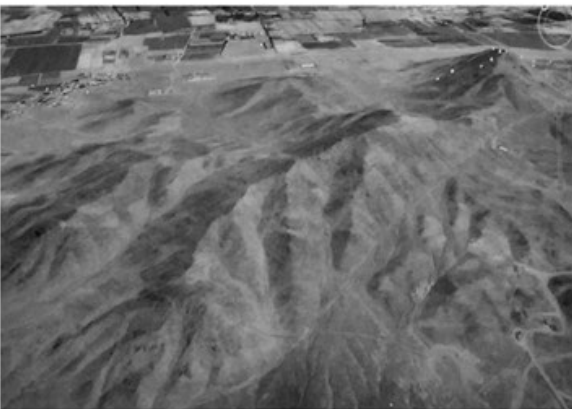


Figure 10, Agricultural lands beside the project



Figure 11, Placing part of the project between the existing hills

In fact, visage of city is formed from the shape of the lands. And natural elements as basic developers have the main impact.

Inappropriate locating of Mehr Project has caused to lots of anomalies. For instance one of the projects located in Karaj has faced some problems like:

- Lack of enough consideration to climate
- Locating in open field
- Intensive wind in the area
- Some parts of the project are located in a closed area
- Pollution because of lack of anticipation for disposals
- The project is located in distance less than 500 meters from a historical hill
- It has created an appropriate condition for crime and misdeed because of hills around



Figure 12, The distance between site project and the city



Figure 13, Location of project in Zannjan City close to hills

Identity in Architecture

Today quantity has become more important than quality in architecture in most of the countries especially Iran. Architecture is repeating mass and became boring and monotonous. In the following we see some reasons that cause lack of identity:

- Lack of cozy and friendly spaces
- Lack of feeling of belonging in dwellings
- Lack of attention to the visage and filled and void spaces

In recent years, there have been lots of efforts in order to revise Iranian-Islamic architecture and urbanism, however, with introducing Mehr project a typology of without identity city has emerged. Mehr project could have reached to Iranian-Islamic architecture with a wide vision toward all the mentioned aspects.

Following items could have been considered:

- Studying different parts of country in terms of social, culture and economy
- Studying each region's architecture
- Offering appropriate architecture in accordance with climate and categorizing various types of architecture in Iran
- Teaching the right way of construction by experts



Figure 14, MEHR project Blocks without identity



Figure 15, New Shooshtar city with respect to context and culture

The following solutions can be taken into consideration for giving identity to the complexes:

- Developing pedestrian passage and green areas in scale of neighborhood
- Using symbols that bring identity
- Developing and creating places as indications in neighborhood and city
- Developing public places in order to enhance gathering and a place for kids to play
- Using Iranian-Islamic architecture



Figure 16, Pedestrian path only as a linking element - MEHR project



Figure 17, Increasing the social interaction by pedestrian design - London

2.2.2.3 MEHR Project Disadvantages

Lack of urban infrastructure and urban services

Even though the housing is not only a shelter to live, the government did not consider urban open spaces, leisure spaces, services to the buildings, cultural and educational facilities and possibilities. It is important to say that in the early studies of MEHR project the urban services was mentioned highly by housing experts and urban planners, but in the next steps the economic aspect of the project did not let it to be.

Lack of variety in the patterns the projects for different cities

The studies over different typologies and the variety in the design of the project seems to not to be in an acceptable stage.

On the other hand, setting different groups of people with different cultural level and from different ethnicity even if they are in the same economic levels can cause other following problems.

Planning in the new cities

The problems of new cities are mainly, job opportunities, being far from main cities, lack of urban facilities and services, the regional transportation, and also lack of educational centers, health centers and clinics and recreational centers. As the master planning of the new cities did not deal with these issues deeply, as the result the public tendency to live in such a cities is low. Settling the MEHR project in such a cities in Iran can Cause the domino consequences of problems. As an example the city called " Hashtgerd " with 17000 inhabitants which is the host of one of the biggest project of MEHR is suffering from lack of hospital, terminal, and a stadium. The city has only 1 clinic, one cultural center, two mosque and two banks

The managing problem

uncenteralized management and numerous decision makers made a huge barrier for the efficiency of the project. Ministry of housing and urban planning, the central institute of housing, municipality, housing Bank, and the ministry of cooperatives were the sectors which were in charge of the project. Due to the different sub-branches of each sector and the differences of the laws of each the steps were getting take slowly. And also it causes a wide range of defrauding on the loans of the house.

The choices of site and the preparation

The locating of the project was clearly violating the law “*number 6 of the budget plan*” that the free big vacant should be allocated to this project. It was neglected generally because of the power of the regime sectors or army which did not want to donate or sell any lands that they own in the cities. As the result the locations got far from the cities.

On the other hand, the budget that was allocated to the project by government was almost the same for different areas of the country that ignores the harsh progress of preparation in different cities.

Take for example fiروز کوھ, sanandaj, shahre kurd, parand

Ignoring the cultural issues in small cities

In some small cities of Iran the general public prefers living in villas rather than living in apartments units. Ignoring this fact can endanger the tendency to welcome this type of housing.

Take for example Kahnootj in Kerman province and Kalateh in Semnan province.

2.2.2.4 MEHR Case Study

Parand

The major idea of the city Parand was be a residential area mainly for people of Tehran and the clerks of the Imam international airport .the city is linked to the connection system like highway, rail-way and Tehran metro. Parand is 35 km far from Tehran but officially it is located in the territory of capital.

The city development plan written in 2005 and Features of the city

Looking forward to enhance the capacity of the city as the population by supporting the urban infrastructure and services.

The area is limited from the north to the “*takhte rostam*” hills, from the south to “*rood shoor*” river, from east to the territory of the Imam airport. Therefore the expansion map of the city is depended on the west and north-west side.

Completing the triangle of Tehran-Karaj-Parand.

Access to the train station and the Tehran highway.

The character of the city based on three facts: accommodation, new industrial zone and the services for the Imam airport clerks. Vast variety of people are working in Tehran and getting accommodate in Parand.



Figure 18, The position of Parand city to Tehran and Karaj

Mehr Housing - Tehran

Parand - Phase 5

Chief of Architecture _ Governmental Sector

Technical Brigade _ Governmental Sector

Construction _ October 2010 - March 2012

No. people _ 64000

Site Area _ 110 ha

Footprint Area _ 11 ha

phase 5 includes 204 blocks, Each block is 15 levels and each level includes 4 units, each unit is 100 m²



Figure 19, Parand city, phase 5 out of 6 phases

0 0.5 1 km



Figure 20, Phase 5

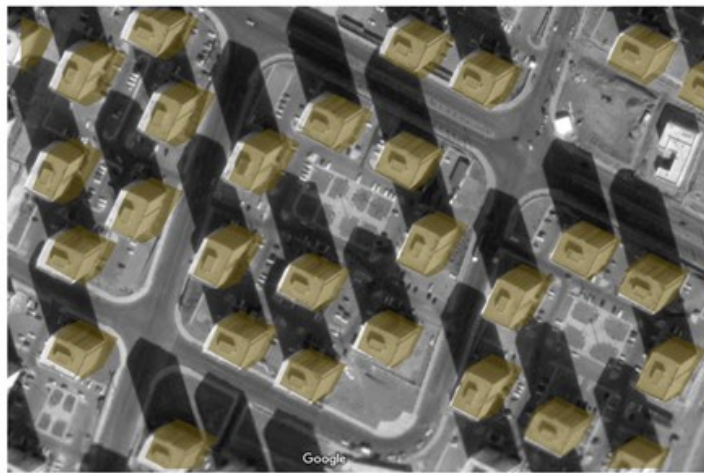


Figure 21, Blocks as objects

0 20 40 60 80 100 m



Figure 22, Parking location, phase 5, Parand



Figure 23, public space, phase 5, Parand



Figure 24, phase 5, Parand

2.3 Case study: Portugal-Porto

2.3.1 General Policies and programs

Learning from the past - the (in)visibility of the urban poor

How have vulnerabilities been addressed throughout time? By analysing the Portuguese background throughout the last decades - and focusing on housing policies for the urban poor as indicators of political and spatial orientations for shaping the city and reducing social vulnerability - one can find a multiplicity of examples of totally different approaches and roles of each stakeholder. They form, naturally, a reflection of their socio-political contexts and of the visions of society in each period. Nonetheless, they may also illustrate difficulties and consequences of different actions, also according to the visibility and invisibility of the urban low-income population.

Informal private provision of housing - profiting from the low-income class

Throughout the XIXth century and due to industrialization and the consequent intensification of the urbanisation process, main industrial areas attracted large numbers of incoming population, being forced to densify, expand and provide shelter. The housing shortage, especially for the working class, became a challenge, to which different answers were provided, mainly by landowners, industrial entrepreneurs and small investors, who took the role of providers, responding to the low-income housing demand. In this process, the State had little contribution, being helpless, unresponsive or even neglecting. The urban poor thus became clients of a private service of house provision which - due to the large demand of incoming new urban population, reduced offer and limited capacity for paying rents - often achieved very low standards of living conditions. In Porto, the 'casas de aluguer' were then created by investors or private owners as a solution for housing these labourers, through the construction of one or more rows of small houses (around 4x4 meters) along the traditionally elongated lots of the consolidated city, in the back of existing bourgeois houses. If provided, infrastructures such as toilets would often be shared in common areas. These areas occupied the interior of the blocks, therefore becoming invisible parts of the city that could not be perceived from the street, hiding their dwellers, in a situation that became common practice until an outbreak of bubonic plague exposed the miserable living conditions to the rest of the civil society and forced the State to take action. Nevertheless, nowadays plenty of examples of this typology can still be found, without significant changes in their living conditions.

Authoritarian public provision - the role of the State throughout a dictatorship

Following the installation of a dictatorial regime, in the 1930s the public provision of housing became a trademark of a new vision for society and part of its political propaganda. During the first decades, a few new social housing developments were built throughout the country, consisting mostly of new areas with low-rise housing and a few social services inspired in the idea of garden cities, but mostly intended for civil servants rather than for very low-income families. During the period of 1956 to 1966 an 'improvement plan' (*Plano de Melhoramentos*) was created for the city of Porto for the eradication of the 'casas de aluguer' in the peripheral urban areas of the municipality, where the cost of the land was lower (Figure 26). The State became the financing entity and a totalitarian decision-maker, while the low-income populations were paternalistically perceived as mere beneficiaries, which they should show to be worthy, through a strictly controlled moral conduct. These initiatives proved to be not only insufficient to meet the needs, but also highly contested by their inhabitants.



Figure 25, location of social housing operations of improvement plan of 1956 in porto



Figure 26, bairro do cerco

Participatory housing programs – the rise and interruption of post-revolution aspirations

Following the Carnation Revolution in 1974 and throughout the PREC - the '*ongoing revolutionary process*', a period of eighteen months of restructuration of the State - conditions were created for the implementation of a new vision of society and urban environment. Several targets and programs were created through technical support at local level: for rehabilitation of degraded historical centres, cooperatives and a participatory housing program for the urban poor inspired by international experiences of '*empowerment*' of the low-income population. This last program, named SAAL ('*Serviço de Apoio Ambulatório Local*'), relied on the mobilization of the dwellers that, only through the formation of associations, would be eligible for receiving public funds to support housing construction. It would thus depend on the participation of dwellers throughout the decisionmaking process, both through assemblies for discussion and group meetings with technicians. This program would defend small scale operations and resettlement in the proximity of previous areas of residence, understanding the '*right to the city*' (Lefebvre, 1968) as also the right to maintain social and urban bonds, and not to be banned to peripheries (Figure 27), has had previously happened. During this process, the dwellers became generators and mobilizers, and the technicians were supporters and partners, producing not only the visibility but also an active and prominent role of the dwellers throughout the decision-making process. However, this program was prematurely interrupted, announcing a shift towards a liberal orientation and the withdrawal of the State.

The market as the overall provider - liberalization and the triumph of the financial sector

Aiming at the promotion of the construction and financial sectors, public action shifted in 1976 from the provision of public housing to the creation of incentives to its acquisition in the liberal market through a system of credits and savings, and the low-income population thus became hypothetical clients. But did the market provide solutions for the urban poor? Or was it an excuse for the State to discard its responsibility in assuring overall equitable access to decent living conditions, leaving the urgent needs unanswered? Though there were also housing cooperatives, that strategy proved indeed insufficient: by the beginning of the 1990s, public social housing provision returned through the PER ('*programa especial de realojamento*', meaning '*special resettlement program*'), aiming at the eradication of precarious housing and relying, once again, in resettlement operations (Figure 28).

Recent integrated programs – testing a multidimensional approach

Due to the complexity of tackling poverty and the multiplicity of strategies already tried, recent experiences - such as *'Proqual'*, *'Iniciativa Bairros Críticos'*, amongst others - have been testing the combination of spatial interventions (construction of housing and/or qualification of public space) along with immaterial action (employment generation, training, social support). They aim at putting the low-income population as participants in these several actions, gathering several agents/partners in the process, articulating efforts and resources towards common goals. Though not always with the expected results or with premature interruption, they have nonetheless proved to be valuable experiences, focusing on the users as individuals and not as numbers.



Figure 27, Residents with model of future houses, example of self-construction adopted in few projects

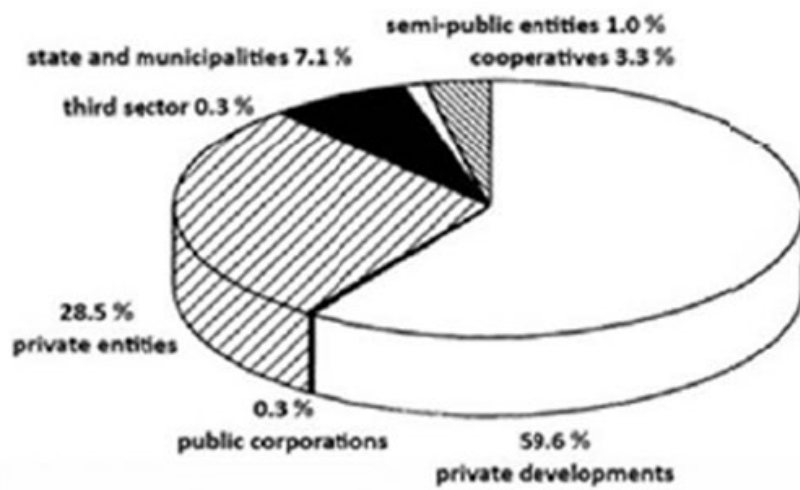


Figure 28, percentage of housing built between 1971 and 1993, according to the agents

2.3.2 Concrete Contribution

2.3.2.1 Porto's 10 steps of housing estates

At the beginning of the 20th century the city had more than 150000 inhabitants living in a very promiscuous environment without public water supply or sewage networks. The housing estates implementation in Porto started precisely at that time to mitigate the severe public health, socio-economic and political impacts due to the boom of "ilhas" (Fig. 29, 30).

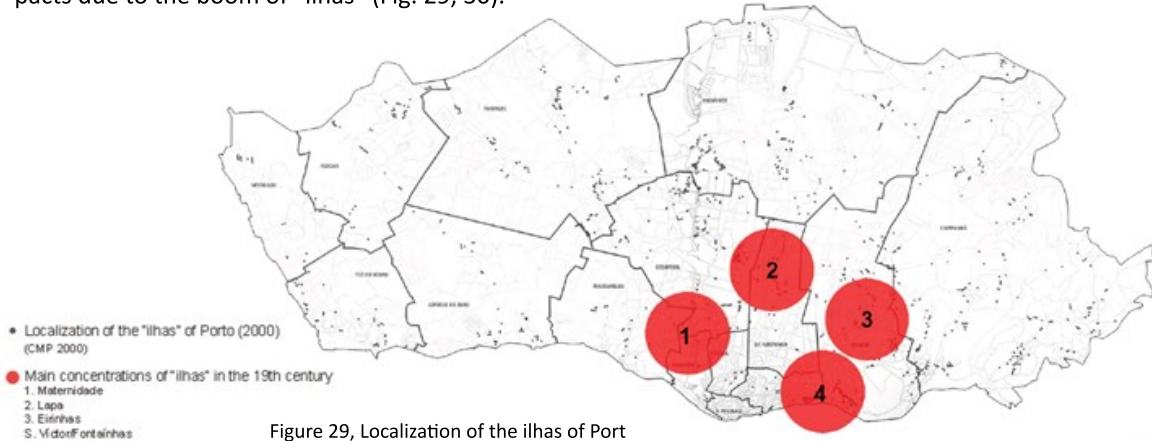


Figure 29, Localization of the ilhas of Port



Figure 30, Localization of the housing estates of Porto

First Step (1899-1905) - Filantropic

The first group of housing estates buildings were promoted by the newspaper with the public support. At that time in France, during the Paris Universal Exhibition (1899) was created the Societé des Habitations à Bon Marché to solve the lack of low cost housing solutions. The 3 housing estates buildings were built with public funds and the ownership obtained after the payment of a annual fee.

- Monte Pedral (Serpa Pinto), consisting of 26 single family houses in groups of 2 and 4 with a small garden. The construction started in 1899 and the project was designed by architects José Marques da Silva (the first 14 houses) and Thomas Pereira Lopes (the remaining 12).

- Lordelo, consisting of 29 single family houses, projected by Fortunato Manuel de Oliveira Motta

- Bonfim (Monte das Antas) consisting of 40 single family houses in groups of 4 with a small garden.

The project was designed by Manuel de Oliveira Motta and Joaquim Gaudêncio Rodrigues Pacheco.



Figure 31, Monte Pedral neighbourhood

Second Step (1914-1917) - 1st Republic

The Republica establishment promotes several housing estates policy measures that didn't survive. Afterwards, under the Sidónio Pais' dictatorship's, the need to prevent the political demands easy promoted very dense poor communities led to the construction of neighbourhoods and to the resettlement of people in separate apartments

- the "Colónias". The 4 workers colonies built at that time and endorsed by Town Hall to sell later to the residents were: Colónia Antero de Quental, with 28 houses (1914- 17); Colónia Estevão Vasconcelos, with 90 houses (1914-17); Colónia Dr. Manuel Laranjeira, with 130 houses (1916-17); Colónia Viterbo Campos, with 64 houses (1916-17).



Figure32, Colónia Estevão Vasconcelos

Third Step (1933-1974) - Casas Economicas BCE

The “*Estado Novo*” (1933-74) had a greater role in promoting housing estates. During that time several neighbourhoods of single family homes with garden and yard were built (1933 to 1972), following an orthogonal plan of pairs of individual or two stories’ houses. The streets’ names among each neighbourhood were flowers, Portuguese villages and rivers underlining the general rural landscape intention. The incentives were mostly to build individual houses that prevented social and political quarrel and disputes. The houses quality and size depended to who their owner was to be. The rent was different and adequate to several different social classes’ degree. With this policy we had a social segregation of housing within the city. Since 1935 until 1965 the State built 12 neighbourhoods of low cost houses to resettle 2378 families. The houses were constructed in the suburban areas like Campanhã, Lordelo do Ouro, Paranhos, Aldoar e Ramalde. This was the first public fund investment in suburban housing estates made in a completely new area in the outskirts of the city. The houses’ ownership was achieved by a monthly rent.



Figure 33, Paranhos neighbourhood

Fourth Step (1940-1956) - Casas Previdencia

After the 40’s, the research done showed that there was still a large number of people living in sub-human conditions at Porto. The municipality of Porto decided to build a string of multi-familiar apartment blocks to quickly solve the house degradation and poverty in the city centre. These apartments were rented to people and the payment was proportional to the families’ income.

The first apartment’s block of this period was close to the place where people came from - Duque de Saldanha block (1940) with 115 apartments.

- Rebordões (Campanhã) -145 unfamiliar houses (1940);
- S. Vicente de Paulo (Campanhã) – 198 houses built in 4 diferent phases since 1950 till 1954 (148+18+12+20);
- Rainha D. Leonor - 250 houses built in 2 phases (150 in 1953 and 100 in 1955);

-
- S. João de Deus – 296 houses built in 2 phases (144 in 1944 and 152 in 1956);
 - Condominhas - 26 houses built in 1955;
 - Pereiró – 64 houses built in 1956; The use of land for housing estates purpose in suburban areas was very intense during the 50's and 60's.



Figure 34, S. Vicente neighbourhood

Fifth Step (1956-1966) - Plano de Melhoramentos da Cidade do Porto

The Improvement Plan (1956) was the first political efficient action taken by the Municipality to eliminate the “ilhas”. They were substituted by social rent housings. Since 1956 until 1977 were built 20 building estates with a total of 8251 houses. Only 2 of them were built in central area, the others were in the suburbs. It created a considerable population movement (15%-20%) from the city centre towards the periphery. At the same time the “ilhas” were demolished.

The housing estates built at this time were successively enlarged during the 80's and 90's. This plan introduced significant modifications in the city's urban framework because it created a completely new urban piece – the building estate group. These neighbourhoods were totally forgotten by the public power during several years and the physical and social degradation spread all around.

Only in the end of the 90's the City Hall started the rehabilitation and renovation process to qualify these neighbourhoods.



Figure 35, Fonte da Moura neighbourhood

Sixth Step (1969-1985) - Fundo de Fomento da Habitação FFH

In the 20th century we had two different ways of answering to the lack of houses: shanties and illegal building construction. Both forms are characterized by being built without permission from municipalities. The works were done by individuals and all the process occur without license or technical monitoring.

Shanties were usually made with old and used materials, frequently wood, on public land or private rented land. The illegal buildings were made of masonry with a quality very similar to statutory construction usually on land belonging to the occupants. They acquired the land for the purpose of constructing through a process of blending illegal sets up. After the 60's, this 2 types of housing grew a lot around Lisbon and Porto's metropolitan areas due to the huge immigration fluxes. The absence of planning and the lack of low cost houses motivated the individual search of solutions. The rural and green public land, the river banks and the steeper slopes were the preferred free places occupied to build this type of illegal housing. In these circumstances, an illegal land market was developed, leading to the rapid consumption of the free spaces available (agricultural and forestry) in a chaotic process of urban growth. The spontaneous nature of this process of urban construction transformed these places in an absolute chaos, from the planning point of view, and in a serious social problems nest. The 1993 Special Rehousing Plan helped on the reduction of the shanties in both metropolitan areas. The illegal building construction ended in middle 80's after the modifications introduced in the urban land division legislation and the municipal plans implementation. The neighbourhoods and lots were recovered and legalized.

Seventh Step (post-1974) - Serviço Ambulatório de Apoio Local SAAL

With the arrival of democracy, in 1974, the poor housing conditions and the existence of a great housing deficit generated a large movement to fight for better living and housing conditions. The collective awareness of the right for several common needs mobilized people to claim for better housing conditions. At Porto, after April 25, there were several movements inside the housing estates blocks in order to demand better living conditions. At the same time, there were also several house illegal occupation of public and private empty lodgements. The housing estates residents creating fight movements towards the improvement of housing conditions - Resident Commissions.



Figure 36, SAAL Massarelos

These popular groups lead to the emergence of a very important group – the SAAL (Ambulatory Service for Local Aid). The SAAL (1974-78) arose to create an institutional and organized framework to facilitate the dialogue between residents and public power. The SAAL had an innovative program thought to encourage the rehabilitation of existing “ilhas” and require the construction of new neighbourhoods in places occupied by the “ilhas” avoiding thereby the forced displacement of populations to areas distant from their usual living places, as had happened with previous projects of social housing. The SAAL created conditions for an active participation of residents in the process of reconstruction / construction of neighbourhoods on many cases through the model of self-construction with the support of local technical brigades. In Porto, most of the SAAL operations occurred in the areas of “ilhas” which intended to reconstruct these areas on a very similar way to the “ilhas” morphologies. The neighbourhoods of Bouça and S.Victor, built by architect Siza Vieira, the Antas and the Leal by the architects Pedro Ramalho and Sergio Fernandes. They tried to open these spaces to the street, which were hidden inside the blocks, opening the “ilhas” to the street.



Figure 37, SAAL Antas

In addition to these interventions in “ilhas” there were also built new neighbourhoods, by the residents’s associations, particularly at Campo Alegre (involving 136 dwellings) at Massarelos (on the platform of Bicalho, with 65 homes, planned by the Architect Fernandes de Sá) the Francos (on the Avenue Sidónio Pais, 136 dwellings), the Maceda (Alcino Soutinho project’s Architect, 96 houses, the Lapa (Architect Alvaro Matos Ferreira), the Pego Negro and the Tiraes (in Campanhã, with 132 houses). Simultaneously to the SAAL development, the CRUARB was created (Commission for the urban renovation of the Ribeira-Barredo area) to act in an area of 168000 m² in the riverside track. In a first phase of this process of renewal, in order to facilitate the work, part of the local population was displaced, temporarily or permanently, to other projects in the city (i.e. Aleixo). In a second phase, after the 80s, CRUARB passes into the city hall dependency and follows a logic of outsourcing, promoting the rehabilitation of buildings with historical and architectural value and opening some commercial spaces on the renewed buildings. In the nineties, in addition to the renovations

on the existing buildings there was completely rebuilt the old quarter of the Lada (35 houses). In 1993 the official beginning of the Municipal Master Plan promoted the creation of a Foundation for the Development of the Historic Area. Later, in 1996, with the classification of the historic centre as World Heritage by the UNESCO, the philosophy of rehabilitation was extended to other areas of the historic centre, and also to the spaces and facilities nearby.



Figure 38, Lada neighbourhood's recovery(CRUARB)

Eight Step (post-1974) - FFH / Obras participadas

Other programs that originated in Porto the construction of new housing projects, either for rental or for sale, were the loans to the City Hall (created in 1974 and subsequently amended in the 80s and 90's) and the Cooperation Agreements between the City Hall and the National Housing Institute. Some good examples of this policy are the neighbourhoods of Santa Luzia and Vale Formoso (in Paranhos), the Mouteira, the Bessa Leite and the Condominhas (in Lordelo do Ouro) and Antas (in Campanhã), for rent. Among those that were built for sale with controlled costs, are Santa Luzia and Condominhas.



Figure 39, Antas neighbourhood



Figure 40, Sta. Luzia neighbourhood

Nineth Step (post-1974) - Cooperativa Habitação Económica CHE

The housing cooperatives have played in Porto, an important part in promoting housing at low cost, in particular to groups of the middle class that were not covered by the construction of public or private housing. The first housing cooperatives appeared before the April 25th - Cooperativa “*O Problema da Habitação*” e “*O Lar Familiar*”. These cooperatives functioned essentially as Cash Credit Property, in which the partners paid a certain monthly amount until they have reached the limit for their construction class. The movement created after the April 25th, led to a profound restructuring of the cooperative sector by setting up the new system of cooperative housing, and highlighting the regime of “Economic Cooperative Housing” (CHE’s), which had preferential support of the state, such as tax exemption, reduction of taxes, including VAT (after 1986), subsidized financing and access to public land. This, provided conditions to meet better standards regarding the ownership and distribution of the houses. The marketing made by cooperatives, defines itself by its non-profit profile and by the existence of an associative form of monitoring the whole process. The existing legislation concerning the cooperative sector housing provides for the coexistence of ownership, with the right to use or rent, and individual property. In all cases the dwellings are attributed to the cooperative that reserves for construction that can not exceed 10% of the total amount.

The cooperative ownership model had a very limited acceptance among us. The most common form of ownership was the individual property. In Porto there are now 17 active cooperatives with a total of around 4800 dwellings built. It should be also noted that some cooperatives are already implementing several new requirements for innovation and modernization of the built up sector, through the certification of housing quality and sustainable housing as “*environmentally friendly*”. It should be noted that the first environmental sustainable block of housing developed in Portugal among these low cost regime, was conducted by an association of cooperatives – NORBICETA – located in Ponte da Pedra, (Matosinhos) and SACHE, (Porto).



Figure 41, Habitação Económica da Cooperativa “Sache” - Aldoar Manuel Correia Fernandes

Tenth Step (post-1993) - Programa Especial de Realojamento P.E.R

In 1993 several programmes were created to deal with these lack of low cost houses - the Special Rehousing Plan (PER), the Program for the Construction of Economic Housing (PCHE) and PER-Families - whose main goal was the eradication of shanties and other poor households in the two metropolitan areas of Lisbon and Porto. These programs adopted a new set of issues, particularly regarding the location of the neighbourhoods. A greater focus was done on construction quality, equipments and public spaces.

The solutions focused on supporting families to promote self-renewal or purchase their houses (PER Families). Porto has already constructed 909 lodgings under PER and 12 under PER Families, for a total of 1463 housing construction agreed with INH/IHRU. These successive programs of resettlement for the most needed people, led to a large social housing park. Currently there are 51 projects in Porto, on renting, with about 13156 houses where lived about 40000 people (18% of Porto population).



Figure 42, Rua daSeara Matosinhos,PER, 1999-2000, João Álvaro Rocha



Figure 43, Rua daSeara Matosinhos, PER, 1999-2000 João Álvaro Rocha



Figure 44, Habitação Económica nas Fontainhas, PER, 1996-2009, Helder Casal Ribeiro and Ana Sousa da Costa



Figure 45, Habitação Económica nas Fontainhas, PER, 1996-2009, Helder Casal Ribeiro and Ana Sousa da Costa



Figure 46, Habitação Económica nas Fontainhas, PER, 1996-2009, Helder Casal Ribeiro and Ana Sousa da Costa

2.3.2.2 Program case studies - Social, financial and technical procedures models

Several organization support

“Renda resolúvel” – unifamiliar and plurifamiliar property ownership transference from public to private – Condominhas (1937), Sta. Luzia (1981), Condominhas (1993), Bessa Leite (1982), Contumil (1987), Vilar (1994) and Pasteleira (1997) - 8th step

The system of resolvable property has been used in areas of economic houses in the Estado Novo, being a contract where the residents take responsibility for themselves and with the guarantee of a life insurance policy and the payment of 240 benefits, calculated in terms of household income and type of house, buying him or his heir, with the last installment payment of the full ownership of the house. However, after the April 25, the same system has been used in neighbourhoods built by the City Hall for sale at low costs (the maximum sale prices are set annually by the Government), as is the case of the Santa Luzia, the Condominhas, the Vilar, the Pasteleira, the Contumil, the Bessa Leite neighbourhoods. These neighbourhoods were sold under the ownership resolvable through a public tender. However, in the event of non-payment of benefits, the right of ownership of the resident-buyer can be resolved, by the devolution of the accommodation ownership and possession to the City Hall. For the neighbourhood of Bessa Leite (blocks 2, 3 and 4), the buyer acquires the property only with the last payment of the 300 benefits.



Figure 47, Condominhas neighborhood



Figure 48, Sta. Luzia neighborhood

Municipality support

Involvement of different local actors and local authorities to renovation – Lagarteiro - 5th step

This case study is included in the pilot program Initiative for Development and Reintegration Operations in Critical Urban Neighbourhoods, which was intended to be intervene in urban areas that have critical levels of vulnerability. These interventions suppose and integrated socioterritorial action. For this pilot project in the city of Porto, was selected the block of Lagarteiro, located in the Campanhã civil parish. The neighbourhood of Lagarteiro was built under the Porto's Improvement Plan in 1973 with an expansion later in 1977. The neighbourhood consists of 446 lodgings, with 1892 people with an average age of 35 years. With 17% of the population unemployed, 16% of retirees, 9% dependent on incomes from social inclusion funds, 5% domestics and 18% students, we understand how vulnerable is this group. The families consisting of elderly and motherhood in adolescence make family patterns very fragile. The low rates of scholarship and high school drop-out reinforces the weakness of the social tissue. 80.6% of buildings need to be repaired, 41% of the accommodations are overcrowded, public spaces are degraded and accessibility to the neighbourhood is poor. The neighbourhood consists of 13 housing blocks, with 4 stages .The intervention proposed for this neighbourhood, was thought to be in a participatory process involving a vast group of local actors who had already worked in the area together with the City Council, the IHRU and some groups of residents. During five months the team project and the local actors work together, which allowed the actors to build a better connected network and more prepared for the design and implementation of a participated project. At the beginning of the process the actors play and interact in a hierarchical structure; with the organization of a participatory process, the actors developing an environment of trust, setting up leadership, giving up specific skills, building up a network of actors more connected and better organized for an integrated intervention.



Figure 49, Paranhos neighborhood



Figure 50, Paranhos neighborhood

Thus, it was possible to plan and propose a set of actions to streamline the process of social and territorial integration of the neighbourhood in the city, following institutional partnerships of different geometries, according to each action and strategy. In terms of actions under the assistance and urban environment, the leadership is the City Hall and IHRU. For actions in the area of family, culture and lifestyles, different institutions lend expertise and willingness to cooperate (dynamic networks of relationships with the city, (re)build a climate of security). Moreover, the area of enhancement of skills and economic activity has a weak institutional support, and require the contribution of external institutions (to increase self-esteem, the entrepreneurship of local base, increase the levels of education and professional qualification of residents and promote employability and occupation) while the health and safety are adequately supported.

Five strategic intervention axes were identified:

1. Intervening in the environment (the proposed measures: new buildings in front of the East Park and new structure of streets in the area of special urbanization, responsible Municipality and IHRU);
2. Quarters urban and environmental requalification (the proposed measures: new streets, new public spaces (collective), construction of new facilities in the environment, Social Equestrian Center, the new Police Squad, rehabilitation of houses and buildings in contracting Municipality, IHRU, Ministry of Education, Ministry of Cities, Planning and the Environment, Ministry of Culture, Sport Club of Porto, Police Public Security and Ministry of Interior);
3. Active citizenship and social welfare promotion (several proposed measures in the areas of health, sports, environmental education, security and citizenship with the participation of the local actors that work in the area);
4. Promote learning and economic entrepreneurship
(some measures proposed in the area of recognition, validation and certification of abilities of the residents and learning of new information technologies).



Figure 51, Lagarteiro neighborhood

Implosion and Housing Investment Fund creation (public and private) – Aleixo - 8th step

The Aleixo neighbourhood, built in 1976, is spread by five towers, each with 64 dwellings, with 13 floors and a total of 320 accommodations where live around 963 people. This neighbourhood is currently the most problematic in the city, with very degraded buildings, where the drug consumption and traffic is constant and with serious social problems, high levels of unemployment, insecurity and destruction of outdoor spaces. The solution found by the city of Porto, to solve the problem will require the demolition of the five towers, the creation of a Special Fund Real Estate Investment (FEII), whose only asset is their own neighbourhood and the opening of a public tender for selecting a private partner that will support 70% to 90% of the fund, leaving the remainder to the municipality. The winner of the contest will be required to built and rehabilitate vacant houses scattered around town, especially in Old City Centre. They will have to build the same number of square meters of construction that exists today in the Aleixo neighbourhood. About 20% of that area will have to meet the rehabilitation of housing in downtown, including the Historic Center. As the winner of the competition authority is delivering the new homes to the local authority, will start the transfer of tenants of Aleixo, according to the policy of resettlement in force. Meanwhile, the obligations of the investor's participation in that fund, which can not be less than 70%, will be awarded. At the end of the transaction, which is estimated to be completed within 4 to 5 years, all people who have the right to housing will be accommodated. Under this proposal, the Aleixo will entirely belong to FEII, which lie empty and demolish to reclassify that area, in accordance with current standards of the Municipal Master Plan, whose index of construction is 0,8.



Figure 52, Aleixo neighbourhood

Programme “Casa como nova” - 10th step

in many social neighbourhoods The “*Casa como nova*” (house as new) program was launched by Porto’s Municipal Council in 2006, being an initiative that intended to involve the municipal residents on the rehabilitation and maintenance of the lodgings interior on Council’s neighbourhoods, using each 4 years, materials (such as interior doors, inks and pavements) acquired with a 75% discount in relation to the market prices. Through the Council’s Enterprise for Housing and Maintenance (DomusSocial E.M.) - responsible for requalifying constructions that were being made in social neighbourhoods and its management - , the program promotes daily demonstration actions, developed by professional technicians providing the best ideas and bricolage solutions so that each resident can improve his house interior. This initiative, besides its social and pedagogical character, meets the necessities shown by the residents and contributes as a complementary measure towards deep requalification constructions on social housing, which are being executed by Domus-Social E. M., with the co-financing of the Prohabita Program (created by the Portuguese Government on 3 of June 2004, through the Law-Decrete nr. 135/2004), being one of its objectives the rehabilitation, by the city councils, of common parts and the exterior surroundings of the damaged buildings, integrated on social neighbourhoods, as well as the incorporation of sustainability, accessibility and rehabilitation solutions.

Government support

SAAL – public and private involvements - 7th step

The SAAL, created in 1974, was undoubtedly an innovative program in two ways.

First, the SAAL intended to promote the rehabilitation of existing slums, demanding that construction of new neighbourhoods were made in places occupied by these slums (avoiding thereby the forced displacement of populations in areas distant from their places of living, as had happened with previous programs of social housing). Second, the SAAL created conditions for an active participation of residents in the process of construction/ reconstruction of neighbourhoods (organized into associations), ensuring the state and local authorities the support necessary through the technical brigades, particularly in: the judicial field, the projects implementation, the administrative and accounting procedures, the construction implementation, land and subsidized financing. The intention was that the residents intervene in all the constructive process, since the choice of projects, typologies, procurement and supervision of works, until the allocation and management of houses. The State guaranteed a portion of the funding (about 40%), the remainder being mobilized by the residents through self or own savings, or other forms of financing (bank loans, from relatives, etc.).

This, in practice, limited to the use of the work of residents, which has not always happened, and the state ultimately has bared all costs of operations. In conventional existing programs before the appearance of SAAL, were the central institutions responsible for the promotion of social housing, which determined the locations of construction, costs, programs, recipients, types, forms of allocation of resettlement and, finally, the whole process connected to construction and distribution of social housing. The SAAL changed, fundamentally, this procedure to technically support the organization of the residents in order to enable it to perform functions inherent in the process of design, manufacture and distribution of housing. The group of residents has become, not only, customer of the team of architects, but also sponsor, together with the State, of the houses that would inhabit. Despite these issues, certainly very positive, the SAAL had an ephemeral life, being extinct in 1976.



Figure 53, Demonstration against the decree prohibiting occupations, São Pedro da Cova, 1976

SAAL Process

It is in this context that the process SAAL was born, to give a quick solution to the housing crisis. This operation was launched in urban areas of Lisbon, Porto, Setúbal and the Algarve by the State and involved the very poor neighborhoods. These residents came to organize themselves into local committees and fight for new rights and good life conditions, centered on the need for decent housing and "location ownership"; together, they worked and fought to build a more equal society. For a clearer view of the process, here are the main ideas :

The different roles of the Government in social housing

The Government promoted, as a first stage of the revolutionary period, manners of urgent urban intervention, which involved the participation of citizens, and created at that time, certain basic conditions for sustained action (value table, legislation, military support). Subsequently, the various social dynamics - such as bureaucracy, procedural misunderstandings, unequal local involvement, complex and unstable political process at national level - have been the portrait of a Government divided between support and the abandonment of a remarkable social movement.

Technical Groupworks

Holders of the technical skills of housing and urban development - architects, engineers, sociologists, lawyers, geographers, among others - were instrumental in defining strategies necessary to accomplish the objectives of the movement, as well as in established alliances with neighborhood committees. In a process that would not always be easy, the aesthetic views and preferences of residents had to be discussed, seeking low-cost technical solutions in order to configure and customize the habitat according to the experience.

Social organization of the demand

An immediate outcome of the 1974 revolution was the emergence of demonstrations of public unrest fostered by the poor material and social living conditions in which the worse-off class lived.

The first provisional government after the revolution, formed on 16 May 1974, appointed Nuno Portas, an architect, as Secretary of State of Housing and Urbanism arguably with the intention of neutralizing the social unrest sparked by the squatters' movements and the illhoused proletariat.

According to Nuno Portas, the minister responsible for his Secretary of State envisioned a pragmatic military approach to it, such as the construction of prefabricated barracks that could solve the problems as swiftly and cheaply as possible. Portas, however, refused to comply with solutions of this nature and, instead,

developed further some ideas on incremental housing and self-construction that he had been researching on since the late 1960s, chiefly inspired by the theories of John Turner, Manuel Castells, and Chombard de Lauwe, consisting in fostering grassroots initiatives in housing policies. The outcome of this strategy was the publication, on 6 August 1974, of a government's resolution creating the SAAL, which was a break with the past regarding the social organization of the demand. Instead of a top-down housing policy determined by a centralized agency, the SAAL programme, according to the text of the resolution, aimed at contributing with technical and financial aid to support the initiative of the population living in poor conditions to foster their collaboration in the transformation of their own neighbourhoods, investing their own latent resources.

The fundamentals of the SAAL operations, however, were chiefly modelled to combat the housing problems signalled in Lisbon and in the neighbouring cities of its industrial belt. These problems, resonant with "third world" cases of slum upgrading publicized by John Turner, for example, were mainly related with communities of relatively recent rural migrants living in slums located in peripheral areas. They were, however, inconsistent with the specific problems of the second biggest city of the country, Porto. There, the housing problems were epistemologically distinct; the communities had a long history of living in the city, though in poor sanitary conditions, and they were fighting not only for the right to have decent houses but also for their right to live in the city.

This was thus the context for the emergence of a third moment of dissent, one in which a group of well-knit network of technicians working in the city of Porto would challenge some of the subsumed principles embedded in Portas' resolution, e.g. self-construction and other methodological approaches designed for the rural world or suburban areas.

Power to the people

Associated with the SAAL, there were various collective phenomena of popular participation, highlighting the importance of housing cooperatives that grouped the residents of the slums, the "islands" and the residents of buildings subleased, sometimes cases that passed through the occupation of abandoned houses. That time saw a change in the social role of women, who began having a different importance in the public domain.

Right to housing is right to quality of life

With the dynamic operations undertaken by the SAAL, people had the opportunity to discuss the importance of quality residential space and critical infrastructure, urban infrastructure and to claim social on-premise, so that if take root to develop forms of sociability anchored in the appropriation of public space. Adequate public transport, leisure facilities for children, schools, daycare centers, parks, day centers for the elderly, health centers, sporting venues and leisure were the concerns integrated into an idea of "*right to the location*".

Architectural design

What makes this whole process so specific is that the culture of the Portuguese architectural April 25 is the SAAL, it represents everything that architectural production process and reflections on it in the post-revolution. There was no standard type, or equal in any of the operation solutions. Each was performed according to their geographical location, to the technicians involved, household characteristics, etc., Resulting in a collection of diversified architectural solutions for social housing.

The right to architecture

Portuguese architects faced a paradoxical situation, given the urgency and scale of the needs of local populations and the will to apply two basic principles: the right to the city and the right to architecture (Bandeirinha, 2007). This attitude implied essential issues of scale, manifested in the relations of the different interventions with the urban environment and in the idea of participation of the future dwellers.

The constructed results of the work of SAAL in Porto constituted a small part of the initial ambitions: of the thirty-three operations that were initiated, twenty three were not built (although, in most cases, the design process was completed) and in most of the remaining ten cases the construction was only partial. This relative failure (in view of the original intentions) can be partially related to the delays caused by the participation process: all the operations that were already in construction in 1976 (when the SAAL Program ceased to have the support of the central government) 7 were finished, at least partially (Fernandes, 2011, 488).

The belief in the right to architecture implied an inclusive ideal of participation, in which 'the work of the architect could be classified as «secondary», due to the collaboration effort of the local population in the design process. But this intention was challenged both by the lack of references of the future inhabitants and by the difficulty of the designers to free themselves from their traditional communication methods. So, since the early stages of the projects, most of the architects began to complain about the lack of popular response, while the populations assumed their inability to criticize their work: 'I look at the model, analyze it and all I can think is that I would like to live in a house like that'. (Bandeirinha, 2007, p. 167- 9).

Confronted with this situation, the SAAL teams needed a pragmatic approach to enable an effective response in the short term; Porto architects would seek to create an informal (yet operational) organization, creating synergies between the various technical teams. The SAAL Process provided a laboratory field, where the need for rationality and economy fully justifies an attitude and language with modernist roots. So, most of the resulting housing schemes showed an uniform approach (which resulted of the need to respond to similar circumstances), with a set of common characteristics: organization in parallel volumes, often unrelated to the alignments of the pre-existing city, with long and narrow duplex dwellings (with around four meter's width, in most cases), a set of stairs in the centre and small openings on both the opposing façades (Fernandes, 2011, p. 477-81).

Yet, although they all share similarities, we can easily distinguish two different approaches in the eight low density housing projects constructed in Porto: in S. Victor (Álvaro Siza), Francos (Rolando Torgo), Lapa (Matos Ferreira e Beatriz Madureira) and Maceda (Alcino Soutinho) we can find a purist language and a rigid volumetry; on the contrary, Contumil (Célio Costa), Antas (Pedro Ramalho), Leal (Sergio Fernandez) and Chaves de Oliveira (Manuel Leça) share an hybrid language, where the typological and formal solutions are best suited to their specific urban environment and more agreeable to the taste of the populations.

The consequences are quite clear: while the hybrid solutions present themselves today with an image that does not differ much from the original construction (since they are less altered and because they assimilate the changes better), the situation of the purist cases is quite different, as the changes made by the dwellers strongly collide with the original intentions of the architects.

Maceda is a good case study of this phenomenon. The construction began as early as 1975, because 'the dwellers made practically no criticism to the organization of the houses' (Bandeirinha, 2007, p. 167); but soon after the populations began to inhabit the dwellings, they started to introduce all sorts of changes, both in the interior and outside. Today, it is impossible to recognize the original traces of Alcino Soutinho design behind the great variety of volumetric extensions, walls lined with colorful tiles, new windows and altered doors.

In his experience in S. Victor, Álvaro Siza proposed a third way to the dilemma that the SAAL Program presented (the choice between the will to learn from the people and the necessity to teach the people); trying to avoid adopting any of these positions, which he considered simplistic, he proposed to direct all efforts towards the main objective: to resettle the populations where they live, sharing with them the will to create a physical world to serve a classless society (Siza, 1976, p. 14), but bearing in mind that it is 'unacceptable to dismiss the role of the architect, since collectivity was no substitute for specific and indispensable skills' (Siza, 2000, p. 160).

SAAL Case Studies

legend of SAAL projects:

- 1.antas
- 2.arrabida
- 3.bela vista
- 4.boavista
- 5.bouca
- 6.chaves de oliveira
- 7.contumil

- 8.fontainhas
- 9.francos
- 10.heroismo
- 11.lapa
- 12.leal
- 13.maceda-acacio
- 14.massarelos
- 15.miragaia

- 16.parceria antunes
- 17.prelada
- 18.s.roque
- 19.sao victor
- 20.se
- 21.serralves
- 22.villad



Antas

Chief of Architecture _ Pedro Romalho

Technical Brigade _ Fransisco M. Lima, Pedro B. Araujo, Lidia Costa, Augusto Costa, Vitor Bastos,
Teresa Fonseca, Jose Lencastre Aires Pereira

Construction _ October 1974 - October 1975

No. Family _ 460

No. People _ 1417

Site Area _ 4000 m2

Footpri Area _ 2200 m2

No. Floors _ 2

Process _ 32 units in the first phase and 50 units in the second phase - 32 constructed units



Figure 54, position on the engaging



Figure 55, aerial view



Figure 56, view to entrances



Figure 57, view to backyard

The project developed by the Antas brigade illustrates an operation that had to cope with the renewal of an emblematic case of Porto's proletarian housing type, the so-called "*ilhas*" (islands), which in the last decades had been deemed for demolition for both sanitary reasons and real-estate speculation.⁰⁰ After the revolution, the residents of the surviving "*islands*" in the Antas neighbourhood demanded to remain in the same area, but with a betterment of living conditions.

The technical brigade, coordinated by Pedro Ramalho, surveyed the existing "*islands*" and concluded that type of building was not only a territorial unit but also part of a rich complex of social life. They thus decided to preserve the rich communitarian life style triggered by the morphological qualities of the "*corridor-island*" type, eliminating the ghetto-character of the courtyard/corridors, though. To solve the overcrowding problem, some new units would be created in adjacent areas already cleared.

In fact, these new units were conspicuously designed following organization principles clearly inspired by the "*islands*" type, thus revealing a keen determination in preserving formal resonances with the vernacular type. The layout of the houses, however, shows an inventive structure with split levels articulating different street heights on both sides of the house, and the possibility to accommodate growth over time.

The architectural outcome of the Antas brigade shows a novel translation of vernacular references, which seemingly resonated with the fulfilment of the demands of the dwellers for an upgrading of their living conditions, preserving their social relations, though.

Leal

Chief of Architecture _ Sergio Fernandez

Technical Brigade_ Vitor Sinde, Antonio Corte Real, Emidio Fonseca, Jose Manuel Soares, Carlos Delfim

Construction _ October 1974 - April 1976

No. Family _ 200

No. People _ 600

Site Area _ 1860 m²

Footprint Area _ 1000 m²

No. Floors_ 2

Process _ 26 units in the first phase and 33 units in the second phase - 16 constructed units



Figure 58, position on the engaging



Figure 59, aerial view



Figure 60, Open space engaged



Figure 61, View to corridor

Leal

In the Leal operation, the successive projects developed by the technical brigade delivered a contingent answer to the development of the local grassroots movement. As their claims for more available land and buildings evolved, so the brigade would produce and discuss the projects for the new sites. They suggested the rehabilitation and renovation of existing houses (Zone 1) and designed new housing for vacant plots (Zone 2 and 3).⁰⁰

The projects designed by this brigade show a careful morphological response to the topography, and a clear goal to recreate in both shape and scale vernacular urban spaces such as streets, alleys, and courtyards. Typologically, the buildings are predominantly row houses with two floors. This option for a low-rise independent house resulted, according to the coordinator of the brigade, Sergio Fernandez, from “the factors that the population itself thinks are important.”⁰⁰

It is, thus, an operation of careful urban renewal, where the architectural outcome preserves the fundamental spatial characteristics of the neighbourhood, as well as its social cohesion. The projects accommodate spaces for the collective and at the same time, answers individual demands for ownership. Hence, the architectural outcome of this brigade seemingly mitigates the tensions of the power relation between the technicians and the dwellers.

Sao Victor

Chief of Architecture _ Alvaro Siza

Technical Brigade_ Domingos Tavares, Fransisco Guedes, Adalberto Dias, E. Souto de Moura,
Graca Nieto, Manuela Sambade, Paula Cabral, Manuel Borges

Construction Start _ November 1974 - October 1975

No. Family _ 615

No. People _ 2055

Site Area _ 1500 m2

Footprint Area _ 900 m2

No. Floors _ 2

Process _ 32 units in the first phase and 20 units in the second phase - 12 constructed units



Figure 62, position on the engaging

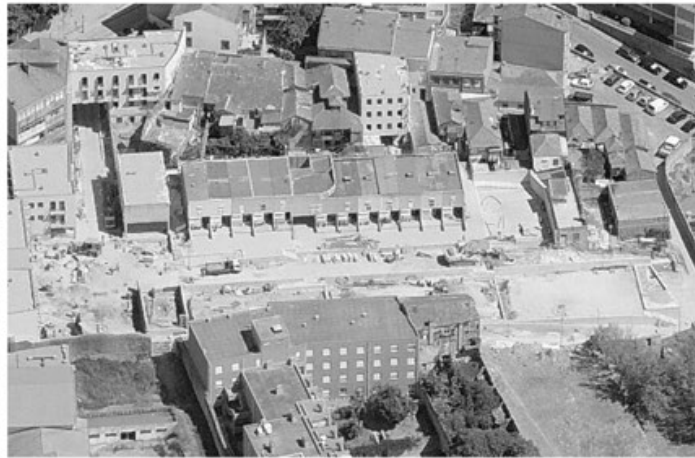


Figure 63, aerial view



Figure 64, View to the public space



Figure 65, View to the entrances

The project developed by the technical brigade coordinated by Álvaro Siza for the São Victor neighbourhood was the most published and discussed SAAL operation. In fact, the neighbourhood became an epitome for what was at stake in Porto's SAAL operations. It conflated some of the problems mentioned in the cases discussed above: severe sanitary problems, overcrowding, ghettoization, material decadence and compulsive demolitions. But it also had their qualities: a strong community life and a central location. The plan of the technical brigade defined two different zones: one in the São Victor "islands" block, and the other in the Senhora das Dores block. The strategy was straightforward. In the São Victor zone, as in the Antas neighbourhood, a thorough renovation was planned, preserving the "islands" type and improving its sanitary conditions. In the Senhora das Dores zone, a more contingent approach was pursued, with different types of intervention comprising building new housing ensembles, filling in gaps, and renovating existing buildings.

Eventually, the São Victor brigade would only renovate three houses and build ten new row houses in the middle of the block, on the area cleared for the construction of a parking lot. Curiously enough, in this case the new row houses showed a conspicuous detachment from the vernacular housing types. Its references were neither the "islands" nor Porto's middleclass housing types, rather a deliberate option to recuperate the models of the 1920s and 1930s modernist mass housing, in order to emphasize the fragmentary character of the intervention. There was, thus, a conscious ambivalent approach in the São Victor brigade. On the one hand, the renovation of the "islands" seemingly appeasing the dwellers' claim for an in-site betterment of their living conditions, and, on the other hand, an architectural approach apparently conflictive with the resident's demands.

Bouca

Chief of Architecture _ Alvaro Siza

Technical Brigade_ Anni Gunther Nonel, Maria Jose Castro, Sergio Gamelas, Jorge M. O. Moreira

Construction Start _ April 1975 - February 1977

No. Family _ 200

No. People _ 750

Site Area _ 11300 m2

Footprint Area _ 4370 m2

No. Floors _ 4

Process _ 57 units, 140 new units and 60 units recover (Monte Cativo Zone) - revised and complete between 2000 to 2006



Figure 66, position on the engaging



Figure 67, aerial view



Figure 68, View to the public space



Figure 69, View to the public space

Although to be a initiated project of SAAL, the association of Bouca residents complained it and eventually it got integrated to the process. its construction was partially during the 70s, but again the project was taken up between 2000 and 2006, been renovaded and completed the set, which has removed aspects of appropriation of the houses by the residents and added small alterations to the buildings.

A slight different in character from the previous, the neighborhood has a larger scale. the project covered few more blocks. It is along the main street. the four parallel buildings are unified through a wall, which assists in the privatization and appropriation of the common central landscaped spaces.

The main access, carried out by shared patio to the lower apartments and access to the top, there is a third group of service access to the lower levels which is a single staircase, located in front of the kitchen. although the upper and lower levels are almost similar, having three bedrooms each, the lower level, the ground-floor ground relates overnight zone, whereas the upper part of the day over a third bedroom areas.

Sustainable housing Cooperative -Norbiceta - 10th step

NORBICETA, Union of Housing Cooperatives, UCRL, was created in 1988, with the objective of promoting the development of housing and construction by its member cooperatives, accordingly to the Portuguese cooperative by-laws. NORBICETA, is located in S. Mamede Infesta, municipality of Matosinhos and composes three of the biggest housing cooperatives at national level. They are: NOORTECOOP, SETE BICAS and CETA. The Development of the Ponte da Pedra - 2nd phase, in the city of St. Mamede de Infesta, Matosinhos, was promoted by Norbiceta, co-financed by European Union project SHE (Sustainable Housing in Europe) and is the first cooperative project to build sustainable housing in Portugal. The management of water, waste, energy, environmental comfort and selection of materials are the main changes of the project. In this buildings the less demanding materials in terms of maintenance were used and was made the use of rainwater in toilets and irrigation of gardens. Several solar panels reduced about 80 percent the consumption of energy used on heating water.



Figure 70, Cooperative Norbiceta



Figure 71, Cooperative Norbiceta

This project received the awards INH/IHRU 2007, attributed to the building of Ponte da Pedra. The first prize for promoting low cost cooperative buildings (homes sold at a price of 820 €/m²) and that, given the pioneering spirit of this European project who coordinated the promotion, construction and monitoring of a total of 600 housing cooperatives in four European countries (Italy, France, Denmark and Portugal), which includes our 101 houses, also earned the award of the European Prize 2007 - Sustainable Energy in Europe. Ponte da Pedra Building is different because of its sustainability concern, implementing equipments to profit solar energy, recycling and allowing a rational use of water consumption, besides solid waste, in the context of the European program Sustainable Housing in Europe. These aspects are implemented in a balanced project, with widegreen areas, in comparison to the built space and to the number of inhabitants expected. These spaces also have pieces of urban art and “parterre d’eau”, which complement living nature elements of the public space. It is also orientated by the concept of closed circuit aiming to treat and save water. In a future perspective, it is a pioneering example that every promoter of social housing must follow.

FFH

Fundo de Fomento da Habitacao FFH (1969-1982)

This institution had primary responsibility for development of government-sponsored public housing. To carry out this task, it was allocated funds from the government budget and empowered by law to implement a series of financial, technical, developmental and administrative actions. Since its creation, the FFH had been responsible for the development of almost 4,000 units, some of which had been initiated by the Social Security funds, but were turned over to the FFH for completion and subsequent management, as required by a new law. After the revolution in April 1974, the government placed new emphasis on housing and the FFH assumed a more important role in housing development in Portugal. To this effect, a new group of housing technicians was employed.

Organization

The FFH had 517 employees, most of them were in the Lisbon Head Office. There were also four branch offices, one each in Porto, Coimbra, the Algarve, and Funchal, the capital of Madeira.

Operations

The FFH proposes to develop some 38,000 low-income units during 1975 and 1976. To fund this, the government had allocated about \$160 million from the national budget. In most cases, this new housing were rental, with monthly payments based on the ability of the occupant to pay, not on the economic rent. Therefore, a large subsidy element was included in the FFH program. The FFH was proposing two basic types of programs. The first type was based on the standard rental unit, generally two and three bedroom units of about 80m² and 100m², respectively. These were mostly low-rise apartment units, and cost between \$12,000 and \$16,000 each in Lisbon, excluding land and infrastructure. The first type unit had been constructed for years by various public and semi-public institutions, and was quite acceptable to low-income families. But, there had been a large subsidy element in this housing. The new feature of this type unit was the large proposed increase in the number to be built during 1975 and 1976. The second type of program was expandable, self-help cooperative housing. This program contemplated the construction of low-cost units of about 50m² which could be expanded, depending on the occupants' needs and financial capacity. The units were single family row houses, and were sold either to the individual or a member-owned housing cooperative. This program was essentially for families living in the urban squatter settlements (Barrios de lata) who joined a "housing cooperative". The cooperative would receive a grant of \$2,400 for each family member of the cooperative, which could be used to help build the houses. The cooperative members could then receive loans from the FFH to complete the financing of the core house.

Financial Aspects

Until 1974 revolution FFH programs had been small due principally to lack of financing and low priority. However, with the new emphasis on housing after the revolution, FFH had obtained new financing from the national budget far in excess of that obtained in previous years. The open question was whether this financial assistance would be in the form of a loan or a grant. The financial terms and conditions of an FFH rental were based on ability to pay, not the economic rent of the unit. In addition, the 60-year amortization period allowed for artificially low rents. Other FFH units financed by Social Security funds were sold over a 20-year period at a 5% interest and a 20% down payment.

Technical Capability

The development Department of the FFH did some "in house" design and planning of housing projects as well as contract some design work with private architectural and engineering firms. All projects were constructed by private firms after public bidding takes place. Construction was of high quality and maintenance of completed projects was quite good. However, design and site planning could be improved as ways of reducing costs. The projects were unnecessarily expensive due to lack of experience with low-cost housing design techniques, and lack of effective cost control by FFH management.

Management Aspects

The FFH was managing some 15,000 units, including 10,000 or so units previously built and managed by the various social security funds. According to the FFH management staff, there was a harsh problem of delinquency, which had been increasing rapidly, particularly since the revolution. Due to political reasons, the FFH was stymied in its attempts to solve this problem. Prior to the revolution, allocation of FFH units were based primarily on political connections, particularly with the state controlled labor unions. After that, the FFH was trying to handle this on a need basis.

Chapter 3: Interventions

3.1 Urban Policies

3.1.1 General policies

Critics

By focusing on concepts and details of Iranian development program, housing policies and awareness of current political situation on one hand, and opening up the Portuguese experiences in housing programs on the other hand, there is the possibility of proposing appropriate organizations, programs and architectural pre-drafts

Development Program

The eight years of war with Iraq after the 1979 revolution has made it impossible for the government to prepare a development program in the first decade. In general, there are five development programs which are written since 1989.

Basically, the first and the second governments were from right (religious) wing. As the result, Islamic rules were playing a leading role in the first and the second development programs. Even though the economic bases of the country were destructed by war, a huge budget was allocated for the religious goals and institutions. It is widely accepted that religious and economic goals were on the top of the priorities of the government policies.

The third development program which was proposed by the first left wing government diverted attentions from religious goals to the maximum level of social freedom. It is noticeable to say that social housing was proposed by this government which faced a wide range of critics and objections by the regime. The next government (2005-2013) that was extremely religious ignored many resolutions of the previous government. Consequently, MEHR project which is regarded as the biggest housing project of the country was constructed by ignoring public spaces and far from the city centers. Even though the project covered all the cities, the project was ignoring numerous architectural criteria.

Housing policies

The Iranian housing policies are written in 9 chapters. Chapter 2 which belongs to 'land transfer' presents four programs

- Rental housing – the role of the ministry of housing on supporting the private sector
- Renting by owning condition - Allocating land from the 'ministry of housing'

- 99 years of installments by rents – allocating land to at least three families to construct and pay back in 99 years

- Housing in large scale – the government must support private sector by loan and industry

It must be admitted that government (ministry of housing) plays a decisive role in all housing policies and private sector is not involved with major decisions.

Even though the rules oblige government to support private sector, the cooperation between government, bank and ministry of housing is still unclear. Take for example, there was a huge difficulty between ‘ministry of cooperatives’, ‘ministry of housing’ and ‘banks’ in MEHR project while registration and construction.

The 3rd chapter demands ministry of housing to cooperate with ‘cultural heritage and tourism organization’ to design the governmental buildings in an Iranian-Islamic style. Even though it seems to be a logical approach, as the process is always in the governmental circle, choosing experts and architects remained to be inappropriate. In other words, the technical groups are mostly chosen from government or the groups which are strongly linked.

The 6th chapter covers the government support of using the new technology. Firstly, the ministry of housing is obliged to support the construction industries by offering bank loans and equipment’s while the passive role of private sector in governmental decisions can cause a wide range of issues. Secondly, the ministry of housing must allocate a budget for the relevant fields of universities while the gap between construction industries and technology and universities is huge. As the result, the private sector prefers to import recent technology and products and industry.

The 7th chapter obliges the government to support banks by offering land. Consequently, banks can be one of the governmental organizations that effect the city development.

Taking a wider look over these chapters shows

- lack of a central organization for better cooperation
- the passive role of municipalities in major decisions of housing policies
- the issue of municipalities’ ownership
- passive role of private sector
- the passive role of users in housing policies (bottom-up policy) in research, design and construction phase

3.1.1.2 Proposal

Organizations

Central Housing Organization (CHO)

To protect the housing policies from the different approaches of left and right governments, taking the absolute power from the government in major policies, Involving private sector, people, public and semi-public sector in housing policies, a semi-independent organization can be proposed.

An organization that can be responsible for development of government-sponsored housing. To support the organization, it must be financed by government budget and empowered by law to take a series of financial, technical, developmental and administrative actions. Take for example, there can be the possibility of reaching to the exact number of the tenants by linking real estate agencies to the organization. The organization can employ a group of housing technicians to be more specialized.

Even though the organization is financed by government, it can cooperate with public, semi-public and private sectors.

As low-income families are the most important target of the organization, the rents can be according to the family income which needs a large subsidy.

Technical Brigade

This group can cooperate with Central housing organization as the housing technicians. The technical brigade include architects, engineers, sociologists, lawyers, geographers and economists. Technical brigade can also play a linking role between tenants and CHO.

Housing Policies

Government Support

1. Public and private involvement

Central housing organization can play a linking role between Government and people. It is aimed to contribute with technical and financial aid to support the initiative of the population living in poor conditions to foster their collaboration in the transformation of their own neighborhoods by investing their own resources. In other word, actions are according to geographical locations and characteristics of householders.

On the other hand, there can be the approach of sustainability in housing to use green energy and involving ministry of housing, ministry of energy, organization of water and wastewater.

Municipality support

It must be admitted that these policies can be taken only by empowering municipalities in terms of finance, ownership and technicians.

1. Involvement of different local actors and local authorities

The involvement is based on organized way of using the different skills of locals under the leadership of municipality and CHO (Central Housing Organization)

The land can be provided by municipalities. The strategic interventions:

- Intervening the environment

Purpose: new buildings, new streets in the neighborhood

Responsible: municipality, CHO

- Intervening urban quarter and environmental requalification

Purpose: new streets, new public spaces (collective), facilities' construction in environment

Responsible: municipality, CHO, ministry of education, ministry of culture, ministry of housing

2. Housing investment fund creation (public and private)

This policy targets the blocks that need to be demolished. The idea can start with the creation of a Special Fund Real Estate Investment, whose only asset is their own neighborhood and the opening of a public tender for selecting a private partner that will support 70% to 90% of the fund, leaving the remainder to the municipality. The winner of the contest will be required to build and rehabilitate vacant houses. They will have to build the same number of square meters of construction that exists in the neighborhood. As the winner of the competition authority is delivering the new homes to the local authority, will start the transfer of tenants from neighborhood, according to the policy of resettlement in force. Meanwhile, the obligations of the investor's participation in that fund, which cannot be less than 70%, will be awarded. Under this proposal, the neighborhood will entirely belong to that 'Special Fund Real Estate Investment', which lie empty and demolish to reclassify that area, in accordance with standards of the Municipal Master Plan.

3. On the basis of Turner's third law which says that deficiencies and imperfections in your housing are infinitely more tolerable if they are in your responsibilities than if they are somebody else's, the idea of low-cost housing with the possibility of expansion can be proposed. On the other hand thanks to successful experiences of 'Alejandro Aravena' it must be admitted that the idea is strongly depended on occupant's need and financial capacity. The land can be provided by municipalities.

3.1.2 Architectural Policies

- **Identity and place:**

“The image of things is co-responsible for their inertia. In this way, material culture affects not the isolated individual but the individual as a member of the group which participates in its balance.” (Halbwachs, 1992)

Cultural identity is the identity or feeling of belonging to a society. It is part of a person's self-conception and self-perception and is related to nationality, ethnicity, religion, social class, generation, locality or any kind of social group that has its own distinct culture.

“The experience of place through which a deep sense of belonging is established, as ‘intimate experience’ and subsequently the place as ‘intimate place’. Home is an intimate place for everyone, where we feel safe and belonging since it holds a strong identity compound of the objects, people, and memories related to it. The concept of intimacy can be expanded to public places as well. Wherever we establish a relation with has got the potential to be intimate for us. Occasions, events, people, and objects are all fragments of this environmental image. Even a tree planted at a corner of the campus which provides cozy environment for with its shadow and freshness, can be an intimate place for afternoon meetings, thus it holds an identity and a sense of place.”(Tuan, 1997)

Following items are significant in feeling of belonging to a space:

- Symbols or indications that make the space readable
- Connecting neighborhood to the city's pattern
- Urban façade
- Human scale in buildings and open spaces
- Visage (filled and void): the relation between objects and space
- adoptability in design: in order to get the feeling of owning a place; people need to have adoptability to change it
- Variety in buildings (diversity in typology)
- Quality of buildings and design

- **Social and public spaces:**

“In human society all space is social: it involves assigning more or less appropriated places to social relations....social space has thus always been a social product”. (Henri Lefebvre, 2009)

A social space is physical or virtual space such as a social center, online social media, or other gathering place where people gather and interact. One of the main reasons that Mehr project failed was lack of considering

social spaces, or even by going further it can be reached that spaces between the buildings are leftover and not designed for any specific purpose and in some cases providing a suitable atmosphere for criminals. The hybrid between space and objects is essential in order to answer not only the demand for housing as a living place but also to be a social structure:

- Green spaces in scale of city and neighborhood
- Leisure facilities
- Parks and services for children
- Sporting and cultural venues
- Day care centers
- Controlling left out spaces, spaces that are suitable for crime
- Clear hierarchy between public and private spaces

• **Location of the project:**

Economic and education level trends to promote social and spatial integration and therefore more equitable living environment, as a result, economic problems and social segregation can lead to low standards of living. Social housing that targets low income people, has to improve quality of life for most needed population.

Location of site can be interpreted as the first and main economic issue therefore solving it must be the first priority. In “MEHR” projects, they chose to build outside of the city; it seems to be easier since the land is cheaper and there would be no problem of ownership, however, an area inside the cluster can provide a better access to urban and social infrastructures and also a more appropriate connection to the city center. As a result, even though the land costs more and its ownership will come to play, it could be a long term investment.

In addition to two the previous options, the third one also can be introduced. Re-habitation could be a delicate solution in cities like Tehran. Since the plot exists and the ownership’s issue is less than taking a land in a different area and besides all, usually there is a strong social connection between people and urban connection to various areas like city center. This in most of the areas can answer the needs, like examples in “Ilhas” and there would be no need to force people to move from the place that they are living. Also, they could be a part of construction as technicians or labors.

3.2 Architectural inside - Pre draft proposal

3.2.1 City Analysis – Atlas of Tehran Tehran

Tehran (Tehrān) is the capital of Iran and Tehran Province. With a population of around 8.4 million in the city and 14 million in the wider metropolitan area, Tehran is Iran's largest city and urban area, the largest city in Western Asia and one of the largest three cities in the Middle East (along with Istanbul and Cairo). In pre-Islamic times, part of the area of present-day Tehran was occupied by Rey. It was destroyed by the Mongols in the early 13th century. In 1796, Agha Mohammad Khan chose Tehran as Iran's new capital, in order to remain in close reach of Iran's territories in the Caucasus, at that time still part of Iran, and to avoid vying factions of previous Iranian dynasties. Throughout Iran's history, the capital has been moved many times; Tehran is the 32nd national capital of Iran. Large scale demolition and rebuilding took place beginning in the 1920s and 1930s, and Tehran has been the subject of mass migration of people from all over Iran up until the present. The city is home to many historic mosques as well as several churches, synagogues and Zoroastrian fire temples. However, modern structures, notably Azadi Tower and the Milad Tower, have come to symbolize the city. Tehran is ranked 29th in the world by the population of its metropolitan area. Although a variety of unofficial languages are spoken, roughly 99% of the population understand and speak Persian. The majority of the inhabitants of the city are Persians, but there are also populations of other Iranian ethnicities such as Azerbaijanis, Lurs, Armenians, Kurds and other ethnic groups who speak Persian as their second language. The majority of people in Tehran identify themselves as Persians.



Figure 72, Toopkhaneh square

Tehran is a relatively old city; as such, it has an architectural tradition unique to itself. Archaeological investigations and excavations in Tehran demonstrate that this area was home to civilizations as far back as 6,000 years BC in the village of Rey which is now incorporated into the city. Tehran served only as a village to a relatively small population for most of its history, but began to take a more considerable role in Iran after it was made the capital in the late 18th century. Despite the occurrence of earthquakes during the Qajar period and before, some buildings still remain from Tehran's era of antiquity. Today Tehran is Iran's primate city, and has the most modernized infrastructure in the country; however, the gentrification of old neighborhoods and the demolition of buildings of cultural significance has caused concerns. Azadi Tower has been the longstanding symbol of Tehran. It was constructed to commemorate the 2,500th anniversary of the Persian Empire, and was originally named "*Shahyad Tower*"; after the Revolution of 1979, its name changed to "*Azadi Tower*," meaning "*Freedom Tower*."



Figure 73, Azadi Tower

The recently constructed Milad Tower may eventually replace the Azadi Tower as Tehran's new symbol. The Milad complex contains the world's sixth tallest tower, several restaurants, a five star hotel, a convention center, a world trade center, and an IT park. Traditionally a low-rise city due to seismic activity in the region, modern high rise developments in Tehran have been undertaken in order to service its growing population. There have been no major quakes in Tehran since 1830.

The tallest residential building in Iran is a 54-story building located north of Youssef Abad district, the Tehran International Tower. It is architecturally similar to Mandalay Bay Resort and Casino on the Las Vegas Strip in the Paradise community of Clark County, Nevada, United States.



Figure 74, the greater Tehran

Circles of sustainability

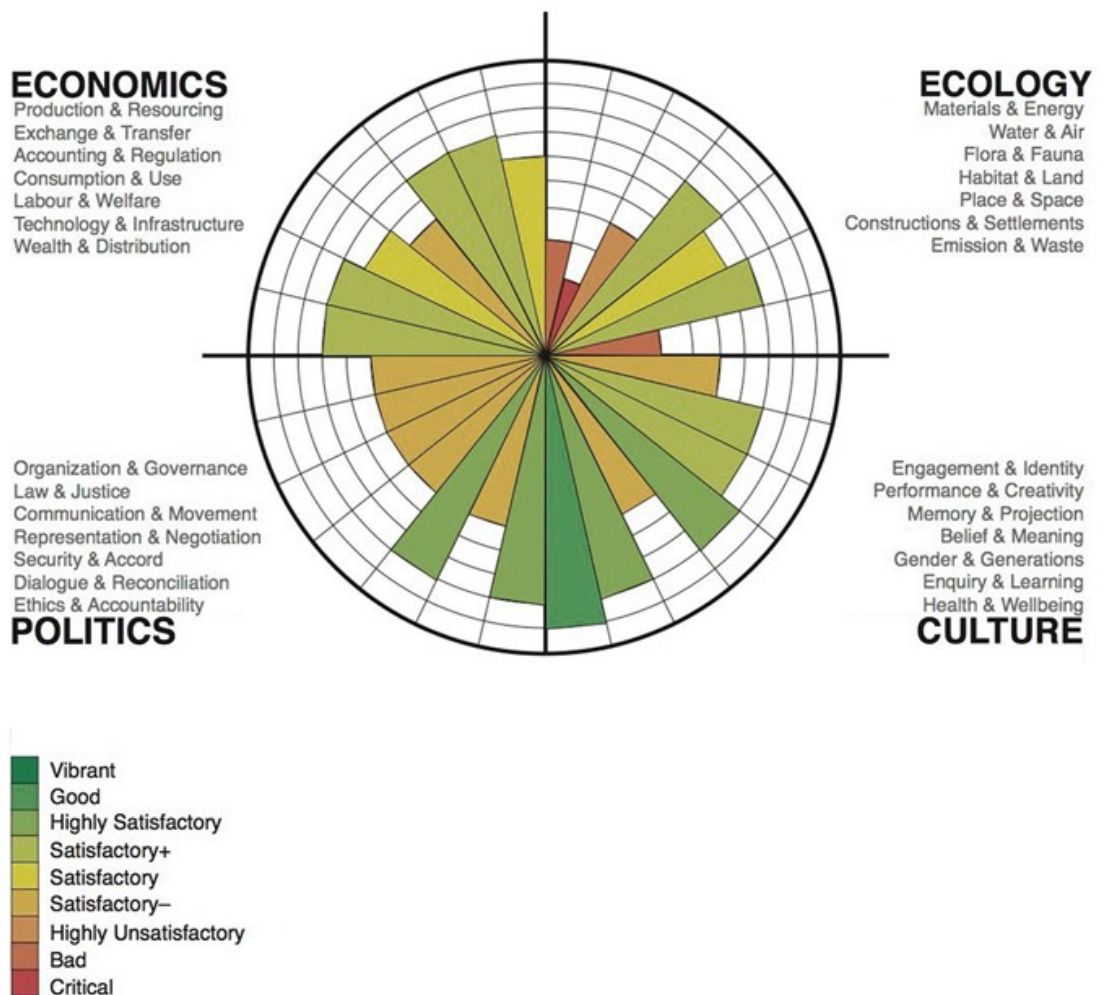


Figure 75, Circles of sustainability

3.2.1.1 Economic Analysis

Average floor area of residential units

The average floor area of residential units is dependent on environmental, cultural and social conditions. The main difference between the indicators of housing in Iran with those of other countries is that these indicators are relatively high in Iran, even compared with those of developed countries. For example, in the 1980s, the average floor area of residential units in Iran was over 140 sq. m., whereas in Japan and all European countries was less than 100 sq. m. The reason should be sought in the cultural and social conditions and needs of the Iranian families, and not necessarily in their financial conditions. In Tehran, this indicator has two major characteristics. First, the average floor area of residential units in Tehran is more than 100 sq. m., which is much higher than other countries.

Second, there is considerable difference between the average floor areas in various parts of the city. In Tehran, the average floor area in various parts of the city follows the same pattern as the average number of people residing in a residential unit. In the south, residential units have the smallest floor area (between 50 and 70 sq. m) whereas in the north, (especially districts 1 and 3), floor areas vary between 130 and 175 sq. m. The units situated in southern and western districts are recently built, having an average area of 100 sq. m. This difference is mainly due to the difference in the financial status of the families, which increase as we move from the south to the north. In northern districts, in addition to the economic factor, there is environmental factor. The residential units in these districts are mainly houses, requiring greater floor area and a greater number of people residing in them.

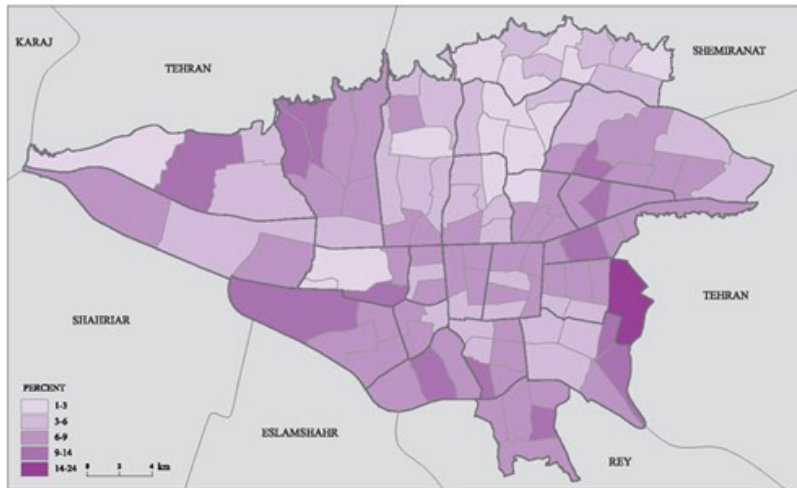


Figure 76, Residential units with 75-85 Sq.m space (2006)

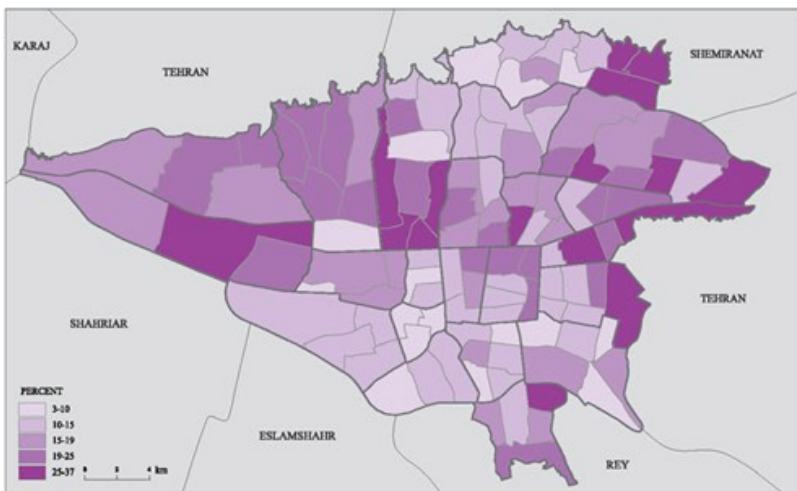


Figure 77, Residential units with 80-100 sq.m floor space (2006)

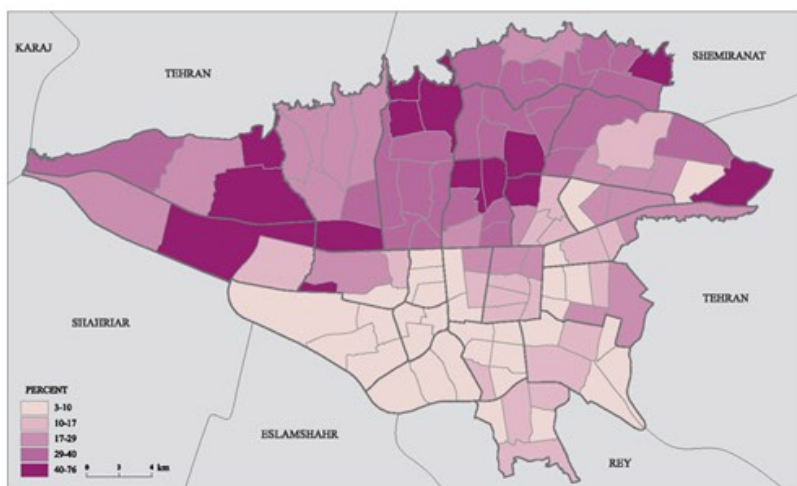


Figure 78, Residential units with 100-150 sq.m floor space (2006)

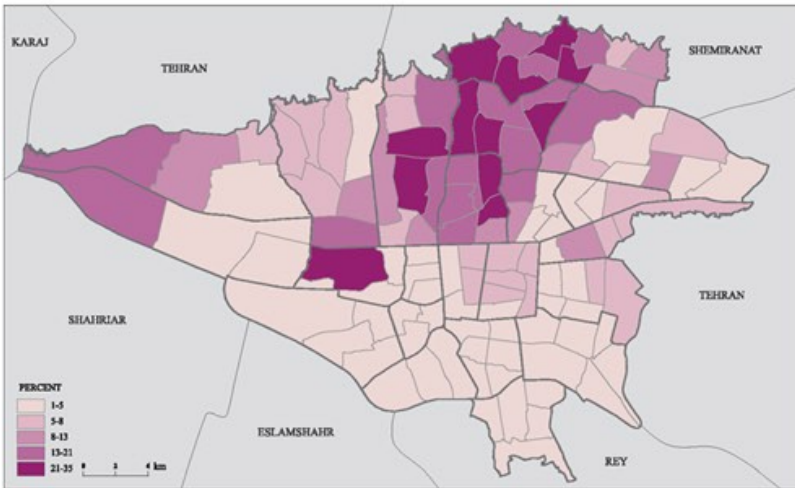


Figure 79, Residential units with 150-200 sq.m floor space (2006)

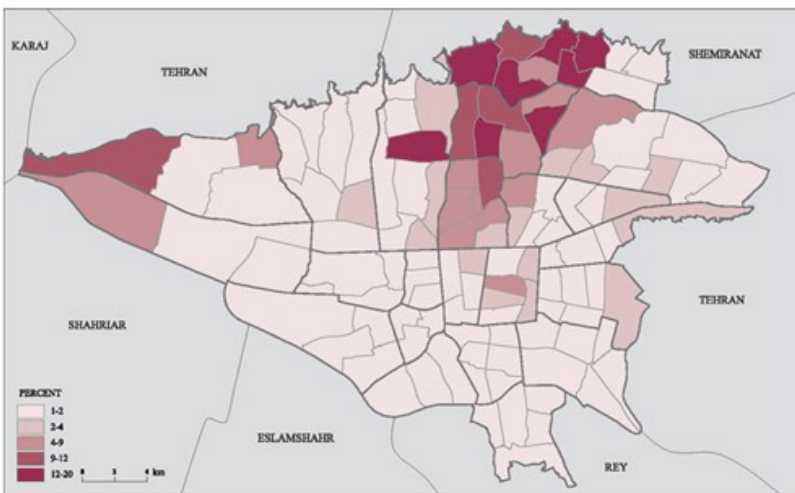


Figure 80, Residential units with 200-300 sq.m floor space (2006)

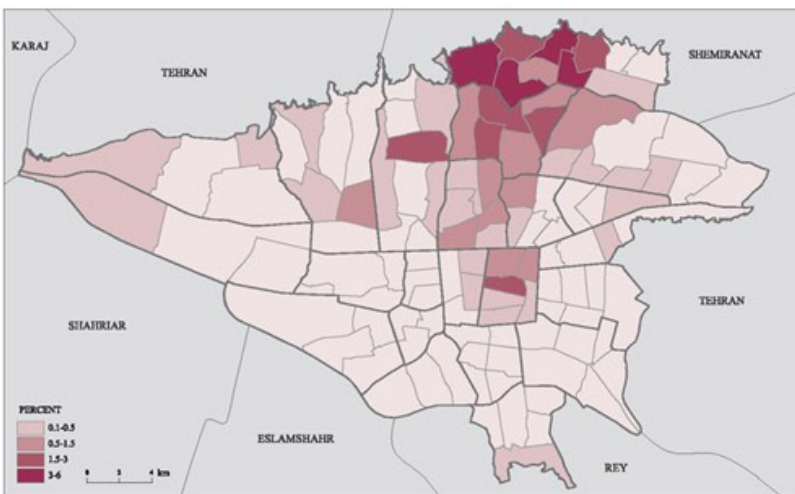


Figure 81, Residential units with 300-500 sq.m floor space (2006)

Floor area per capita

The indicator is among key indicators showing the status of housing.

Unlike other housing indicators which reflect only one of the economic, social, cultural and environmental dimensions, floor Area indicator is closely connected with all these dimensions.

The economic factors, from macro economy to micro economy, the family's financial power, the social and cultural characteristics, environmental conditions, all these can affect this indicator and planning for that.

As a general rule, in Iran, as compared with other countries even developed, countries, this indicator is high due to the socio-cultural needs of Iranian families.

For example, Iranians devote a considerable space to kitchens and dining rooms. In Tehran, floor area per person shows an amazing variety.

In the old and central areas of the city, families have a moderate floor area per person; that is, 30 sq m. In the north and south of the city, there are two totally different patterns.

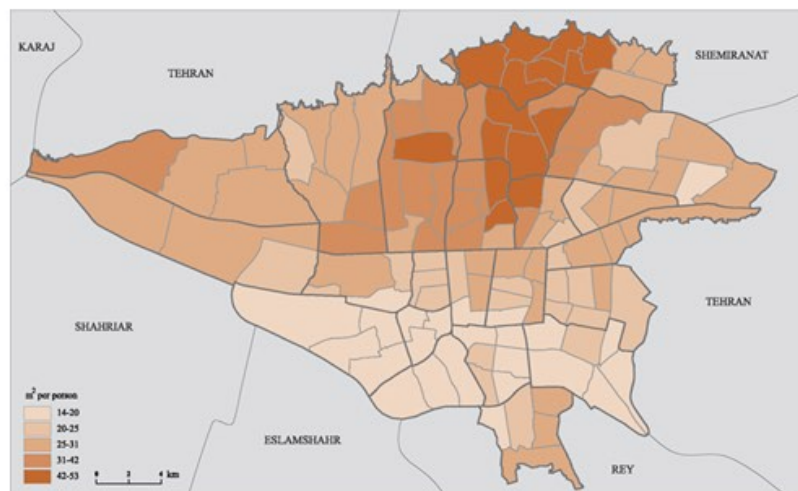


Figure 82, Residential floor space per capita (2006)

Number of rooms per household

The indicator “number of rooms per a household” is a quality indicator of housing.

A high number of rooms per household shows high income and vice-versa. It is directly related to the floor area available to each household member. Obviously, the two number of rooms per do not show a good status of housing. In 2006, about 6.2% of the households residing in Tehran metropolis had only one room available to them. While it shows a reduction compared with 1996, the geographical distribution has not changed; such households are still concentrated in the south of Tehran. Districts 17, 18 and 19 have the greatest number of households with one room, while in 1996, districts 19 and 18 have the lead.

These two districts are located in the margin of Tehran, populated mostly with workers and migrating households. In 2006, compared to 1996, the number of households with two rooms has changed.

A tendency toward renting flats of 50 to 70 sq m has increased the number of residential units with two rooms. Similar changes have happened to the number of households with three rooms.

In 1996, the highest number of households with three rooms were living in districts 14, 15, 20 and 8, whereas in 2006, the highest number of such households were living in districts 5 and 22, followed by the eastern districts.

In 2006, 4.7 % of households had five rooms available to them. These households were living mostly in the north of the city especially in districts 2, 3 and 6. Only 2.4% were living in the south of the city.

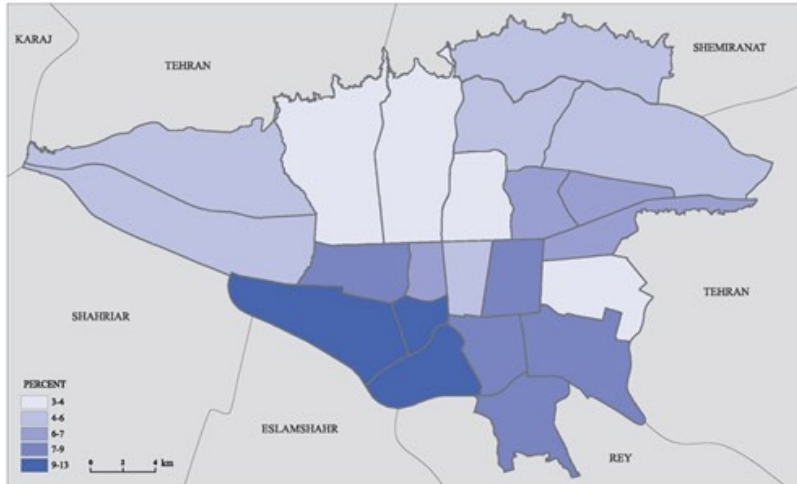


Figure 83, Households with one room (2006)

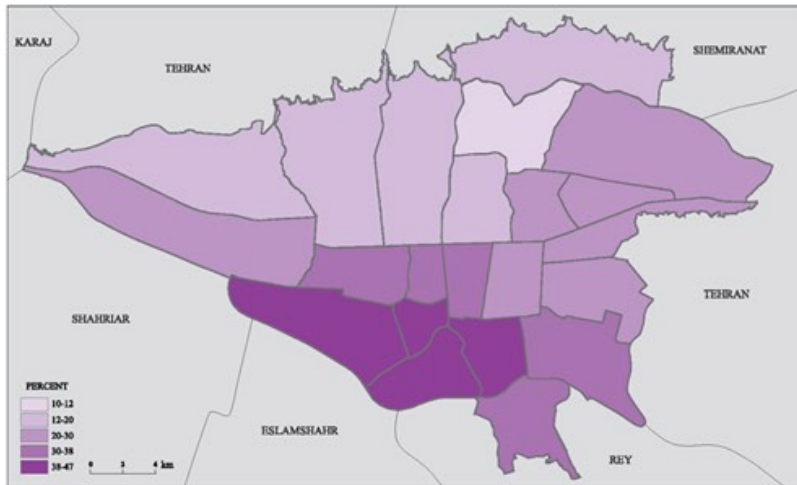


Figure 84, Households with two rooms (2006)

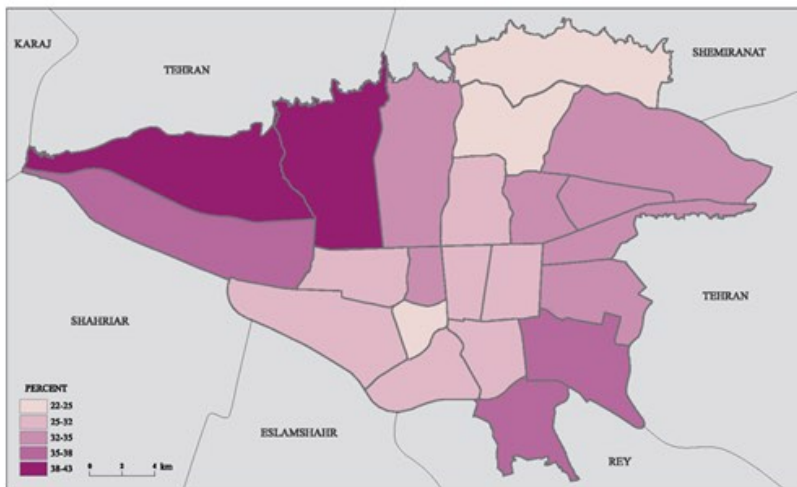


Figure 85, Households with three rooms (2006)

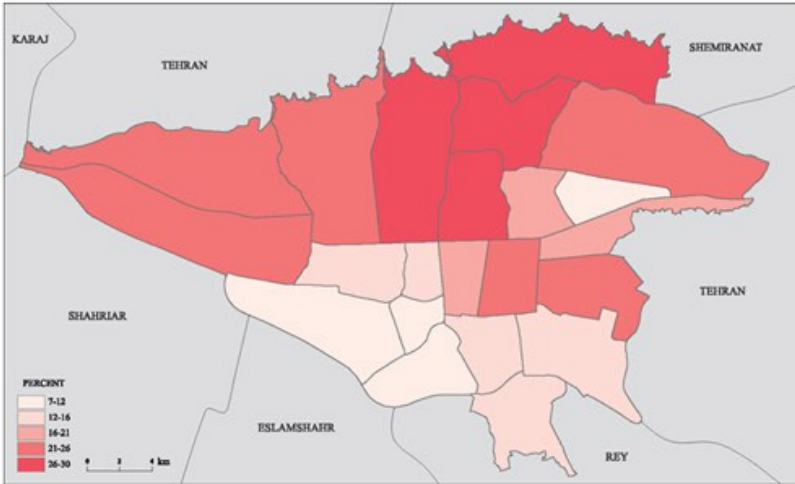


Figure 86, Households with four rooms (2006)

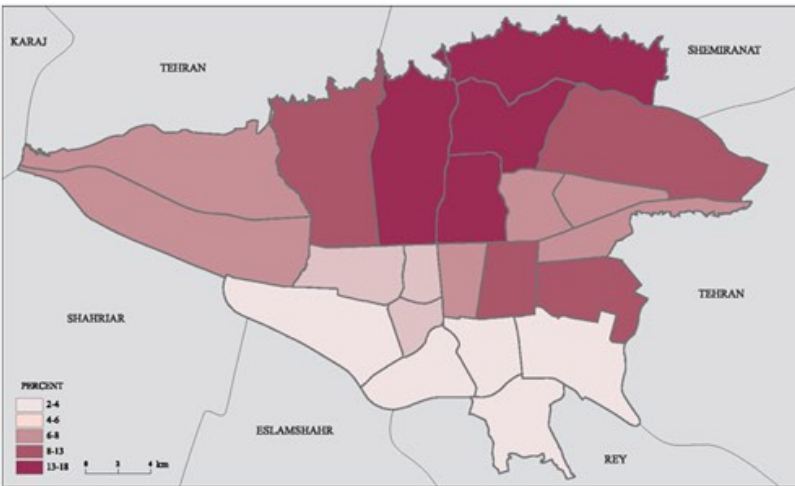


Figure 87, Households with five rooms (2006)

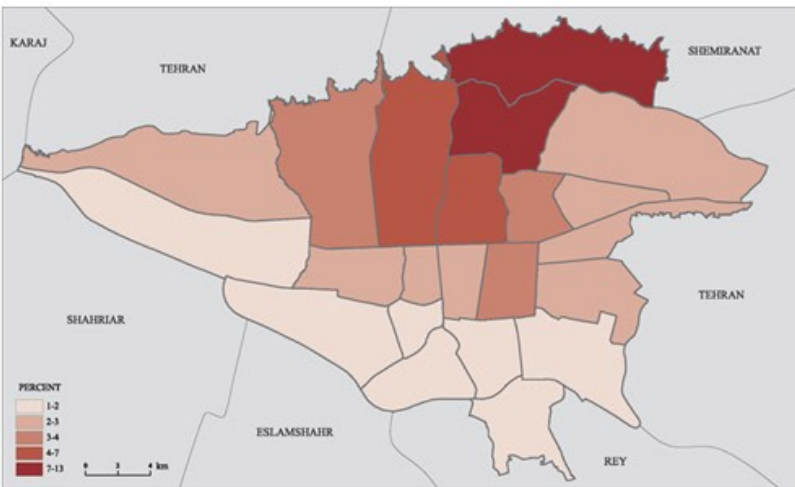


Figure 88, Households with six rooms (2006)

Property ownership

The property ownership indicator explains if a property is owned by a private person, if it rented, if it is free of charge or if it is a governmental property. This indicator by itself does not show the desired or undesired status of housing in a country. For example, in some developed countries (such as Sweden, Swiss and Germany), the indicator is low (less than 40%), whereas in some other developed countries (such as England), the indicator is high (over 70%). The social conditions counts as the most important factor. In the case of the former countries, a high number of properties belong to city councils or municipalities. Also, due to the high level of welfare in these countries and the government's plans of supplying housing, people have little motivation to buy houses. In Iran, (and in Tehran metropolis), the high level of ownership of properties is considered a desired status because, on one hand, owning a house or a flat is regarded as a kind of saving for children, and on the other hand, the policies of the government for supplying housing and boosting the indicator of property ownership is considered a positive policy. The possibility of conversion of properties to an investment commodity has encouraged households to buy houses. About 57 percent of households in Tehran are the owners of the housing units in which they live. In more affluent areas, such as districts 5, 9, 10, 11 and 12, the ownership rate is between 51% and 55%. Districts 5, 9, 10, 11 and 12 are moderate. But 31% of the households live in rented and flat units and 2.7% live in free properties.

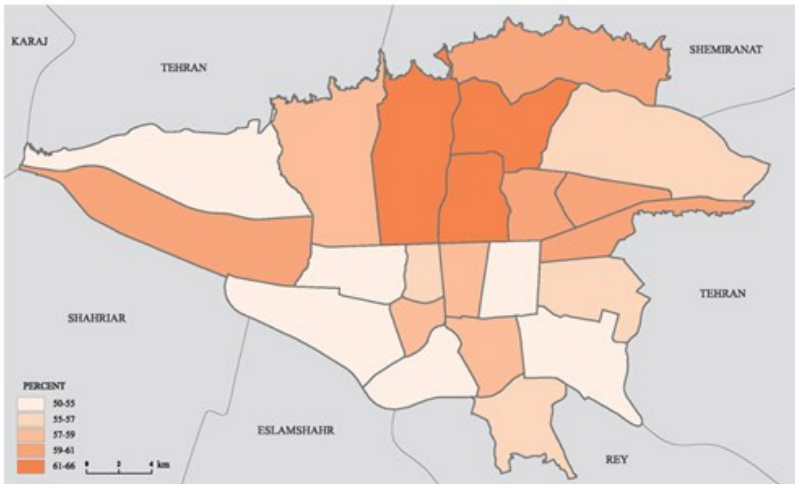


Figure 89, Households owning units (2006)

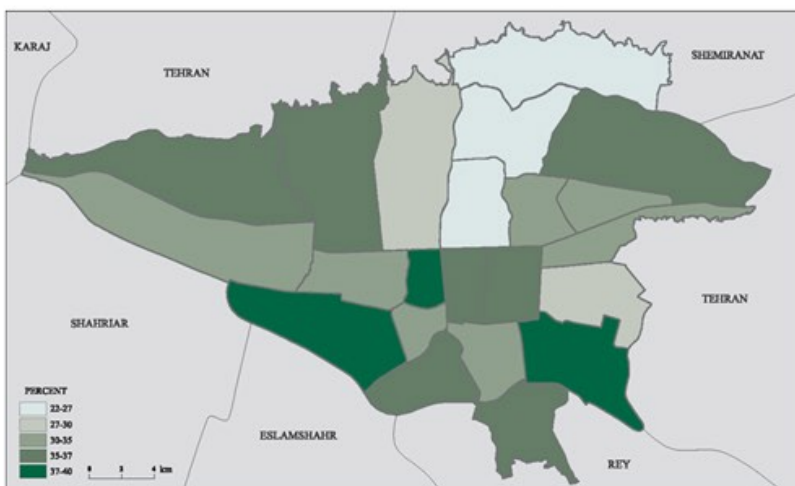


Figure 90, Households renting units (2006)

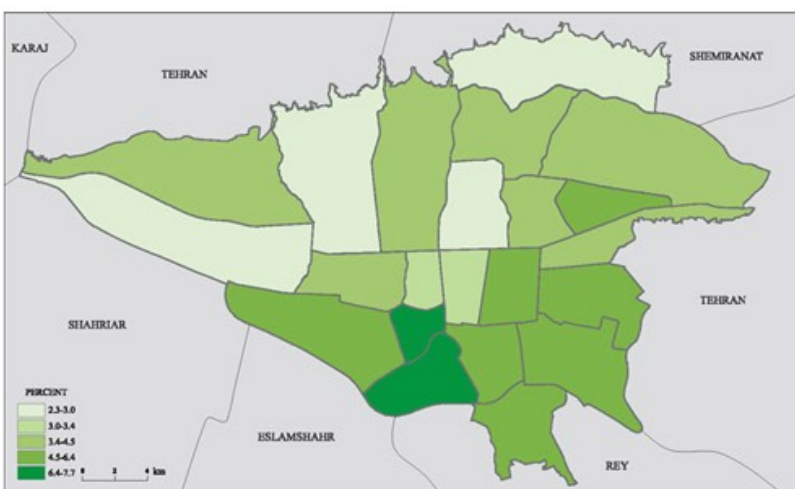


Figure 91, Households free type of units (2006)

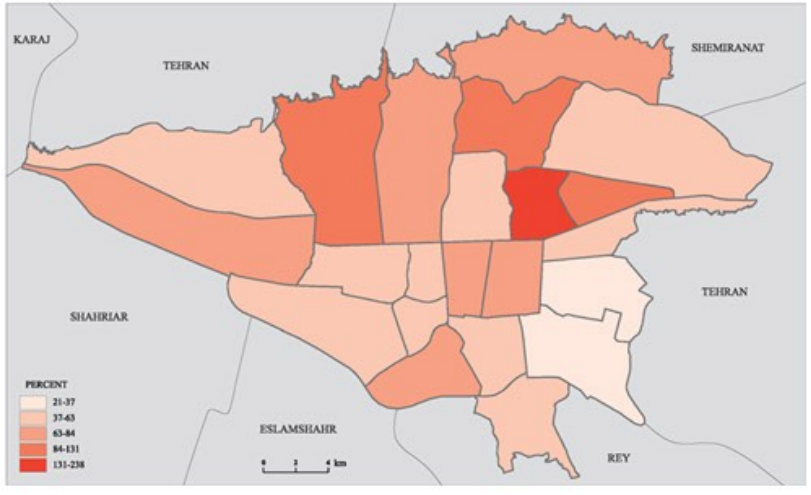


Figure 92, The average growth rate of land price (2005-2007)

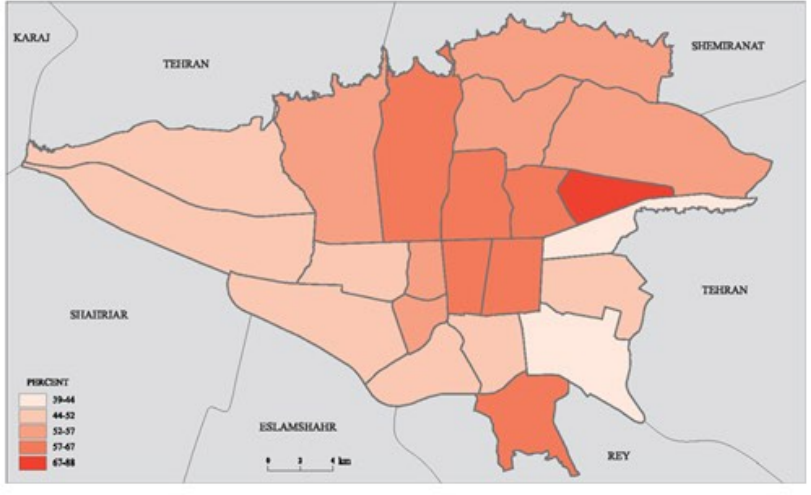


Figure 93, The average growth rate of housing price (2005-2007)

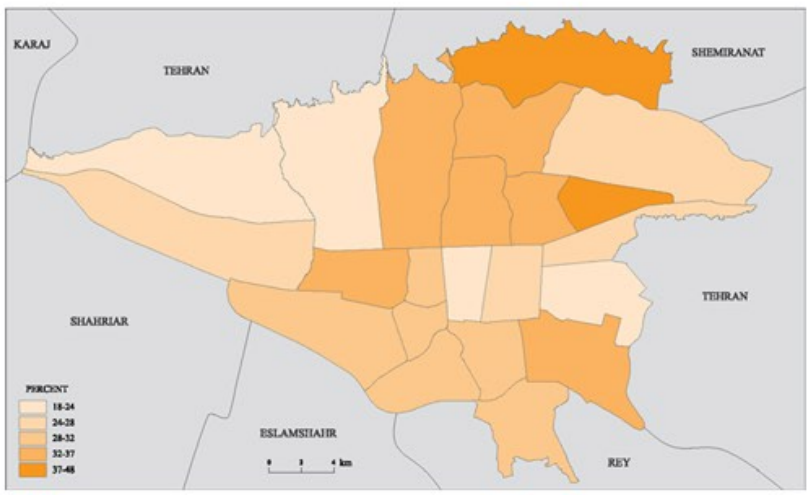


Figure 94, The average growth rate of rental housing (2005-2007)

3.2.1.1. Social and psychological analysis

Cultural services

Cultural services are offered through public libraries, mosques, cinemas and cultural centers (or local houses of culture). The data obtained from the clustering analysis shows that: -the central parts of the city, especially districts 3, 6, 11, 12, 14 and 20 have the best access to public libraries, whereas districts 21 and 22 have no access at all. -The districts located in the center, central part of the south and east of the city, especially districts 4, 8, 10, 11, 12, 13, 14, 17 and 20 have the best access to mosques, whereas access to mosques in the east, west and southwest is not good. -The districts located in the central areas, especially districts 7, 8, 10, 11, 12, 13 and 16 have the best access to cinemas, while the eastern, north western, south western and south eastern parts of the city have no access to cinemas. The spatial distribution of access to cinemas is quite unequal as the cinemas are mainly concentrated in the central part of the city. The distribution of the cultural centers is very good all over Tehran; except for parts of the northeast and northwest (districts 21 and 22), almost all other districts have a very good access to cultural centers.

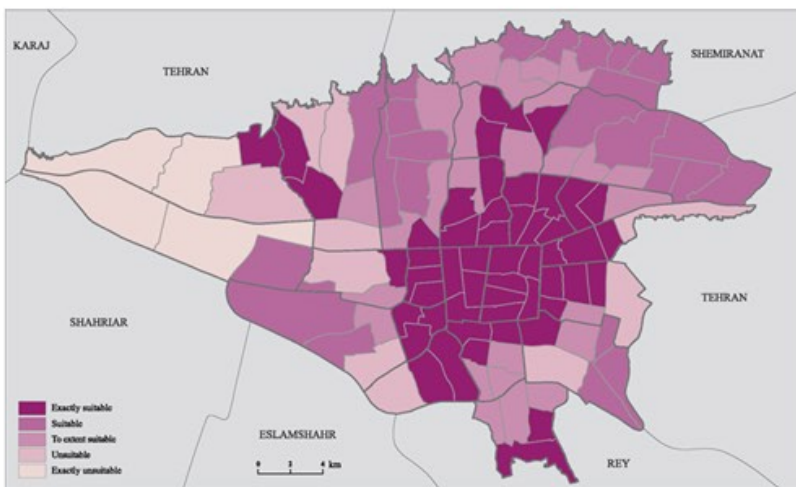


Figure 95, The quality of access to cultural services (2006)

Access to urban services and facilities

This factor, which includes the indicators showing six types of services: educational, emergency, health and treatment, transportation, cultural and recreation, shows access to all urban services and facilities as a whole. Thus, the internal and central districts of the city have the best access to these urban services and facilities, but the western districts and the districts in the suburb have poor access to public services. In general, a clear distinction can be made between the central and suburban districts in terms of access to public services and facilities. The western districts, especially districts 21-22, characterized with a low density of population, have the poorest access to these public facilities. The central, central north and central south districts, characterized with a high density of population, have the best access to public services and facilities. The spatial changes of access to urban services generally shows a high concentration of services in the city center and a low concentration of services as we move farther from the center toward the suburban areas.

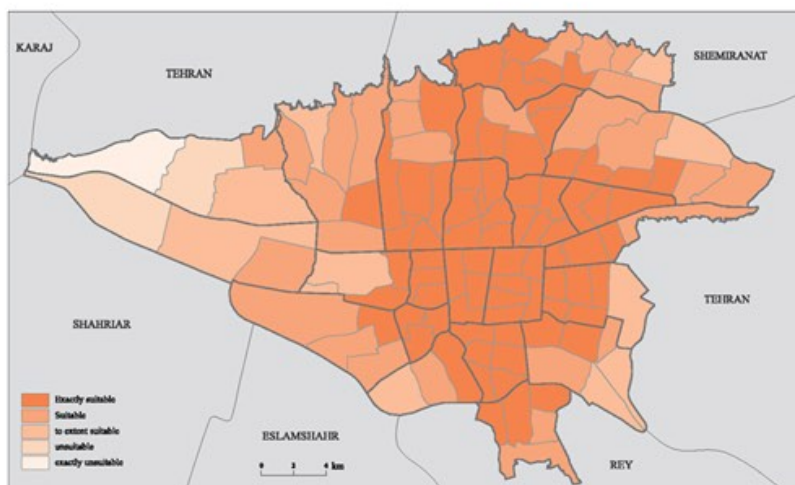


Figure 96, The quality of access to urban services (2006)

Social capital quality

This factor indicates the capital of social capital. It consists of indicators such as rate of education, rate of education of men and women over 6, number of family members, rate of employment, number of unskilled workers employed, residences with three or more bedrooms and with areas of over 101 to 200 square meters. The northern and central north districts rate best. Also the western and eastern districts have good social capital. The southern, southwestern and central south districts have the poorest social capital. Tehran can be divided into two northern and southern parts in terms of social capital: the former part, covering two thirds of the city, has a good social capital, but the latter part has a poor social capital. The difference between the northern and southern parts is quite a lot in this regard.

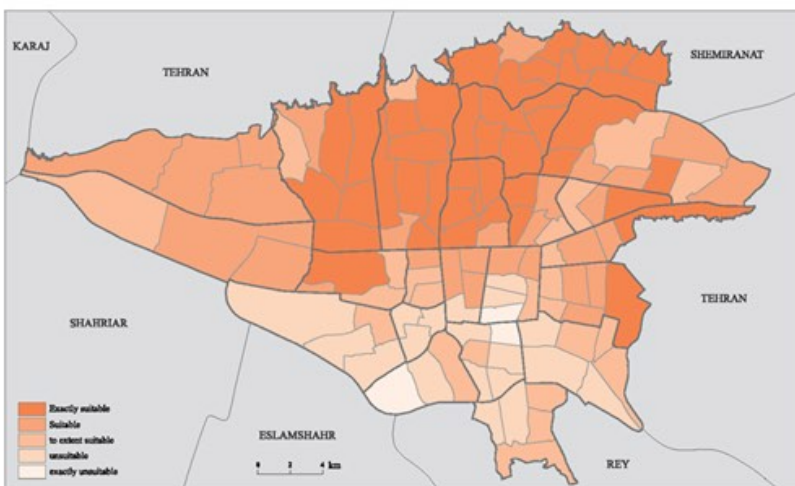


Figure 97, The quality of social domains (2006)

Quality of life in Tehran

To obtain a picture of the general quality of life in Tehran, the four dimensions of the quality of life mentioned above are here measured.

It is worth mentioning that this study uses very limited objective indicators — those accessible in the 117 districts of Tehran— to measure the quality of life in Tehran, and that it was not possible to measure these data with subjective indicators. Therefore, the results obtained should be interpreted with these limitations in mind. In spite of the limitations mentioned, the picture of life in Tehran reveals a fairly good quality of life in all the districts. Northern, central north and northeastern districts have the best conditions.

Quality of life in northwestern and southeastern districts is also good. In the southwestern districts, quality of life is rather good. Only in two districts (one in area 9 and one in area 19) quality of life is very bad and in six districts (two districts in the west end of the city, two districts in the center of the city, one district in area 9 and one district in area 18), quality of life is bad. In two districts in area 9, the poor quality of life is basically due to high environmental pollution. In one district in area 19, the poor quality of life is due to its poor social environment and its relatively high environmental pollution. In one district in area 18, poor quality of life is basically due to its poor social environment, high environmental pollution and poor access to urban services and facilities. In two districts located in the west end of the city, and the district 21 and 22, poor quality of life is mainly due to poor access of these districts to urban services and facilities. And in two districts situated in area 12, poor quality of life is mainly due to their poor social environment and poor housing quality.

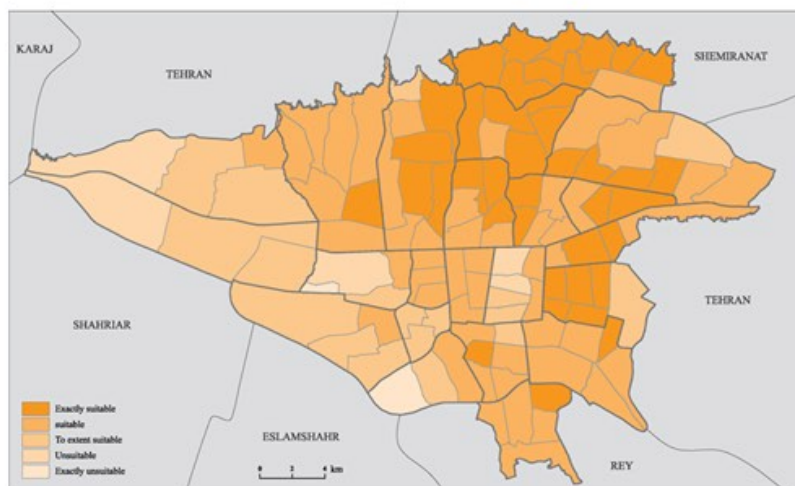


Figure 98, Quality of life (2006)

3.2.2 District 20 - Municipality master planning

Facilities (resources) and restrictions in district 20 with considering clear properties and development potentials, are categorized in the following:

3.2.2.1 Resources

- Potentials in tourism industry and leisure centers:
 - Considerable rural area in the margins
 - Valuable and various historical buildings (Chesme Ali)
 - Considerable arid lands
 - Abdol Azim Haram (religious center)

- Appropriate access to center and main areas of Tehran:
 - Subway (Javanmarde Ghasab)
 - Azadegan Highway

- Job opportunities:
 - Young population in district
 - Noticeable areas that are serving as old fashioned (not active) industries and storages and the need to change them to active and sustainable industries.

- Existence of cheap lands and apartments:

3.2.2.2 Restrictions

- Current land use:
 - High density of buildings in some areas
 - Shortage of public services in different scales particularly in cultural aspects
 - Existence of illegal housing units in some areas

- Environmental problems:
 - Deficiency in public green spaces

-
- Traffic and transportation:
 - Heavy traffic at main streets
 - Inadequate number of parking lots
 - Weak public transportation inside the area

 - Population and economic issues:
 - Population is more than what had been predicted in the management plan
 - Partial decline in number of jobs because of old industries

3.2.2.3 Development prospects

The district 20 is regarded as one of the most prominent regions of Tehran in the close future due to numerous historical points and religious places and the possibilities of job and also predicted organized residential zones.

Development prospects of district 20 have been predicted with respect to resources, potentials and restrictions in the area. These prospects focus on the part and role of the district in Tehran, enhancing living conditions, providing job opportunities, developing public spaces and preserving/restoration of historical buildings.

Guidelines and aims

In order to reach to development prospects following aims have been provided:

- Betterment of housing conditions
- Providing job opportunities
- Enhancement of public spaces
- Reviving identity in the district with help of lucid religious and historic properties
- Improving environmental conditions in order to reduce pollution
- Enhancement of road network

On the other hand, to reach these aims the following guidelines are proposed:

- Directed development of housing construction
- Organizing and utilizing abandoned industrial zones
- Organizing religious areas
- Reviving historic area and making it a historic center

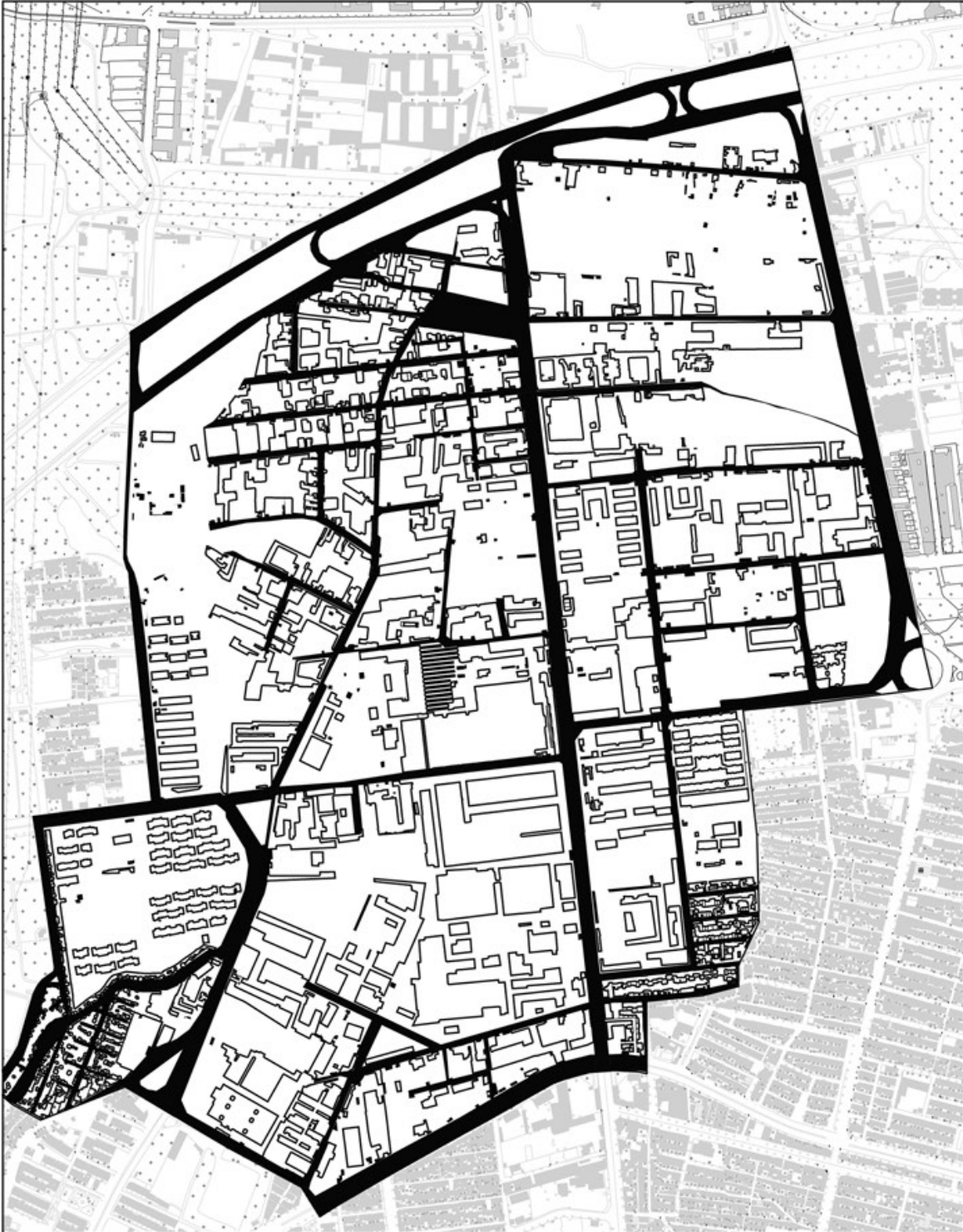
Position and the role of Region 20 in Management plan of Tehran

- Functional Identity: The religious center of Tehran
- Social and economic Variety: low Variety, Low income people
- “Darband”-“Rey” Axis: the most important axis of Tehran
- Historical and contemporary aspects: “Fadaian islam”-“rajai” connects Rey to Tehran
- Historical-Religious zone of rey : from “cheshmeh ali” to “abdol azim “ shrine
- Gates: Southern gate of Tehran, Varamin and Ghom

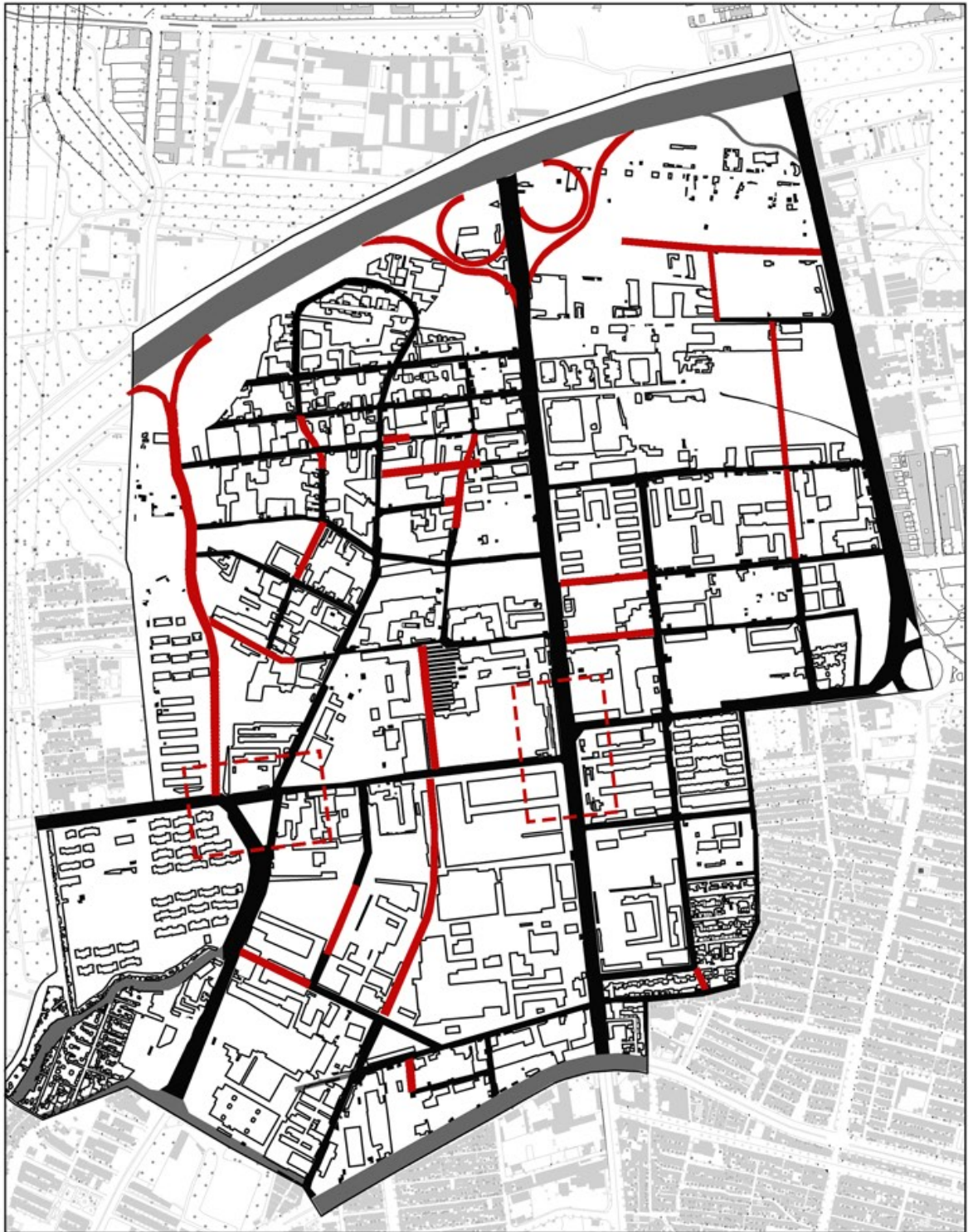
Urban analysis

- Infrastructure
- Built-up and open spaces
- Age of buildings
- Functions

Existing infrastructure



Proposed infrastructure (municipality)

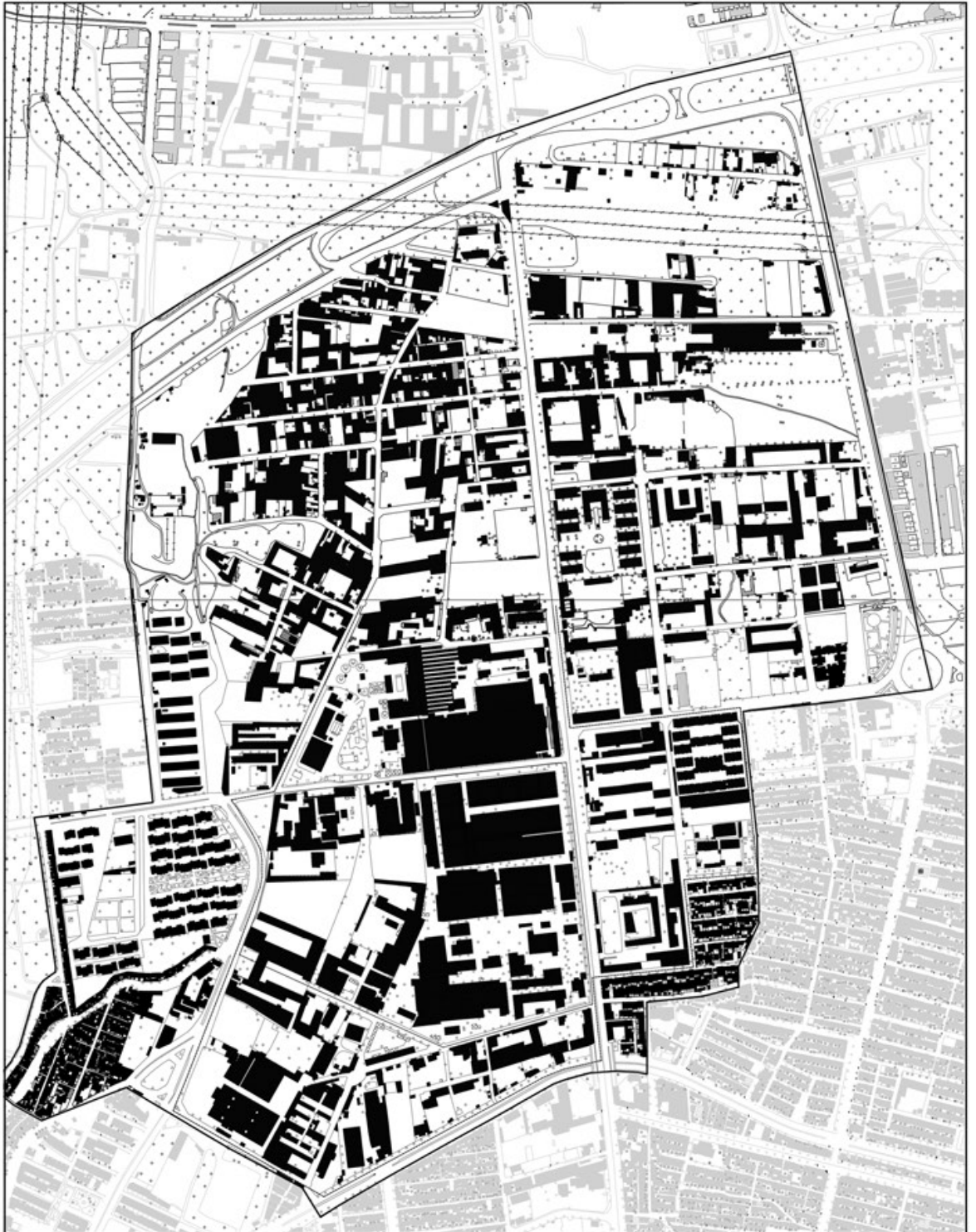


- | | |
|--|--|
|  Streets need to be wider |  Existing streets |
|  Streets need to be constructed |  Prominent intersection |

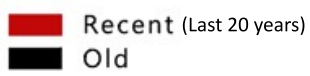
Built up space



Built up and infrastructure



Age of building

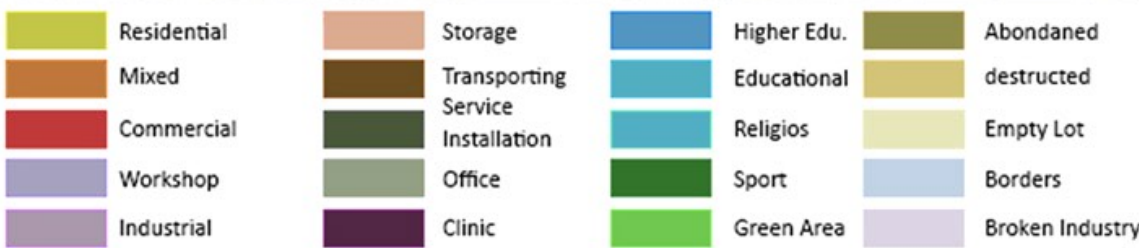
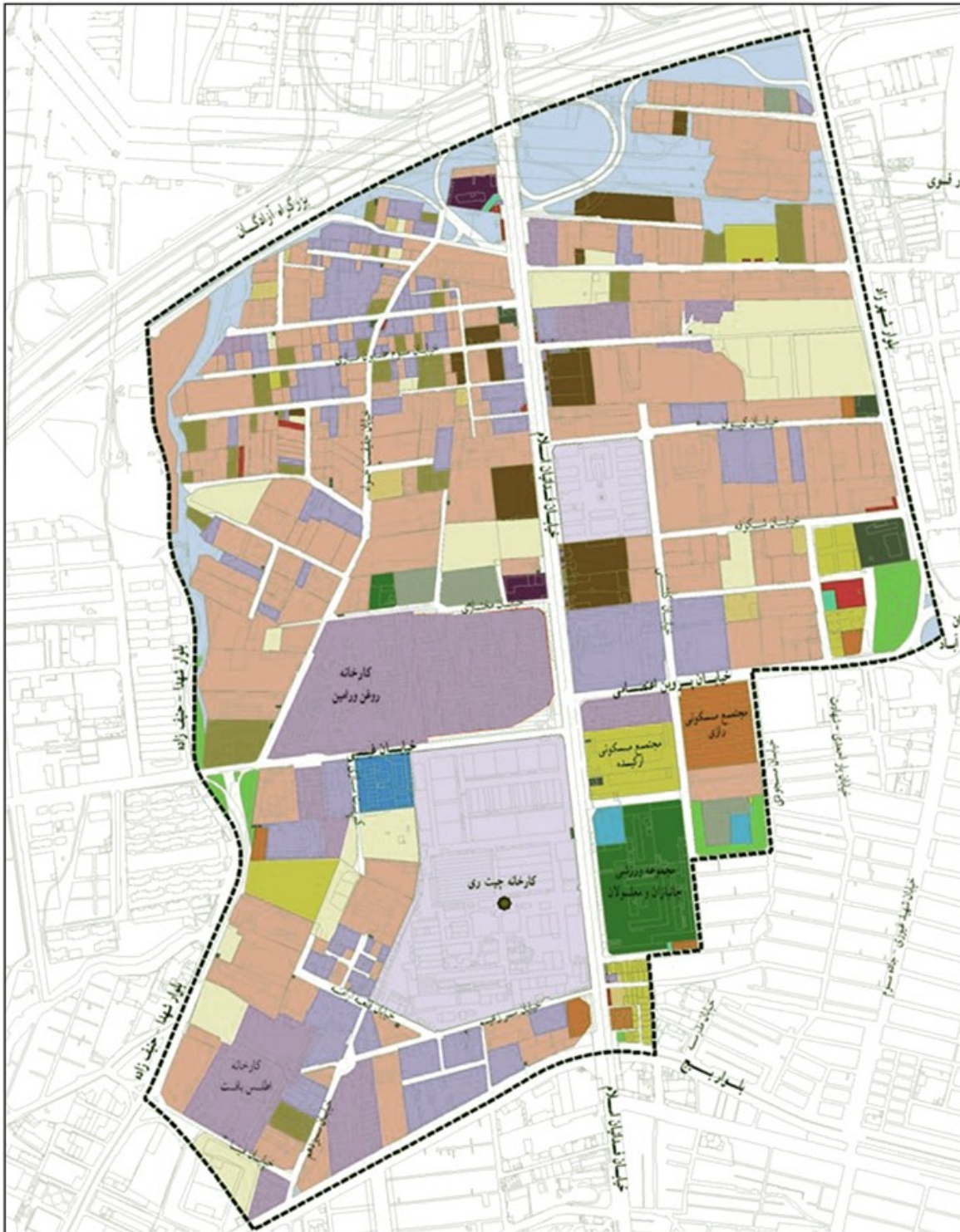


Open spaces

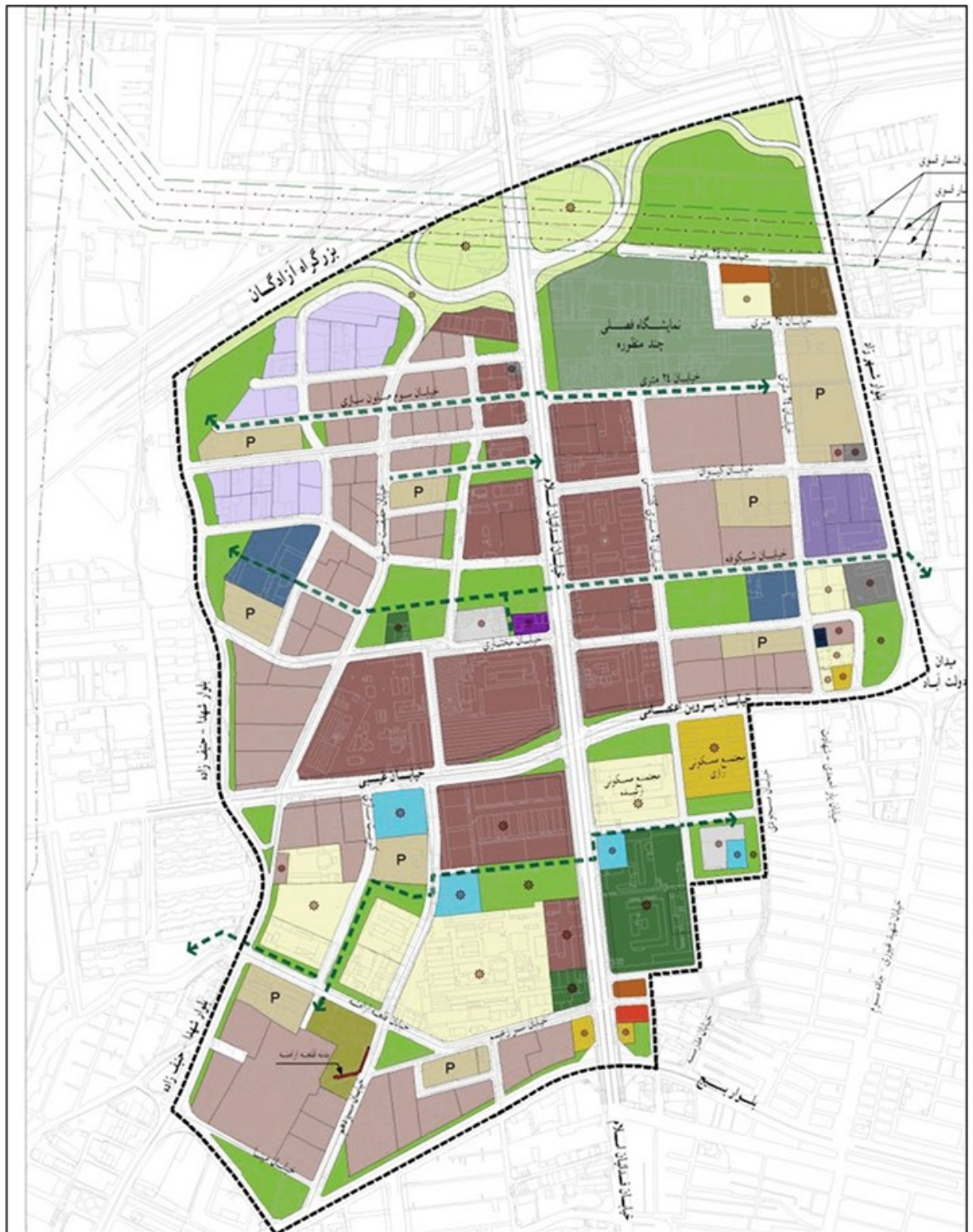


- Major Public Open Spaces
- Open Spaces

Current function



Proposed function (municipality)



- | | | | | | |
|---|---|---|--------------------------|---|-----------------------|
|  | Commercial-office beside the 'fadaian islam' axis |  | Public Parks |  | Cultural-sport center |
|  | Commercial-office far from the 'fadaian islam' axis |  | Territory of the highway |  | Fairs |
|  | Workshops, repair centers, storages | Services | |  | Urban Installation |
|  | Hotel and Hostel |  | Offices |  | Parking |
| Housing with medium Density (five levels) | |  | Educational |  | Heritage |
|  | Commercial-Residential |  | Cultural-recreational |  | Bus stop and parking |
|  | Residential |  | Religios |  | Urban Services |
| | |  | Clinics |  | Fire Station |

Synthesis:

Looking towards municipality of Tehran's proposal in district 20, it seems that the proposal is trying to solve the issues in the area through some restrictions. For instance, one of the significant restrictions in the area is "traffic and transportation" divided into three main chapters: heavy traffic at main streets, inadequate number of parking lots and weak public transportation inside the area. Municipality has tried to give a solution by:

- Enhancing and completing existing roads:
 - Making hierarchy, order and solidarity
 - Widening the roads according to future needs

"Current land use" could be the other issue that the proposal is attempting to straighten out. The area is recognized with factories that are mostly abandoned; this gives it a potential to be changed and through this potentiality, municipality has decided to give a new life to it by introducing functions such as commercial and housing.

Although this proposal can answer the demands that are coming from restrictions, there are still some issues that might have been ignored. For example, quarter's size in most of areas in the district is vast and division between quarters has been done by streets that mainly had existed before. These streets were serving factories that usually occupy a bigger area than a function like commercial or housing.

Another issue that proposal is not clear about is urban continuity. Even though a mixture of functions and some green areas are proposed, there is still lack of interrelationship between them. This could come from the idea that housing should be shy and not come to play with other public buildings. In terms of public spaces hierarchy between them is not well defined and green areas are segregated. And also it seems that green spaces are isolating functions by surrounding them.

Architectural proposal

- Quarter size
- Infrastructure
- Built-up and open spaces
- Functions
- Urban lay-out

Quarter size

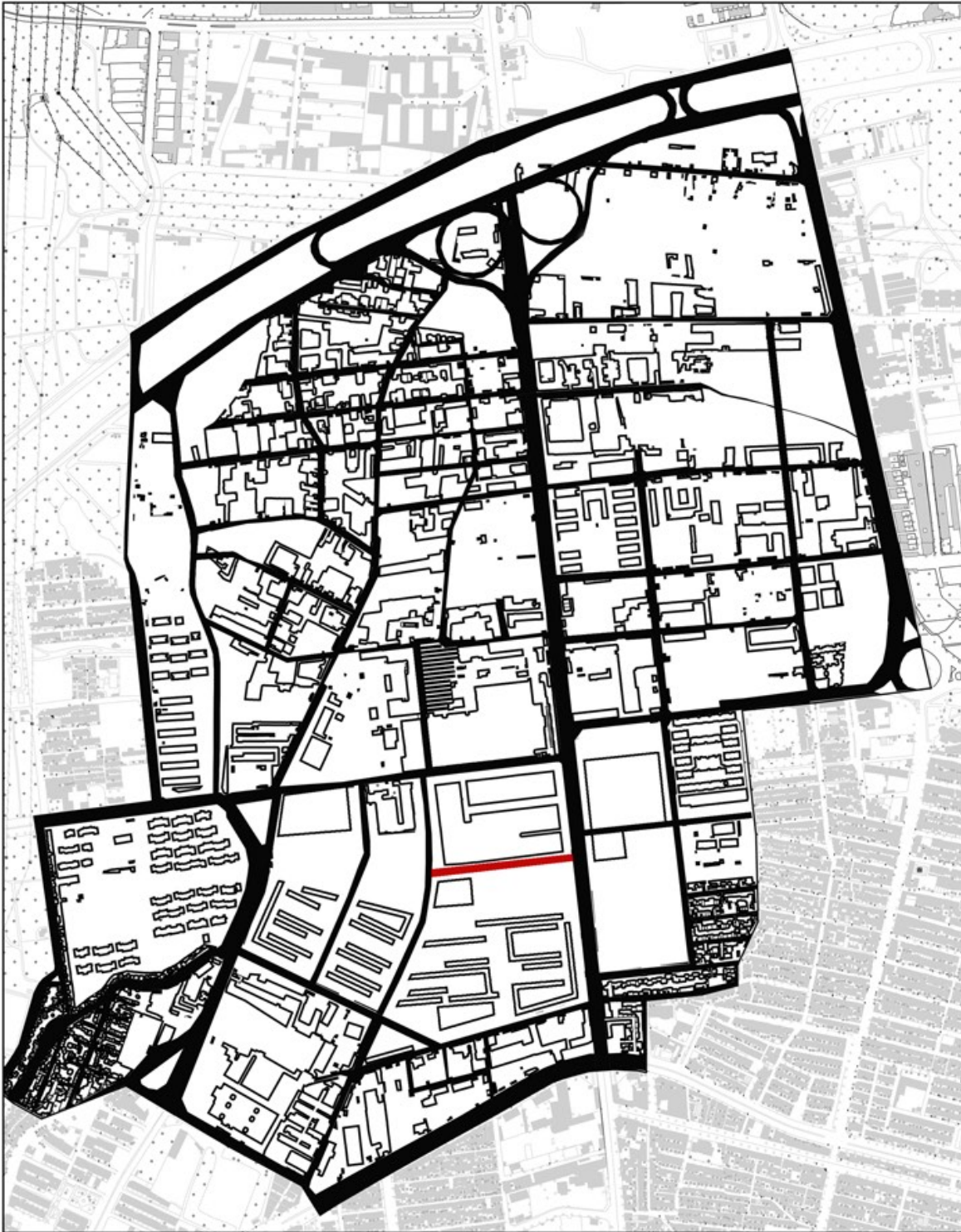


Proposed quarter size



- Existing quarter size
- Proposed quarter size

Proposed infrastructure / municipality



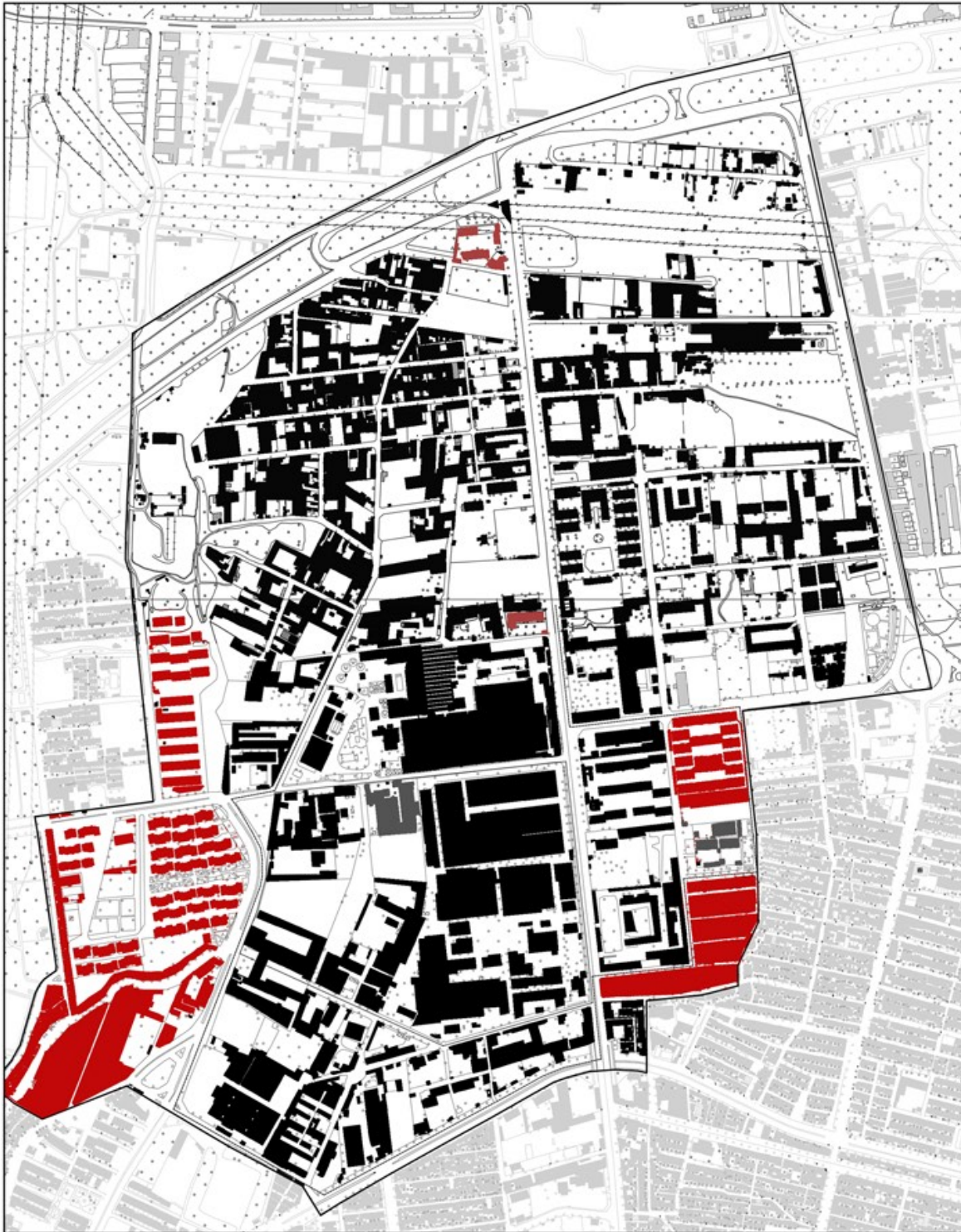
- Proposed Infrastructure
- Existing Infrastructure

Proposed open spaces



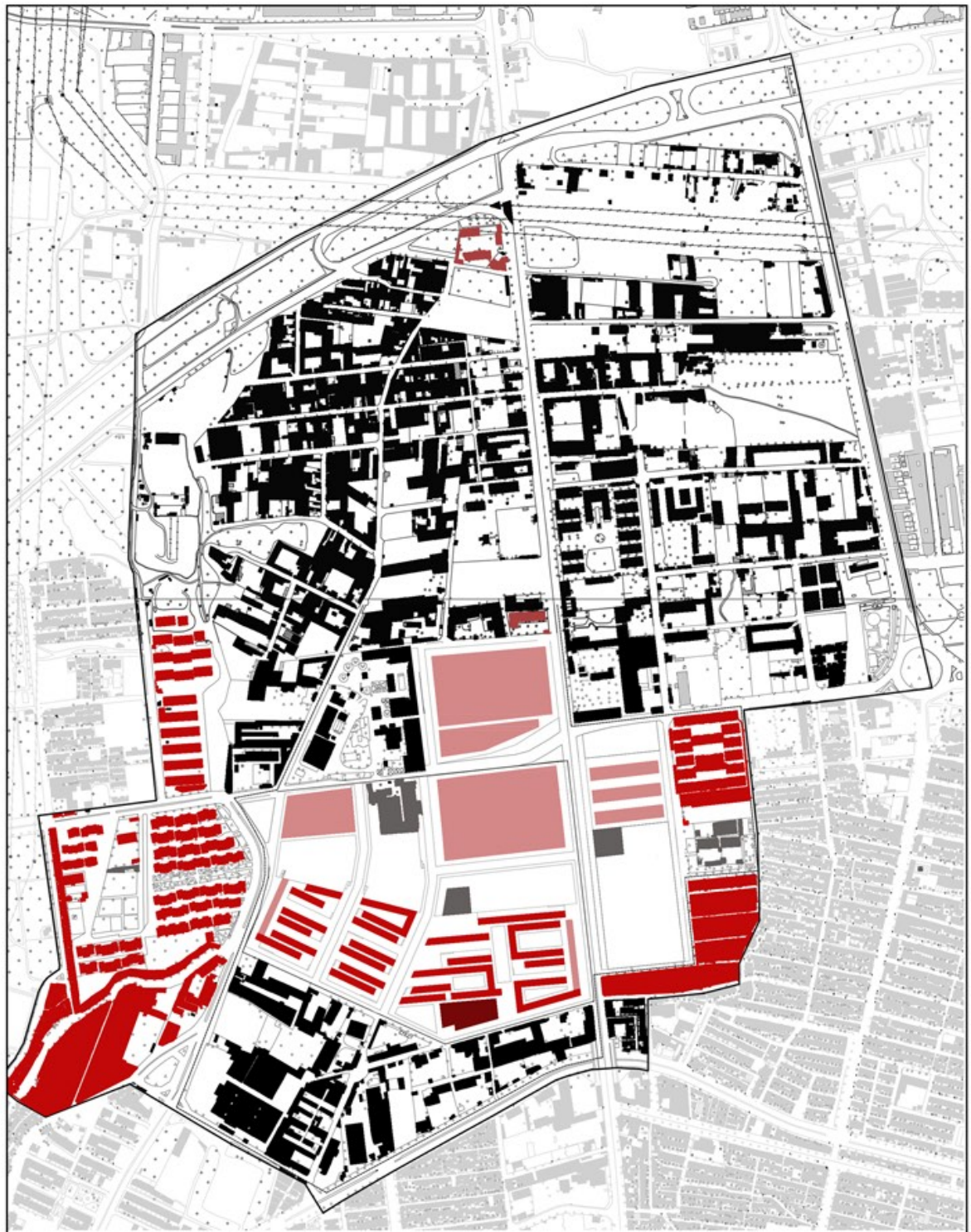
- Major Public Open Spaces
- Open Spaces

Current function



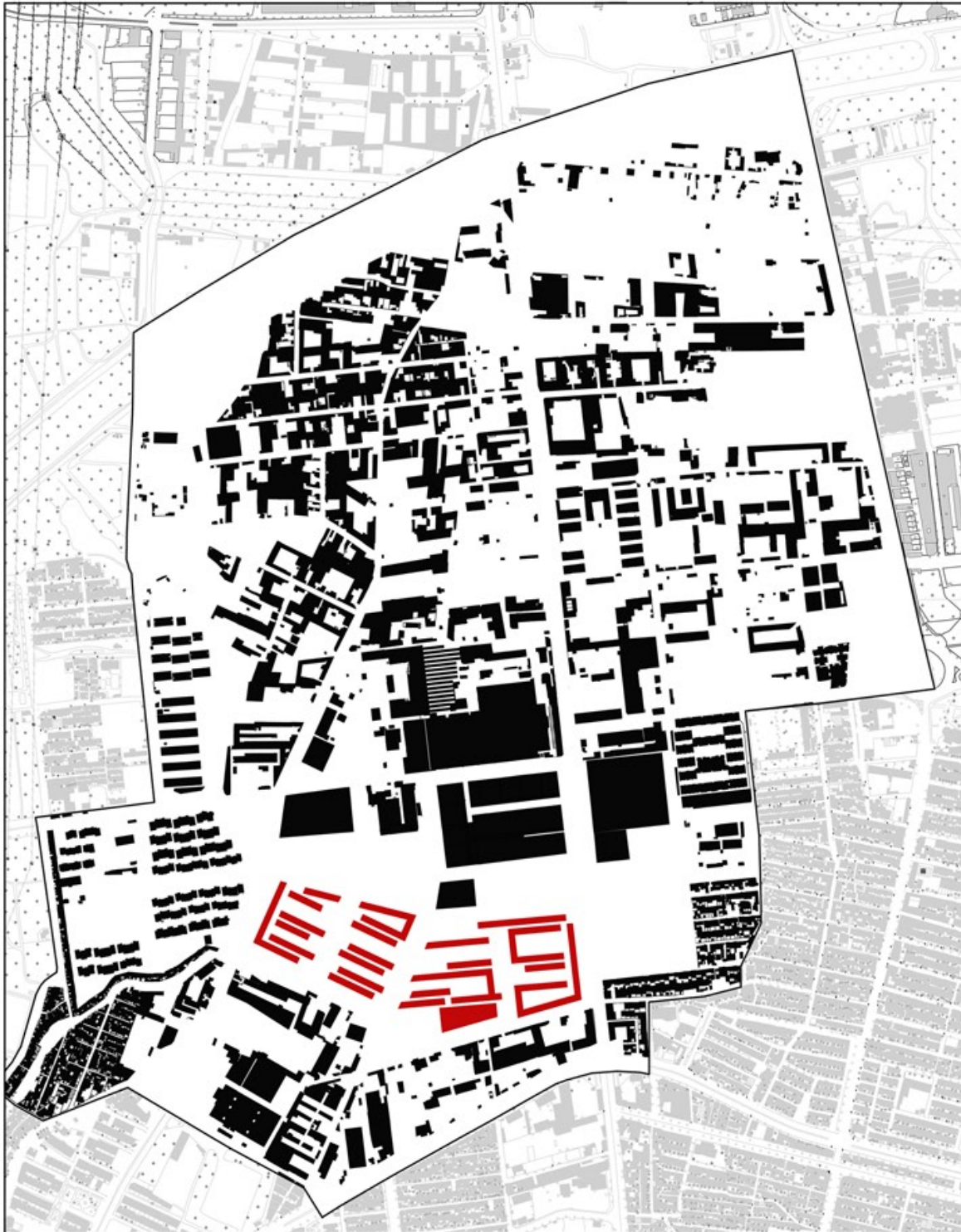
- | | |
|---------------|---------------|
| ■ Industrial | ■ Educational |
| ■ Residential | ■ Clinic |

Proposed function



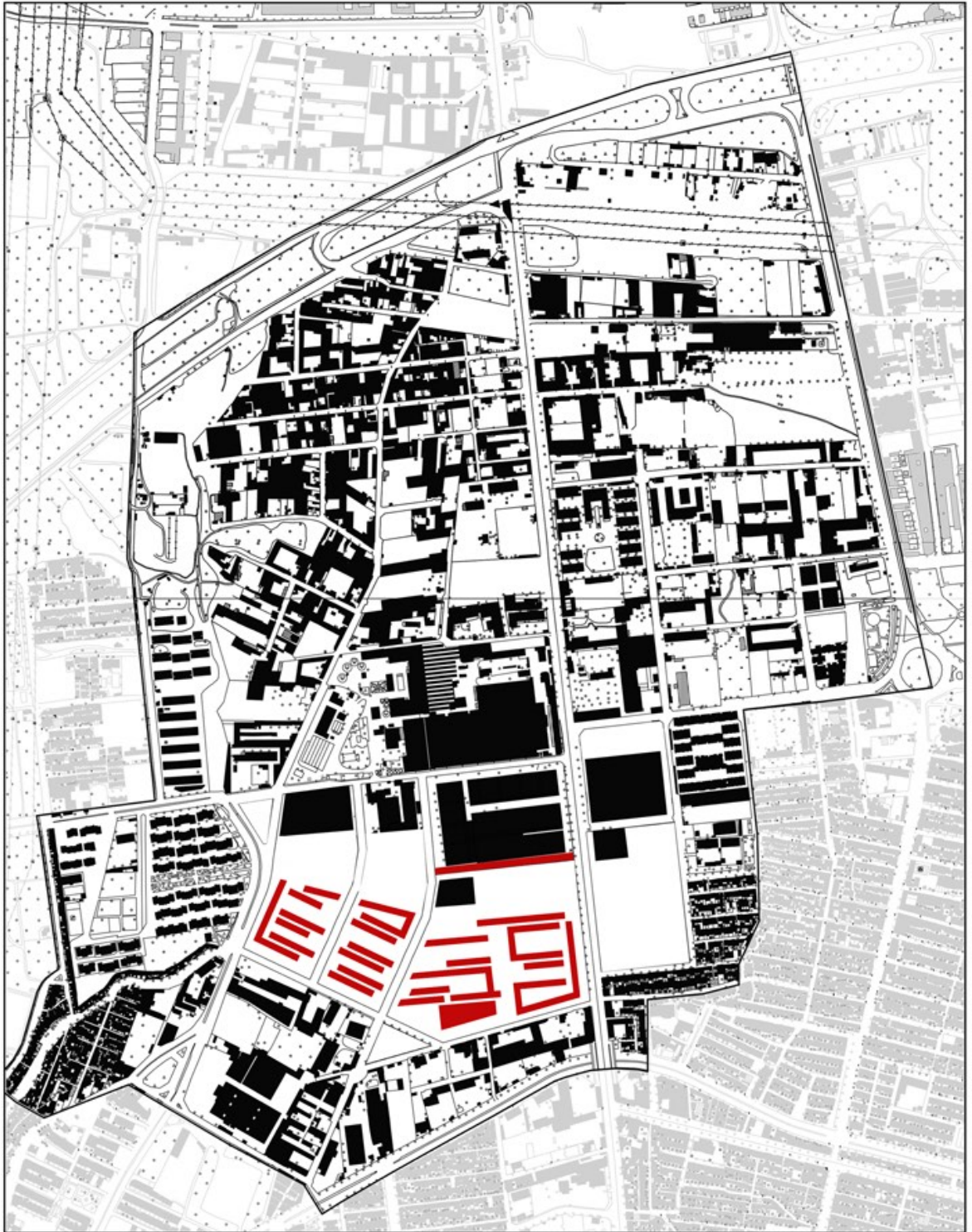
- | | | |
|---|---|--|
|  Industrial |  Educational |  Commercial |
|  Residential |  Clinic |  Cultural |

Proposed built-up space



- Existing built-up space
- Proposed built-up space

Proposed built-up space and infrastructure



- Existing built-up and infrastructure
- Proposed built-up and infrastructure

Proposed greenary map



- Proposed green belt
- Existing green area around the site

Proposed space map

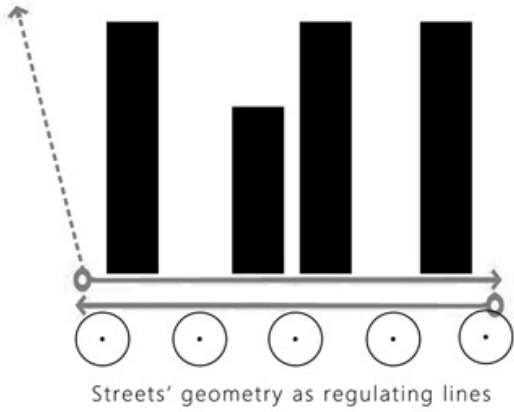


Public spaces
Semi public spaces

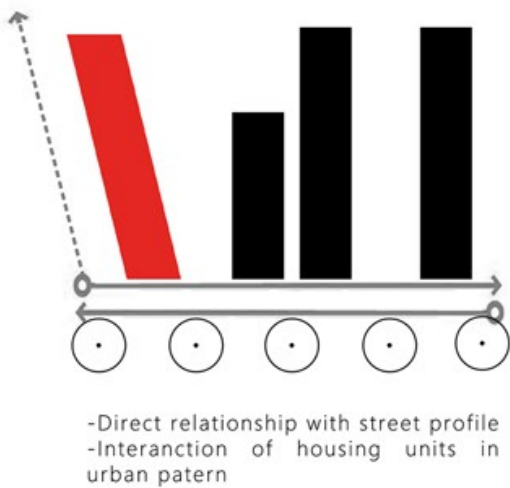
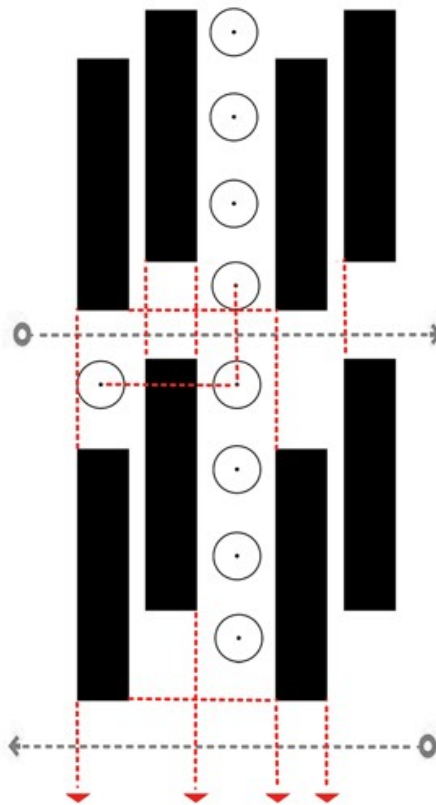
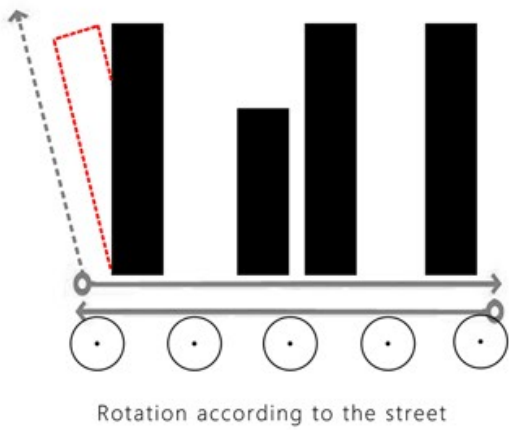
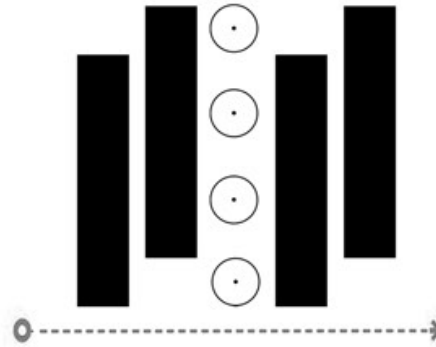
Main square (Collective public space)
Court yard (Collective spaces)

Regulating lines / Vector of force

Main Street



Secondary Street



For expansion of the area, vector of forces from existing building will be used. trees can also be settled according to them.

Street front

Main Street

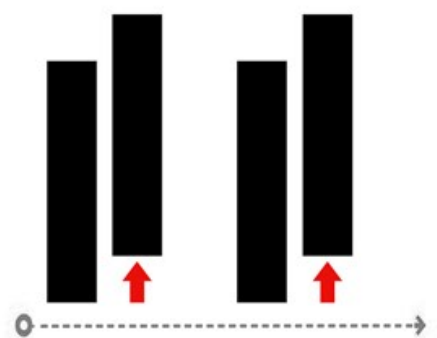
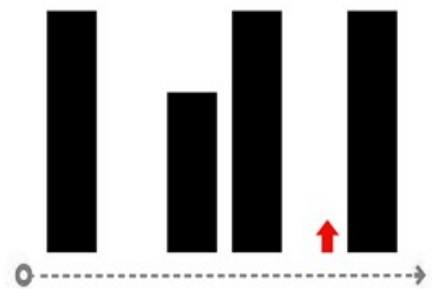
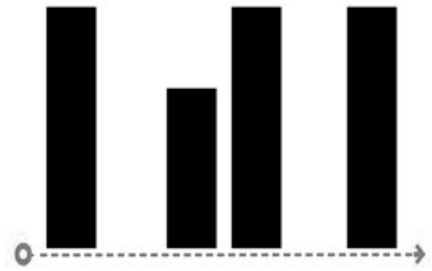


Moving back from street to create a buffer zone



Urban hierarchy: To keep housing units away from main street's noise and pollution, a public function such as commercial building will be proposed.

Secondary Street

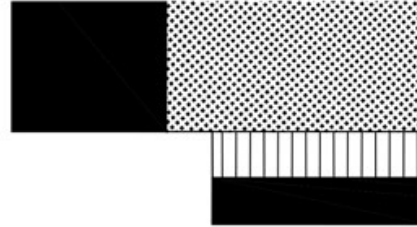


Since the secondary street does not have the same energy as the main street, housing buildings can come to play and give a balance to the street.

Hierarchy of spaces



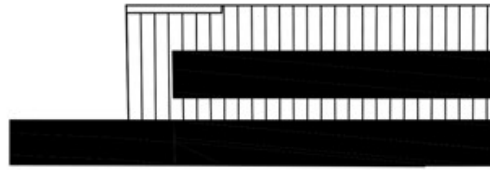
Moving back from public buildings to share space with public



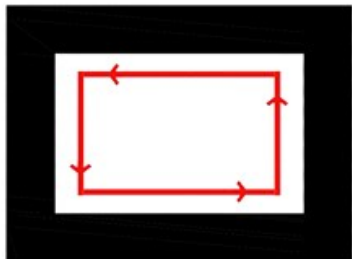
Proposal for public space with transition space to the project



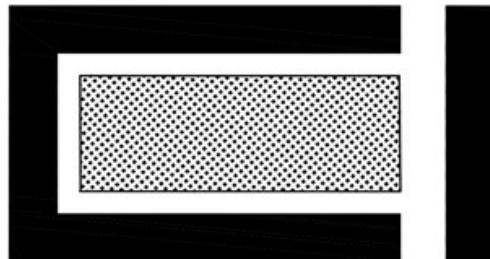
Semi-public spaces as a link to the public collective space



Proposed Semi-public spaces taking advantages of platform to define building locating



Boxed-in spaces to define collective spaces



Court yard as the proposal for collective spaces

Urban Lay-out



A-A

A-A

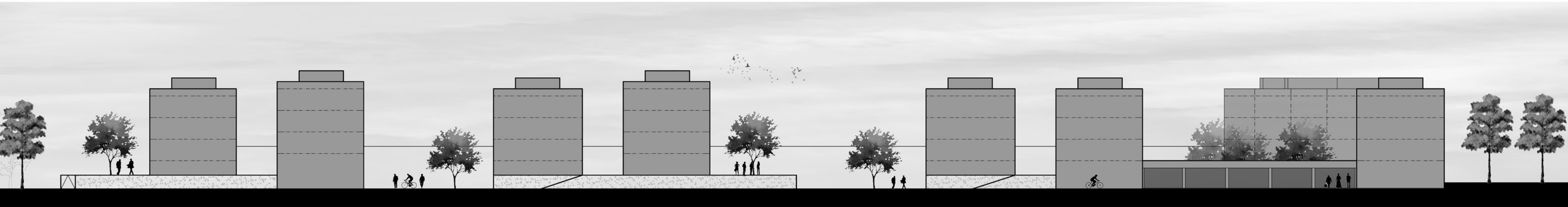
B-B

B-B

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Section A-A



Section B-B



Final consideration - towards practicable social housing

The housing issue is regarded as one of the most critical aspects of architecture that effects society in terms of social, psychological and economic aspects.

Specific characteristics of Iran such as: having a conservative regime, low level of social freedom, population growth, and land and house price has made the situation of Iran feeble. The "*Iranian development programs*" proves the conservativeness of the regime.

Porto's housing experimentation is chosen as case study due to lots of similarities in period of housing crisis. As for example the SAAL project planned and executed right after 1974 revolution because of housing crises, while after the 1979 Iranian revolution even though the country was in a housing crisis, because of the war with Iraq, the government did not propose any development program for a decade.

As the result, the solution can be proposed in terms of urban policies and architectural premises considering resources, restrictions and development prospects.

In order to reach to development prospects following aims have been provided:

- Betterment of housing conditions
- Providing job opportunities
- Enhancement of public spaces
- Improving environmental conditions in order to reduce pollution
- Enhancement of road network

On the other hand, to reach these aims the following guidelines are proposed:

- Directed development of housing construction
- Organizing and utilizing abandoned industrial zones
- Organizing religious areas
- Reviving historic area and making it a historic center

Although this work tries to make a dialogue with development prospects, some aims such as providing job opportunities, must be considered in the hand of other related organizations. In terms of policies, the idea of "top-down" and "bottom-up" policies plays the most decisive role among the proposals which set the stages for being supported by government and involvement of people. In fact, deepening through Iranian political situation and policies from one side and deep studies throughout Portuguese housing experiences from the other side, has made it possible to propose appropriate organizations and programs. These policies emphasize that housing must be treated like other public buildings in all the aspects. Housing acquires importance and being considered valuable as other functions.

In terms of architectural proposal, the intervention is based on urban reshaping, considering urban continuity by announcing architectural themes such as green belt and a hybrid between functions. The fusion will help functions to mold and make the new matrix of city. These themes not only permits the area to be linked/ a part of the city physically but also socially. Traditional city has always form through the importance of voids while modern buildings value objects more. Thus by understanding the characteristics of traditional city and surrounding, the new matrix will not be an isolated island. Clear hierarchy between public spaces is a fundamental notion while psychological aspects are considered; obtaining sense of place is due to a chain of spaces starting from private to semi-private, semi- public and finally public spaces.

Semi-private courtyards with deciduous trees is making a sensorial dialogue with people that is different from main public square with a mixture of trees (deciduous and evergreen). Despite the fact that they both provide shade and cozy spaces in a city that sun in hostile in some seasons, they each have their own characteristics. Courtyards are changed through the seasons and give various perspectives when deciduous trees lose their leaves. Main public square is a collective space where various notions like mixture of trees and regulating lines come and form a hybrid.

Regulating lines inscribe and set the housing units, commercial building and green spaces. They could come as geometry of streets or as vector of forces form surrounding buildings or housing units adjacent to them. They permits us to recognize and read the geometric composition. Streets are not seen by the width but how buildings are confronting them. Main streets with lots of energy and noise require a buffer zone to keep those noise and energy from housing units. However, since secondary streets do not have that energy, housing units can form the street front and give energy to it. As a result, the urban façade will have a sense of balance and harmony.

Thus the work can be interpreted as a practice about the importance of social housing issue and its effects on society, the necessity of understanding it in terms of social, psychological and economic, how policies are rendered in a project and how housing can be integrated with urban pattern.

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**POLITECNICO
DI MILANO**

**POLO TERRITORIALE
DI MANTOVA**

**MANTOVA CAMPUS MASTER OF SCIENCE IN ARCHITECTURE
2015/2016**

Housing in Middle East - Iran

Towards Practicable Social Housing - Case Study: Portugal

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Helder Casal Ribeiro

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Abstract

Public housing is a form of housing occupancy in which the property is owned by a governmental authority, which may be central or local.

Social housing is an umbrella term referring to rental housing which may be owned and managed by the state, by non-profit organizations, or by a combination of the two, usually with the aim of providing affordable housing.

Although the common goal of public housing is to provide affordable housing, the details, terminology, definitions of poverty and other criteria for allocation vary within different contexts.

Within looking towards the history of social housing in western countries and its comprehensive answer to the demand caused by population inflation, necessity of it for less-developed countries is recognizable considering the democratic aspects of social housing that have made the non-democratic governments conservative.

Among the middle-eastern countries, Iran is chosen as the main theme of research because of the economic and housing problems after the 1979 revolution. In terms of case study, the research is based on last 50 years of Portuguese housing (policies, programs, built contributions) in general and SAAL program (1974-1976) in particular.

To sum up, the research tries to set the stages to reform some terms of laws and policies and suggest some practical principles and organization and finally get to the drafted proposal that will acquire a proper architectural proposal. The architectural proposal takes the advantages of three laws of Turner to analyze the city of Tehran and get to the district 20. The architectural proposal tries to apply the urban reshaping by following the concept of urban continuity in the proposed site.

Keywords: Housing, Iran, Middle East, Social Housing, Policies, Portugal, Porto.

Astratto

Il Public Housing è una forma di abitazione dove la proprietà è detenuta dall'autorità governativa, che sia essa locale o centrale.

Il Social Housing è un termine ombrello che può riferirsi all'affitto di abitazioni che possono essere di proprietà dello stato, di organizzazioni non-profit o di una combinazione delle due, generalmente comunque con lo scopo di fornire abitazioni a costi controllati.

Nonostante l'obiettivo comune del Public Housing sia di provvedere alla creazione di alloggi a prezzi accessibili, i dettagli, la terminologia, la definizione di povertà e altri criteri per l'assegnazione variano da contesto a contesto.

Guardando alla storia del social Housing nei paesi occidentali e alla sua complessiva risposta alla domanda causata dalla crescita della popolazione, nei paesi meno sviluppati è possibile riconoscere gli aspetti democratici del social Housing che hanno reso i paesi non democratici conservativi.

Tra i paesi del medio oriente, L'Iran è stato scelto come tema principale della ricerca a causa dei problemi legati all'economia e alle abitazioni sorti dopo la rivoluzione del 1979. In termini di caso studio la ricerca si basa in generale sugli ultimi 50 anni delle politiche sulle case Portoghesi (programmi, contribuzioni) e in particolare sul programma SAAL (1976-1974).

Riassumendo, la ricerca tenta di stabilire gli stadi necessari per riformare alcuni termini della legge e delle politiche, suggerendo principi pratici e organizzativi per arrivare infine a una proposta progettuale che raggiunga un'adeguata risposta architettonica. Suddetta proposta si serve delle tre leggi di Turner per analizzare la città di Tehran fino al distretto 20. La proposta architettonica si propone quindi di applicare una riformulazione urbana che segua i concetti di continuità urbana del sito proposto.

Parole chiave: Housing, Iran, Est, Social Housing, politiche, Portogallo, Porto

Introduction

The research is studied in three chapters. The first chapter implies 'state of the art' while the second one goes to policies, programs and built contributions and the third chapter applies interventions by taking the advantages of previous chapters.

The housing issue is and always will be a recurring theme, both in society and architecture. History has always shown the legacy of architecture and society which meets the development of various styles, emerging of new movements and concepts through society. The issue of social housing has been the matter of debate since 19th century which society and architecture tried the first experiences of social housing. In fact, the early experiences of social housing, the pioneers, and the matter of urbanization are regarded as the leading factors to reach to the legacy of social housing.

Chapter 2 shapes the main structure of the research where policies, programs and built contributions meet each other.

First of all, major policies of social housing will be argued due to the effective influence of social housing on a society in terms of economic, social and psychological aspects. On the other hand, the strong role of 'decision makers' on the society has made it inevitable to consider the interaction of public and private sectors and people (top-down and Bottom-up policies).

Secondly, All among the middle-eastern countries Iran is chosen because of the specific characteristics of the country such as low level of social freedom, conservative regime, extreme population growth, increasing rate of land and house cost, the issue of the ownership and etc. In general, the studies of 2nd chapter takes sequential steps. It starts from development programs considering descriptions, targets and the results to see the influence of different political parties on social freedom. The sequence continues with focusing on housing policies to see the role of government, private sector, land ownership and the supports from different organizations in terms of law. It ends with introducing MEHR project which is the first and the biggest governmental housing project. MEHR project can be reviewed in terms of policies, management, Identity, site location, public spaces, public services and etc.

The chapter ends by analyzing the Portuguese background throughout the last decades and focusing on housing policies on the urban poor as indicators of political orientations for shaping the city and reducing social vulnerability with focusing on the last 50 years of Portuguese housing in general, and SAAL project in particular. It is important to say, SAAL project plays an impressive role among the social, financial and technical procedure models, even though there is the possibility of meeting different approaches. The models for housing programs can be classified according to type of cooperation and support which are government support, municipality support and other organizations support.

Awareness of current political situation of Iran and focusing on development programs and housing policies and on the other hand opening up the Portuguese experiences can set the stage for proposing housing policies and architectural proposals.

The proposed policies can be in the form of 'new organizations' or 'housing programs' trying to suggest methods of cooperation of different public organization with private sector and people.

In terms of architectural policies identity, social and public spaces and location of the project are the most important criteria's.

As for architectural proposal, the specific characteristics of Tehran which is taken from atlas of Tehran, is classified to economic and socio-psychological analyses. The classification is taken from John F. Turner's theory about the influence of social housing on a society. Consequently, it takes the proposal site to a specific district of Tehran which is district 20.

In the second step, master plan of the municipality considers the main features of the district 20 which was formerly an industrial zone. The area is now mostly covered by abandoned factories and been isolated for 15 years. The master plan shows the municipality proposal on urban infrastructure and the functions which are mostly based on residential and commercial functions.

As the last stage of the research, the intervention tries to apply the architectural proposal taking the advantages of three laws of turner to analyze the city of Tehran. The laws of turner classifies the city according to economic and socio-psychological aspects on the basis of different districts. As the result, the analysis suggests district 20. In the next step, the architectural proposal which is based on urban reshaping tries to focus on urban continuity in the scale of the area and collective spaces in the scale of proposed urban quarter.

Chapter one: The state of the Art

1.1 Historical Background

The legacy of the nineteenth century

The rise of social architecture

The nineteenth century, when Britain came to rule half the world, was a time of massive industrialization and urbanization. The growth of empire abroad and of great cities at home brought with it wealth for the few. For much of the population it brought exploitation, poverty, overcrowding and squalor. Gross inequality and harsh treatment were the hallmarks of Victorian Britain. But the misfortune of the many also brought forth the seeds of social movements that attempted to improve the lives of industrial workers and the urban poor- initiatives that were to bear their fullest fruits in the twentieth century. Among these movements, attention was given for the first time to the application of architecture- of good design and construction- to social purposes.

The history of architecture has traditionally been seen solely in the legacy of important buildings- temples and cathedrals, palaces and mansions, civic buildings and cultural institutions- the icons that spelt out the development of the great styles of Western architecture. Although historians analyzed these landmarks in painstaking detail, only rarely did they lower their gaze to the mass of everyday buildings that surrounded them, the homes and workplaces of ordinary mortals; these were, quite simply, not architecture. This was partly disdain for the humble and vernacular, partly a reflection of historical fact: design was largely the prerogative of the rich. The holders of wealth- princes and merchants, the institutions of Church and State- were the patrons of the arts. The artists and architects served the wealthy. Slowly, during the nineteenth century, this situation began to change.

Once the sole preserve of the rich and powerful, architectural skills began to be used for the benefit of poorer members of society.

The pioneers

Perhaps the earliest example of social architecture was the work of Robert Owen (1771–1858) at New Lanark in Scotland (Fig 1). In a narrow valley of the fast-flowing upper reaches of the river Clyde, New Lanark was founded in 1784 by banker and industrialist David Dale. Dale brought to his newly built cotton mills orphans from workhouses, and destitutes displaced from the land. By 1796 Dale employed 1,340 workers, more than half of them children as young as six, who worked in the mills for 13 hours a day. Today, such conditions truly evoke the “Dark Satanic Mills” immortalized by William Blake. Yet by the standards of the time Dale was one of the more enlightened employers.

Robert Owen, a Welshman who had made his fortune in Manchester, bought New Lanark from Dale in 1800 and set about building a model community. In the mills he established a regime that was firm but fair, and set up a pension fund, levied on wages, for the sick and old. He built a school for the children, taking them out of the mills and into fulltime education from the age of 5 to 10. He built the Institute for the Formation of Character, where workers attended morning exercise classes and evening lectures. He built a co-operative grocery store, a bakery, slaughterhouse and vegetable market. He organized refuse collection and a communal wash-house. He improved the existing houses and built new housing to standards well ahead of the time, with large rooms, well lit and solidly constructed. The houses were a mixture of two-story cottages and four and five-story tenements (even then, multi-story flats were a common form of housing in Scottish cities).

Housing was built in a plain style from locally hewn grey stone. The public buildings were a little more elaborate, designed in a pared down classical style. New Lanark was an experiment in social progress, although it was by no means a democratic exercise. Owen was noted for autocratically imposing on his workers his own ideas for their self-improvement. He sought to prove that a good environment could mould a healthy individual with stronger character; that a well treated work-force was a productive one. And his experiment was an economic success, showing steady profits and increasing value. The many thousands of visitors who flocked to New Lanark during Owen’s 25 years in charge came not just to see the social facilities but, no doubt, to learn what enlightenment could do for their own self-interest. What Owen practiced, he preached at length. Later in his life, in his writings and speeches, Owen formulated many of the ideas that were to form the basis of the co-operative and trade union movements.

Although Owen’s ideas became widely influential, his foundation could not provide a physical model for what was to follow. New Lanark was a small community, never larger than 2,500 people. The mills of the early industrial revolution were dependent on water power and many were sited in

The mills of the early industrial revolution were dependent on water power and many were sited in steep and inaccessible valleys, with strict limits on their potential for expansion. Early in the nineteenth century, the development of steam power freed industries from the valleys. Long before Owen left New Lanark, the stage was set for the most massive upheaval in social geography.



Figure 01, New Lanark, the Scottish industrial settlement where Robert Owen conducted his pioneering experiment in enlightened social provision and co-operation.

Urbanization

Between 1800 and 1850 the population of England and Wales more than doubled and the number of households increased by 135 per cent. At the turn of the century 80 per cent of people still lived in the countryside or in small settlements. By 1851 over half were living in cities and 25 per cent of the population was packed into ten urban areas with a population of 100,000 or more. Much of this development took place around London, but growth was most rapid in the industrial cities of the north. During this period Glasgow's population more than tripled. In a single decade between 1811 and 1821 Manchester grew by more than 40 per cent. In the decade from 1821 Liverpool and Leeds grew at a similarly rapid rate. The development of the railways from the 1830s only served to accelerate urban growth. The urbanization of Britain has no parallel in terms of its scale and speed, and the effect on housing standards was disastrous. By the time Engels and Chadwick conducted their influential surveys in the early 1840s, much of the urban population was living in the most appalling conditions. A great deal of urban working-class housing was provided by the now notorious "back-to-backs". "An immense number of small houses occupied by the poorer classes in the suburbs of Manchester are of the most superficial character" reported Chadwick, "The walls are only half brick thick...and the whole of the materials are slight and unfit for the purpose...They are built back to-back; without ventilation or drainage; and, like a honeycomb, every particle of space is occupied. Double rows of these houses form courts, with, perhaps, a pump at one end and a privy at the other common to the occupants of about twenty houses". Thousands of these back-to-backs were built throughout the cities of northern England. Mostly they were two rooms about 12ft x 10ft built, "one up, one-down" in two-story terraces. Some also had a third story, some a cellar beneath.



Figure 02, A back-to-back court in Birmingham, photographed at the turn of the century.

Bad as they were, at least the back-to-backs provided families with the privacy of self-containment. Many lived in much worse conditions. Much urban housing was adapted. "Tenementing" was common—larger houses built for better-off families were divided up, let and sublet. Whole families lived in one room sharing such toilet and cooking facilities as there were. Many older houses became common lodging houses where letting was by the bed rather than by the room. Six or seven strangers might share a single room, with no furniture other than bare mattresses. Men were mixed with women, couples and families with single people. Often the beds themselves were shared, their users taking turns to sleep in shifts. Tenements and lodging houses could be found in all cities, but were most numerous in London where the slums they created reached into the heart of the metropolis. Soho, Westminster and Covent Garden contained areas of lodging houses—or "rookeries" as they were then called—as well as more outlying areas. Worst of all were the cellar dwellings. Poorly ventilated, poorly lit—sometimes without windows at all—cellars were always damp. Many were just bare earth or partly paved, and poor drainage often caused them to flood. Insanitary and often grossly overcrowded, cellars offered the barest form of shelter to the most destitute of the urban poor and were often a breeding ground for infectious diseases such as typhus. Throughout the older industrial towns thousands of families lived in cellar dwelling, but they were most prevalent in Manchester and Liverpool. Engels estimated that, in 1844, 40,000–50,000 people lived in cellars in greater Manchester, while in Liverpool 45,000 subsisted in cellar dwellings, more than 20 per cent of the city's population.

Small wonder that such conditions led Engels and Marx to prepare their revolutionary treatise. In the Communist Manifesto, first published in 1848 they declared "The bourgeoisie has subjected the country to the rule of the towns. It has created enormous cities, has greatly increased the urban population as compared with the rural and has thus rescued a considerable part of the population from the idiocy of rural life" and proposed a "Combination of agriculture with manufacturing industries; gradual abolition of the distinction between town and country, by a more equable distribution of the population over the country." But Marxism had no immediate impact and was never to have significant influence in urbanized industrial countries. More immediately two strains of reform started to develop during the 1840s. In the cities the emergence of the philanthropic movement and the beginnings of legislative control slowly began to try to improve life. On the other hand, many rejected the evils of the city altogether and proposed a return to the idyll of rural life.

Flight from the cities

The earliest practical attempt to rescue working people from the evils of the city was the Land Company founded by the Chartist leader Feargus O'Connor. The Chartists were mainly concerned with pressing for electoral reform and, in particular, the abolition of the property qualification for the franchise. Very few workers owned their homes at that time and the vast majority were thus deprived of the right to representation. As a working-class organization the Chartists were also concerned at the dire working and living conditions of their supporters.

In 1843 O'Connor attacked the evils brought by machinery and sought independence for the victims of the industrial revolution from employer and landlord. He proposed life on the land as a way out of the new industrial society. He planned to build 40 "estates" providing 5,000 families with a cottage and a smallholding from which they could earn a living and, in pursuit of Chartist aims, the entitlement to vote. Each estate would have its own community center, school and hospital. In 1845 he formed the Chartist Co-operative Land Society to carry out the plan. Each member held 2 or 3 shares at £2 10s. Like an early version of the football pools, these shares would entitle them to enter a lottery for a smallholding and an escape from urban life. The first estate was started at Heronsgate near Rickmansworth. In 1845 the Company completed 35 cottages built in semi-detached pairs, each in its own smallholding of 2, 3 or 4 acres. 1,487 members had sufficient shares to qualify for a home-stead, and a ballot was drawn for the winners. Over the next three years a further five estates were started in Worcestershire, Gloucestershire and Oxford shire. 250 houses were built, as well as schools and community buildings. The houses were designed by O'Connor himself, often as homes and farm buildings combined.



Figure 03, Cottage cum smallholding at Minster Lovell in Oxford shire, one of several settlements built by the Chartist Land Company to provide working people with an escape route from the industrial city

They were built from O'Connor's sketches by small builders, some of whom were members of the Land Company. And they were very well built. The great majority survived, suitable modernized, as twentieth century commuter homes.

O'Connor's project attracted national attention at the time, but its economic concept- of supporting a family on a smallholding and making enough to repay a debt-was always dubious and repeatedly attacked. Worse, the Land Company fell foul of the law and was never properly registered as a legal entity. In 1851 the Company collapsed amid allegations of disorganization and corruption. The project had largely failed, but it had raised the dream of escape from the cities.

The Arts and Crafts movement

That dream was shared by leading intellectuals of the day. The prolific critic of art, architecture and politics, Oxford academic John Ruskin, similarly despised machinery and modern urbanity. Ruskin emphasized the importance of craft work as an antidote to drudgery and the poor quality of machine production, and supported a somewhat authoritarian version of socialism. But it was his pupil William Morris, rather than the esoteric Ruskin, who was to popularize these ideas.

William Morris (1834–96) earned his living as an interior designer to the rich, but he was a polymath in the arts and politics and a major figure in the latter half of the century. Through his activities, Morris brought together the Pre-Raphaelite painters and poets and the Arts and Crafts architects. Through his membership of the Social Democratic Federation and as editor of *The Commonweal*, he propounded an idealistic view of socialism. Morris had strong views on the environment. He regarded the timeless domestic architecture of England as a model for future development, an architecture of simplicity that owed little to the historical styles. He believed in repair and conservation, and set up the Society for the Protection of Ancient Buildings.

Towards the end of his life, Morris set down the beliefs that had guided his work in the utopian novel *News from nowhere*. In it the narrator goes to sleep in a suburb of the hated industrial London and wakes up in an idealized socialist society in the twenty-first century, full of healthy, happy people living a co-operative life. He is taken on a journey into central London and he witnesses Morris's vision of the urban future. Morris's vision took as its model an idealization of the vanished medieval lifestyle and the replacement of the Victorian city by a dispersed agrarian craft economy. It has often been dismissed as backward looking and romantic, but it was an ideal many were to come to share. In many ways *News from nowhere* was a retrospective manifesto for the Arts and Crafts movement in architecture. Morris worked only briefly as an architect, as a pupil of G.E. Street in 1856, but he undoubtedly had an influence on the house that Philip Webb designed for him in 1859. The Red House, with its steep pitched roof and traditional materials and details; its simple and informal approach to design is normally seen as the key influence that started the Arts and Crafts movement. The movement did look backwards and it revived such traditional features as expressed pitched roofs, bay windows, casement windows, tile-hung walls and expressed timber beams, all of which had been obliterated by the classically inspired Georgian and Regency urban housing. It was to take these features, and a traditional approach to detailing and use of materials, forward into a new synthesis of British vernacular architecture in which new buildings respected the environment and were designed to fit in with their surroundings.

Model towns

From mid-century onwards a handful of employers became concerned about the living conditions of their workers. Whether from philanthropic motives or from interest, the idea, pioneered by Robert Owen, of building good housing for a company workforce, began to take physical shape in new settlements. First was the Halifax worsted manufacturer Edward Akroyd. He built two model villages at Copley (1849) and Akroydon (1859) on virgin land in the Yorkshire Dales. In 1888 the soap manufacturer W.H. Lever founded Port Sunlight near Birkenhead (Fig. 04). The model village he built for his workers was designed by several architects and drew on a mixture of styles. Predominantly, though, it is a romantic and evocative revival of domestic Gothic, authentically replicating the design and construction of Tudor housing. A little later came the chocolate towns: Cadbury's Bournville near Birmingham (1893) and Rowntree's New Earswick near York (1901). In all these model foundations working conditions were good and high quality housing, public buildings and facilities were provided all on Owenite lines.

In many ways the model towns were the embodiment of Morris's vision and the later ones in particular were strongly influenced by Arts and Crafts architecture. Unwin was active in this movement and, with his partner Barry Parker, went on to design the first Garden City at Letchworth in 1903. The Model Towns and the Garden Cities movement were to form an important influence on twentieth-century planning. All the models attempted to solve urban problems by running away from them and starting afresh on greenfield sites. While the nineteenth-century socialists and enlightened employers turned their backs on the cities, it was left to the conscience of the establishment to instigate urban reforms.



Figure 04, Port Sunlight, most picturesque of the model industrial towns which generated a new ideal as an alternative to the industrial city.

The urban philanthropists

Conditions in the slums had given rise to increasing concern among the establishment. This was not just distress at the appalling living conditions of the poor, but concern at effects on the rest of society of crime, vice and, in particular, disease. Repeated outbreaks of cholera, typhoid and other infectious diseases were a major threat to public health. Attempts to reform urban housing began in the early 1840s with the formation of two societies. In 1841 the Metropolitan Association for Improving the Dwellings of the Industrious Classes (MAIDIC) was founded by the Rector of Spitalfields. In 1844 came the more high-powered Society for Improving the Condition of the Labouring Classes (SICLC). SICLC's Honorary Architect was Henry Roberts, who carried out several model schemes on its behalf. Roberts's first scheme was a double row of two-story houses in Clerkenwell, but more important was his Model Homes for Families, built in Streatham Street, Bloomsbury in 1849 (Fig. 2.5). This was a five-story block of flats with basement workshops. The flats were of a standard unheard of at the time. Each was self-contained with a living room, two bedrooms and a kitchen. Off the kitchen a separate compartment was provided for a WC and refuse storage. The flats were approached on each floor by the access galleries in the open air, an innovation that Roberts suggested would "Obviate the evils to be apprehended from internal staircases common to several families".

SICLC also sought to establish new standards for lodging houses. It acquired and improved lodging houses in Charles Street, Drury Lane—described by Roberts as "one of the worst areas of London"—and built new model lodging houses in George street, Bloomsbury. SICLC's role was to exemplify and campaign for improved housing rather than to provide it on any significant scale.

The activities of the more commercial philanthropic societies was put in the shade by an American merchant. In 1862 George Peabody gave £150,000 to found a Trust dedicated to providing working-class housing. Unlike its rivals, the Peabody Trust was non-profit making and was able to use all its resources to developing housing, and within 25 years the Trust had built more than 5,000 dwellings. Its early developments, however, fell far short of the standards set by Henry Roberts. Most were of a type called "associated dwellings", in which tenants shared sculleries and toilets. Nonetheless the fully philanthropic Trust proved more successful than the 5 per cent societies. It was to become the model for the future.

The Peabody Trust was soon followed by others, such as the Guinness and Samuel Lewis Trusts, which were to provide the forerunners for modern Housing Associations.

Many of the early philanthropic developments were undistinguished repetitive barrack-like buildings, although in some of the later developments considerably more effort was put into the designs. The contribution of philanthropic housing was considerable, but it fell far short of a decisive impact. By the time of the 1885 Royal Commission on the Housing of the Working Classes, philanthropic societies in London housed 147,000 people—just 4 per cent of the population of the capital. They were also socially divisive: most of those they housed were the families of the better-off skilled workers. Partly this was because their rents were relatively high, partly because they were highly selective in their choice of tenants, preferring those who would conform with their strict rules of cleanliness and behaviour and would not create problems for their managers and rent collectors. Philanthropy created a new class of housing, below that of the growing middle class but above that of the slums which remained as pressing a problem as ever.

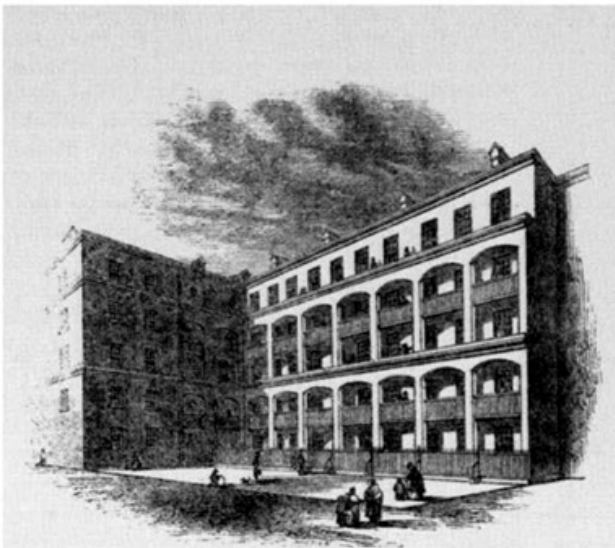


Figure 05, Henry Roberts's drawings for his influential model flats in Bloomsbury. The block still provides good.

Enter the State

For much of the nineteenth century, voluntary action and philanthropic reform were the only sources of addressing the burgeoning urban problems. Urbanization had exposed the weakness of a State primarily geared to defence and foreign relations and ill equipped to improve conditions for its own people. In 1830 the 656 members of the House of Commons represented just 465,000 people, 2 per cent of the adult population. Major cities such as Manchester, Leeds and Sheffield were entirely unrepresented, while Members were returned for “rotten boroughs” with no population at all. The Reform Act of 1832 partly redressed the situation but, by the maintenance of the property qualification, still restricted the electorate to barely 4 per cent. Rising public concern over housing conditions did produce one legal reform -the Common Lodging Houses Act sponsored by Lord Shaftsbury in 1852- but, other than that, there was no significant State intervention until the 1870s.

The Reform Act of 1867 doubled the electorate. Suffrage was still far from universal, it was not until 1884 that the vote was extended to all adult males. But the wider representation produced by the 1867 Act gave a new stimulus to action. Before the 1860s, local authorities had very limited powers to control building standards. Gradually, bylaws had been introduced, but it was the 1875 Public Health Act that gave local authorities powers to make building bylaws and introduce much more stringent controls on the layout of developments, the construction of buildings and their sanitary provision. This Act was permissive rather than mandatory, but its progressive adoption was to change the face of urban Britain. A new type of terraced housing became predominant. The “tunnel-backs” (sometimes called “bylaw housing”) gave each house a front and back with through ventilation and a private yard or garden at the rear, reached by a narrow alley.

Dustbins and privies were now confined to the back tunnel, greatly improving health and sanitation. The new type became the normal standard for working-class housing, In the new cities it gradually replaced the back-to-backs, although these were not finally outlawed until 1909. Also in 1875 came the first legislation to start clearing the slums. The Artisans and Labourers Dwellings Improvement Act gave urban authorities powers to clear “unhealthy areas” by compulsorily purchasing the buildings, evicting the occupants and demolishing.

Once cleared, however, local authorities had no powers to redevelop and the sites had to be sold to one of the philanthropic societies or trusts. The State fought shy, for the time being, of direct involvement in providing housing. In fact, the first large-scale State intervention in social provision was not in housing but in education.

Municipal housing

Where education led the way, social housing was soon to follow. The earliest example of local authority housing dates from 1869 when Liverpool City Council built St Marlin's cottages, a small tenement block. At that time, though, local government had no specific powers to provide housing. Some authorities became involved in a small way with housebuilding or improvement, but it was to require legislation before local government would make a significant impact. The Royal Commission on the Housing of the Working Classes had identified the urban problems of the metropolis as the most serious. Once again London was to be given the lead.

The Housing of the Working Classes Act of 1890 empowered the metropolitan authorities to buy land for improvement schemes with the obligation to rehouse at least half those displaced. These powers were not to be extended to the rest of the country until 1900, and the initiative given to London was seized by the London County Council. Founded only a year before the 1890 Act, the LCC was controlled by the Progressive Party -an alliance of radical Liberals, Fabians and Socialists- which had been elected on a programme of housing initiatives. The LCC set up an architects department, under the direction of Thomas Blashil, committed to social improvement.

The LCC inherited about 15 cleared sites from its predecessor, the Metropolitan Board of Works, and in its first few years acquired two dozen or more slum clearance areas. Its first development was Beachcroft Buildings in Brook Street, Limehouse (now demolished).

But the most significant of its early schemes was the Boundary Street Estate in Bethnal Green (Fig. 06). Here "Old Nichol", a maze of narrow streets covering 15 acres, was demolished and replaced with a comprehensive new development.



Figure 06, Boundary Street Estate, Bethnal Green. Built by the London County Council in 1895, one of the earliest local authority slum clearance schemes.

A new radial pattern of wide treelined streets was laid out focused on a raised open space at the centre. Housing for 5,000 people was built in five-story blocks of flats. There was a deliberate attempt to raise standards and the flats provided considerably better accommodation than the philanthropic housing developments of the time. The LCC was also keen to ensure that what was provided was not just housing but included other necessary facilities: open spaces, shops on the ground floor of some blocks, and two schools built by the London School Board.

Similar tenement developments followed, notably the Millbank Estate behind the Tate Gallery, but from 1902 the LCC adopted a policy of rehousing all those displaced by its developments. This meant that not everyone could be accommodated on urban sites, and a series of cottage developments took place on the less densely populated fringes of the county. This began with the Totterdown Fields Estate in Tooting, and further cottage estates were developed in Norbury, Tottenham and at the Old Oak Estate, Hammersmith. Old Oak, built in 1911, is the most celebrated of the early LCC cottage estates. Built to a relatively high density but without high buildings, great attention was given to the visual quality of the estate and its amenity. It was as if William Morris's disciples had returned to the site of News from nowhere and realized his dream (Fig. 07).



Figure 07, The LCC's early cottage estate at Old Oak Common, Hammersmith, forerunner of many peripheral council estates.

1.2 The legacy

At the close of the nineteenth century, Britain was more urbanized than at any time before or since. The rapid urbanization in the first half of the century, which had created such enormous problems, was continued in the second half. In 1851, 54 per cent of the 18 million people of England and Wales lived in cities. By 1911 this had risen to 79 per cent of 36 million.³¹ Over the century as a whole the urban population which, in 1801, had stood at 1.7 million had increased to 28.5 million. The massive amount of development required to house these millions was almost entirely unplanned.

Almost all of it took place around existing roads and settlements, carried out by speculative builders and developers. They laid out new estates and provided such roads and public services as there were for most of the century the State stood back unable or unwilling to intervene. Nowhere, even in London, was there exerted the State control of planning and development that lends such distinction to continental cities such as Paris and Berlin. Only in the last quarter of the century did the State become active and even then its intervention in housing was mainly through the negative sanction of legislative controls. By the end of the nineteenth century, new development, at least, was under better control, produced to better standards with much better services.

The influence of the philanthropic movements and the intervention of the State had begun to improve conditions for the teeming millions in the cities. But they had barely scratched the surface of the problems created by the first waves of urbanization.

In London the philanthropic movement had completed just 40,000 new homes by 1905, while the combined efforts of the London local authorities produced just 13,000 by 1914. In the provision of social services the positive intervention of the authorities in the late nineteenth century was more effective. Free education was been provided for all -rich and poor alike- in the fine new buildings produced by the school boards. The educational potential of the population as a whole was fostered by the construction of public libraries. Local councils had intervened to improve health and sanitation with the installation of piped drinking water and public sewers and public baths had been constructed in most urban areas. Nevertheless, for the vast majority of people, late Victorian cities were extremely unpleasant places in which to live grossly overcrowded, notoriously polluted and riddled with vice, crime and disease.

In spite of slow and limited progress in social improvement, the fledgling field of social architecture yielded a positive legacy. The pioneering work of Henry Roberts had established the forerunners of improved urban housing for the poor, although very few architects were involved in such work until the last quarter of the century. The key influences had come from non-architects—Robert Owen and William Morris. Owen had shown by example the benefits of enlightened employment practices, education, health and a good environment. Morris had helped create a new architecture based on humble traditions, and his idealism had inspired both the builders of new communities in the country and the architects engaged in improving conditions in the cities. By the end of the century a new generation of architects led by such as Robson, Blashill and their staff were committed to using their skills for social purposes. They sought to demonstrate that the city environment could, after all, be made pleasant for the mass of ordinary people.

But the ideals of urban reformers were only one half of the coin. Many early socialists and radical intellectuals rejected, altogether, urban industrialization and all its works. They sought a new pattern, where industry would be contained in smaller-scale settlements and where people could live in closer proximity to, and in harmony with, the countryside. Already, those who could afford to had begun to forsake the overcrowded cities for the relative tranquillity of the new satellites and suburbs which had sprung up along the railways. These two trends were to form the pattern of developments for more than half a century the flight from the cities and the continuing problem of humanizing the degraded urban conditions which were the main legacy of the Victorian era.

Date	Client/Architect	Location	Users	Public/Private ownership	facilities
1784	Robert Owen	New Lanark	Workers Max. 2500 people	Private	Communal wash-house, market
1843	O'Connor	London	Workers 5000 families	Private	Community center, school, hospital
1849	Henry Robert	Bloomsbury	-	Private	Open air galleries, basement workshops
1862	George Peabody	London	Working class 5000 people	private	-
1885	Royal Comission on the Housing	London	Better-off skilled workers	Public	-
1902	Liverpool City Council	Liverpool	5000 people	Public	Open spaces, shops on the ground floor

Chapter Two: Policies, programs, built contribution

2.1 General policies

The moment that housing, a universal human activity, becomes defined as a problem, a housing problem industry is born, with an army of experts, bureaucrats and researchers, whose existence is a guarantee that the problem won't go away.

His three laws of housing summarize the psychological, social and economic basis of his thesis.

Turner's first law says when dwellers control the major decisions and are construction or management of their housing both the process and environment produce simulate individual and social well-being. When people have no control over nor responsibilities for key decisions in the housing process, on the other hand, dwelling environments may instead become barrier to personal fulfillment and a burden on economy.

Turner's second law says that the important thing about housing is not what it is, but what it does to people's lives, in other words that dweller satisfaction is not necessarily related to the imposition of standards.

Turner's third law says that deficiencies and imperfections in your housing are infinitely more tolerable if they are in your responsibilities than if they are somebody else's.

It is sometime said of his approach to housing that it represents a kind of Victorian idealization of self-help relieving governments of their responsibilities so far as housing is concerned, and that it is therefore what Marxists would no doubt describe as objectively reactionary. But that is not his position. But in the real world the resources are in the control of governmental or propertied elites. Consequently it concludes that 'while local control over necessarily divers personal and local goods and services such as housing in essential local control depends on personal and local access to resources which only central government can guarantee.

Who decides?

the issue of who and who does what for whom, is a question of how we house ourselves, how we learn, how we keep healthy.

The chapter that follow are about two sets of ways and means- the way and means of centrally administrated systems, and those who of self-governing, local systems which each ends to different ends. No one denies the universal needs for homes any more than the importance of learning or keeping in good health.

The mirage of a development

It is argued that housing, and by application, all other personal and locally specific services, must be autonomous. Autonomy is far from absolute- for it depends on access to essential resources. In housing for instance, local autonomy and direct or indirect dweller control depends on availability of appropriate tools and materials (or technology), of land and finance. In general, the accessibility of these basic resources is a function of law and its administration, and these in turns of function of central authority.

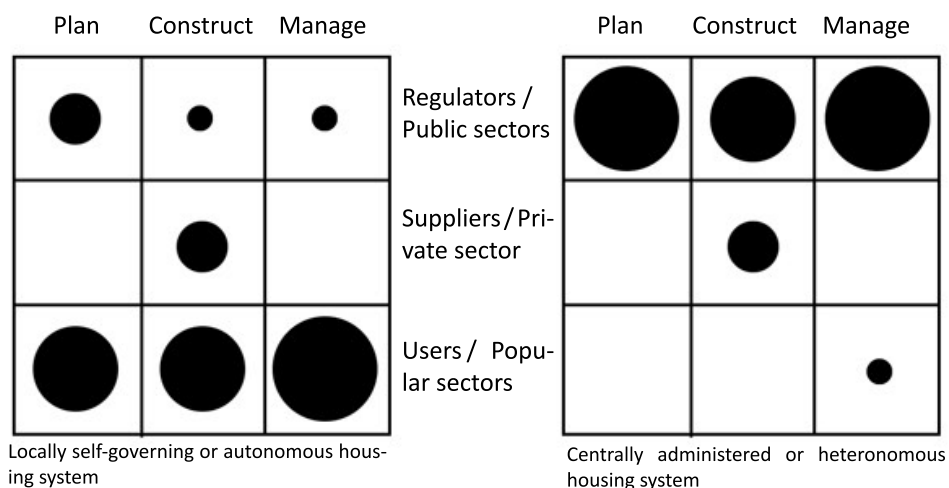
The very wealthy can effectively demand costly simulations or traditional forms, while relatively wealthy government can often be persuaded by their advisors to balance social against additional material cost. where local groups and associations of ordinary citizens have formed to act for themselves such as "asociaciones de padres de familia pro-vivienda in Peru, or even self-build housing associations in Britain they are either unaware of th good intentions and potential contributions of planners and architects, or distrustful, or scared off by fees which their professional associations obliged the architects to charge. So in almost all countries, the great majority of professionals, in this and most other fields, are tied to centrally administered systems. The number of professionals large organizations employ is naturally limited and, when they are efficient it is a relatively small number in proportion to the population. To clarify the differences between an institutionalized and a would-be grass roots professional, the decision making structures in each system must be understood. The simplest way of doing this in housing is to divide the process of decision-making into three easily recognizable sets of operations:

1. Planning or operations that generally precede construction
2. Construction or building operations
3. The management and maintenance of what is built, necessarily following the greater part of the operations. These three operations should be distributed between the three common sets of actors that is, those persons groups, enterprises, or institutions that control the resources for the process itself.

Three sets of actors with three sets of sectors:

1. The popular sector, the users
2. The private commercial sectors, the suppliers
3. The public sector or government, the regulators

The pattern of decision and control describing the two opposite systems are mirror of one another, as their diagrammatic representations shows.



2.2 Middle east - The case of Iran

2.2.1 Policies and Programs

Development plan – descriptions, goals, results (1989-2014)

The 1st development program (1989-1993) - Constructing

The first program began with the main aim of 'Free Economy'. The regime task to government was to be focused on fixing the destruction of the IRAQ war.

The main goals of the program

- investment on local production and industry and getting free from importing
- controlling the rate of inflation
- decreasing the rate of population and death
- Imposing Islamic social justice
- focusing on the cultural issues of the society in general, and young generation in particular
- fixing the destructions from war and reinforcing the Army
- reformation of the supreme-court

Result

In terms of **economy**, it had a huge successful hit in the beginning. By passing of time the economic growth rate decreased from 10.1 % in 1991 to 4.9 % in 1993. It shows that the program did not take a constant improvement. Significant increase in the oil income due to the occupation of Kuwait and encouraging the exporting.

In terms of the **society**, it had a huge achievements such as decreasing the rate of population growth from 3.5 % to 2 % , decreasing the rate of death, increasing the educational level in quality and quantity.

In terms of **Culture**, the radical regime and government tried to impose the Islamic culture on the society.



Figure 08, Ahvaz, Destruction of war of Iran-Iraq



Figure 09, Ahvaz, Destruction of war of Iran-Iraq

The 2nd development program (1995-1999) - stable economic program

The second program was again based on the economic growth, as the result, the action was to stabilize the first program. Stabilizing the economy, and decreasing the financial burden on the shoulder of the society was playing the leading role in the economic policies.

Generally the first and second program were based on economy and supporting private sector.

The main goals of the program

- Imposing Islamic social justice
- increasing the cultural level of the society thanks to Islamic roots
- Islamic orientation
- reinforcing of the army
- supporting agriculture
- increasing the efficiency of natural resources
- economic independency from the oil income
- foreign affairs

Result

In terms of **economy**, the country was facing enormous dept. to the foreigners. On the other hand the rate of inflation was rising in an unmoral speed. The other factor was the international drop for the oil price while the national budget was mainly based on oil income. The natural drought which happened in that period was the other effective factor which failed the program in terms of economy.

In terms of the **society**, the rate of population growth was almost logical and under control. The achievement for employment was half of the rate that was in the program.

In terms of Culture, the radical regime and government tried to impose the Islamic culture on the society.

The 3rd development program (2000-2004) - Structural Reformation

The issues of the first and the second development program changed the attention of the government for the third one. Therefore the main concern of new program was a long-term stable development and it was based on a "*competitive economic program*"

The main goals of the program

- reforming the governmental structure
- increasing the efficiency of natural resources
- creating the job opportunities
- supporting the private sector
- independency from oil income
- cancellation of the exclusive importing such as sugar and cigarette
- boosts in non-oil production exporting
- using the local experts in constructions
- reformation of the direct tax system
- achieving more freedom with respect to the constitution
- increasing the cultural level of the society and respect to humanity

Result

In general this government was the first from the left party which also had different orientations from the regime and because of more freedom the government was so popular among young generation.

In terms of the economy, the government tried to set the stages to encourage national and international investment by reformations that was done in rate of currency, stock support, bank support, private banks, supporting international investments, taxing system, private insurance.

The main focus was productivity and more investment.

In terms of the society, the rate of population growth was totally under control. The achievement for employment much better than the previous programs.

In terms of Culture, as the orientation of was to reaching the maximum possible freedom, it set the stages for the following struggle with the regime and popularity among young generation. Changing the priority of the Islamic rules was also taken by the government for the first time. Encouraging young generation to participate social events and socializing more.

The 4th development program (2005-2009) - stable development with the global approach

The right party get back. The main difference between this program and the ones before is that in this period the government decided to have also the program for the next 20 years that was getting confirmed by the leader. The purpose was to have a long-term plan which can last more than one government. The program includes the economic, social and cultural aspects.

The program was written in four chapters:

- cultural, science and technology affairs
- social, political, military and national security affairs
- political and relation with the world
- economy

The main goals of the program

- competitive economy
- economic growth
- cultural growth
- national security
- expanding the court affairs
- increasing the power of the country in Middle East
- increasing the quality of life
- Imposing Islamic social justice
- increasing the power of the government

Result

In terms of economy, the annual rate of economic growth was 6.7 % which was lower than what the program predicted 7.4%. And it was an unsuccessful performance by government. On the other hand, the rate of the investment decreased to 6 %. Checking the main three factors of economy which is the rate of unemployment, the rate of inflation and the rate of job opportunities shows a negative impact on the economy.

The other effective factor that was international sanctions against the country.

In terms of Culture, the radical regime and government tried to impose the Islamic culture on the society and even tried to set some rules to control the orientation of the next governments.

The 5th development program (2010-2015)

The huge differences between the approaches of the current government with the previous one opened up the conversation of cancelling the 20years program and huge changes in the direction of the 5year program.

2.2.1.2 The policies of housing

Implement regulations of organizing and supporting of the housing construction and supply

These regulations are divided into 10 sections:

Definitions:

First sections defines technical words that are used in the following sections

Land transfer programs:

A. Program of rental housing construction and supply:

Ministry of Housing and Urban Development in order to enhance investment in rental housing construction and supply must provide requirements in different regions of country and by supporting private sector, to help this program to be accessible for low income people.

B. Program of construction and supply renting by ownership conditioned

Land is supplied in order to rent only through real or legal persons to families with mentioned conditions in previous laws. In this program the land is supplied with discount and for a period of maximum five years. If after six months the construction phase is not started yet, Ministry of Housing and Urban Development will take it back in give to other applicants.

C. Program of land usage's right with cheap rent for 99 years :

This program is for investors Who form a group with at least three families together.

D. Program of mass housing construction by private sector with respect to new techniques :

This program would be accessible through three directions:

- Program of attracting and directing mass construction through loans
- Program of supporting investors in mass construction plans
- Program of supporting industrial construction and new techniques

Architecture and urban regulations:

Ministry of housing and urban development in cooperation with cultural heritage and tourism organization find valuable urban patterns, buildings which can influence contemporary constructions and make documents and present them.

Ministry of housing and urban development needs to review development plans of cities in order to be accordance with Iranian-Islamic architectural values.

Ministry of housing and urban development should develop a superintendence system with municipalities' help in order to control construction in cities.

All governmental buildings must use Iranian-Islamic architectural style and the scheme needs to be proved before construction by experts.

Preparation of the Land:

All ministries, and governmental organizations must give their lands that are located in the areas that are titled as housing areas in development plan of the city.

In case of private ownership Ministry of Housing and Urban Development must provide facilities for them if they want to do housing otherwise Ministry of Housing and Urban Development must buy or exchange their lands.

Tax on Arid Lands:

Municipalities in every city must provide a list of arid lands in their region and give it Tax Organization. All real or legal persons in cities with population more than 100,000 people must pay their taxes for arid lands that have been considered as housing land in development plan of the city.

New technologies:

Ministry of Housing and Urban Development in order to encourage new technologies in mass housing construction does the following actions:

- A. Facilitating and accelerating the process of survey in case of new techniques and technologies
- B. Supporting of manufacturing units, investors and elites that are committed to industrialized construction

Central bank of Republic Islamic of Iran must accelerate the process of loaning through its banks.

Ministry of Housing and Urban Development must find and allocate lands that are located in industrial areas to manufacturing units.

Ministry of Housing and Urban Development, Ministry of Science and Ministry of Job and Social Security must provide outlines for education and practical research in industrialized construction and new technologies.

Allocating bank facilities:

This concludes programs that are supported by the government in order to give bank facilities for housing construction like preparing lands and all the programs for housing construction in urban and rural areas.

Renovation and restoration of old urban patterns:

Following actions need to be done in order to accelerate the process of renovation and restoration:

-With municipality's observation, restoration and renovation offices would be established in the mentioned areas.

-Royalty of infrastructures like gas and water would be preserved after renovation or restoration and all the related organizations must provide the extra need as soon as possible.

-Real Estate Registering Office must put priority for these areas.

Rural Hosing:

All the related organizations must find the potential lands and do all the requirements like land's transfer in order to prepare them. And all the actions must be on the technical observation of Housing Foundation.

Other Cases:

Discounts would be considered for all the contractors who will build housing units for low-income people in old urban patterns that have been proved.

In order to enhance the quality of rural and urban construction, Ministry of Housing and Urban Development needs to do the following actions:

- Encourage people to insure new residential buildings with discounts
- Help engineering services for low-income people
- Controlling the construction with the help of private sector
- Education and promotion of National

All the related organization must report their operations every three months to Workgroup Housing Secretariat.

This resolution has been proved by the President of Islamic Republic of Iran in 25/04/2009.

2.2.2 Built Contribution- MEHR governmental housing program

2.2.2.1 Aims and the necessity of the government attendance

The 1st priority

The economic possibilities, the social possibilities, possibility to be built, housing for low-income people, public recreational spaces, the services of the public housing

The 2nd priority

reaching to maximum economic efficiency, proper way of using lands, having true city connections, protecting about the environment, cultural and educational facilities, proper expansion of city services, creating beautiful cities,

The 3rd priority

-lowering the extreme rise of the dwelling cost:

Handing the responsibilities and the whole investment of the dwelling to the private sector can end to change the concern of the dwelling to a heated business. As the result the low-income families cannot effort the house cost

-the priority of the social justice

The total control by private sector divert the goal of the housing and ownership to private benefit and economic aspect of the project

-considering the lack of urban land

The increasing rate of immigration to the cities and at the same time the fast population growth consumed most of the great lands of the cities.as the consequence the government can take the control that how city can grow

-lack of long-term budget

The government can unite the different groups of people from low-income level to collect the budget and start the project.

-supporting the inner market in the period of the sanctions

the housing sector is highly effecting the economy and the social aspect of a country.in the period of the sanctions, as the materials for building industry is not imported and totally produced by interior market , construction is considered as one of the best ways to create jobs.

2.2.2.2 Pathology of MEHR Housing Project

The concept of housing does not include only the physical place, but also the whole living space; which concludes all the services and possibilities necessary for good living of family, hygiene and other cultural, social and economic parameters of every individual. But what is now presented under the title of “Mehr Housing” all across the country emphasizes just on the physical dimension of housing and its main aim is to inhabit the working class. This project does not consider the creative and active element of a city, i.e. human; and tries only to inhabit it.

In the following the necessity of using the site selecting studies, physical, cultural and social identification, and also shows the effects of ignoring such studies in Mehr Housing.

This part insists on site-selecting, cultural-social and anthropologic usage of native architecture in every different area. Topologic congruence of architecture in these inhabitations to every single area’s culture, beside the ecologic remarks, ends to achieving the identity in architecture, plausible urban view, raising the sense of attachment and spreading the social interest in inhabitants. Therefore, all the noticed elements can increase the success of this project. To reach the aims of the study, a functional methodology has been used. The methodology of gathering data is both field and librarian study: field work, by visiting the project’s sites, to diagnosis site-selecting; and librarian study to study and analyze theoretical bases.

Locating

The most significant items that need to be considered for locating housing units are social-economic, physical, environment and political aspects.

In forming of city’s visage, natural and artificial aspects and also cultural, social and economic aspects play an important role.

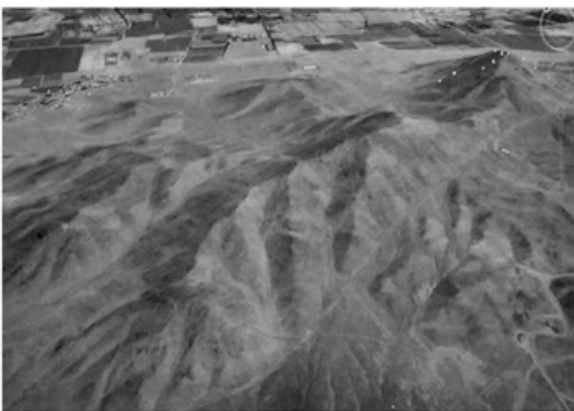


Figure 10, Agricultural lands beside the project



Figure 11, Placing part of the project between the existing hills

In fact, visage of city is formed from the shape of the lands. And natural elements as basic developers have the main impact.

Inappropriate locating of Mehr Project has caused to lots of anomalies. For instance one of the projects located in Karaj has faced some problems like:

- Lack of enough consideration to climate
- Locating in open field
- Intensive wind in the area
- Some parts of the project are located in a closed area
- Pollution because of lack of anticipation for disposals
- The project is located in distance less than 500 meters from a historical hill
- It has created an appropriate condition for crime and misdeed because of hills around



Figure 12, The distance between site project and the city



Figure 13, Location of project in Zannjan City close to hills

Identity in Architecture

Today quantity has become more important than quality in architecture in most of the countries especially Iran. Architecture is repeating mass and became boring and monotonous. In the following we see some reasons that cause lack of identity:

- Lack of cozy and friendly spaces
- Lack of feeling of belonging in dwellings
- Lack of attention to the visage and filled and void spaces

In recent years, there have been lots of efforts in order to revise Iranian-Islamic architecture and urbanism, however, with introducing Mehr project a typology of without identity city has emerged. Mehr project could have reached to Iranian-Islamic architecture with a wide vision toward all the mentioned aspects.

Following items could have been considered:

- Studying different parts of country in terms of social, culture and economy
- Studying each region's architecture
- Offering appropriate architecture in accordance with climate and categorizing various types of architecture in Iran
- Teaching the right way of construction by experts



Figure 14, MEHR project Blocks without identity



Figure 15, New Shooshtar city with respect to context and culture

The following solutions can be taken into consideration for giving identity to the complexes:

- Developing pedestrian passage and green areas in scale of neighborhood
- Using symbols that bring identity
- Developing and creating places as indications in neighborhood and city
- Developing public places in order to enhance gathering and a place for kids to play
- Using Iranian-Islamic architecture



Figure 16, Pedestrian path only as a linking element - MEHR project



Figure 17, Increasing the social interaction by pedestrian design - London

2.2.2.3 MEHR Project Disadvantages

Lack of urban infrastructure and urban services

Even though the housing is not only a shelter to live, the government did not consider urban open spaces, leisure spaces, services to the buildings, cultural and educational facilities and possibilities. It is important to say that in the early studies of MEHR project the urban services was mentioned highly by housing experts and urban planners, but in the next steps the economic aspect of the project did not let it to be.

Lack of variety in the patterns the projects for different cities

The studies over different typologies and the variety in the design of the project seems to not to be in an acceptable stage.

On the other hand, setting different groups of people with different cultural level and from different ethnicity even if they are in the same economic levels can cause other following problems.

Planning in the new cities

The problems of new cities are mainly, job opportunities, being far from main cities, lack of urban facilities and services, the regional transportation, and also lack of educational centers, health centers and clinics and recreational centers. As the master planning of the new cities did not deal with these issues deeply, as the result the public tendency to live in such a cities is low. Settling the MEHR project in such a cities in Iran can Cause the domino consequences of problems. As an example the city called " Hashtgerd " with 17000 inhabitants which is the host of one of the biggest project of MEHR is suffering from lack of hospital, terminal, and a stadium. The city has only 1 clinic, one cultural center, two mosque and two banks

The managing problem

uncenteralized management and numerous decision makers made a huge barrier for the efficiency of the project. Ministry of housing and urban planning, the central institute of housing, municipality, housing Bank, and the ministry of cooperatives were the sectors which were in charge of the project. Due to the different sub-branches of each sector and the differences of the laws of each the steps were getting take slowly. And also it causes a wide range of defrauding on the loans of the house.

The choices of site and the preparation

The locating of the project was clearly violating the law “*number 6 of the budget plan*” that the free big vacant should be allocated to this project. It was neglected generally because of the power of the regime sectors or army which did not want to donate or sell any lands that they own in the cities. As the result the locations got far from the cities.

On the other hand, the budget that was allocated to the project by government was almost the same for different areas of the country that ignores the harsh progress of preparation in different cities.

Take for example fiروز کوھ, sanandaj, shahre kurd, parand

Ignoring the cultural issues in small cities

In some small cities of Iran the general public prefers living in villas rather than living in apartments units. Ignoring this fact can endanger the tendency to welcome this type of housing.

Take for example Kahnooj in Kerman province and Kalateh in Semnan province.

2.2.2.4 MEHR Case Study

Parand

The major idea of the city Parand was be a residential area mainly for people of Tehran and the clerks of the Imam international airport .the city is linked to the connection system like highway, rail-way and Tehran metro. Parand is 35 km far from Tehran but officially it is located in the territory of capital.

The city development plan written in 2005 and Features of the city

Looking forward to enhance the capacity of the city as the population by supporting the urban infrastructure and services.

The area is limited from the north to the “*takhte rostam*” hills, from the south to “*rood shoor*” river, from east to the territory of the Imam airport. Therefore the expansion map of the city is depended on the west and north-west side.

Completing the triangle of Tehran-Karaj-Parand.

Access to the train station and the Tehran highway.

The character of the city based on three facts: accommodation, new industrial zone and the services for the Imam airport clerks. Vast variety of people are working in Tehran and getting accommodate in Parand.



Figure 18, The position of Parand city to Tehran and Karaj

Mehr Housing - Tehran

Parand - Phase 5

Chief of Architecture _ Governmental Sector

Technical Brigade _ Governmental Sector

Construction _ October 2010 - March 2012

No. people _ 64000

Site Area _ 110 ha

Footprint Area _ 11 ha

phase 5 includes 204 blocks, Each block is 15 levels and each level includes 4 units, each unit is 100 m²



Figure 19, Parand city, phase 5 out of 6 phases

0 0.5 1 km



Figure 20, Phase 5

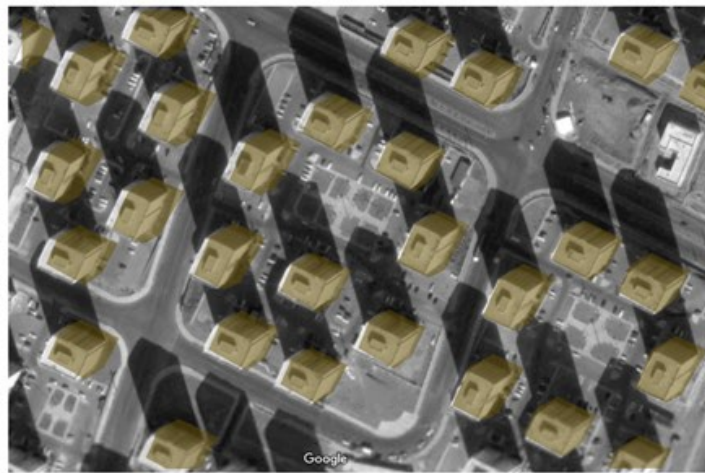


Figure 21, Blocks as objects

0 20 40 60 80 100 m



Figure 22, Parking location, phase 5, Parand



Figure 23, public space, phase 5, Parand



Figure 24, phase 5, Parand

2.3 Case study: Portugal-Porto

2.3.1 General Policies and programs

Learning from the past - the (in)visibility of the urban poor

How have vulnerabilities been addressed throughout time? By analysing the Portuguese background throughout the last decades - and focusing on housing policies for the urban poor as indicators of political and spatial orientations for shaping the city and reducing social vulnerability - one can find a multiplicity of examples of totally different approaches and roles of each stakeholder. They form, naturally, a reflection of their socio-political contexts and of the visions of society in each period. Nonetheless, they may also illustrate difficulties and consequences of different actions, also according to the visibility and invisibility of the urban low-income population.

Informal private provision of housing - profiting from the low-income class

Throughout the XIXth century and due to industrialization and the consequent intensification of the urbanisation process, main industrial areas attracted large numbers of incoming population, being forced to densify, expand and provide shelter. The housing shortage, especially for the working class, became a challenge, to which different answers were provided, mainly by landowners, industrial entrepreneurs and small investors, who took the role of providers, responding to the low-income housing demand. In this process, the State had little contribution, being helpless, unresponsive or even neglecting. The urban poor thus became clients of a private service of house provision which - due to the large demand of incoming new urban population, reduced offer and limited capacity for paying rents - often achieved very low standards of living conditions. In Porto, the 'casas de aluguer' were then created by investors or private owners as a solution for housing these labourers, through the construction of one or more rows of small houses (around 4x4 meters) along the traditionally elongated lots of the consolidated city, in the back of existing bourgeois houses. If provided, infrastructures such as toilets would often be shared in common areas. These areas occupied the interior of the blocks, therefore becoming invisible parts of the city that could not be perceived from the street, hiding their dwellers, in a situation that became common practice until an outbreak of bubonic plague exposed the miserable living conditions to the rest of the civil society and forced the State to take action. Nevertheless, nowadays plenty of examples of this typology can still be found, without significant changes in their living conditions.

Authoritarian public provision - the role of the State throughout a dictatorship

Following the installation of a dictatorial regime, in the 1930s the public provision of housing became a trademark of a new vision for society and part of its political propaganda. During the first decades, a few new social housing developments were built throughout the country, consisting mostly of new areas with low-rise housing and a few social services inspired in the idea of garden cities, but mostly intended for civil servants rather than for very low-income families. During the period of 1956 to 1966 an 'improvement plan' (*Plano de Melhoramentos*) was created for the city of Porto for the eradication of the 'casas de aluguer' in the peripheral urban areas of the municipality, where the cost of the land was lower (Figure 26). The State became the financing entity and a totalitarian decision-maker, while the low-income populations were paternalistically perceived as mere beneficiaries, which they should show to be worthy, through a strictly controlled moral conduct. These initiatives proved to be not only insufficient to meet the needs, but also highly contested by their inhabitants.



Figure 25, location of social housing operations of improvement plan of 1956 in porto



Figure 26, bairro do cerco

Participatory housing programs – the rise and interruption of post-revolution aspirations

Following the Carnation Revolution in 1974 and throughout the PREC - the '*ongoing revolutionary process*', a period of eighteen months of restructuring of the State - conditions were created for the implementation of a new vision of society and urban environment. Several targets and programs were created through technical support at local level: for rehabilitation of degraded historical centres, cooperatives and a participatory housing program for the urban poor inspired by international experiences of '*empowerment*' of the low-income population. This last program, named SAAL ('*Serviço de Apoio Ambulatório Local*'), relied on the mobilization of the dwellers that, only through the formation of associations, would be eligible for receiving public funds to support housing construction. It would thus depend on the participation of dwellers throughout the decisionmaking process, both through assemblies for discussion and group meetings with technicians. This program would defend small scale operations and resettlement in the proximity of previous areas of residence, understanding the '*right to the city*' (Lefebvre, 1968) as also the right to maintain social and urban bonds, and not to be banned to peripheries (Figure 27), has had previously happened. During this process, the dwellers became generators and mobilizers, and the technicians were supporters and partners, producing not only the visibility but also an active and prominent role of the dwellers throughout the decision-making process. However, this program was prematurely interrupted, announcing a shift towards a liberal orientation and the withdrawal of the State.

The market as the overall provider - liberalization and the triumph of the financial sector

Aiming at the promotion of the construction and financial sectors, public action shifted in 1976 from the provision of public housing to the creation of incentives to its acquisition in the liberal market through a system of credits and savings, and the low-income population thus became hypothetical clients. But did the market provide solutions for the urban poor? Or was it an excuse for the State to discard its responsibility in assuring overall equitable access to decent living conditions, leaving the urgent needs unanswered? Though there were also housing cooperatives, that strategy proved indeed insufficient: by the beginning of the 1990s, public social housing provision returned through the PER ('*programa especial de realojamento*', meaning '*special resettlement program*'), aiming at the eradication of precarious housing and relying, once again, in resettlement operations (Figure 28).

Recent integrated programs – testing a multidimensional approach

Due to the complexity of tackling poverty and the multiplicity of strategies already tried, recent experiences - such as *'Proqual'*, *'Iniciativa Bairros Críticos'*, amongst others - have been testing the combination of spatial interventions (construction of housing and/or qualification of public space) along with immaterial action (employment generation, training, social support). They aim at putting the low-income population as participants in these several actions, gathering several agents/partners in the process, articulating efforts and resources towards common goals. Though not always with the expected results or with premature interruption, they have nonetheless proved to be valuable experiences, focusing on the users as individuals and not as numbers.



Figure 27, Residents with model of future houses, example of self-construction adopted in few projects

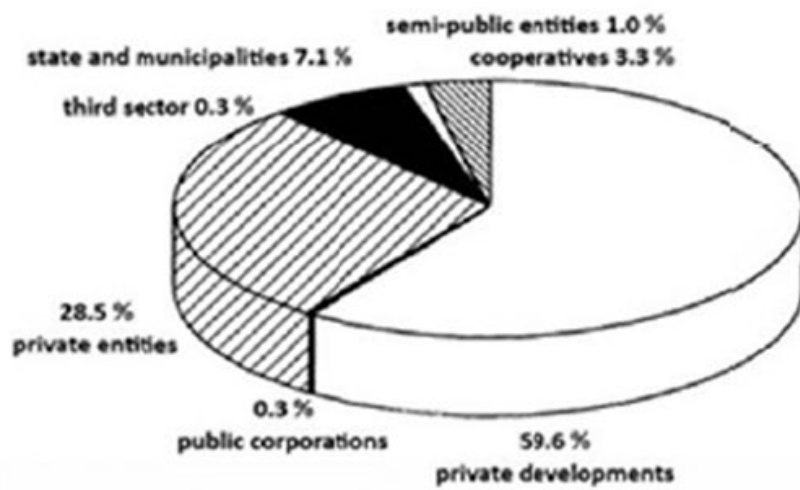


Figure 28, percentage of housing built between 1971 and 1993, according to the agents

2.3.2 Concrete Contribution

2.3.2.1 Porto's 10 steps of housing estates

At the beginning of the 20th century the city had more than 150000 inhabitants living in a very promiscuous environment without public water supply or sewage networks. The housing estates implementation in Porto started precisely at that time to mitigate the severe public health, socio-economic and political impacts due to the boom of "ilhas" (Fig. 29, 30).

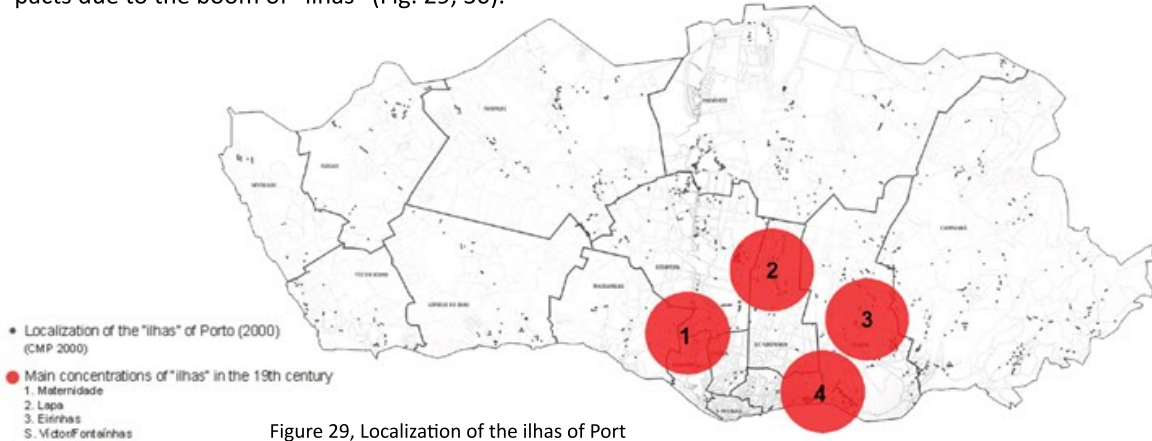


Figure 29, Localization of the ilhas of Port



Figure 30, Localization of the housing estates of Porto

First Step (1899-1905) - Filantropic

The first group of housing estates buildings were promoted by the newspaper with the public support. At that time in France, during the Paris Universal Exhibition (1899) was created the Societé des Habitations à Bon Marché to solve the lack of low cost housing solutions. The 3 housing estates buildings were built with public funds and the ownership obtained after the payment of a annual fee.

- Monte Pedral (Serpa Pinto), consisting of 26 single family houses in groups of 2 and 4 with a small garden. The construction started in 1899 and the project was designed by architects José Marques da Silva (the first 14 houses) and Thomas Pereira Lopes (the remaining 12).

- Lordelo, consisting of 29 single family houses, projected by Fortunato Manuel de Oliveira Motta

- Bonfim (Monte das Antas) consisting of 40 single family houses in groups of 4 with a small garden.

The project was designed by Manuel de Oliveira Motta and Joaquim Gaudêncio Rodrigues Pacheco.



Figure 31, Monte Pedral neighbourhood

Second Step (1914-1917) - 1st Republic

The Republica establishment promotes several housing estates policy measures that didn't survive. Afterwards, under the Sidónio Pais' dictatorship's, the need to prevent the political demands easy promoted very dense poor communities led to the construction of neighbourhoods and to the resettlement of people in separate apartments

- the "Colónias". The 4 workers colonies built at that time and endorsed by Town Hall to sell later to the residents were: Colónia Antero de Quental, with 28 houses (1914- 17); Colónia Estevão Vasconcelos, with 90 houses (1914-17); Colónia Dr. Manuel Laranjeira, with 130 houses (1916-17); Colónia Viterbo Campos, with 64 houses (1916-17).



Figure32, Colónia Estevão Vasconcelos

Third Step (1933-1974) - Casas Economicas BCE

The “*Estado Novo*” (1933-74) had a greater role in promoting housing estates. During that time several neighbourhoods of single family homes with garden and yard were built (1933 to 1972), following an orthogonal plan of pairs of individual or two stories’ houses. The streets’ names among each neighbourhood were flowers, Portuguese villages and rivers underlining the general rural landscape intention. The incentives were mostly to build individual houses that prevented social and political quarrel and disputes. The houses quality and size depended to who their owner was to be. The rent was different and adequate to several different social classes’ degree. With this policy we had a social segregation of housing within the city. Since 1935 until 1965 the State built 12 neighbourhoods of low cost houses to resettle 2378 families. The houses were constructed in the suburban areas like Campanhã, Lordelo do Ouro, Paranhos, Aldoar e Ramalde. This was the first public fund investment in suburban housing estates made in a completely new area in the outskirts of the city. The houses’ ownership was achieved by a monthly rent.



Figure 33, Paranhos neighbourhood

Fourth Step (1940-1956) - Casas Previdencia

After the 40’s, the research done showed that there was still a large number of people living in sub-human conditions at Porto. The municipality of Porto decided to build a string of multi-familiar apartment blocks to quickly solve the house degradation and poverty in the city centre. These apartments were rented to people and the payment was proportional to the families’ income.

The first apartment’s block of this period was close to the place where people came from - Duque de Saldanha block (1940) with 115 apartments.

- Rebordões (Campanhã) -145 unfamiliar houses (1940);
- S. Vicente de Paulo (Campanhã) – 198 houses built in 4 diferent phases since 1950 till 1954 (148+18+12+20);
- Rainha D. Leonor - 250 houses built in 2 phases (150 in 1953 and 100 in 1955);

-
- S. João de Deus – 296 houses built in 2 phases (144 in 1944 and 152 in 1956);
 - Condominhas - 26 houses built in 1955;
 - Pereiró – 64 houses built in 1956; The use of land for housing estates purpose in suburban areas was very intense during the 50's and 60's.



Figure 34, S. Vicente neighbourhood

Fifth Step (1956-1966) - Plano de Melhoramentos da Cidade do Porto

The Improvement Plan (1956) was the first political efficient action taken by the Municipality to eliminate the “ilhas”. They were substituted by social rent housings. Since 1956 until 1977 were built 20 building estates with a total of 8251 houses. Only 2 of them were built in central area, the others were in the suburbs. It created a considerable population movement (15%-20%) from the city centre towards the periphery. At the same time the “ilhas” were demolished.

The housing estates built at this time were successively enlarged during the 80's and 90's. This plan introduced significant modifications in the city's urban framework because it created a completely new urban piece – the building estate group. These neighbourhoods were totally forgotten by the public power during several years and the physical and social degradation spread all around.

Only in the end of the 90's the City Hall started the rehabilitation and renovation process to qualify these neighbourhoods.



Figure 35, Fonte da Moura neighbourhood

Sixth Step (1969-1985) - Fundo de Fomento da Habitação FFH

In the 20th century we had two different ways of answering to the lack of houses: shanties and illegal building construction. Both forms are characterized by being built without permission from municipalities. The works were done by individuals and all the process occur without license or technical monitoring.

Shanties were usually made with old and used materials, frequently wood, on public land or private rented land. The illegal buildings were made of masonry with a quality very similar to statutory construction usually on land belonging to the occupants. They acquired the land for the purpose of constructing through a process of blending illegal sets up. After the 60's, this 2 types of housing grew a lot around Lisbon and Porto's metropolitan areas due to the huge immigration fluxes. The absence of planning and the lack of low cost houses motivated the individual search of solutions. The rural and green public land, the river banks and the steeper slopes were the preferred free places occupied to build this type of illegal housing. In these circumstances, an illegal land market was developed, leading to the rapid consumption of the free spaces available (agricultural and forestry) in a chaotic process of urban growth. The spontaneous nature of this process of urban construction transformed these places in an absolute chaos, from the planning point of view, and in a serious social problems nest. The 1993 Special Rehousing Plan helped on the reduction of the shanties in both metropolitan areas. The illegal building construction ended in middle 80's after the modifications introduced in the urban land division legislation and the municipal plans implementation. The neighbourhoods and lots were recovered and legalized.

Seventh Step (post-1974) - Serviço Ambulatório de Apoio Local SAAL

With the arrival of democracy, in 1974, the poor housing conditions and the existence of a great housing deficit generated a large movement to fight for better living and housing conditions. The collective awareness of the right for several common needs mobilized people to claim for better housing conditions. At Porto, after April 25, there were several movements inside the housing estates blocks in order to demand better living conditions. At the same time, there were also several house illegal occupation of public and private empty lodgements. The housing estates residents creating fight movements towards the improvement of housing conditions - Resident Commissions.



Figure 36, SAAL Massarelos

These popular groups lead to the emergence of a very important group – the SAAL (Ambulatory Service for Local Aid). The SAAL (1974-78) arose to create an institutional and organized framework to facilitate the dialogue between residents and public power. The SAAL had an innovative program thought to encourage the rehabilitation of existing “ilhas” and require the construction of new neighbourhoods in places occupied by the “ilhas” avoiding thereby the forced displacement of populations to areas distant from their usual living places, as had happened with previous projects of social housing. The SAAL created conditions for an active participation of residents in the process of reconstruction / construction of neighbourhoods on many cases through the model of self-construction with the support of local technical brigades. In Porto, most of the SAAL operations occurred in the areas of “ilhas” which intended to reconstruct these areas on a very similar way to the “ilhas” morphologies. The neighbourhoods of Bouça and S.Victor, built by architect Siza Vieira, the Antas and the Leal by the architects Pedro Ramalho and Sergio Fernandes. They tried to open these spaces to the street, which were hidden inside the blocks, opening the “ilhas” to the street.



Figure 37, SAAL Antas

In addition to these interventions in “ilhas” there were also built new neighbourhoods, by the residents’s associations, particularly at Campo Alegre (involving 136 dwellings) at Massarelos (on the platform of Bicalho, with 65 homes, planned by the Architect Fernandes de Sá) the Francos (on the Avenue Sidónio Pais, 136 dwellings), the Maceda (Alcino Soutinho project’s Architect, 96 houses, the Lapa (Architect Alvaro Matos Ferreira), the Pego Negro and the Tiraes (in Campanhã, with 132 houses). Simultaneously to the SAAL development, the CRUARB was created (Commission for the urban renovation of the Ribeira-Barredo area) to act in an area of 168000 m² in the riverside track. In a first phase of this process of renewal, in order to facilitate the work, part of the local population was displaced, temporarily or permanently, to other projects in the city (i.e. Aleixo). In a second phase, after the 80s, CRUARB passes into the city hall dependency and follows a logic of outsourcing, promoting the rehabilitation of buildings with historical and architectural value and opening some commercial spaces on the renewed buildings. In the nineties, in addition to the renovations

on the existing buildings there was completely rebuilt the old quarter of the Lada (35 houses). In 1993 the official beginning of the Municipal Master Plan promoted the creation of a Foundation for the Development of the Historic Area. Later, in 1996, with the classification of the historic centre as World Heritage by the UNESCO, the philosophy of rehabilitation was extended to other areas of the historic centre, and also to the spaces and facilities nearby.



Figure 38, Lada neighbourhood's recovery(CRUARB)

Eight Step (post-1974) - FFH / Obras participadas

Other programs that originated in Porto the construction of new housing projects, either for rental or for sale, were the loans to the City Hall (created in 1974 and subsequently amended in the 80s and 90's) and the Cooperation Agreements between the City Hall and the National Housing Institute. Some good examples of this policy are the neighbourhoods of Santa Luzia and Vale Formoso (in Paranhos), the Mouteira, the Bessa Leite and the Condominhas (in Lordelo do Ouro) and Antas (in Campanhã), for rent. Among those that were built for sale with controlled costs, are Santa Luzia and Condominhas.



Figure 39, Antas neighbourhood



Figure 40, Sta. Luzia neighbourhood

Nineth Step (post-1974) - Cooperativa Habitação Económica CHE

The housing cooperatives have played in Porto, an important part in promoting housing at low cost, in particular to groups of the middle class that were not covered by the construction of public or private housing. The first housing cooperatives appeared before the April 25th - Cooperativa “*O Problema da Habitação*” e “*O Lar Familiar*”. These cooperatives functioned essentially as Cash Credit Property, in which the partners paid a certain monthly amount until they have reached the limit for their construction class. The movement created after the April 25th, led to a profound restructuring of the cooperative sector by setting up the new system of cooperative housing, and highlighting the regime of “Economic Cooperative Housing” (CHE’s), which had preferential support of the state, such as tax exemption, reduction of taxes, including VAT (after 1986), subsidized financing and access to public land. This, provided conditions to meet better standards regarding the ownership and distribution of the houses. The marketing made by cooperatives, defines itself by its non-profit profile and by the existence of an associative form of monitoring the whole process. The existing legislation concerning the cooperative sector housing provides for the coexistence of ownership, with the right to use or rent, and individual property. In all cases the dwellings are attributed to the cooperative that reserves for construction that can not exceed 10% of the total amount.

The cooperative ownership model had a very limited acceptance among us. The most common form of ownership was the individual property. In Porto there are now 17 active cooperatives with a total of around 4800 dwellings built. It should be also noted that some cooperatives are already implementing several new requirements for innovation and modernization of the built up sector, through the certification of housing quality and sustainable housing as “*environmentally friendly*”. It should be noted that the first environmental sustainable block of housing developed in Portugal among these low cost regime, was conducted by an association of cooperatives – NORBICETA – located in Ponte da Pedra, (Matosinhos) and SACHE, (Porto).



Figure 41, Habitação Económica da Cooperativa “Sache” - Aldoar Manuel Correia Fernandes

Tenth Step (post-1993) - Programa Especial de Realojamento P.E.R

In 1993 several programmes were created to deal with these lack of low cost houses - the Special Rehousing Plan (PER), the Program for the Construction of Economic Housing (PCHE) and PER-Families - whose main goal was the eradication of shanties and other poor households in the two metropolitan areas of Lisbon and Porto. These programs adopted a new set of issues, particularly regarding the location of the neighbourhoods. A greater focus was done on construction quality, equipments and public spaces.

The solutions focused on supporting families to promote self-renewal or purchase their houses (PER Families). Porto has already constructed 909 lodgings under PER and 12 under PER Families, for a total of 1463 housing construction agreed with INH/IHRU. These successive programs of resettlement for the most needed people, led to a large social housing park. Currently there are 51 projects in Porto, on renting, with about 13156 houses where lived about 40000 people (18% of Porto population).



Figure 42, Rua daSeara Matosinhos,PER, 1999-2000, João Álvaro Rocha



Figure 43, Rua daSeara Matosinhos, PER, 1999-2000 João Álvaro Rocha



Figure 44, Habitação Económica nas Fontainhas, PER, 1996-2009, Helder Casal Ribeiro and Ana Sousa da Costa



Figure 45, Habitação Económica nas Fontainhas, PER, 1996-2009, Helder Casal Ribeiro and Ana Sousa da Costa



Figure 46, Habitação Económica nas Fontainhas, PER, 1996-2009, Helder Casal Ribeiro and Ana Sousa da Costa

2.3.2.2 Program case studies - Social, financial and technical procedures models

Several organization support

“Renda resolúvel” – unifamiliar and plurifamiliar property ownership transference from public to private – Condominhas (1937), Sta. Luzia (1981), Condominhas (1993), Bessa Leite (1982), Contumil (1987), Vilar (1994) and Pasteleira (1997) - 8th step

The system of resolvable property has been used in areas of economic houses in the Estado Novo, being a contract where the residents take responsibility for themselves and with the guarantee of a life insurance policy and the payment of 240 benefits, calculated in terms of household income and type of house, buying him or his heir, with the last installment payment of the full ownership of the house. However, after the April 25, the same system has been used in neighbourhoods built by the City Hall for sale at low costs (the maximum sale prices are set annually by the Government), as is the case of the Santa Luzia, the Condominhas, the Vilar, the Pasteleira, the Contumil, the Bessa Leite neighbourhoods. These neighbourhoods were sold under the ownership resolvable through a public tender. However, in the event of non-payment of benefits, the right of ownership of the resident-buyer can be resolved, by the devolution of the accommodation ownership and possession to the City Hall. For the neighbourhood of Bessa Leite (blocks 2, 3 and 4), the buyer acquires the property only with the last payment of the 300 benefits.



Figure 47, Condominhas neighborhood



Figure 48, Sta. Luzia neighborhood

Municipality support

Involvement of different local actors and local authorities to renovation – Lagarteiro - 5th step

This case study is included in the pilot program Initiative for Development and Reintegration Operations in Critical Urban Neighbourhoods, which was intended to be intervene in urban areas that have critical levels of vulnerability. These interventions suppose and integrated socioterritorial action. For this pilot project in the city of Porto, was selected the block of Lagarteiro, located in the Campanhã civil parish. The neighbourhood of Lagarteiro was built under the Porto's Improvement Plan in 1973 with an expansion later in 1977. The neighbourhood consists of 446 lodgings, with 1892 people with an average age of 35 years. With 17% of the population unemployed, 16% of retirees, 9% dependent on incomes from social inclusion funds, 5% domestics and 18% students, we understand how vulnerable is this group. The families consisting of elderly and motherhood in adolescence make family patterns very fragile. The low rates of scholarship and high school drop-out reinforces the weakness of the social tissue. 80.6% of buildings need to be repaired, 41% of the accommodations are overcrowded, public spaces are degraded and accessibility to the neighbourhood is poor. The neighbourhood consists of 13 housing blocks, with 4 stages .The intervention proposed for this neighbourhood, was thought to be in a participatory process involving a vast group of local actors who had already worked in the area together with the City Council, the IHRU and some groups of residents. During five months the team project and the local actors work together, which allowed the actors to build a better connected network and more prepared for the design and implementation of a participated project. At the beginning of the process the actors play and interact in a hierarchical structure; with the organization of a participatory process, the actors developing an environment of trust, setting up leadership, giving up specific skills, building up a network of actors more connected and better organized for an integrated intervention.



Figure 49, Paranhos neighborhood



Figure 50, Paranhos neighborhood

Thus, it was possible to plan and propose a set of actions to streamline the process of social and territorial integration of the neighbourhood in the city, following institutional partnerships of different geometries, according to each action and strategy. In terms of actions under the assistance and urban environment, the leadership is the City Hall and IHRU. For actions in the area of family, culture and lifestyles, different institutions lend expertise and willingness to cooperate (dynamic networks of relationships with the city, (re)build a climate of security). Moreover, the area of enhancement of skills and economic activity has a weak institutional support, and require the contribution of external institutions (to increase self-esteem, the entrepreneurship of local base, increase the levels of education and professional qualification of residents and promote employability and occupation) while the health and safety are adequately supported.

Five strategic intervention axes were identified:

1. Intervening in the environment (the proposed measures: new buildings in front of the East Park and new structure of streets in the area of special urbanization, responsible Municipality and IHRU);
2. Quarters urban and environmental requalification (the proposed measures: new streets, new public spaces (collective), construction of new facilities in the environment, Social Equestrian Center, the new Police Squad, rehabilitation of houses and buildings in contracting Municipality, IHRU, Ministry of Education, Ministry of Cities, Planning and the Environment, Ministry of Culture, Sport Club of Porto, Police Public Security and Ministry of Interior);
3. Active citizenship and social welfare promotion (several proposed measures in the areas of health, sports, environmental education, security and citizenship with the participation of the local actors that work in the area);
4. Promote learning and economic entrepreneurship
(some measures proposed in the area of recognition, validation and certification of abilities of the residents and learning of new information technologies).



Figure 51, Lagarteiro neighborhood

Implosion and Housing Investment Fund creation (public and private) – Aleixo - 8th step

The Aleixo neighbourhood, built in 1976, is spread by five towers, each with 64 dwellings, with 13 floors and a total of 320 accommodations where live around 963 people. This neighbourhood is currently the most problematic in the city, with very degraded buildings, where the drug consumption and traffic is constant and with serious social problems, high levels of unemployment, insecurity and destruction of outdoor spaces. The solution found by the city of Porto, to solve the problem will require the demolition of the five towers, the creation of a Special Fund Real Estate Investment (FEII), whose only asset is their own neighbourhood and the opening of a public tender for selecting a private partner that will support 70% to 90% of the fund, leaving the remainder to the municipality. The winner of the contest will be required to built and rehabilitate vacant houses scattered around town, especially in Old City Centre. They will have to build the same number of square meters of construction that exists today in the Aleixo neighbourhood. About 20% of that area will have to meet the rehabilitation of housing in downtown, including the Historic Center. As the winner of the competition authority is delivering the new homes to the local authority, will start the transfer of tenants of Aleixo, according to the policy of resettlement in force. Meanwhile, the obligations of the investor's participation in that fund, which can not be less than 70%, will be awarded. At the end of the transaction, which is estimated to be completed within 4 to 5 years, all people who have the right to housing will be accommodated. Under this proposal, the Aleixo will entirely belong to FEII, which lie empty and demolish to reclassify that area, in accordance with current standards of the Municipal Master Plan, whose index of construction is 0,8.



Figure 52, Aleixo neighbourhood

Programme “Casa como nova” - 10th step

in many social neighbourhoods The “*Casa como nova*” (house as new) program was launched by Porto’s Municipal Council in 2006, being an initiative that intended to involve the municipal residents on the rehabilitation and maintenance of the lodgings interior on Council’s neighbourhoods, using each 4 years, materials (such as interior doors, inks and pavements) acquired with a 75% discount in relation to the market prices. Through the Council’s Enterprise for Housing and Maintenance (DomusSocial E.M.) - responsible for requalifying constructions that were being made in social neighbourhoods and its management - , the program promotes daily demonstration actions, developed by professional technicians providing the best ideas and bricolage solutions so that each resident can improve his house interior. This initiative, besides its social and pedagogical character, meets the necessities shown by the residents and contributes as a complementary measure towards deep requalification constructions on social housing, which are being executed by Domus-Social E. M., with the co-financing of the Prohabita Program (created by the Portuguese Government on 3 of June 2004, through the Law-Decrete nr. 135/2004), being one of its objectives the rehabilitation, by the city councils, of common parts and the exterior surroundings of the damaged buildings, integrated on social neighbourhoods, as well as the incorporation of sustainability, accessibility and rehabilitation solutions.

Government support

SAAL – public and private involvements - 7th step

The SAAL, created in 1974, was undoubtedly an innovative program in two ways.

First, the SAAL intended to promote the rehabilitation of existing slums, demanding that construction of new neighbourhoods were made in places occupied by these slums (avoiding thereby the forced displacement of populations in areas distant from their places of living, as had happened with previous programs of social housing). Second, the SAAL created conditions for an active participation of residents in the process of construction/ reconstruction of neighbourhoods (organized into associations), ensuring the state and local authorities the support necessary through the technical brigades, particularly in: the judicial field, the projects implementation, the administrative and accounting procedures, the construction implementation, land and subsidized financing. The intention was that the residents intervene in all the constructive process, since the choice of projects, typologies, procurement and supervision of works, until the allocation and management of houses. The State guaranteed a portion of the funding (about 40%), the remainder being mobilized by the residents through self or own savings, or other forms of financing (bank loans, from relatives, etc.).

This, in practice, limited to the use of the work of residents, which has not always happened, and the state ultimately has bared all costs of operations. In conventional existing programs before the appearance of SAAL, were the central institutions responsible for the promotion of social housing, which determined the locations of construction, costs, programs, recipients, types, forms of allocation of resettlement and, finally, the whole process connected to construction and distribution of social housing. The SAAL changed, fundamentally, this procedure to technically support the organization of the residents in order to enable it to perform functions inherent in the process of design, manufacture and distribution of housing. The group of residents has become, not only, customer of the team of architects, but also sponsor, together with the State, of the houses that would inhabit. Despite these issues, certainly very positive, the SAAL had an ephemeral life, being extinct in 1976.



Figure 53, Demonstration against the decree prohibiting occupations, São Pedro da Cova, 1976

SAAL Process

It is in this context that the process SAAL was born, to give a quick solution to the housing crisis. This operation was launched in urban areas of Lisbon, Porto, Setúbal and the Algarve by the State and involved the very poor neighborhoods. These residents came to organize themselves into local committees and fight for new rights and good life conditions, centered on the need for decent housing and "location ownership"; together, they worked and fought to build a more equal society. For a clearer view of the process, here are the main ideas :

The different roles of the Government in social housing

The Government promoted, as a first stage of the revolutionary period, manners of urgent urban intervention, which involved the participation of citizens, and created at that time, certain basic conditions for sustained action (value table, legislation, military support). Subsequently, the various social dynamics - such as bureaucracy, procedural misunderstandings, unequal local involvement, complex and unstable political process at national level - have been the portrait of a Government divided between support and the abandonment of a remarkable social movement.

Technical Groupworks

Holders of the technical skills of housing and urban development - architects, engineers, sociologists, lawyers, geographers, among others - were instrumental in defining strategies necessary to accomplish the objectives of the movement, as well as in established alliances with neighborhood committees. In a process that would not always be easy, the aesthetic views and preferences of residents had to be discussed, seeking low-cost technical solutions in order to configure and customize the habitat according to the experience.

Social organization of the demand

An immediate outcome of the 1974 revolution was the emergence of demonstrations of public unrest fostered by the poor material and social living conditions in which the worse-off class lived.

The first provisional government after the revolution, formed on 16 May 1974, appointed Nuno Portas, an architect, as Secretary of State of Housing and Urbanism arguably with the intention of neutralizing the social unrest sparked by the squatters' movements and the illhoused proletariat.

According to Nuno Portas, the minister responsible for his Secretary of State envisioned a pragmatic military approach to it, such as the construction of prefabricated barracks that could solve the problems as swiftly and cheaply as possible. Portas, however, refused to comply with solutions of this nature and, instead,

developed further some ideas on incremental housing and self-construction that he had been researching on since the late 1960s, chiefly inspired by the theories of John Turner, Manuel Castells, and Chombard de Lauwe, consisting in fostering grassroots initiatives in housing policies. The outcome of this strategy was the publication, on 6 August 1974, of a government's resolution creating the SAAL, which was a break with the past regarding the social organization of the demand. Instead of a top-down housing policy determined by a centralized agency, the SAAL programme, according to the text of the resolution, aimed at contributing with technical and financial aid to support the initiative of the population living in poor conditions to foster their collaboration in the transformation of their own neighbourhoods, investing their own latent resources.

The fundamentals of the SAAL operations, however, were chiefly modelled to combat the housing problems signalled in Lisbon and in the neighbouring cities of its industrial belt. These problems, resonant with "third world" cases of slum upgrading publicized by John Turner, for example, were mainly related with communities of relatively recent rural migrants living in slums located in peripheral areas. They were, however, inconsistent with the specific problems of the second biggest city of the country, Porto. There, the housing problems were epistemologically distinct; the communities had a long history of living in the city, though in poor sanitary conditions, and they were fighting not only for the right to have decent houses but also for their right to live in the city.

This was thus the context for the emergence of a third moment of dissent, one in which a group of well-knit network of technicians working in the city of Porto would challenge some of the subsumed principles embedded in Portas' resolution, e.g. self-construction and other methodological approaches designed for the rural world or suburban areas.

Power to the people

Associated with the SAAL, there were various collective phenomena of popular participation, highlighting the importance of housing cooperatives that grouped the residents of the slums, the "islands" and the residents of buildings subleased, sometimes cases that passed through the occupation of abandoned houses. That time saw a change in the social role of women, who began having a different importance in the public domain.

Right to housing is right to quality of life

With the dynamic operations undertaken by the SAAL, people had the opportunity to discuss the importance of quality residential space and critical infrastructure, urban infrastructure and to claim social on-premise, so that if take root to develop forms of sociability anchored in the appropriation of public space. Adequate public transport, leisure facilities for children, schools, daycare centers, parks, day centers for the elderly, health centers, sporting venues and leisure were the concerns integrated into an idea of "*right to the location*".

Architectural design

What makes this whole process so specific is that the culture of the Portuguese architectural April 25 is the SAAL, it represents everything that architectural production process and reflections on it in the post-revolution. There was no standard type, or equal in any of the operation solutions. Each was performed according to their geographical location, to the technicians involved, household characteristics, etc., Resulting in a collection of diversified architectural solutions for social housing.

The right to architecture

Portuguese architects faced a paradoxical situation, given the urgency and scale of the needs of local populations and the will to apply two basic principles: the right to the city and the right to architecture (Bandeirinha, 2007). This attitude implied essential issues of scale, manifested in the relations of the different interventions with the urban environment and in the idea of participation of the future dwellers.

The constructed results of the work of SAAL in Porto constituted a small part of the initial ambitions: of the thirty-three operations that were initiated, twenty three were not built (although, in most cases, the design process was completed) and in most of the remaining ten cases the construction was only partial. This relative failure (in view of the original intentions) can be partially related to the delays caused by the participation process: all the operations that were already in construction in 1976 (when the SAAL Program ceased to have the support of the central government) 7 were finished, at least partially (Fernandes, 2011, 488).

The belief in the right to architecture implied an inclusive ideal of participation, in which 'the work of the architect could be classified as «secondary», due to the collaboration effort of the local population in the design process. But this intention was challenged both by the lack of references of the future inhabitants and by the difficulty of the designers to free themselves from their traditional communication methods. So, since the early stages of the projects, most of the architects began to complain about the lack of popular response, while the populations assumed their inability to criticize their work: 'I look at the model, analyze it and all I can think is that I would like to live in a house like that'. (Bandeirinha, 2007, p. 167- 9).

Confronted with this situation, the SAAL teams needed a pragmatic approach to enable an effective response in the short term; Porto architects would seek to create an informal (yet operational) organization, creating synergies between the various technical teams. The SAAL Process provided a laboratory field, where the need for rationality and economy fully justifies an attitude and language with modernist roots. So, most of the resulting housing schemes showed an uniform approach (which resulted of the need to respond to similar circumstances), with a set of common characteristics: organization in parallel volumes, often unrelated to the alignments of the pre-existing city, with long and narrow duplex dwellings (with around four meter's width, in most cases), a set of stairs in the centre and small openings on both the opposing façades (Fernandes, 2011, p. 477-81).

Yet, although they all share similarities, we can easily distinguish two different approaches in the eight low density housing projects constructed in Porto: in S. Victor (Álvaro Siza), Francos (Rolando Torgo), Lapa (Matos Ferreira e Beatriz Madureira) and Maceda (Alcino Soutinho) we can find a purist language and a rigid volumetry; on the contrary, Contumil (Célio Costa), Antas (Pedro Ramalho), Leal (Sergio Fernandez) and Chaves de Oliveira (Manuel Leça) share an hybrid language, where the typological and formal solutions are best suited to their specific urban environment and more agreeable to the taste of the populations.

The consequences are quite clear: while the hybrid solutions present themselves today with an image that does not differ much from the original construction (since they are less altered and because they assimilate the changes better), the situation of the purist cases is quite different, as the changes made by the dwellers strongly collide with the original intentions of the architects.

Maceda is a good case study of this phenomenon. The construction began as early as 1975, because 'the dwellers made practically no criticism to the organization of the houses' (Bandeirinha, 2007, p. 167); but soon after the populations began to inhabit the dwellings, they started to introduce all sorts of changes, both in the interior and outside. Today, it is impossible to recognize the original traces of Alcino Soutinho design behind the great variety of volumetric extensions, walls lined with colorful tiles, new windows and altered doors.

In his experience in S. Victor, Álvaro Siza proposed a third way to the dilemma that the SAAL Program presented (the choice between the will to learn from the people and the necessity to teach the people); trying to avoid adopting any of these positions, which he considered simplistic, he proposed to direct all efforts towards the main objective: to resettle the populations where they live, sharing with them the will to create a physical world to serve a classless society (Siza, 1976, p. 14), but bearing in mind that it is 'unacceptable to dismiss the role of the architect, since collectivity was no substitute for specific and indispensable skills' (Siza, 2000, p. 160).

SAAL Case Studies

legend of SAAL projects:

1.antas

2.arrabida

3.bela vista

4.boavista

5.bouca

6.chaves de oliveira

7.contumil

8.fontainhas

9.francos

10.heroismo

11.lapa

12.leal

13.maceda-acacio

14.massarelos

15.miragaia

16.parceria antunes

17.prelada

18.s.roque

19.sao victor

20.se

21.serralves

22.villad



Antas

Chief of Architecture _ Pedro Romalho

Technical Brigade _ Fransisco M. Lima, Pedro B. Araujo, Lidia Costa, Augusto Costa, Vitor Bastos,
Teresa Fonseca, Jose Lencastre Aires Pereira

Construction _ October 1974 - October 1975

No. Family _ 460

No. People _ 1417

Site Area _ 4000 m2

Footpri Area _ 2200 m2

No. Floors _ 2

Process _ 32 units in the first phase and 50 units in the second phase - 32 constructed units



Figure 54, position on the engaging



Figure 55, aerial view



Figure 56, view to entrances



Figure 57, view to backyard

The project developed by the Antas brigade illustrates an operation that had to cope with the renewal of an emblematic case of Porto's proletarian housing type, the so-called "*ilhas*" (islands), which in the last decades had been deemed for demolition for both sanitary reasons and real-estate speculation.⁰⁰ After the revolution, the residents of the surviving "*islands*" in the Antas neighbourhood demanded to remain in the same area, but with a betterment of living conditions.

The technical brigade, coordinated by Pedro Ramalho, surveyed the existing "*islands*" and concluded that type of building was not only a territorial unit but also part of a rich complex of social life. They thus decided to preserve the rich communitarian life style triggered by the morphological qualities of the "*corridor-island*" type, eliminating the ghetto-character of the courtyard/corridors, though. To solve the overcrowding problem, some new units would be created in adjacent areas already cleared.

In fact, these new units were conspicuously designed following organization principles clearly inspired by the "*islands*" type, thus revealing a keen determination in preserving formal resonances with the vernacular type. The layout of the houses, however, shows an inventive structure with split levels articulating different street heights on both sides of the house, and the possibility to accommodate growth over time.

The architectural outcome of the Antas brigade shows a novel translation of vernacular references, which seemingly resonated with the fulfilment of the demands of the dwellers for an upgrading of their living conditions, preserving their social relations, though.

Leal

Chief of Architecture _ Sergio Fernandez

Technical Brigade_ Vitor Sinde, Antonio Corte Real, Emidio Fonseca, Jose Manuel Soares, Carlos Delfim

Construction _ October 1974 - April 1976

No. Family _ 200

No. People _ 600

Site Area _ 1860 m²

Footprint Area _ 1000 m²

No. Floors_ 2

Process _ 26 units in the first phase and 33 units in the second phase - 16 constructed units



Figure 58, position on the engaging



Figure 59, aerial view



Figure 60, Open space engaged



Figure 61, View to corridor

Leal

In the Leal operation, the successive projects developed by the technical brigade delivered a contingent answer to the development of the local grassroots movement. As their claims for more available land and buildings evolved, so the brigade would produce and discuss the projects for the new sites. They suggested the rehabilitation and renovation of existing houses (Zone 1) and designed new housing for vacant plots (Zone 2 and 3).⁰⁰

The projects designed by this brigade show a careful morphological response to the topography, and a clear goal to recreate in both shape and scale vernacular urban spaces such as streets, alleys, and courtyards. Typologically, the buildings are predominantly row houses with two floors. This option for a low-rise independent house resulted, according to the coordinator of the brigade, Sergio Fernandez, from “the factors that the population itself thinks are important.”⁰⁰

It is, thus, an operation of careful urban renewal, where the architectural outcome preserves the fundamental spatial characteristics of the neighbourhood, as well as its social cohesion. The projects accommodate spaces for the collective and at the same time, answers individual demands for ownership. Hence, the architectural outcome of this brigade seemingly mitigates the tensions of the power relation between the technicians and the dwellers.

Sao Victor

Chief of Architecture _ Alvaro Siza

Technical Brigade_ Domingos Tavares, Fransisco Guedes, Adalberto Dias, E. Souto de Moura,
Graca Nieto, Manuela Sambade, Paula Cabral, Manuel Borges

Construction Start _ November 1974 - October 1975

No. Family _ 615

No. People _ 2055

Site Area _ 1500 m2

Footprint Area _ 900 m2

No. Floors _ 2

Process _ 32 units in the first phase and 20 units in the second phase - 12 constructed units



Figure 62, position on the engaging

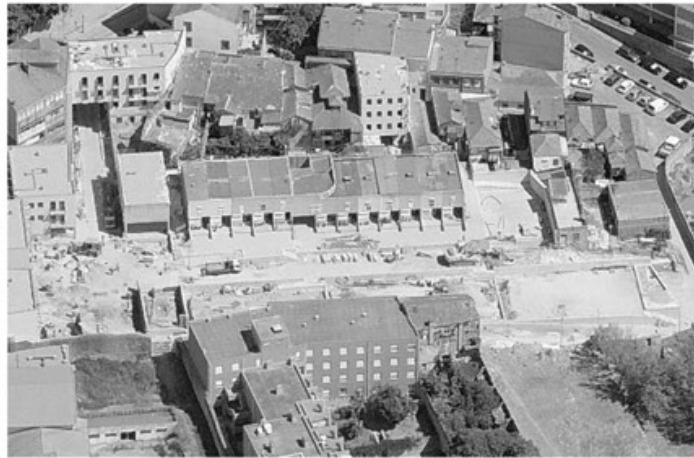


Figure 63, aerial view



Figure 64, View to the public space



Figure 65, View to the entrances

The project developed by the technical brigade coordinated by Álvaro Siza for the São Victor neighbourhood was the most published and discussed SAAL operation. In fact, the neighbourhood became an epitome for what was at stake in Porto's SAAL operations. It conflated some of the problems mentioned in the cases discussed above: severe sanitary problems, overcrowding, ghettoization, material decadence and compulsive demolitions. But it also had their qualities: a strong community life and a central location. The plan of the technical brigade defined two different zones: one in the São Victor "islands" block, and the other in the Senhora das Dores block. The strategy was straightforward. In the São Victor zone, as in the Antas neighbourhood, a thorough renovation was planned, preserving the "islands" type and improving its sanitary conditions. In the Senhora das Dores zone, a more contingent approach was pursued, with different types of intervention comprising building new housing ensembles, filling in gaps, and renovating existing buildings.

Eventually, the São Victor brigade would only renovate three houses and build ten new row houses in the middle of the block, on the area cleared for the construction of a parking lot. Curiously enough, in this case the new row houses showed a conspicuous detachment from the vernacular housing types. Its references were neither the "islands" nor Porto's middleclass housing types, rather a deliberate option to recuperate the models of the 1920s and 1930s modernist mass housing, in order to emphasize the fragmentary character of the intervention. There was, thus, a conscious ambivalent approach in the São Victor brigade. On the one hand, the renovation of the "islands" seemingly appeasing the dwellers' claim for an in-site betterment of their living conditions, and, on the other hand, an architectural approach apparently conflictive with the resident's demands.

Bouca

Chief of Architecture _ Alvaro Siza

Technical Brigade_ Anni Gunther Nonel, Maria Jose Castro, Sergio Gamelas, Jorge M. O. Moreira

Construction Start _ April 1975 - February 1977

No. Family _ 200

No. People _ 750

Site Area _ 11300 m2

Footprint Area _ 4370 m2

No. Floors _ 4

Process _ 57 units, 140 new units and 60 units recover (Monte Cativo Zone) - revised and complete between 2000 to 2006



Figure 66, position on the engaging



Figure 67, aerial view



Figure 68, View to the public space



Figure 69, View to the public space

Although to be a initiated project of SAAL, the association of Bouca residents complained it and eventually it got integrated to the process. its construction was partially during the 70s, but again the project was taken up between 2000 and 2006, been renovaded and completed the set, which has removed aspects of appropriation of the houses by the residents and added small alterations to the buildings.

A slight different in character from the previous, the neighborhood has a larger scale. the project covered few more blocks. It is along the main street. the four parallel buildings are unified through a wall, which assists in the privatization and appropriation of the common central landscaped spaces.

The main access, carried out by shared patio to the lower apartments and access to the top, there is a third group of service access to the lower levels which is a single staircase, located in front of the kitchen. although the upper and lower levels are almost similar, having three bedrooms each, the lower level, the ground-floor ground relates overnight zone, whereas the upper part of the day over a third bedroom areas.

Sustainable housing Cooperative -Norbiceta - 10th step

NORBICETA, Union of Housing Cooperatives, UCRL, was created in 1988, with the objective of promoting the development of housing and construction by its member cooperatives, accordingly to the Portuguese cooperative by-laws. NORBICETA, is located in S. Mamede Infesta, municipality of Matosinhos and composes three of the biggest housing cooperatives at national level. They are: NOORTECOOP, SETE BICAS and CETA. The Development of the Ponte da Pedra - 2nd phase, in the city of St. Mamede de Infesta, Matosinhos, was promoted by Norbiceta, co-financed by European Union project SHE (Sustainable Housing in Europe) and is the first cooperative project to build sustainable housing in Portugal. The management of water, waste, energy, environmental comfort and selection of materials are the main changes of the project. In this buildings the less demanding materials in terms of maintenance were used and was made the use of rainwater in toilets and irrigation of gardens. Several solar panels reduced about 80 percent the consumption of energy used on heating water.



Figure 70, Cooperative Norbiceta



Figure 71, Cooperative Norbiceta

This project received the awards INH/IHRU 2007, attributed to the building of Ponte da Pedra. The first prize for promoting low cost cooperative buildings (homes sold at a price of 820 €/m²) and that, given the pioneering spirit of this European project who coordinated the promotion, construction and monitoring of a total of 600 housing cooperatives in four European countries (Italy, France, Denmark and Portugal), which includes our 101 houses, also earned the award of the European Prize 2007 - Sustainable Energy in Europe. Ponte da Pedra Building is different because of its sustainability concern, implementing equipments to profit solar energy, recycling and allowing a rational use of water consumption, besides solid waste, in the context of the European program Sustainable Housing in Europe. These aspects are implemented in a balanced project, with widegreen areas, in comparison to the built space and to the number of inhabitants expected. These spaces also have pieces of urban art and “parterre d’eau”, which complement living nature elements of the public space. It is also orientated by the concept of closed circuit aiming to treat and save water. In a future perspective, it is a pioneering example that every promoter of social housing must follow.

FFH

Fundo de Fomento da Habitacao FFH (1969-1982)

This institution had primary responsibility for development of government-sponsored public housing. To carry out this task, it was allocated funds from the government budget and empowered by law to implement a series of financial, technical, developmental and administrative actions. Since its creation, the FFH had been responsible for the development of almost 4,000 units, some of which had been initiated by the Social Security funds, but were turned over to the FFH for completion and subsequent management, as required by a new law. After the revolution in April 1974, the government placed new emphasis on housing and the FFH assumed a more important role in housing development in Portugal. To this effect, a new group of housing technicians was employed.

Organization

The FFH had 517 employees, most of them were in the Lisbon Head Office. There were also four branch offices, one each in Porto, Coimbra, the Algarve, and Funchal, the capital of Madeira.

Operations

The FFH proposes to develop some 38,000 low-income units during 1975 and 1976. To fund this, the government had allocated about \$160 million from the national budget. In most cases, this new housing were rental, with monthly payments based on the ability of the occupant to pay, not on the economic rent. Therefore, a large subsidy element was included in the FFH program. The FFH was proposing two basic types of programs. The first type was based on the standard rental unit, generally two and three bedroom units of about 80m² and 100m², respectively. These were mostly low-rise apartment units, and cost between \$12,000 and \$16,000 each in Lisbon, excluding land and infrastructure. The first type unit had been constructed for years by various public and semi-public institutions, and was quite acceptable to low-income families. But, there had been a large subsidy element in this housing. The new feature of this type unit was the large proposed increase in the number to be built during 1975 and 1976. The second type of program was expandable, self-help cooperative housing. This program contemplated the construction of low-cost units of about 50m² which could be expanded, depending on the occupants' needs and financial capacity. The units were single family row houses, and were sold either to the individual or a member-owned housing cooperative. This program was essentially for families living in the urban squatter settlements (Barrios de lata) who joined a "housing cooperative". The cooperative would receive a grant of \$2,400 for each family member of the cooperative, which could be used to help build the houses. The cooperative members could then receive loans from the FFH to complete the financing of the core house.

Financial Aspects

Until 1974 revolution FFH programs had been small due principally to lack of financing and low priority. However, with the new emphasis on housing after the revolution, FFH had obtained new financing from the national budget far in excess of that obtained in previous years. The open question was whether this financial assistance would be in the form of a loan or a grant. The financial terms and conditions of an FFH rental were based on ability to pay, not the economic rent of the unit. In addition, the 60-year amortization period allowed for artificially low rents. Other FFH units financed by Social Security funds were sold over a 20-year period at a 5% interest and a 20% down payment.

Technical Capability

The development Department of the FFH did some "in house" design and planning of housing projects as well as contract some design work with private architectural and engineering firms. All projects were constructed by private firms after public bidding takes place. Construction was of high quality and maintenance of completed projects was quite good. However, design and site planning could be improved as ways of reducing costs. The projects were unnecessarily expensive due to lack of experience with low-cost housing design techniques, and lack of effective cost control by FFH management.

Management Aspects

The FFH was managing some 15,000 units, including 10,000 or so units previously built and managed by the various social security funds. According to the FFH management staff, there was a harsh problem of delinquency, which had been increasing rapidly, particularly since the revolution. Due to political reasons, the FFH was stymied in its attempts to solve this problem. Prior to the revolution, allocation of FFH units were based primarily on political connections, particularly with the state controlled labor unions. After that, the FFH was trying to handle this on a need basis.

Chapter 3: Interventions

3.1 Urban Policies

3.1.1 General policies

Critics

By focusing on concepts and details of Iranian development program, housing policies and awareness of current political situation on one hand, and opening up the Portuguese experiences in housing programs on the other hand, there is the possibility of proposing appropriate organizations, programs and architectural pre-drafts

Development Program

The eight years of war with Iraq after the 1979 revolution has made it impossible for the government to prepare a development program in the first decade. In general, there are five development program which are written since 1989.

Basically, the first and the second governments were from right (religious) wing. As the result, Islamic rules were playing a leading role in the first and the second development programs. Even though the economic bases of the country were destructed by war, a huge budget was allocated for the religious goals and institutions. It is widely accepted that religious and economic goals were on the top of the priorities of the government policies.

The third development program which was proposed by the first left wing government diverted attentions from religious goals to the maximum level of social freedom. It is noticeable to say that social housing was proposed by this government which faced a wide range of critics and objections by the regime. The next government (2005-2013) that was extremely religious ignored many resolutions of the previous government. Consequently, MEHR project which is regarded as the biggest housing project of the country was constructed by ignoring public spaces and far from the city centers. Even though the project covered all the cities, the project was ignoring numerous architectural criteria.

Housing policies

The Iranian housing policies are written in 9 chapters. Chapter 2 which belongs to 'land transfer' presents four programs

- Rental housing – the role of the ministry of housing on supporting the private sector
- Renting by owning condition - Allocating land from the 'ministry of housing'

- 99 years of installments by rents – allocating land to at least three families to construct and pay back in 99 years

- Housing in large scale – the government must support private sector by loan and industry

It must be admitted that government (ministry of housing) plays a decisive role in all housing policies and private sector is not involved with major decisions.

Even though the rules oblige government to support private sector, the cooperation between government, bank and ministry of housing is still unclear. Take for example, there was a huge difficulty between ‘ministry of cooperatives’, ‘ministry of housing’ and ‘banks’ in MEHR project while registration and construction.

The 3rd chapter demands ministry of housing to cooperate with ‘cultural heritage and tourism organization’ to design the governmental buildings in an Iranian-Islamic style. Even though it seems to be a logical approach, as the process is always in the governmental circle, choosing experts and architects remained to be inappropriate. In other words, the technical groups are mostly chosen from government or the groups which are strongly linked.

The 6th chapter covers the government support of using the new technology. Firstly, the ministry of housing is obliged to support the construction industries by offering bank loans and equipment’s while the passive role of private sector in governmental decisions can cause a wide range of issues. Secondly, the ministry of housing must allocate a budget for the relevant fields of universities while the gap between construction industries and technology and universities is huge. As the result, the private sector prefers to import recent technology and products and industry.

The 7th chapter obliges the government to support banks by offering land. Consequently, banks can be one of the governmental organizations that effect the city development.

Taking a wider look over these chapters shows

- lack of a central organization for better cooperation
- the passive role of municipalities in major decisions of housing policies
- the issue of municipalities’ ownership
- passive role of private sector
- the passive role of users in housing policies (bottom-up policy) in research, design and construction phase

3.1.1.2 Proposal

Organizations

Central Housing Organization (CHO)

To protect the housing policies from the different approaches of left and right governments, taking the absolute power from the government in major policies, Involving private sector, people, public and semi-public sector in housing policies, a semi-independent organization can be proposed.

An organization that can be responsible for development of government-sponsored housing. To support the organization, it must be financed by government budget and empowered by law to take a series of financial, technical, developmental and administrative actions. Take for example, there can be the possibility of reaching to the exact number of the tenants by linking real estate agencies to the organization. The organization can employ a group of housing technicians to be more specialized.

Even though the organization is financed by government, it can cooperate with public, semi-public and private sectors.

As low-income families are the most important target of the organization, the rents can be according to the family income which needs a large subsidy.

Technical Brigade

This group can cooperate with Central housing organization as the housing technicians. The technical brigade include architects, engineers, sociologists, lawyers, geographers and economists. Technical brigade can also play a linking role between tenants and CHO.

Housing Policies

Government Support

1. Public and private involvement

Central housing organization can play a linking role between Government and people. It is aimed to contribute with technical and financial aid to support the initiative of the population living in poor conditions to foster their collaboration in the transformation of their own neighborhoods by investing their own resources. In other word, actions are according to geographical locations and characteristics of householders.

On the other hand, there can be the approach of sustainability in housing to use green energy and involving ministry of housing, ministry of energy, organization of water and wastewater.

Municipality support

It must be admitted that these policies can be taken only by empowering municipalities in terms of finance, ownership and technicians.

1. Involvement of different local actors and local authorities

The involvement is based on organized way of using the different skills of locals under the leadership of municipality and CHO (Central Housing Organization)

The land can be provided by municipalities. The strategic interventions:

- Intervening the environment

Purpose: new buildings, new streets in the neighborhood

Responsible: municipality, CHO

- Intervening urban quarter and environmental requalification

Purpose: new streets, new public spaces (collective), facilities' construction in environment

Responsible: municipality, CHO, ministry of education, ministry of culture, ministry of housing

2. Housing investment fund creation (public and private)

This policy targets the blocks that need to be demolished. The idea can start with the creation of a Special Fund Real Estate Investment, whose only asset is their own neighborhood and the opening of a public tender for selecting a private partner that will support 70% to 90% of the fund, leaving the remainder to the municipality. The winner of the contest will be required to build and rehabilitate vacant houses. They will have to build the same number of square meters of construction that exists in the neighborhood. As the winner of the competition authority is delivering the new homes to the local authority, will start the transfer of tenants from neighborhood, according to the policy of resettlement in force. Meanwhile, the obligations of the investor's participation in that fund, which cannot be less than 70%, will be awarded. Under this proposal, the neighborhood will entirely belong to that 'Special Fund Real Estate Investment', which lie empty and demolish to reclassify that area, in accordance with standards of the Municipal Master Plan.

3. On the basis of Turner's third law which says that deficiencies and imperfections in your housing are infinitely more tolerable if they are in your responsibilities than if they are somebody else's, the idea of low-cost housing with the possibility of expansion can be proposed. On the other hand thanks to successful experiences of 'Alejandro Aravena' it must be admitted that the idea is strongly depended on occupant's need and financial capacity. The land can be provided by municipalities.

3.1.2 Architectural Policies

- **Identity and place:**

“The image of things is co-responsible for their inertia. In this way, material culture affects not the isolated individual but the individual as a member of the group which participates in its balance.” (Halbwachs, 1992)

Cultural identity is the identity or feeling of belonging to a society. It is part of a person's self-conception and self-perception and is related to nationality, ethnicity, religion, social class, generation, locality or any kind of social group that has its own distinct culture.

“The experience of place through which a deep sense of belonging is established, as ‘intimate experience’ and subsequently the place as ‘intimate place’. Home is an intimate place for everyone, where we feel safe and belonging since it holds a strong identity compound of the objects, people, and memories related to it. The concept of intimacy can be expanded to public places as well. Wherever we establish a relation with has got the potential to be intimate for us. Occasions, events, people, and objects are all fragments of this environmental image. Even a tree planted at a corner of the campus which provides cozy environment for with its shadow and freshness, can be an intimate place for afternoon meetings, thus it holds an identity and a sense of place.”(Tuan, 1997)

Following items are significant in feeling of belonging to a space:

- Symbols or indications that make the space readable
- Connecting neighborhood to the city's pattern
- Urban façade
- Human scale in buildings and open spaces
- Visage (filled and void): the relation between objects and space
- adoptability in design: in order to get the feeling of owning a place; people need to have adoptability to change it
- Variety in buildings (diversity in typology)
- Quality of buildings and design

- **Social and public spaces:**

“In human society all space is social: it involves assigning more or less appropriated places to social relations....social space has thus always been a social product”. (Henri Lefebvre, 2009)

A social space is physical or virtual space such as a social center, online social media, or other gathering place where people gather and interact. One of the main reasons that Mehr project failed was lack of considering

social spaces, or even by going further it can be reached that spaces between the buildings are leftover and not designed for any specific purpose and in some cases providing a suitable atmosphere for criminals. The hybrid between space and objects is essential in order to answer not only the demand for housing as a living place but also to be a social structure:

- Green spaces in scale of city and neighborhood
- Leisure facilities
- Parks and services for children
- Sporting and cultural venues
- Day care centers
- Controlling left out spaces, spaces that are suitable for crime
- Clear hierarchy between public and private spaces

• **Location of the project:**

Economic and education level trends to promote social and spatial integration and therefore more equitable living environment, as a result, economic problems and social segregation can lead to low standards of living. Social housing that targets low income people, has to improve quality of life for most needed population.

Location of site can be interpreted as the first and main economic issue therefore solving it must be the first priority. In “MEHR” projects, they chose to build outside of the city; it seems to be easier since the land is cheaper and there would be no problem of ownership, however, an area inside the cluster can provide a better access to urban and social infrastructures and also a more appropriate connection to the city center. As a result, even though the land costs more and its ownership will come to play, it could be a long term investment.

In addition to two the previous options, the third one also can be introduced. Re-habitation could be a delicate solution in cities like Tehran. Since the plot exists and the ownership’s issue is less than taking a land in a different area and besides all, usually there is a strong social connection between people and urban connection to various areas like city center. This in most of the areas can answer the needs, like examples in “Ilhas” and there would be no need to force people to move from the place that they are living. Also, they could be a part of construction as technicians or labors.

3.2 Architectural inside - Pre draft proposal

3.2.1 City Analysis – Atlas of Tehran Tehran

Tehran (Tehrān) is the capital of Iran and Tehran Province. With a population of around 8.4 million in the city and 14 million in the wider metropolitan area, Tehran is Iran's largest city and urban area, the largest city in Western Asia and one of the largest three cities in the Middle East (along with Istanbul and Cairo). In pre-Islamic times, part of the area of present-day Tehran was occupied by Rey. It was destroyed by the Mongols in the early 13th century. In 1796, Agha Mohammad Khan chose Tehran as Iran's new capital, in order to remain in close reach of Iran's territories in the Caucasus, at that time still part of Iran, and to avoid vying factions of previous Iranian dynasties. Throughout Iran's history, the capital has been moved many times; Tehran is the 32nd national capital of Iran. Large scale demolition and rebuilding took place beginning in the 1920s and 1930s, and Tehran has been the subject of mass migration of people from all over Iran up until the present. The city is home to many historic mosques as well as several churches, synagogues and Zoroastrian fire temples. However, modern structures, notably Azadi Tower and the Milad Tower, have come to symbolize the city. Tehran is ranked 29th in the world by the population of its metropolitan area. Although a variety of unofficial languages are spoken, roughly 99% of the population understand and speak Persian. The majority of the inhabitants of the city are Persians, but there are also populations of other Iranian ethnicities such as Azerbaijanis, Lurs, Armenians, Kurds and other ethnic groups who speak Persian as their second language. The majority of people in Tehran identify themselves as Persians.



Figure 72, Toopkhaneh square

Tehran is a relatively old city; as such, it has an architectural tradition unique to itself. Archaeological investigations and excavations in Tehran demonstrate that this area was home to civilizations as far back as 6,000 years BC in the village of Rey which is now incorporated into the city. Tehran served only as a village to a relatively small population for most of its history, but began to take a more considerable role in Iran after it was made the capital in the late 18th century. Despite the occurrence of earthquakes during the Qajar period and before, some buildings still remain from Tehran's era of antiquity. Today Tehran is Iran's primate city, and has the most modernized infrastructure in the country; however, the gentrification of old neighborhoods and the demolition of buildings of cultural significance has caused concerns. Azadi Tower has been the longstanding symbol of Tehran. It was constructed to commemorate the 2,500th anniversary of the Persian Empire, and was originally named "*Shahyad Tower*"; after the Revolution of 1979, its name changed to "*Azadi Tower*," meaning "*Freedom Tower*."



Figure 73, Azadi Tower

The recently constructed Milad Tower may eventually replace the Azadi Tower as Tehran's new symbol. The Milad complex contains the world's sixth tallest tower, several restaurants, a five star hotel, a convention center, a world trade center, and an IT park. Traditionally a low-rise city due to seismic activity in the region, modern high rise developments in Tehran have been undertaken in order to service its growing population. There have been no major quakes in Tehran since 1830.

The tallest residential building in Iran is a 54-story building located north of Youssef Abad district, the Tehran International Tower. It is architecturally similar to Mandalay Bay Resort and Casino on the Las Vegas Strip in the Paradise community of Clark County, Nevada, United States.



Figure 74, the greater Tehran

Circles of sustainability

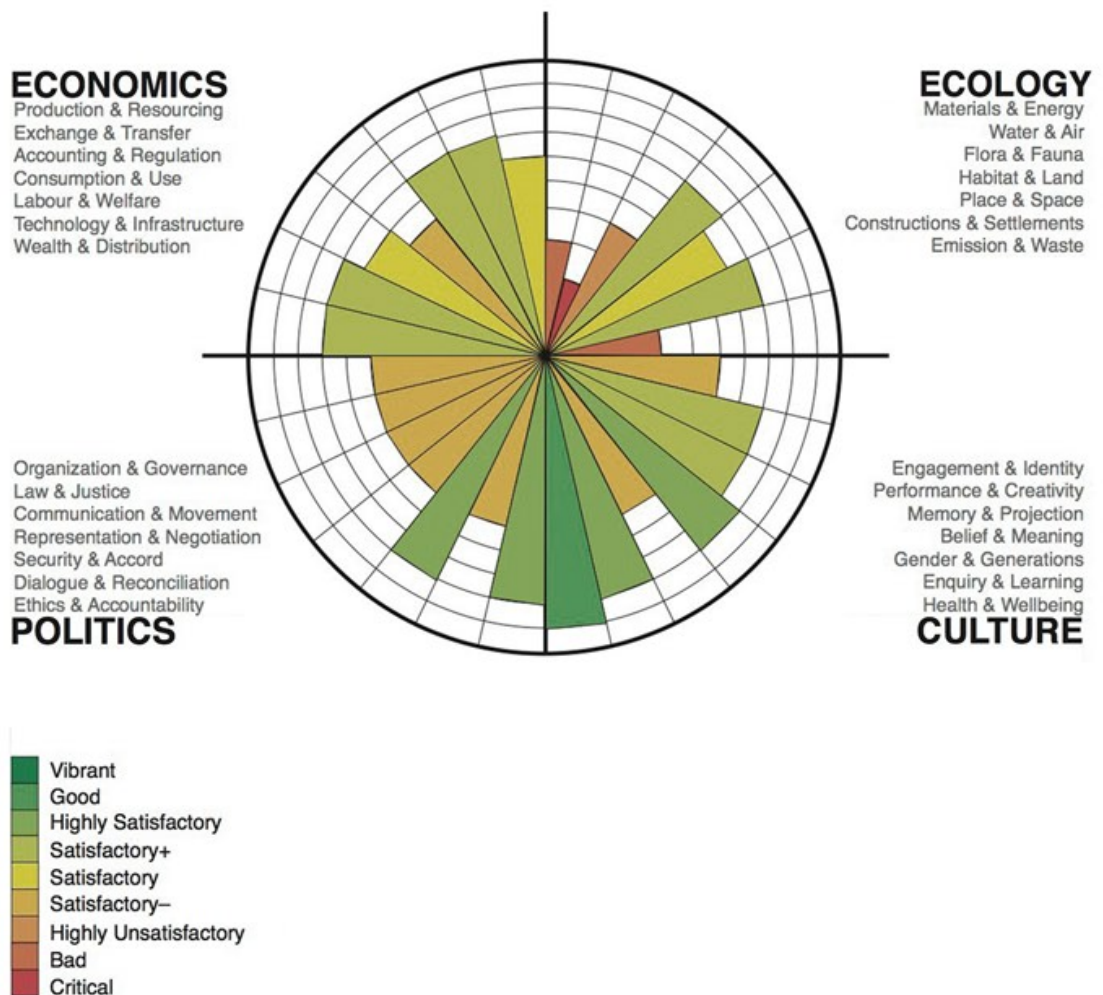


Figure 75, Circles of sustainability

3.2.1.1 Economic Analysis

Average floor area of residential units

The average floor area of residential units is dependent on environmental, cultural and social conditions. The main difference between the indicators of housing in Iran with those of other countries is that these indicators are relatively high in Iran, even compared with those of developed countries. For example, in the 1980s, the average floor area of residential units in Iran was over 140 sq. m., whereas in Japan and all European countries was less than 100 sq. m. The reason should be sought in the cultural and social conditions and needs of the Iranian families, and not necessarily in their financial conditions. In Tehran, this indicator has two major characteristics. First, the average floor area of residential units in Tehran is more than 100 sq. m., which is much higher than other countries.

Second, there is considerable difference between the average floor areas in various parts of the city. In Tehran, the average floor area in various parts of the city follows the same pattern as the average number of people residing in a residential unit. In the south, residential units have the smallest floor area (between 50 and 70 sq. m) whereas in the north, (especially districts 1 and 3), floor areas vary between 130 and 175 sq. m. The units situated in southern and western districts are recently built, having an average area of 100 sq. m. This difference is mainly due to the difference in the financial status of the families, which increase as we move from the south to the north. In northern districts, in addition to the economic factor, there is environmental factor. The residential units in these districts are mainly houses, requiring greater floor area and a greater number of people residing in them.

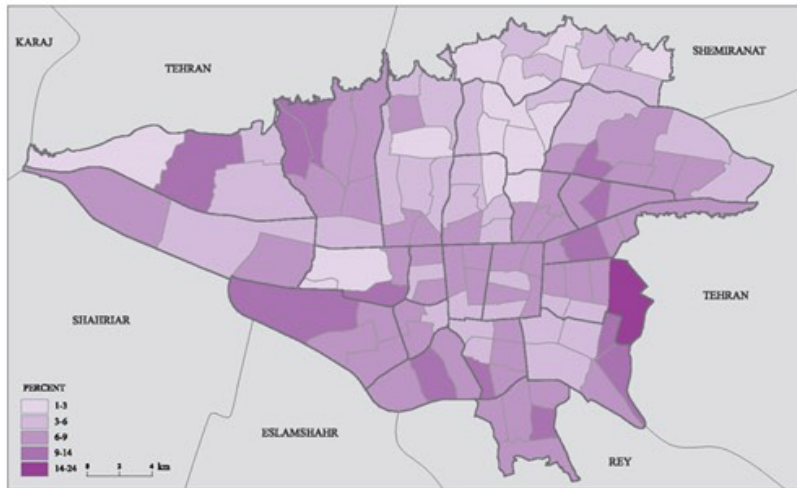


Figure 76, Residential units with 75-85 Sq.m space (2006)

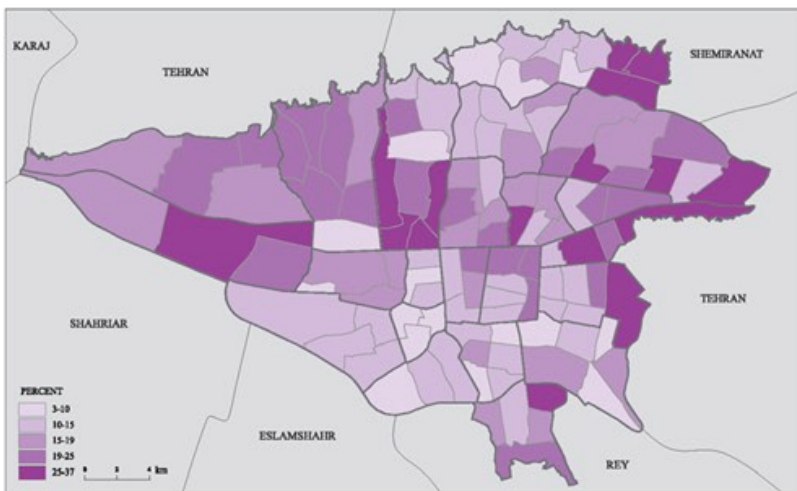


Figure 77, Residential units with 80-100 sq.m floor space (2006)

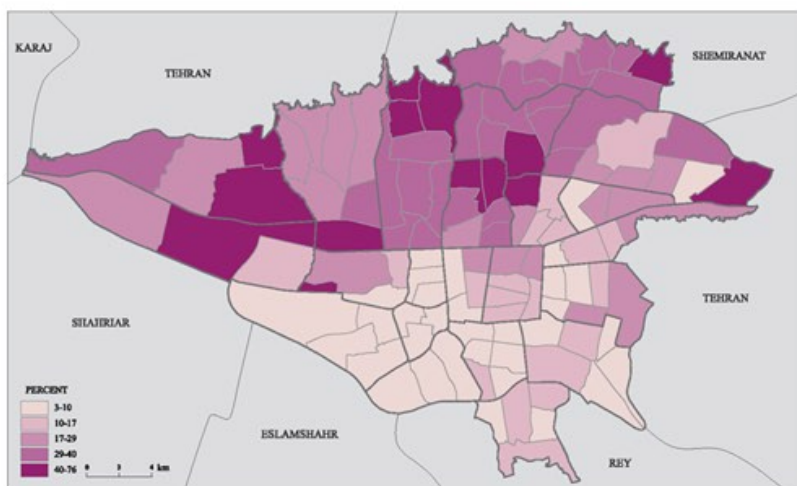


Figure 78, Residential units with 100-150 sq.m floor space (2006)

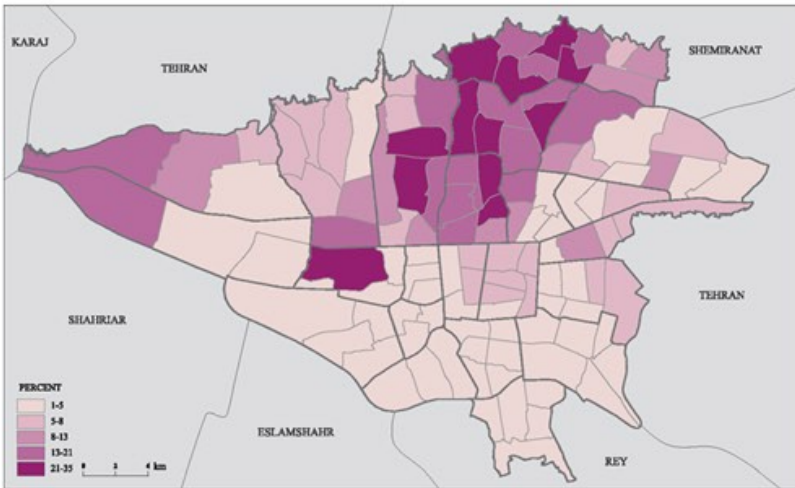


Figure 79, Residential units with 150-200 sq.m floor space (2006)

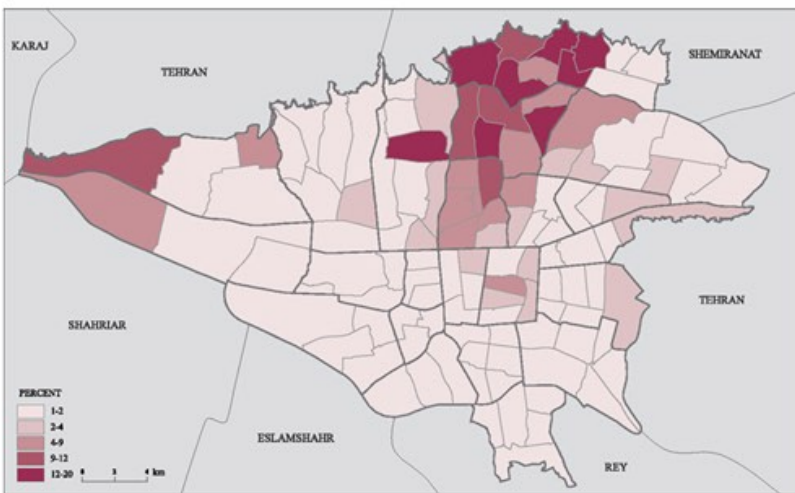


Figure 80, Residential units with 200-300 sq.m floor space (2006)

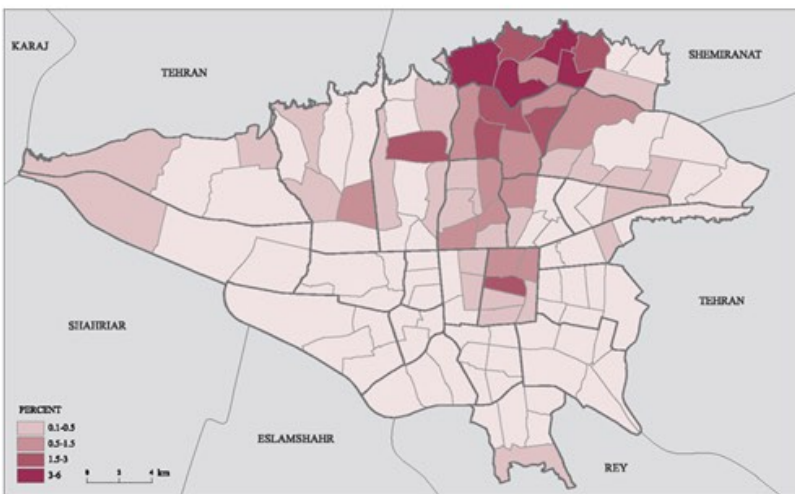


Figure 81, Residential units with 300-500 sq.m floor space (2006)

Floor area per capita

The indicator is among key indicators showing the status of housing.

Unlike other housing indicators which reflect only one of the economic, social, cultural and environmental dimensions, floor Area indicator is closely connected with all these dimensions.

The economic factors, from macro economy to micro economy, the family's financial power, the social and cultural characteristics, environmental conditions, all these can affect this indicator and planning for that.

As a general rule, in Iran, as compared with other countries even developed, countries, this indicator is high due to the socio-cultural needs of Iranian families.

For example, Iranians devote a considerable space to kitchens and dining rooms. In Tehran, floor area per person shows an amazing variety.

In the old and central areas of the city, families have a moderate floor area per person; that is, 30 sq m. In the north and south of the city, there are two totally different patterns.

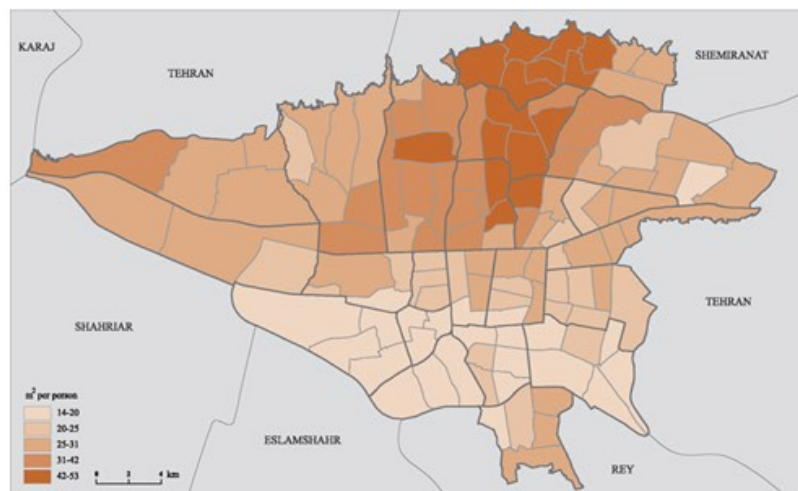


Figure 82, Residential floor space per capita (2006)

Number of rooms per household

The indicator “number of rooms per a household” is a quality indicator of housing.

A high number of rooms per household shows high income and vice-versa. It is directly related to the floor area available to each household member. Obviously, the two number of rooms per do not show a good status of housing. In 2006, about 6.2% of the households residing in Tehran metropolis had only one room available to them. While it shows a reduction compared with 1996, the geographical distribution has not changed; such households are still concentrated in the south of Tehran. Districts 17, 18 and 19 have the greatest number of households with one room, while in 1996, districts 19 and 18 have the lead.

These two districts are located in the margin of Tehran, populated mostly with workers and migrating households. In 2006, compared to 1996, the number of households with two rooms has changed.

A tendency toward renting flats of 50 to 70 sq m has increased the number of residential units with two rooms. Similar changes have happened to the number of households with three rooms.

In 1996, the highest number of households with three rooms were living in districts 14, 15, 20 and 8, whereas in 2006, the highest number of such households were living in districts 5 and 22, followed by the eastern districts.

In 2006, 4.7 % of households had five rooms available to them. These households were living mostly in the north of the city especially in districts 2, 3 and 6. Only 2.4% were living in the south of the city.

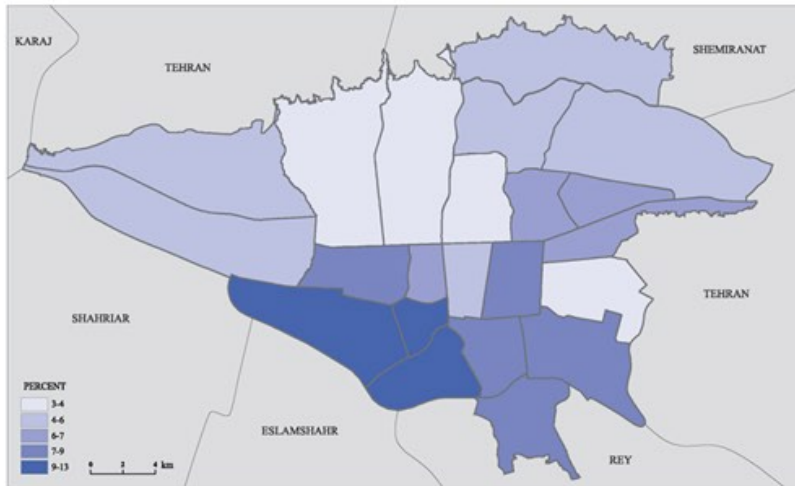


Figure 83, Households with one room (2006)

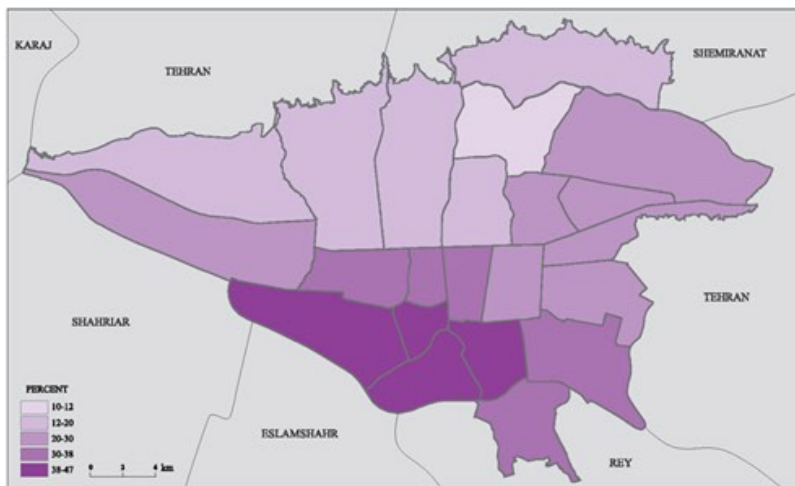


Figure 84, Households with two rooms (2006)

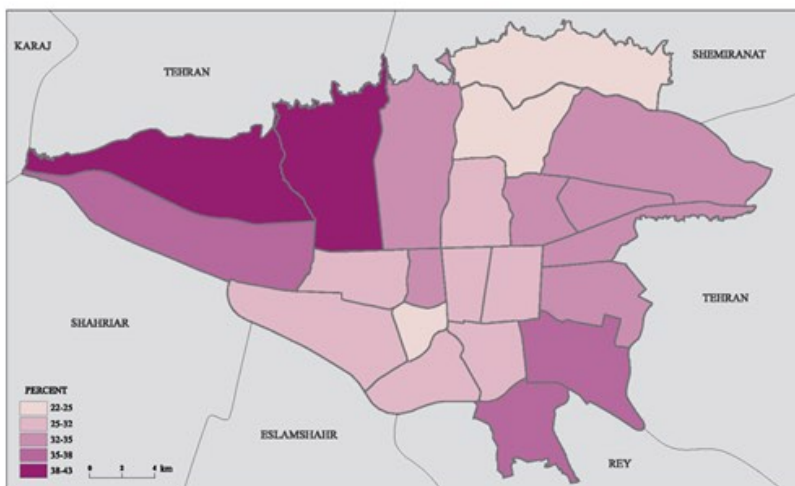


Figure 85, Households with three rooms (2006)

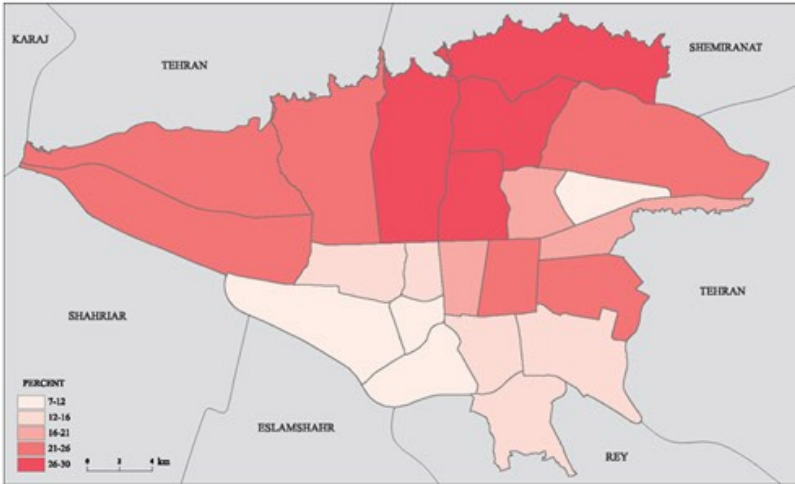


Figure 86, Households with four rooms (2006)

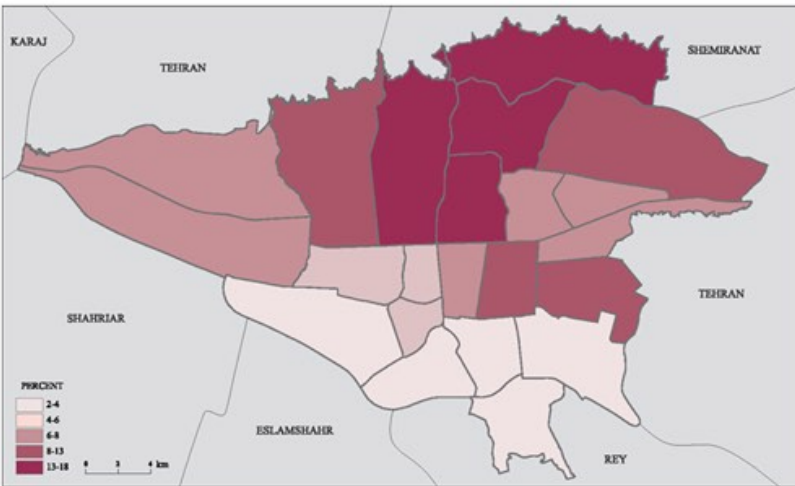


Figure 87, Households with five rooms (2006)

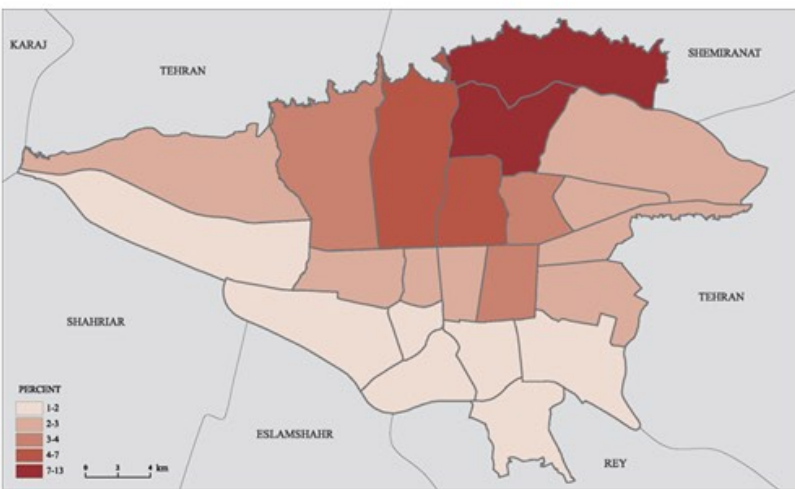


Figure 88, Households with six rooms (2006)

Property ownership

The property ownership indicator explains if a property is owned by a private person, if it rented, if it is free of charge or if it is a governmental property. This indicator by itself does not show the desired or undesired status of housing in a country. For example, in some developed countries (such as Sweden, Swiss and Germany), the indicator is low (less than 40%), whereas in some other developed countries (such as England), the indicator is high (over 70%). The social conditions counts as the most important factor. In the case of the former countries, a high number of properties belong to city councils or municipalities. Also, due to the high level of welfare in these countries and the government's plans of supplying housing, people have little motivation to buy houses. In Iran, (and in Tehran metropolis), the high level of ownership of properties is considered a desired status because, on one hand, owning a house or a flat is regarded as a kind of saving for children, and on the other hand, the policies of the government for supplying housing and boosting the indicator of property ownership is considered a positive policy. The possibility of conversion of properties to an investment commodity has encouraged households to buy houses. About 57 percent of households in Tehran are the owners of the housing units in which they live. In more affluent areas, such as districts 5, 9, 10, 11 and 12, the ownership rate is between 51% and 55%. Districts 5, 9, 10, 11 and 12 are moderate. But 31% of the households live in rented and flat units and 2.7% live in free properties.

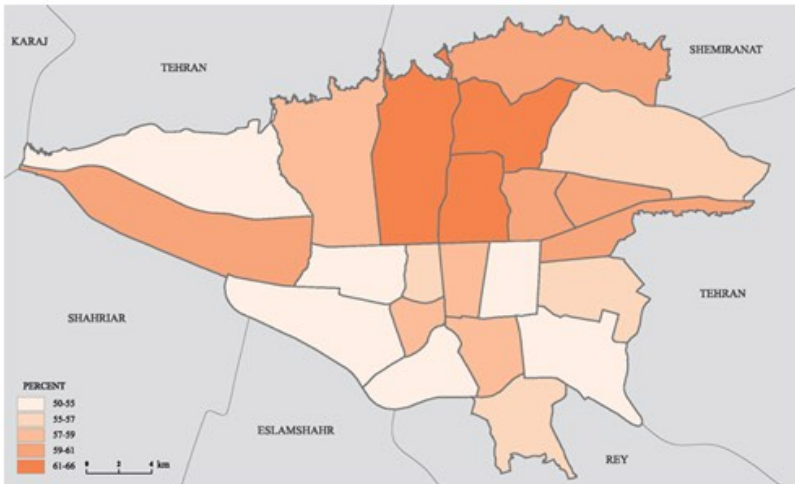


Figure 89, Households owning units (2006)

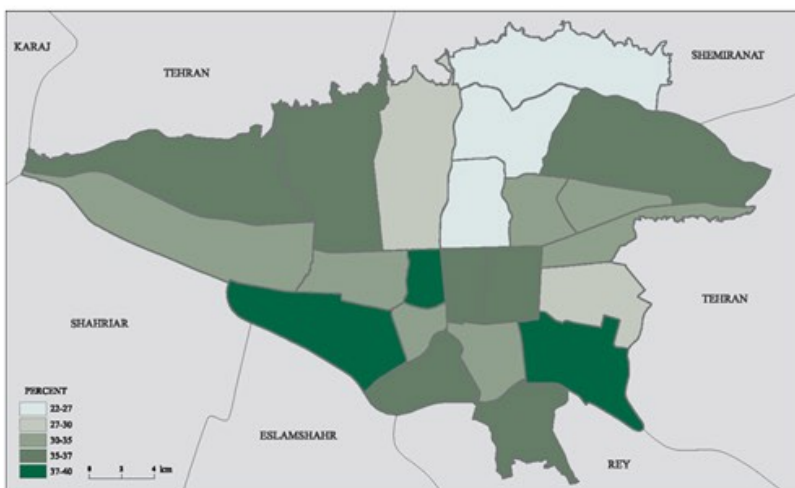


Figure 90, Households renting units (2006)

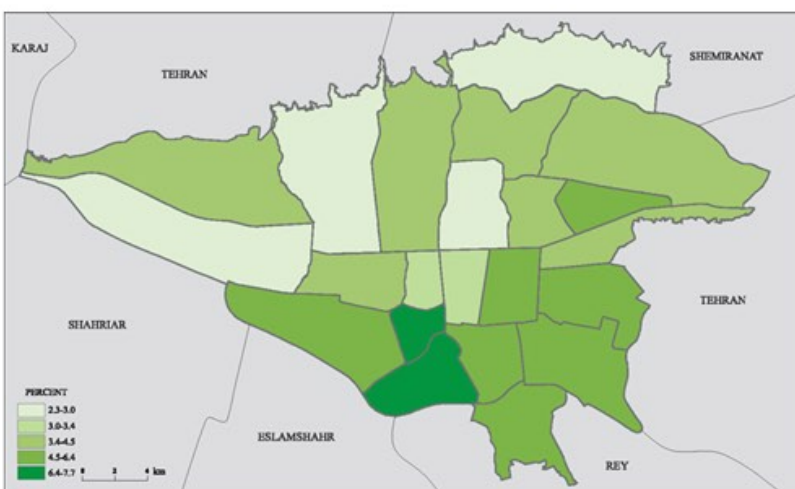


Figure 91, Households free type of units (2006)

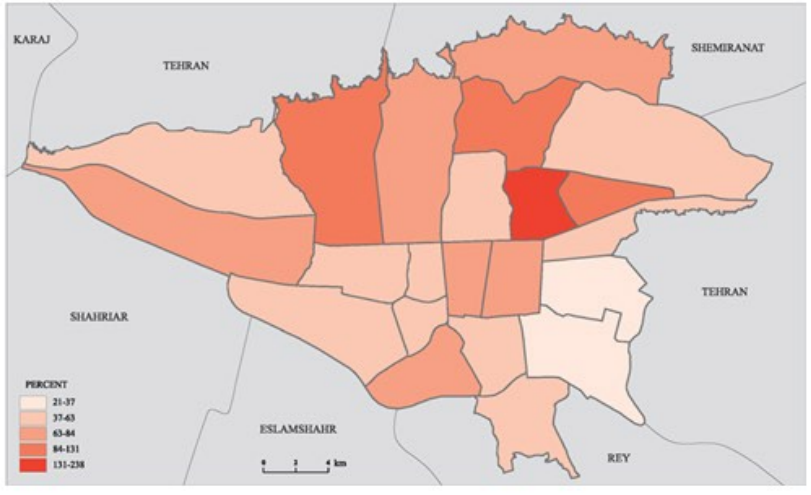


Figure 92, The average growth rate of land price (2005-2007)

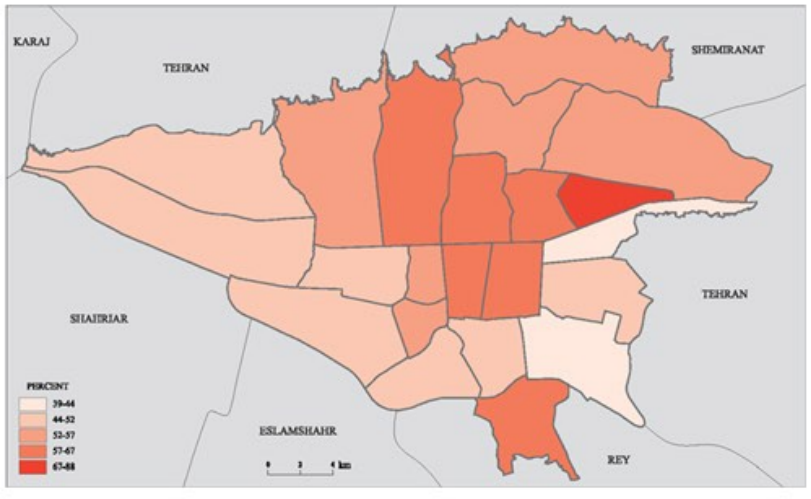


Figure 93, The average growth rate of housing price (2005-2007)

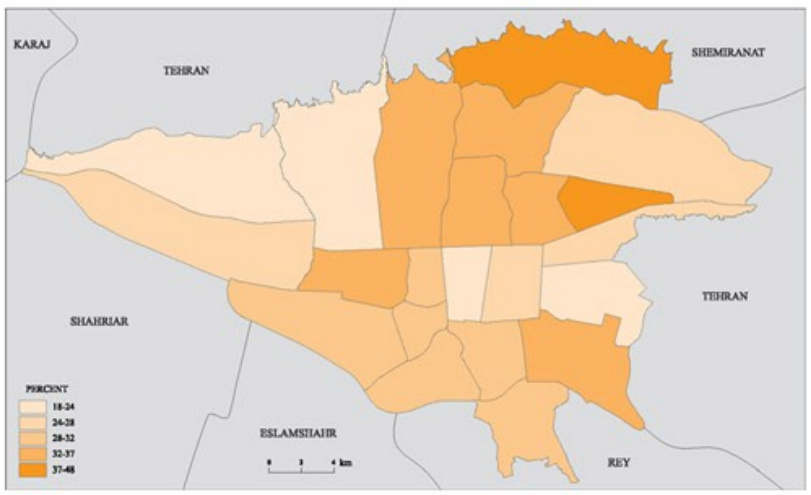


Figure 94, The average growth rate of rental housing (2005-2007)

3.2.1.1. Social and psychological analysis

Cultural services

Cultural services are offered through public libraries, mosques, cinemas and cultural centers (or local houses of culture). The data obtained from the clustering analysis shows that: -the central parts of the city, especially districts 3, 6, 11, 12, 14 and 20 have the best access to public libraries, whereas districts 21 and 22 have no access at all. -The districts located in the center, central part of the south and east of the city, especially districts 4, 8, 10, 11, 12, 13, 14, 17 and 20 have the best access to mosques, whereas access to mosques in the east, west and southwest is not good. -The districts located in the central areas, especially districts 7, 8, 10, 11, 12, 13 and 16 have the best access to cinemas, while the eastern, north western, south western and south eastern parts of the city have no access to cinemas. The spatial distribution of access to cinemas is quite unequal as the cinemas are mainly concentrated in the central part of the city. The distribution of the cultural centers is very good all over Tehran; except for parts of the northeast and northwest (districts 21 and 22), almost all other districts have a very good access to cultural centers.

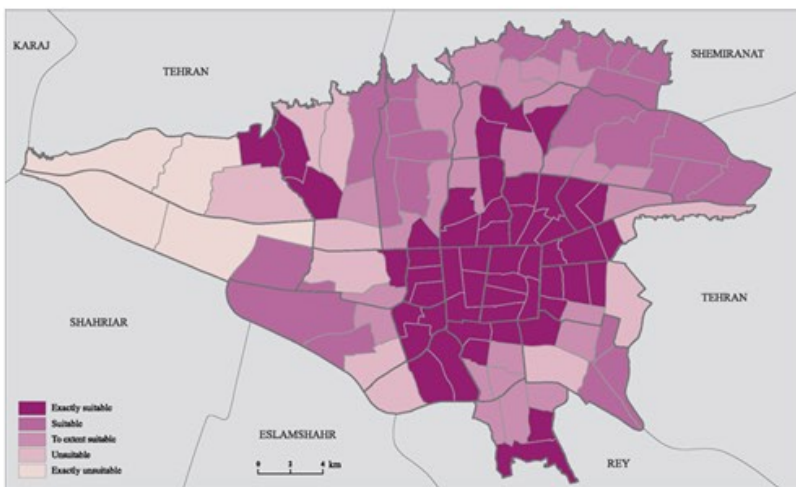


Figure 95, The quality of access to cultural services (2006)

Access to urban services and facilities

This factor, which includes the indicators showing six types of services: educational, emergency, health and treatment, transportation, cultural and recreation, shows access to all urban services and facilities as a whole. Thus, the internal and central districts of the city have the best access to these urban services and facilities, but the western districts and the districts in the suburb have poor access to public services. In general, a clear distinction can be made between the central and suburban districts in terms of access to public services and facilities. The western districts, especially districts 21-22, characterized with a low density of population, have the poorest access to these public facilities. The central, central north and central south districts, characterized with a high density of population, have the best access to public services and facilities. The spatial changes of access to urban services generally shows a high concentration of services in the city center and a low concentration of services as we move farther from the center toward the suburban areas.

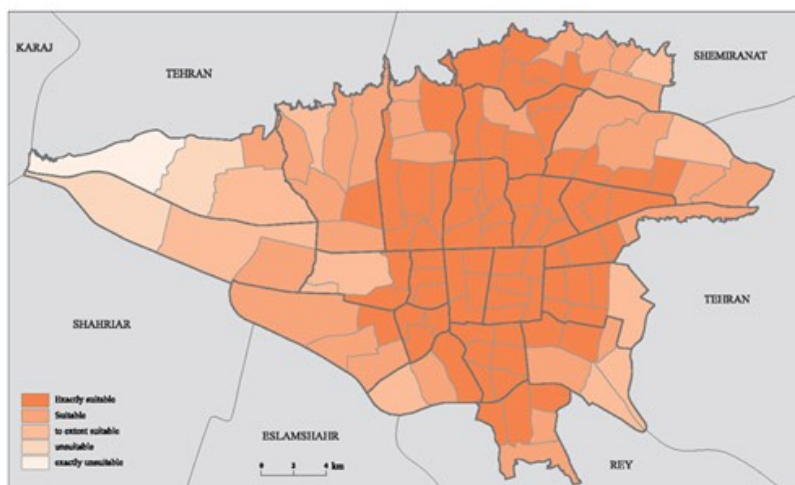


Figure 96, The quality of access to urban services (2006)

Social capital quality

This factor indicates the capital of social capital. It consists of indicators such as rate of education, rate of education of men and women over 6, number of family members, rate of employment, number of unskilled workers employed, residences with three or more bedrooms and with areas of over 101 to 200 square meters. The northern and central north districts rate best. Also the western and eastern districts have good social capital. The southern, southwestern and central south districts have the poorest social capital. Tehran can be divided into two northern and southern parts in terms of social capital: the former part, covering two thirds of the city, has a good social capital, but the latter part has a poor social capital. The difference between the northern and southern parts is quite a lot in this regard.

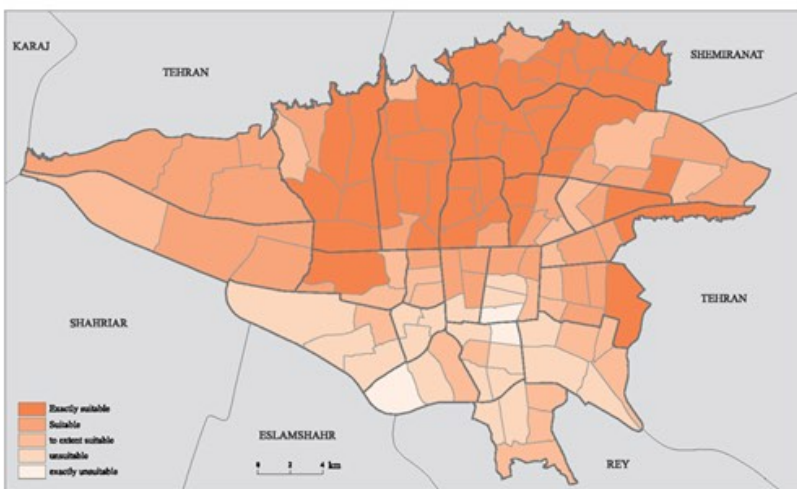


Figure 97, The quality of social domains (2006)

Quality of life in Tehran

To obtain a picture of the general quality of life in Tehran, the four dimensions of the quality of life mentioned above are here measured.

It is worth mentioning that this study uses very limited objective indicators — those accessible in the 117 districts of Tehran— to measure the quality of life in Tehran, and that it was not possible to measure these data with subjective indicators. Therefore, the results obtained should be interpreted with these limitations in mind. In spite of the limitations mentioned, the picture of life in Tehran reveals a fairly good quality of life in all the districts. Northern, central north and northeastern districts have the best conditions.

Quality of life in northwestern and southeastern districts is also good. In the southwestern districts, quality of life is rather good. Only in two districts (one in area 9 and one in area 19) quality of life is very bad and in six districts (two districts in the west end of the city, two districts in the center of the city, one district in area 9 and one district in area 18), quality of life is bad. In two districts in area 9, the poor quality of life is basically due to high environmental pollution. In one district in area 19, the poor quality of life is due to its poor social environment and its relatively high environmental pollution. In one district in area 18, poor quality of life is basically due to its poor social environment, high environmental pollution and poor access to urban services and facilities. In two districts located in the west end of the city, and the district 21 and 22, poor quality of life is mainly due to poor access of these districts to urban services and facilities. And in two districts situated in area 12, poor quality of life is mainly due to their poor social environment and poor housing quality.

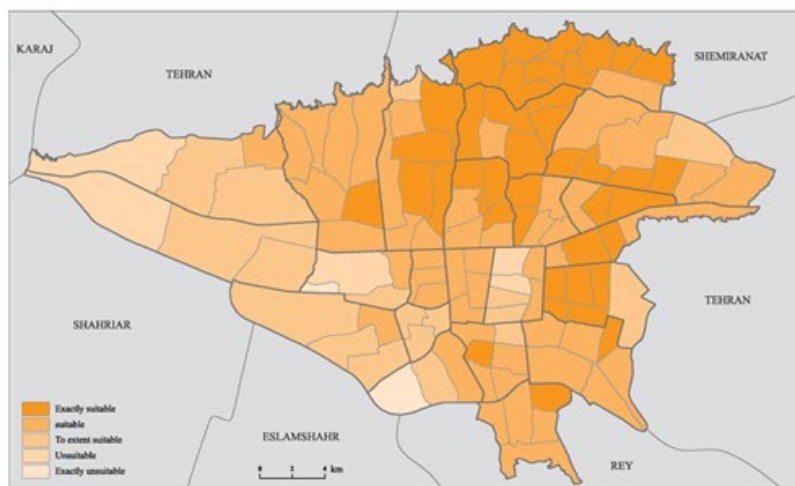


Figure 98, Quality of life (2006)

3.2.2 District 20 - Municipality master planning

Facilities (resources) and restrictions in district 20 with considering clear properties and development potentials, are categorized in the following:

3.2.2.1 Resources

- Potentials in tourism industry and leisure centers:
 - Considerable rural area in the margins
 - Valuable and various historical buildings (Chesme Ali)
 - Considerable arid lands
 - Abdol Azim Haram (religious center)

- Appropriate access to center and main areas of Tehran:
 - Subway (Javanmarde Ghasab)
 - Azadegan Highway

- Job opportunities:
 - Young population in district
 - Noticeable areas that are serving as old fashioned (not active) industries and storages and the need to change them to active and sustainable industries.

- Existence of cheap lands and apartments:

3.2.2.2 Restrictions

- Current land use:
 - High density of buildings in some areas
 - Shortage of public services in different scales particularly in cultural aspects
 - Existence of illegal housing units in some areas

- Environmental problems:
 - Deficiency in public green spaces

-
- Traffic and transportation:
 - Heavy traffic at main streets
 - Inadequate number of parking lots
 - Weak public transportation inside the area

 - Population and economic issues:
 - Population is more than what had been predicted in the management plan
 - Partial decline in number of jobs because of old industries

3.2.2.3 Development prospects

The district 20 is regarded as one of the most prominent regions of Tehran in the close future due to numerous historical points and religious places and the possibilities of job and also predicted organized residential zones.

Development prospects of district 20 have been predicted with respect to resources, potentials and restrictions in the area. These prospects focus on the part and role of the district in Tehran, enhancing living conditions, providing job opportunities, developing public spaces and preserving/restoration of historical buildings.

Guidelines and aims

In order to reach to development prospects following aims have been provided:

- Betterment of housing conditions
- Providing job opportunities
- Enhancement of public spaces
- Reviving identity in the district with help of lucid religious and historic properties
- Improving environmental conditions in order to reduce pollution
- Enhancement of road network

On the other hand, to reach these aims the following guidelines are proposed:

- Directed development of housing construction
- Organizing and utilizing abandoned industrial zones
- Organizing religious areas
- Reviving historic area and making it a historic center

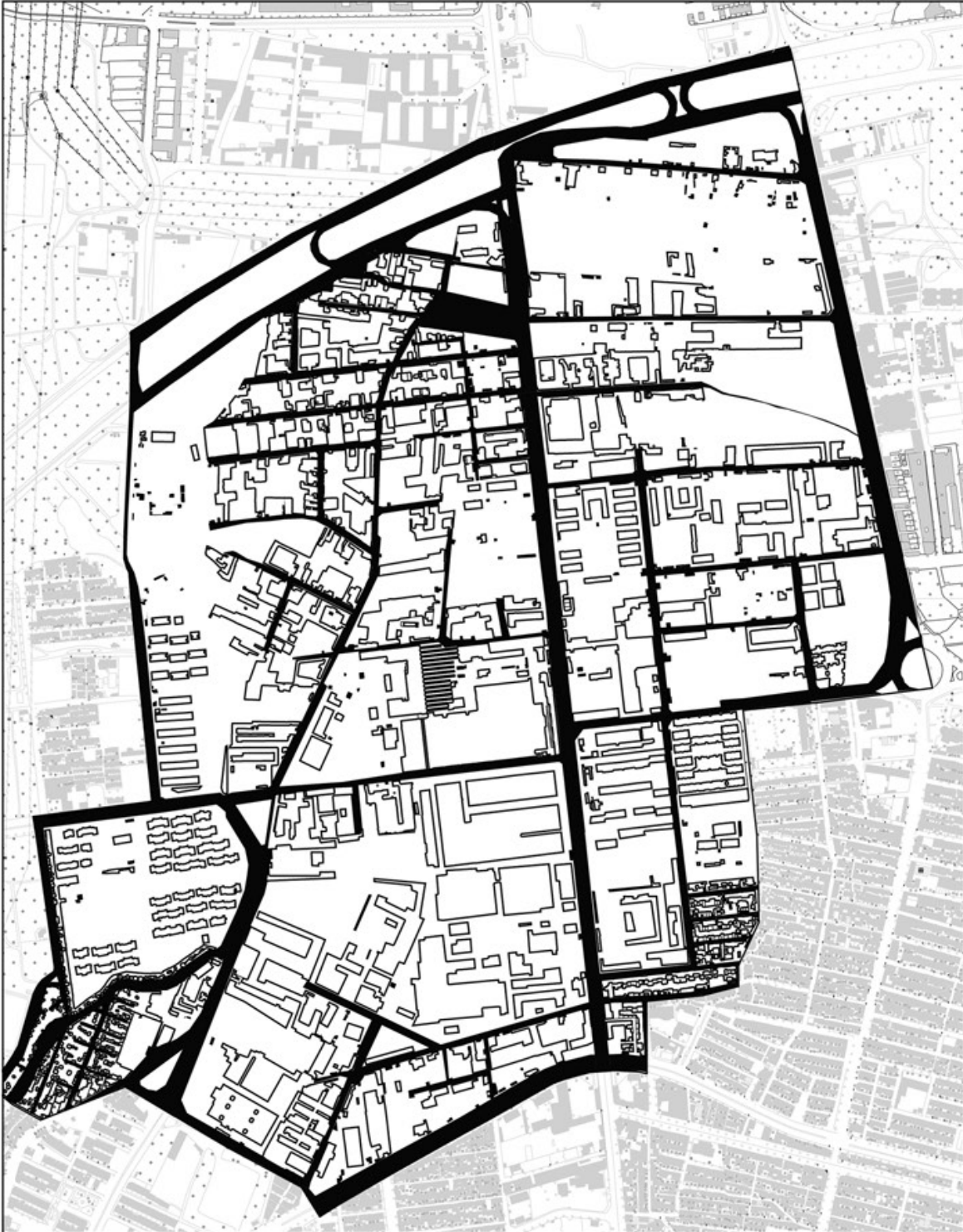
Position and the role of Region 20 in Management plan of Tehran

- Functional Identity: The religious center of Tehran
- Social and economic Variety: low Variety, Low income people
- “Darband”-“Rey” Axis: the most important axis of Tehran
- Historical and contemporary aspects: “Fadaian islam”-“rajai” connects Rey to Tehran
- Historical-Religious zone of rey : from “cheshmeh ali” to “abdol azim “ shrine
- Gates: Southern gate of Tehran, Varamin and Ghom

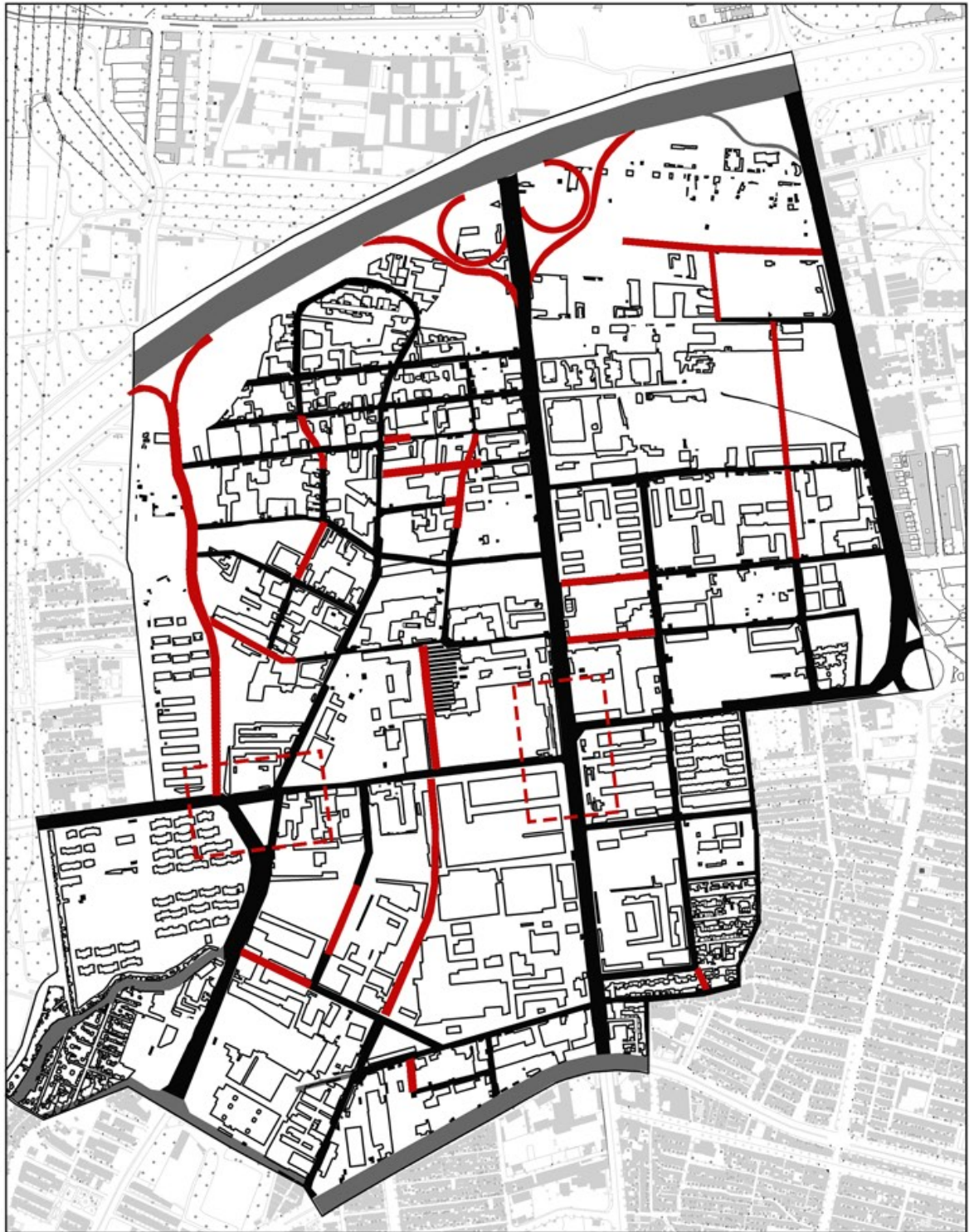
Urban analysis

- Infrastructure
- Built-up and open spaces
- Age of buildings
- Functions

Existing infrastructure



Proposed infrastructure (municipality)

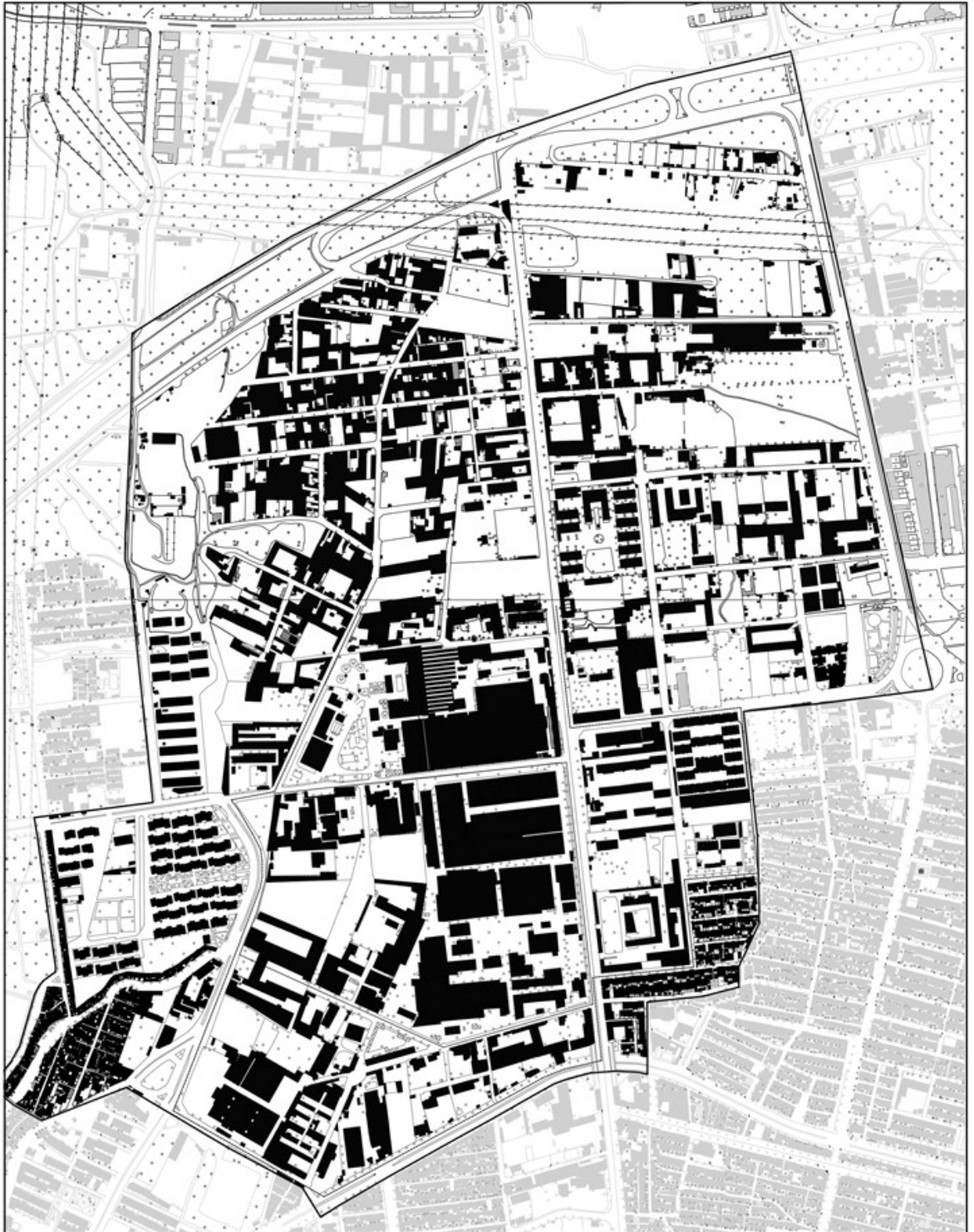


- | | |
|--|--|
|  Streets need to be wider |  Existing streets |
|  Streets need to be constructed |  Prominent intersection |

Built up space



Built up and infrastructure



Age of building



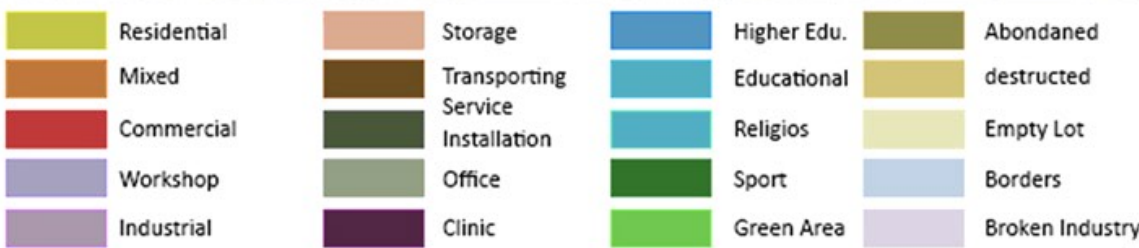
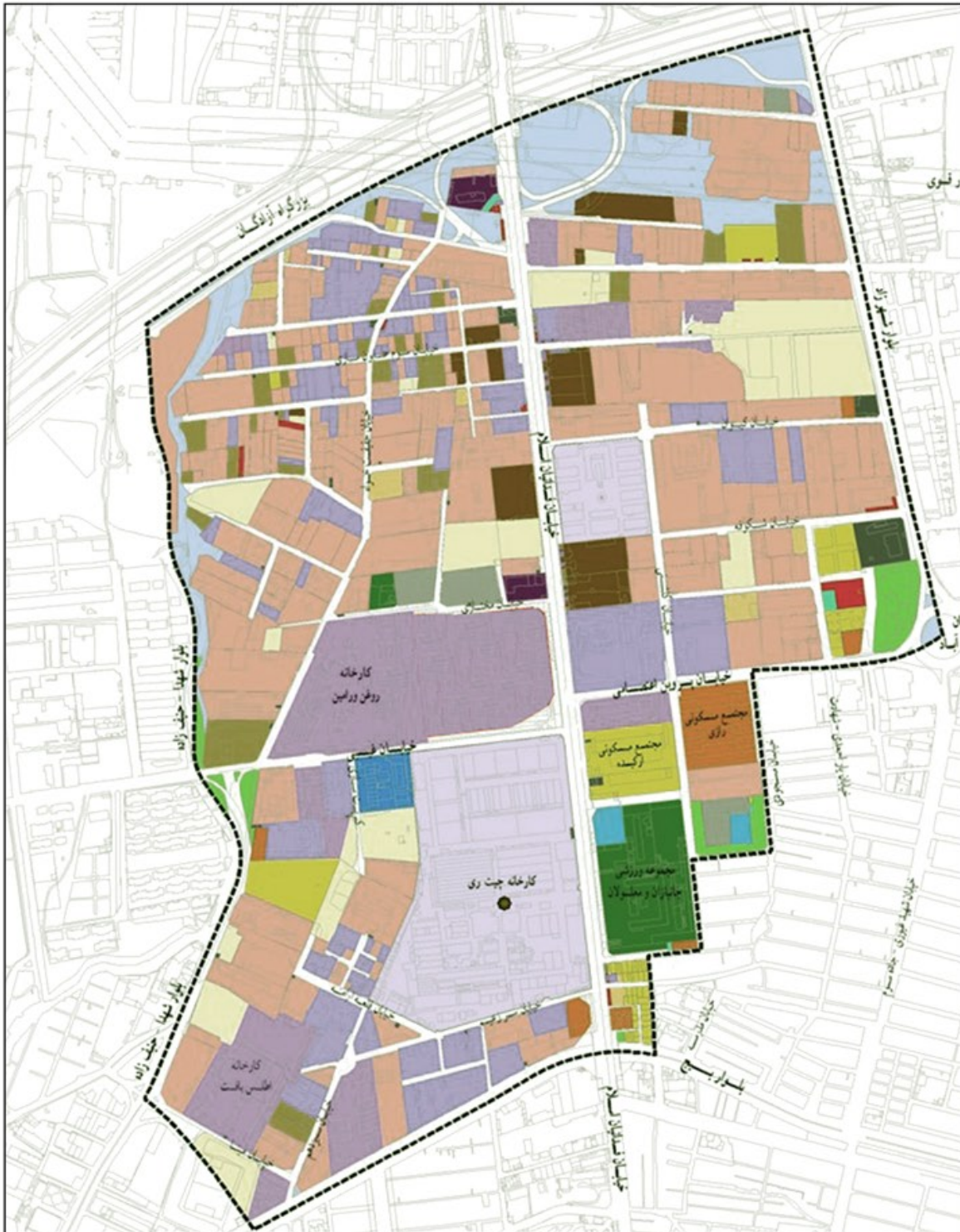
- Recent (Last 20 years)
- Old

Open spaces

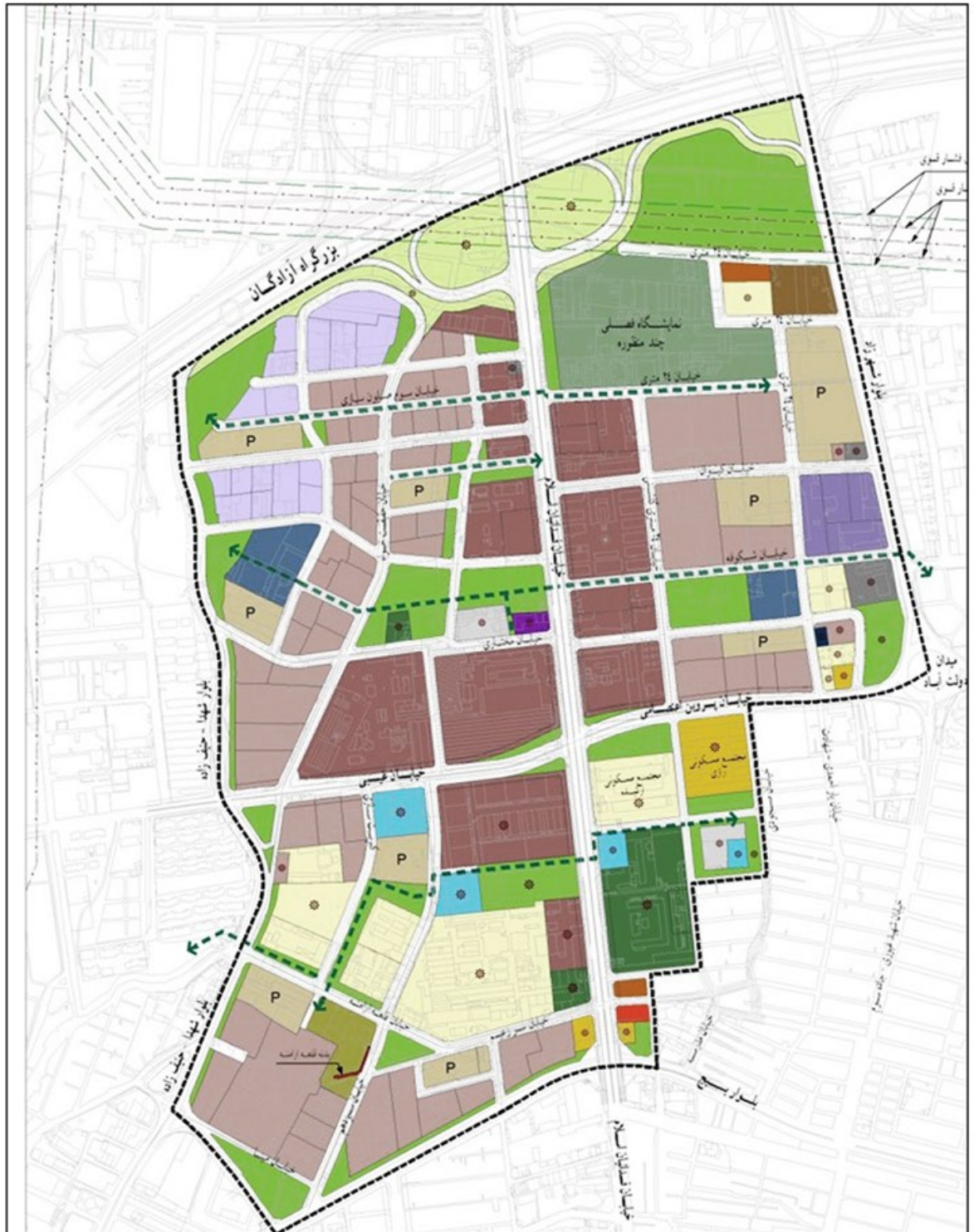


- Major Public Open Spaces
- Open Spaces

Current function



Proposed function (municipality)



- | | | |
|---|--|---|
|  Commercial-office beside the 'fadaian islam' axis |  Public Parks |  Cultural-sport center |
|  Commercial-office far from the 'fadaian islam' axis |  Territory of the highway |  Fairs |
|  Workshops, repair centers, storages | Services |  Urban Installation |
|  Hotel and Hostel |  Offices |  Parking |
| Housing with medium Density (five levels) |  Educational |  Heritage |
|  Commercial-Residential |  Cultural-recreational |  Bus stop and parking |
|  Residential |  Religios |  Urban Services |
| |  Clinics |  Fire Station |

Synthesis:

Looking towards municipality of Tehran's proposal in district 20, it seems that the proposal is trying to solve the issues in the area through some restrictions. For instance, one of the significant restrictions in the area is "traffic and transportation" divided into three main chapters: heavy traffic at main streets, inadequate number of parking lots and weak public transportation inside the area. Municipality has tried to give a solution by:

- Enhancing and completing existing roads:
 - Making hierarchy, order and solidarity
 - Widening the roads according to future needs

"Current land use" could be the other issue that the proposal is attempting to straighten out. The area is recognized with factories that are mostly abandoned; this gives it a potential to be changed and through this potentiality, municipality has decided to give a new life to it by introducing functions such as commercial and housing.

Although this proposal can answer the demands that are coming from restrictions, there are still some issues that might have been ignored. For example, quarter's size in most of areas in the district is vast and division between quarters has been done by streets that mainly had existed before. These streets were serving factories that usually occupy a bigger area than a function like commercial or housing.

Another issue that proposal is not clear about is urban continuity. Even though a mixture of functions and some green areas are proposed, there is still lack of interrelationship between them. This could come from the idea that housing should be shy and not come to play with other public buildings. In terms of public spaces hierarchy between them is not well defined and green areas are segregated. And also it seems that green spaces are isolating functions by surrounding them.

Architectural proposal

- Quarter size
- Infrastructure
- Built-up and open spaces
- Functions
- Urban lay-out

Quarter size

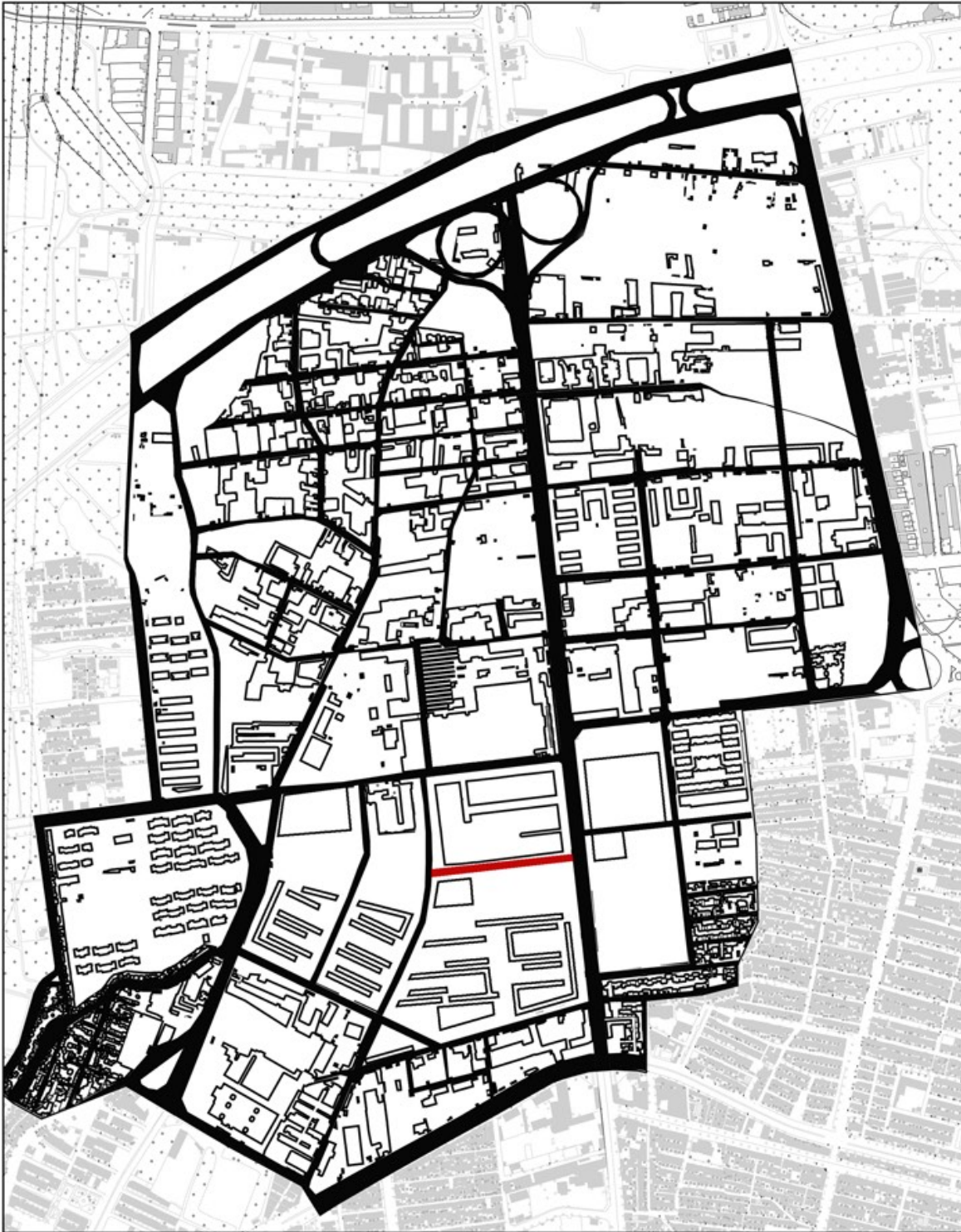


Proposed quarter size



- Existing quarter size
- Proposed quarter size

Proposed infrastructure / municipality



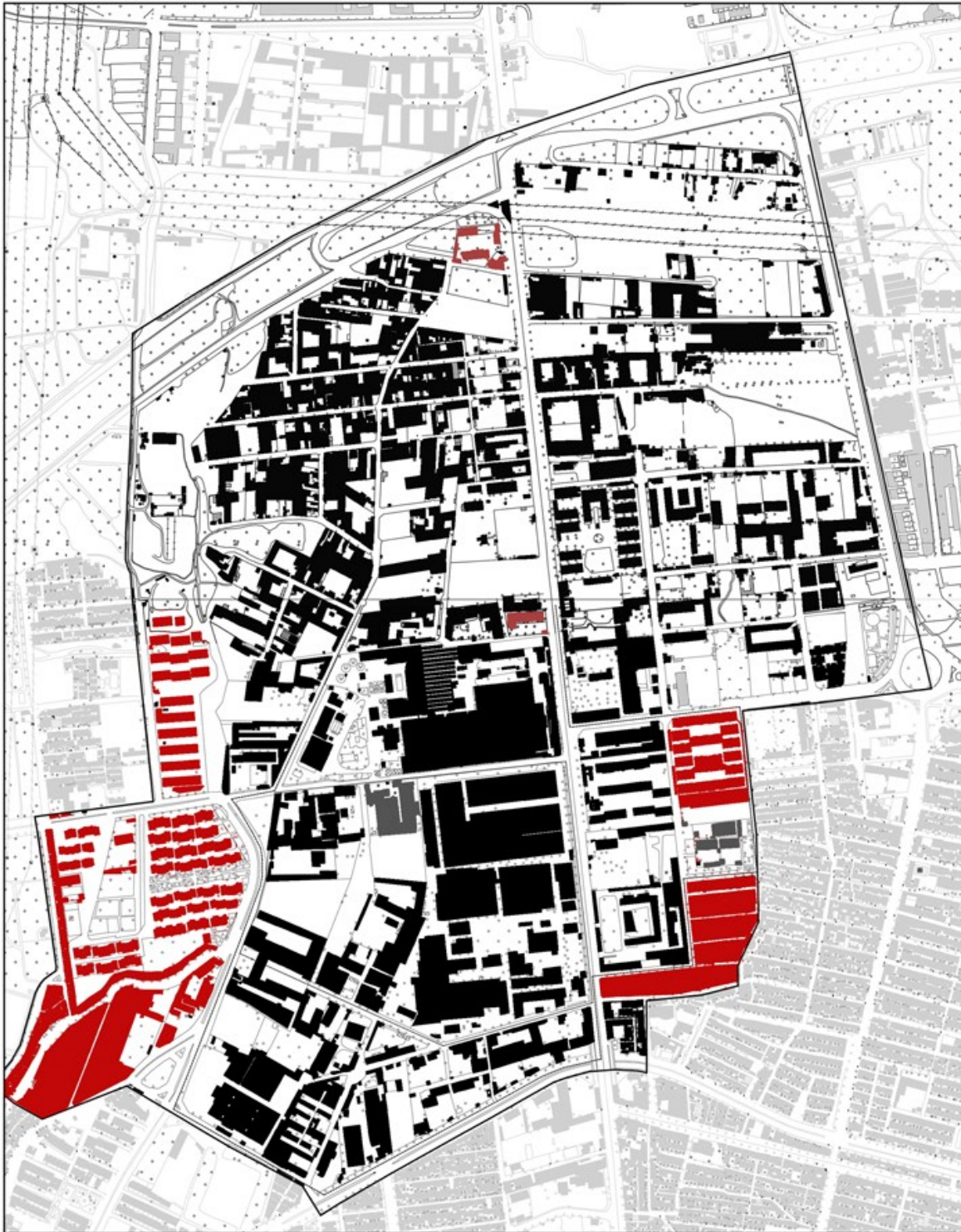
- Proposed Infrastructure
- Existing Infrastructure

Proposed open spaces



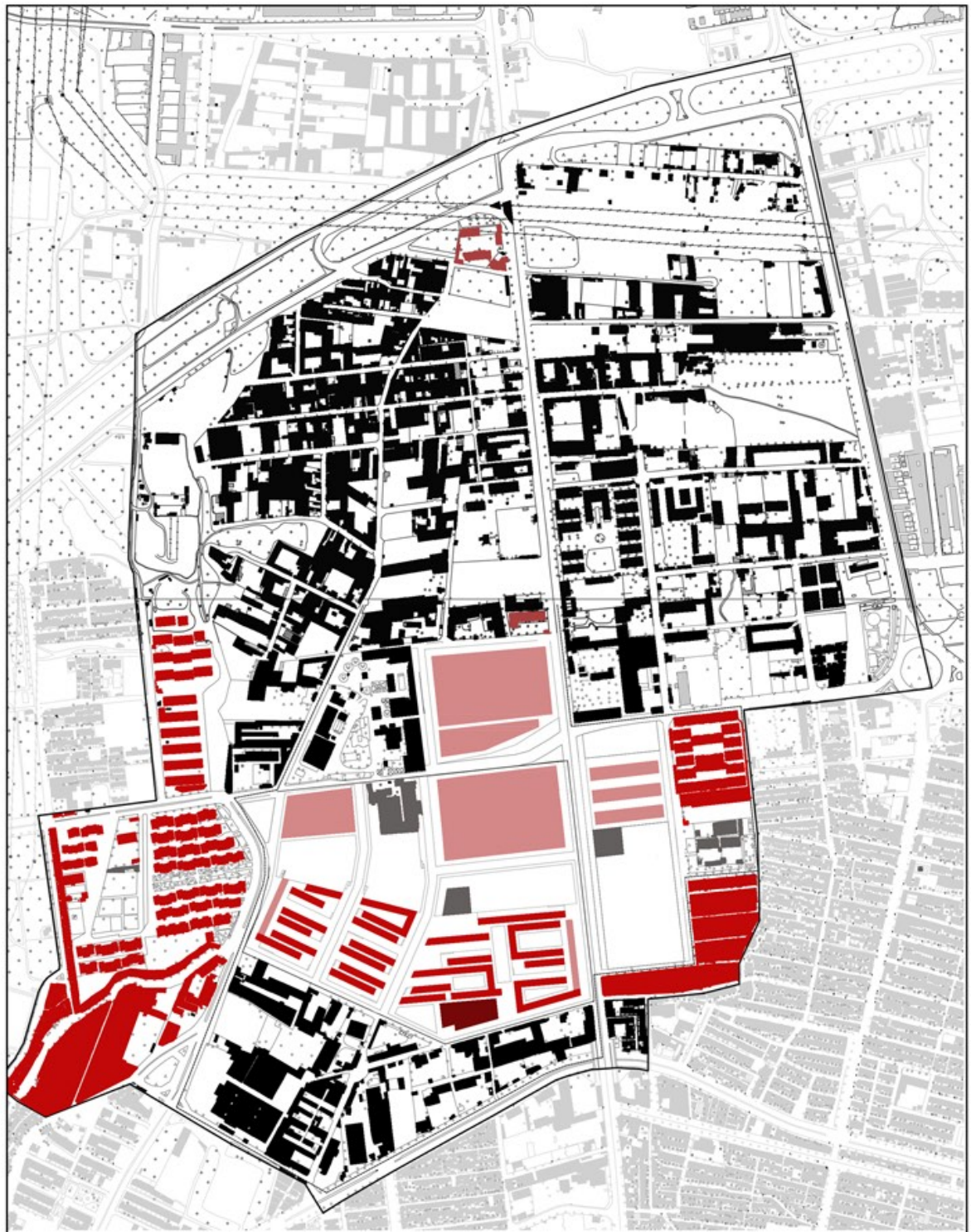
- Major Public Open Spaces
- Open Spaces

Current function



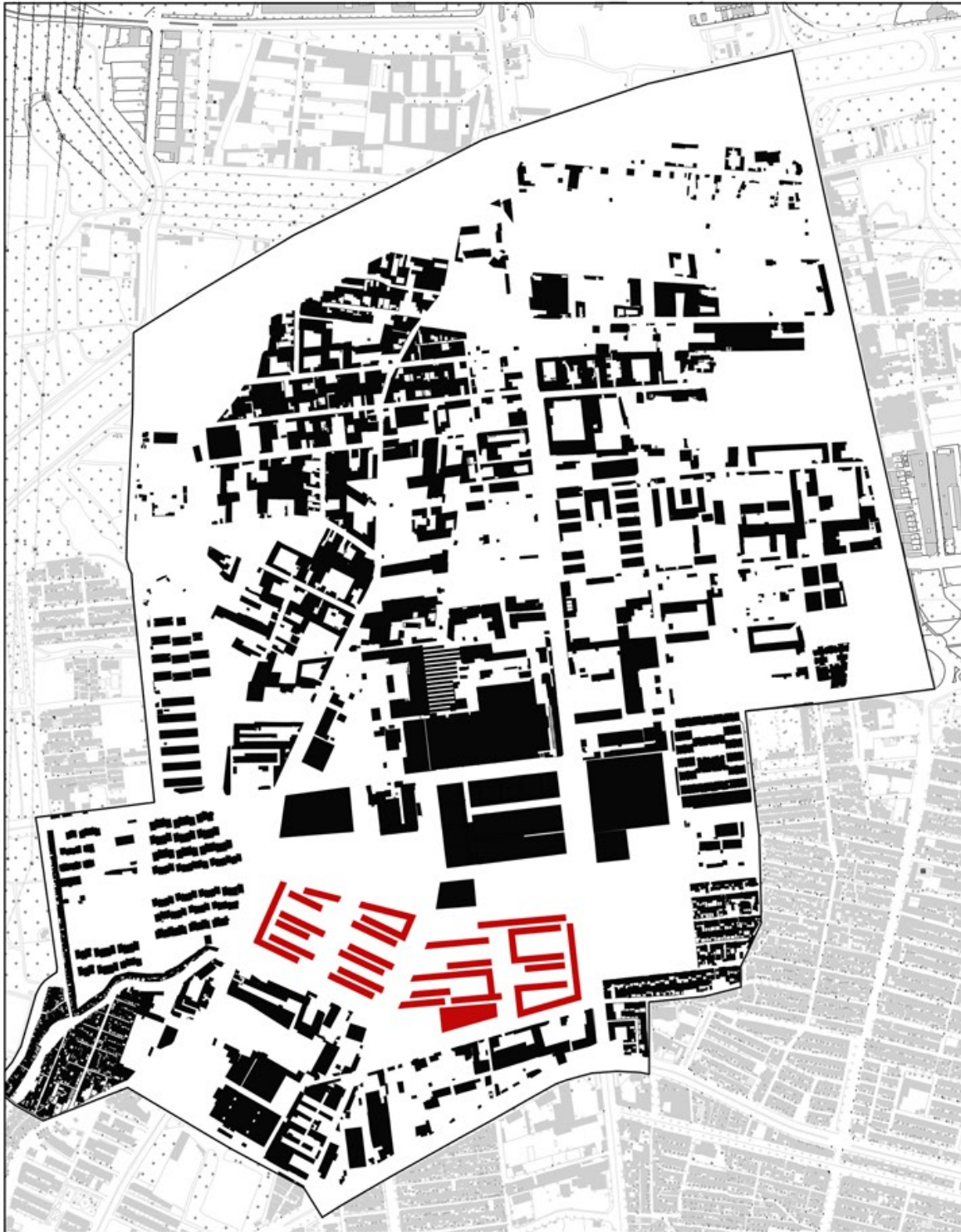
- | | |
|---------------|---------------|
| ■ Industrial | ■ Educational |
| ■ Residential | ■ Clinic |

Proposed function



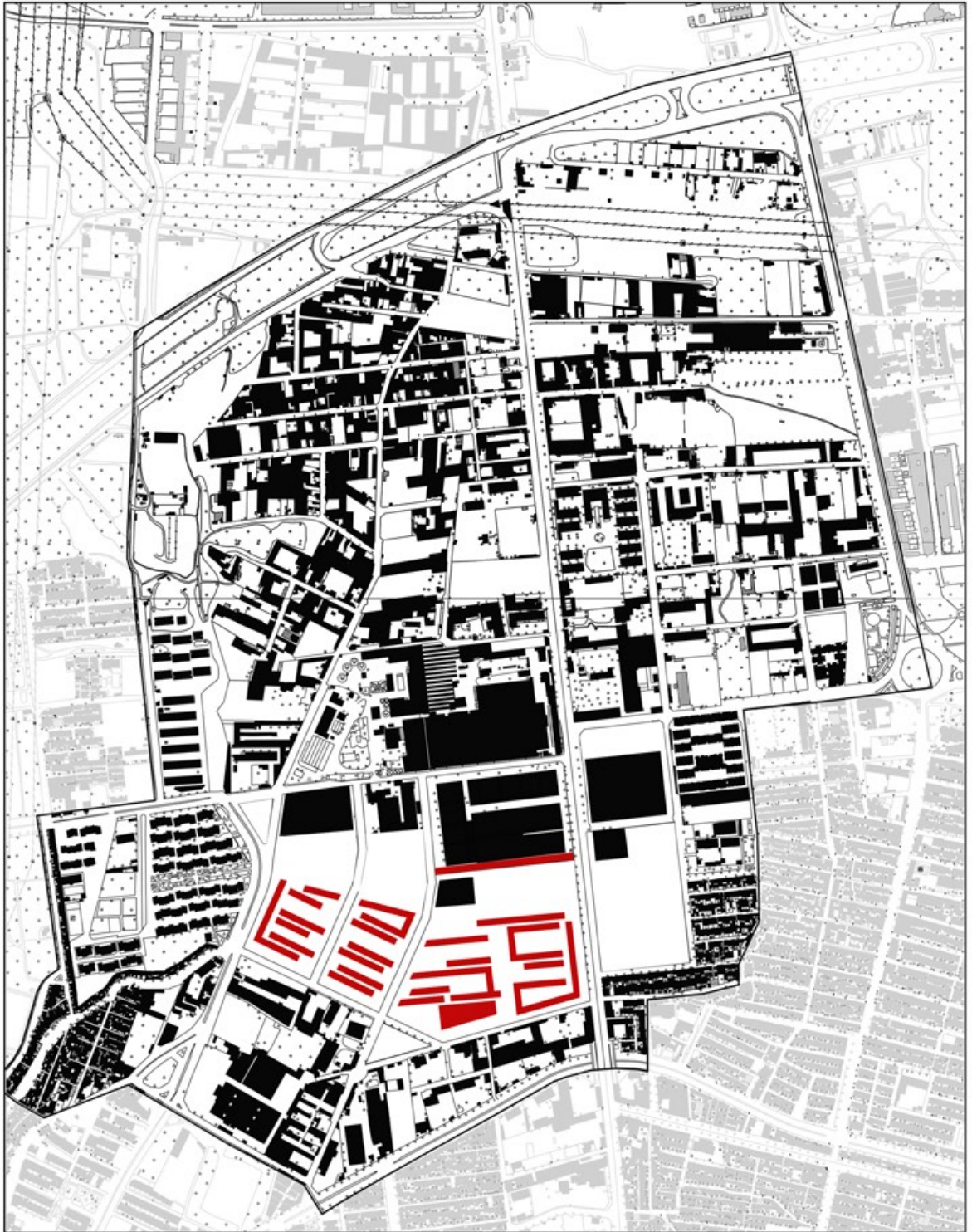
- | | | |
|---|---|--|
|  Industrial |  Educational |  Commercial |
|  Residential |  Clinic |  Cultural |

Proposed built-up space



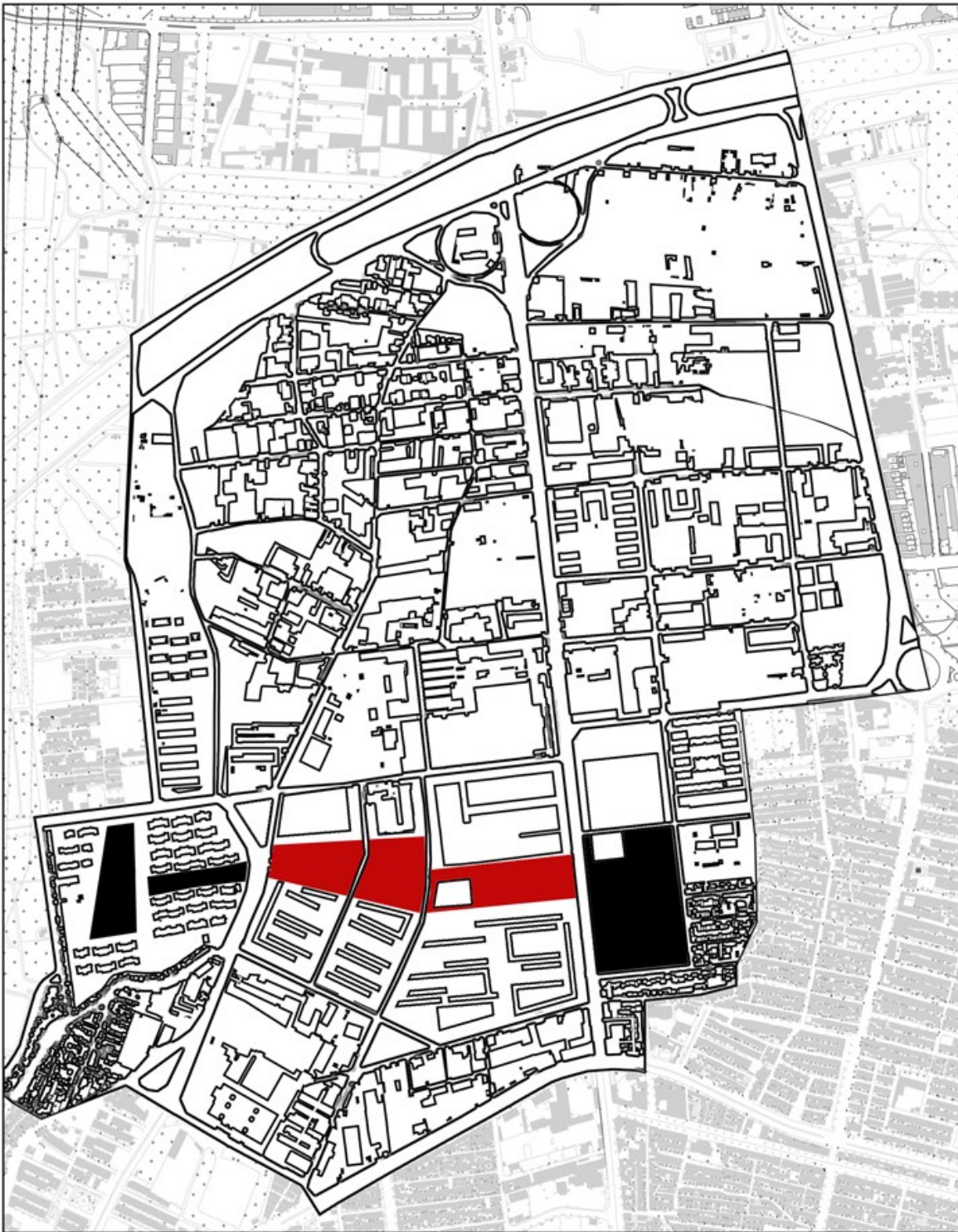
- Existing built-up space
- Proposed built-up space

Proposed built-up space and infrastructure



- Existing built-up and infrastructure
- Proposed built-up and infrastructure

Proposed greenary map



- Proposed green belt
- Existing green area around the site

Proposed space map

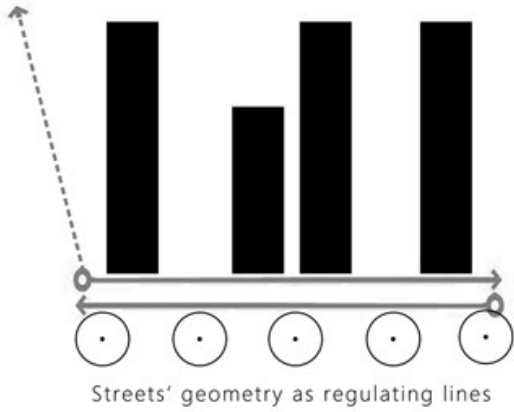


Public spaces
Semi public spaces

Main square (Collective public space)
Court yard (Collective spaces)

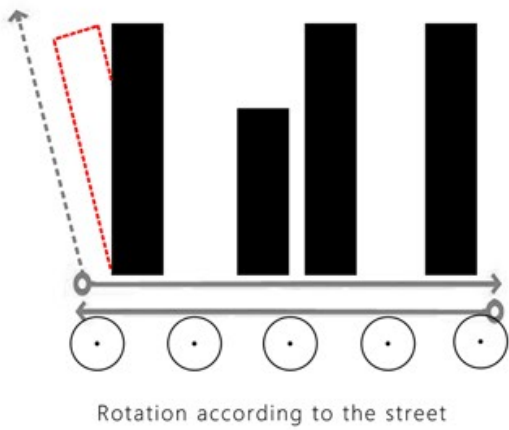
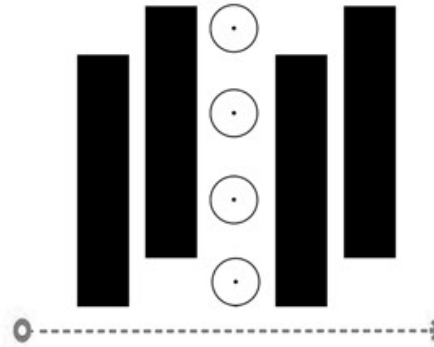
Regulating lines / Vector of force

Main Street

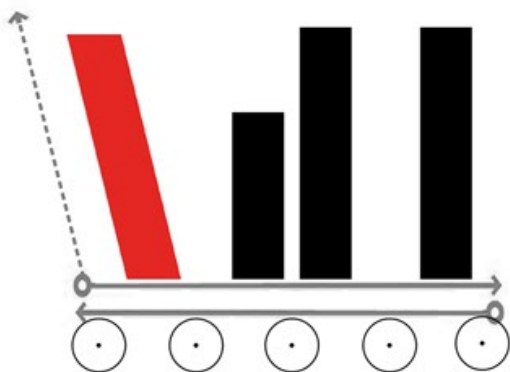


Streets' geometry as regulating lines

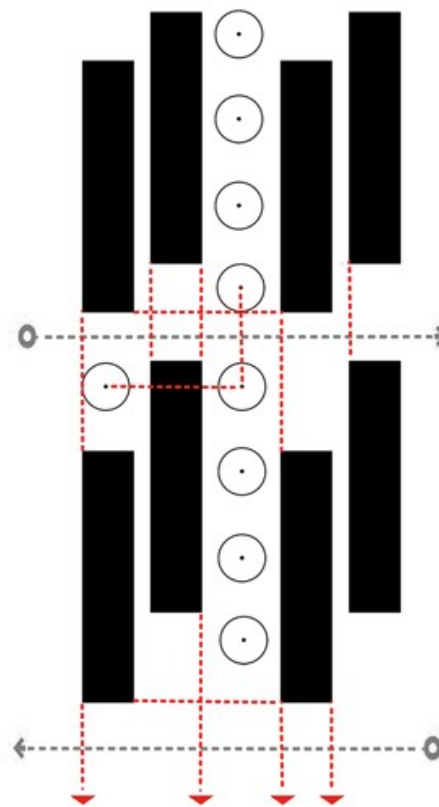
Secondary Street



Rotation according to the street



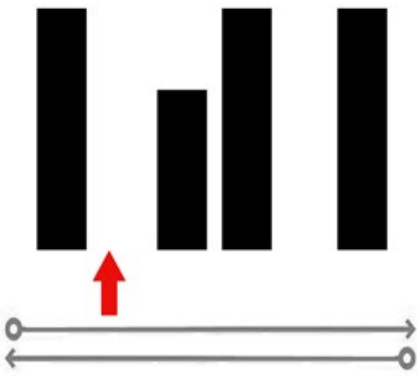
-Direct relationship with street profile
-Interaction of housing units in urban pattern



For expansion of the area, vector of forces from existing building will be used. trees can also be settled according to them.

Street front

Main Street

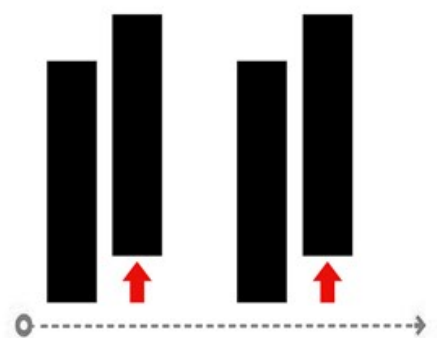
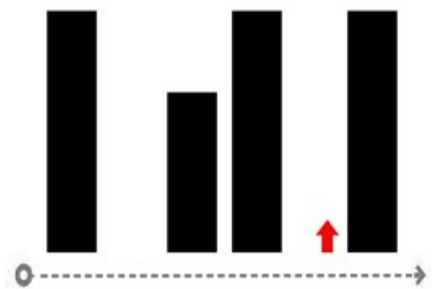
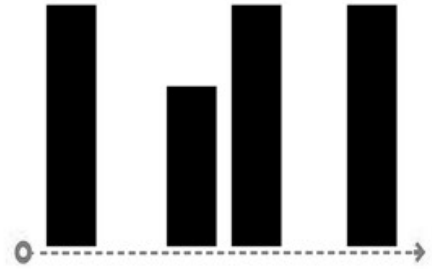


Moving back from street to create a buffer zone



Urban hierarchy: To keep housing units away from main street's noise and pollution, a public function such as commercial building will be proposed.

Secondary Street

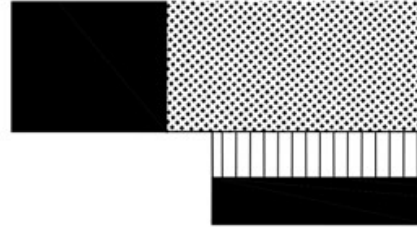


Since the secondary street does not have the same energy as the main street, housing buildings can come to play and give a balance to the street.

Hierarchy of spaces



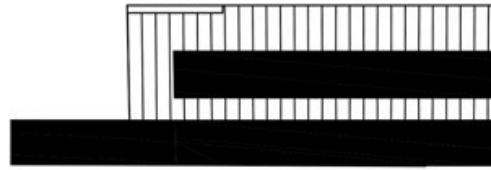
Moving back from public buildings to share space with public



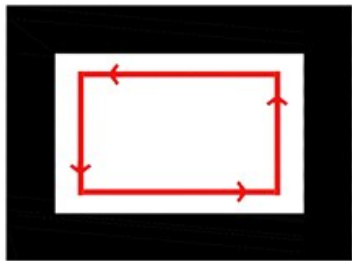
Proposal for public space with transition space to the project



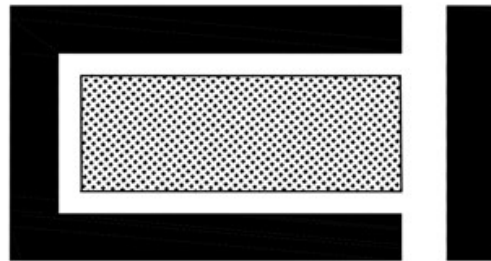
Semi-public spaces as a link to the public collective space



Proposed Semi-public spaces taking advantages of platform to define building locating



Boxed-in spaces to define collective spaces



Court yard as the proposal for collective spaces

Urban Lay-out



A-A

A-A

B-B

B-B

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Section A-A



Section B-B



Final consideration - towards practicable social housing

The housing issue is regarded as one of the most critical aspects of architecture that effects society in terms of social, psychological and economic aspects.

Specific characteristics of Iran such as: having a conservative regime, low level of social freedom, population growth, and land and house price has made the situation of Iran feeble. The "*Iranian development programs*" proves the conservativeness of the regime.

Porto's housing experimentation is chosen as case study due to lots of similarities in period of housing crisis. As for example the SAAL project planned and executed right after 1974 revolution because of housing crises, while after the 1979 Iranian revolution even though the country was in a housing crisis, because of the war with Iraq, the government did not propose any development program for a decade.

As the result, the solution can be proposed in terms of urban policies and architectural premises considering resources, restrictions and development prospects.

In order to reach to development prospects following aims have been provided:

- Betterment of housing conditions
- Providing job opportunities
- Enhancement of public spaces
- Improving environmental conditions in order to reduce pollution
- Enhancement of road network

On the other hand, to reach these aims the following guidelines are proposed:

- Directed development of housing construction
- Organizing and utilizing abandoned industrial zones
- Organizing religious areas
- Reviving historic area and making it a historic center

Although this work tries to make a dialogue with development prospects, some aims such as providing job opportunities, must be considered in the hand of other related organizations. In terms of policies, the idea of "top-down" and "bottom-up" policies plays the most decisive role among the proposals which set the stages for being supported by government and involvement of people. In fact, deepening through Iranian political situation and policies from one side and deep studies throughout Portuguese housing experiences from the other side, has made it possible to propose appropriate organizations and programs. These policies emphasize that housing must be treated like other public buildings in all the aspects. Housing acquires importance and being considered valuable as other functions.

In terms of architectural proposal, the intervention is based on urban reshaping, considering urban continuity by announcing architectural themes such as green belt and a hybrid between functions. The fusion will help functions to mold and make the new matrix of city. These themes not only permits the area to be linked/ a part of the city physically but also socially. Traditional city has always form through the importance of voids while modern buildings value objects more. Thus by understanding the characteristics of traditional city and surrounding, the new matrix will not be an isolated island. Clear hierarchy between public spaces is a fundamental notion while psychological aspects are considered; obtaining sense of place is due to a chain of spaces starting from private to semi-private, semi- public and finally public spaces.

Semi-private courtyards with deciduous trees is making a sensorial dialogue with people that is different from main public square with a mixture of trees (deciduous and evergreen). Despite the fact that they both provide shade and cozy spaces in a city that sun in hostile in some seasons, they each have their own characteristics. Courtyards are changed through the seasons and give various perspectives when deciduous trees lose their leaves. Main public square is a collective space where various notions like mixture of trees and regulating lines come and form a hybrid.

Regulating lines inscribe and set the housing units, commercial building and green spaces. They could come as geometry of streets or as vector of forces form surrounding buildings or housing units adjacent to them. They permits us to recognize and read the geometric composition. Streets are not seen by the width but how buildings are confronting them. Main streets with lots of energy and noise require a buffer zone to keep those noise and energy from housing units. However, since secondary streets do not have that energy, housing units can form the street front and give energy to it. As a result, the urban façade will have a sense of balance and harmony.

Thus the work can be interpreted as a practice about the importance of social housing issue and its effects on society, the necessity of understanding it in terms of social, psychological and economic, how policies are rendered in a project and how housing can be integrated with urban pattern.

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<http://rc.majlis.ir/fa/law/show/133844>
- Iran's Ministry of Housing: <http://inbr.ir/>
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