PHU
EQN 104-105

Integrative Health Center and
Urban Development of Public Space in an
Entrequadra of Brasilia's Superblocks

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Abstract

Between UNESCO declaring Brasilia a World Heritage Centre for its modernist architecture, urban design, and landscapes; and Jan Gehl naming the top-down urban design method of Brasilia "Bird Sh!t Architecure"; there is the reality of life in the city's superblocks, and the experience of its public spaces.
That is the topic of this thesis.

PHU, Praça da Harmonia Universal (Universal Harmony Square), is public space located at EQN 104-105, the Entrequadra between the superblocks SQN 104 and SQN 105 in the north residential wing of the Pilot Plan of Brasilia, Brazil.
In the context of the larger city, the site of PHU is one of many repeated plots of public space between the superblocks, called "entrequadras", which were meant to provide services (educational, commercial, religious, cultural, civic, social, sports and leisure) for a better quality of life in the purely residential superblocks, but many plots remain mostly empty.
PHU is currently an open green field with some concrete seating, sports court, and garden, and regular exercise practices.

The goal of the project is to define a specific urban identity for this generically repeated modernist public space of the "entrequadra", based on a deep understanding of the historic context and influence of modernist utopian concepts that inspired Brasilia's urban design, and the reality of their application 60 years after its inauguration.

The result of the project is a proposal that completes the vision for the site as an activated public space, and a cultural monument dedicated to integrative health and a better quality of life.

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May 2020

Methodology

The project of PHU is to be based on a full understanding of the site and its context, with results of the analysis as the basis for the proposed program and urban interventions.
This thesis booklet is therefore in 4 parts:

Chapter I : Introduction to the project.

Chapter II : The analysis of the urban and architectural context of the site in 4 scales, from the largest to the most local:
1. Context of modernist theory world wide. "Chapter II, part A"
2. Context of Brasilia as a modernist city. "Chapter II, part B"
3. Context of the residential superblocks. "Chapter II, part C"
4. Context of the Entrequadra as a public space typology. "Chapter II, part D"

Chapter III : Analysis of the site PHU in 3 scales:
1. Context of the north residential wing. "Chapter III, part B"
2. Context of the surrounding neighbourhood unit of four superblocks. "Chapter III, part C"
3. Context of the Entrequadra 104-105 itself with public participation survey "Chapter III, part D"

Chapter IV : The results of the previous analysis define and reflect the identity of the site and vision for future development, and more specifically the chosen program of the integrative health center and its spatial requirements, the design project and documentation of the Integrative health center, Public space Interventions, Architectural details, and design process materials like sketches and models.

Content

I. Project Introduction:

A. Entrequadra as public space typology
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I.A.   Entrequadra as public space typology

The era of the modernism is stigmatized with the motto: "Form Follows Function". The functionalism of modernists, therefore, gave priority to cars and fast movement urban space, a notion that undermined the close relationship between open spaces and the buildings surrounding them. The city and its public space were designed as an organized system, where development ensued according to functionalist rules. Despite their emphasis on the significance of public interests in the city, the modernists paid little attention to the historically created public spaces. The new vision of the city was expanded open spaces where high buildings were erected, but with no other connection to the rest of the city. A "lost space" where sociability was impossible.

Public spaces in contemporary cities are under the pressure of capital and privatization. This is gradually transforming their social and physical form, leading to a significant reduction of the public realm and the loss of public space. Green parks, open-air squares, and riverside paths become victims of private ownership. A place of a hybrid character starts to emerge. It's a place where there's no clear distinction between public and private, a "gray area". These non-places don't bear any symbolic expression, they are devoid of identity and usually places of consumption, such as coffee shops and shopping malls.

The proper shaping of an urban public space reflects the proper functioning of a democratic governance. After so many transformations over the centuries, we are now at a point where we need to deal with these leftovers of public space. They are the key focus in the transformation of the cities. The success of a particular public space is not solely in the hands of the architect, urban designer or town planner; it relies also on people adopting, using and managing the space – people make places, more than places make people.

Public space in Brasilia differs from one of its design scales to another. While the monumental scale is characterized by vast open space with the intent of focusing on the views of the buildings from the perspective of a person in a car or a vehicle, the residential scale is more focused on the experience of the pedestrian.

The distance between the superblocks, commercial services and open public space reflect that focus on the human scale and experience. This is evident in the existence of a humanizing typology of public space that separates the strictly residential superblocks with functions conducive to a better quality of life and a sense of mixed use space. This typology of public is named Entrequadra.

"Entre = between, Quadra = block",

I.B.   PHU as a design project site

PHU "Praça da Harmonia Universal" or Universal Harmony Square, is a 30000m2 field between the 104 and 105 superblocks in the north residential wing of Brasilia, it is called an Entrequadra "EQN 104-105", meaning "between blocks" and it is one of a sequence or repeated similar spaces that are located between every other superblock alternating with commercial blocks.

Brasília is a top-down planned city. Originally the area of the site EQN 104-105 was meant to be a Neighbourhood club, which was an idea of Lucio Costa for the north and south residential wings, to have meeting spaces for the surrounding 4 blocks he named a "neighbourhood unit". In the Model block of the south wing there is indeed a neighbourhood club at "EQS 108/109", however in most other parts that were meant to have the same program the neighbourhood club was never built. it wasn't viable to consistently follow the idea of repetition that is prevalent in Brasilia. The reality is that every space in the city needs to adapt to different needs of the users and economic limitations of government owned land.

In the late 90s, the government organized a board of directors to plan the construction of the neighbourhood clubs throughout the residential wings of Brasilia, but unlike the project at EQS 108/109, which was built directly by the government, these new neighbourhood clubs were to be financed by the community of residents of the surrounding blocks, while the government contributed by lending the land to their use.

During that time a few neighbourhood blocks were in fact built but they were fenced off and allowed to be used only by the residents who financed them, which goes against the idea of this space always remaining an open public space.

In 2010 the ministry of health made a decree to start building health units and related buildings that service the secretary of health's endeavor for promoting health and prevention of illness throughout Brazil. At that time PHU had already established itself as public space dedicated to promoting health and wellbeing, with an open air daily practice of Tai Chi since 1975, which expanded into new practices like Qi Gong, meditation, yoga and capoeira. This in turn warranted the transer of the ownership of the site from the government of the federal district to the secretary of health.

Since then, different plans for the site were discussed. The main principle was to maintain the area as an open public space, not for private ownership of a person or a single entity, and to have a program that complements and completes the services at the nearby Basic Health Unit at SQN905, as well as providing spaces for educating the public and preventive and complementary health practices.

I.C.   Integrative health center

Based on the transfer of ownership of the site to the secretary of Health, it's long history as a place for the advocation of a better lifestyle, physical and mental health and social integration, as well as the results of the public participation survey showing overwhelming favourability of building an integrative health center rather than the original neighbourhood club, it is clear that PHU has an identity that is already recognizable by locals as well as the government enities. This identity is also reflected in the recognition of PHU as an immaterial cultural heritage of Brasilia based on the practice of Tai Chi Chuan that has taken place on site since 1975.

Brazil has a long history of traditional health practices, from ancient native indigenous sacred herbal remedies, to African belief systems and healing rituals, to the more recent integration of eastern ideas of mindfulness, energy healing and a focus on mind over matter, along with forms of holistic therapy that are more based on scientific research. All of these different approaches to health that have always been around and have only become more prominent and popular since the 1970s, can be problematic when treated as an "Alternative" to standard or western medicine; however, they can be very useful tools when combined with it for a more hollistic approach, in which traditional practices are complementary to standard medicine. A good example is the practice of Tai Chi, a meditation in movement which serves as an excellent prevention tool and aid in recovery.

The national health system of Brasil "SUS: sistema único de saúde" provides more than 30 Integrative and Complementary Health Practices "Práticas Integrativas e Complementares em Saúde (PICS). These health practices vary from yoga to massage to aromatherapy. Since their integration with the public health system these practices have been shown to help many patients, especially in cases of mental health or physical ailement in which perscription medication was not enough, as well as in those cases where the side effects of said mediciation were another source of distress. Another major use of such tools is in the elderly population where they benefit in the prevention of falls, as well as promoting physical activity and selfcare with the purpose of having a better quality of life.

II. Urban/ Architectural design context:

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1. Renaissance
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5. 20th century
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II.A.   Precedents of modernist utopia

A reflection on the Brasilia residential superblocks needs to first consider the utopian precedents which came to influence the forerunners of the Modernist ideology. From the Renaissance to the first half of the twentieth century, there are many ideas that informed the functionalist urbanism of Lucio Costa in his conception of the Pilot Plan of the new Capital of Brazil.
The car-oriented design, separation of modes of transportation and focus on fast, uninterrupted circulation; the abstract urban form of the city, design based on the top view; the segregation of functions and land use into sectors and districts; the idea of social housing as a main residential typology ushering in a new society; the treatment of public space as massive shared property..
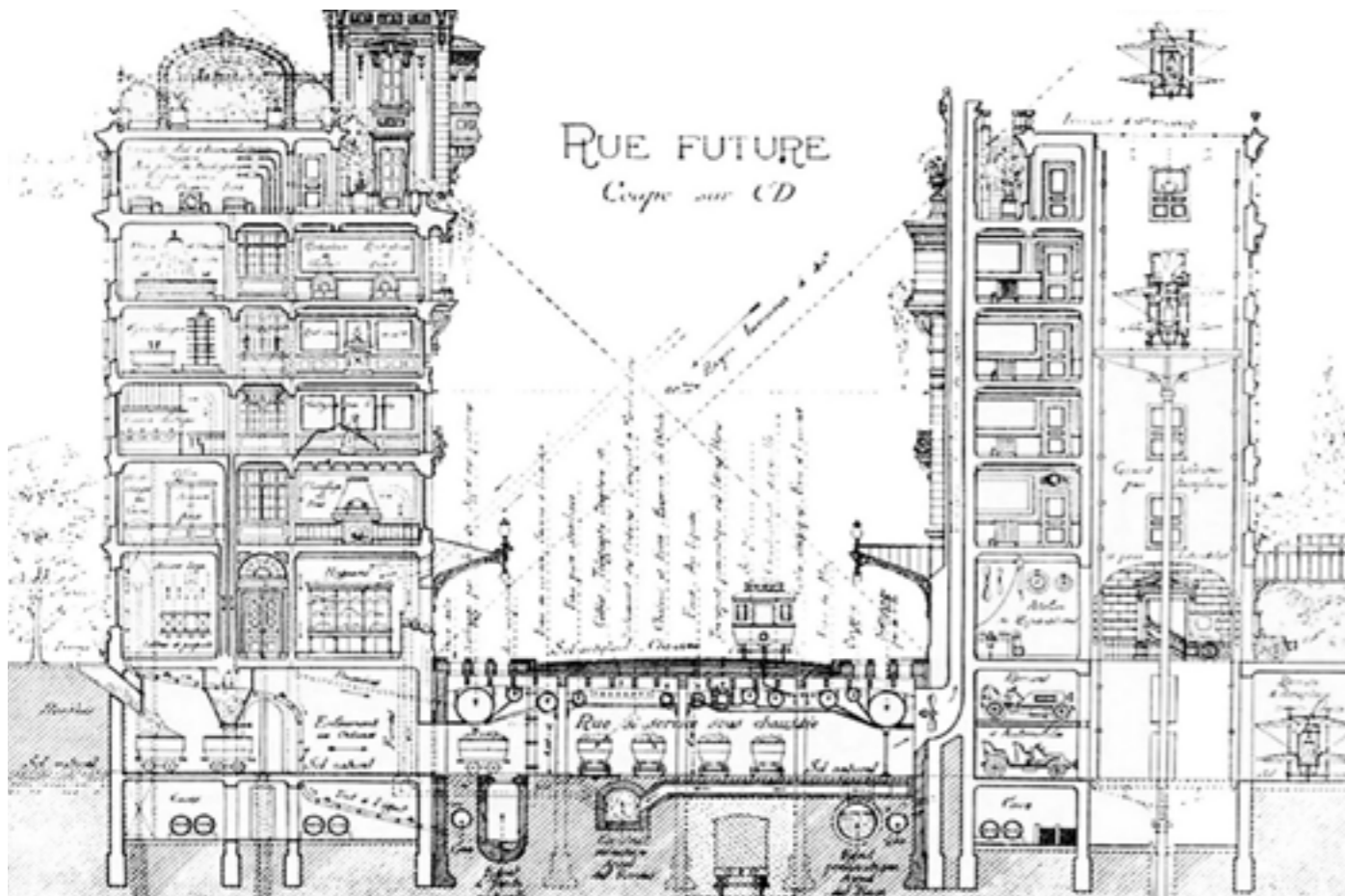
There is a history behind the idea of a modern utopia.

II.A.1. 1. Sforzinda, ideal city designed by Filarete.
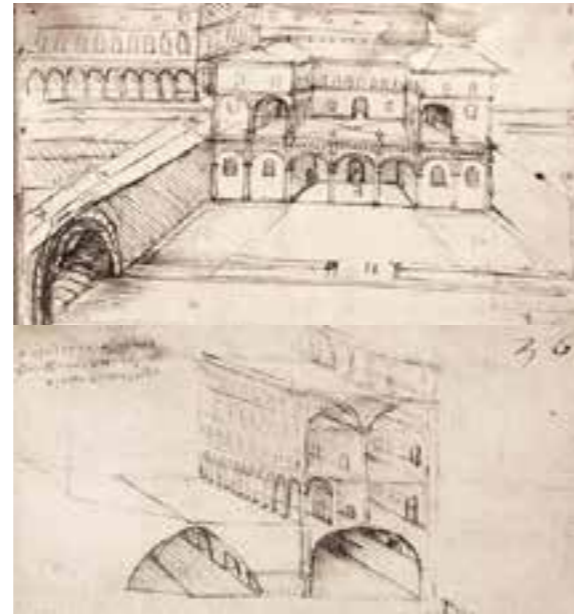
II.A.1. 2. Leonardo da vinci, città ideale.

II.A.1. 3. Eugène Hénard's Street of the Future illustration

II.A.1.   The Renaissance

The renaissance was a period of great social change in Europe, marked by technical and scientific advances, flourishing of humanistic ideas and appreciation of human reason, the spread of Greco-Roman philosophical and artistic values and valuing artistic work., the desire for order and discipline, these are all elements that would foster the idea of the Utopia, and lead to an unprecedented theoretical concern with the organization of cities.

the invention of the press made its contribution by providing greater and faster diffusion of ideas like the rediscovery of Vitruvius, whose book De Architectura (On Architecture) would be considered the sacred book of architecture for many centuries - the Renaissance was also an era of intense drafting of new architectural ideas of design and construction of cities offering new urbanism principles.

And so the ideal Renaissance city would be conceived in an image prescribed by Vitruvius, with a circular plan and surrounded by walls: the star-shaped city.

The unbuilt Sforzinda, designed by Filarete between 1457 and 1464 (1), is one of the first known projects proposed according to the Vitruvian model: a star with eight tips, derived from the overlap of two squares, each of the outer points of the star had towers, while the inner angles had gates. Each of the gates opened to radial avenues that passed through a market square before finally converging onto a large square at the very center.. The town contained three squares: one for the prince's palace, one for the cathedral, and one for the market. In the words of Spiro Kostof: Sforzinda is the archetype of the humanist city of the High Renaissance, where the perfect form It is the image of a perfect society.

In practice, Renaissance architects were unable to completely transform the medieval city, nor to impose its geometric forms, but certainly some of the design principles remained influential.

The ideal city of the renaissance would remain, in most cases, as an indispensable theoretical object in treatises, informing many thinkers and urbanists until today.

If for many there is no such thing as a Renaissance city, there are undoubtedly urban spaces which were organized in a characteristically Renaissance order. That was a period of germination of ideas, many of them even taken up by the urbanism of the Modern movement. For example, The idea of separating the different types of circulation vertically appears as early as the 15th century with the project of Città Ideale (1487-1490) by Leonardo da Vinci (2), providing paved sidewalks and galleries on various levels, with exclusive passageways to the pedestrians and vehicles, and a network of canals reserved for cargo transportation.

But these principles of segregation of vertical flow will not find real foothold until the beginning of the 20th century as a response to the intensification of traffic in city centers and the new dangers that generates. Eugène Henard reintroduces the idea of separation of traffic vehicles and pedestrians during a conference in London " Cities of the future "in 1910 with his proposal for" Future Street " (3).
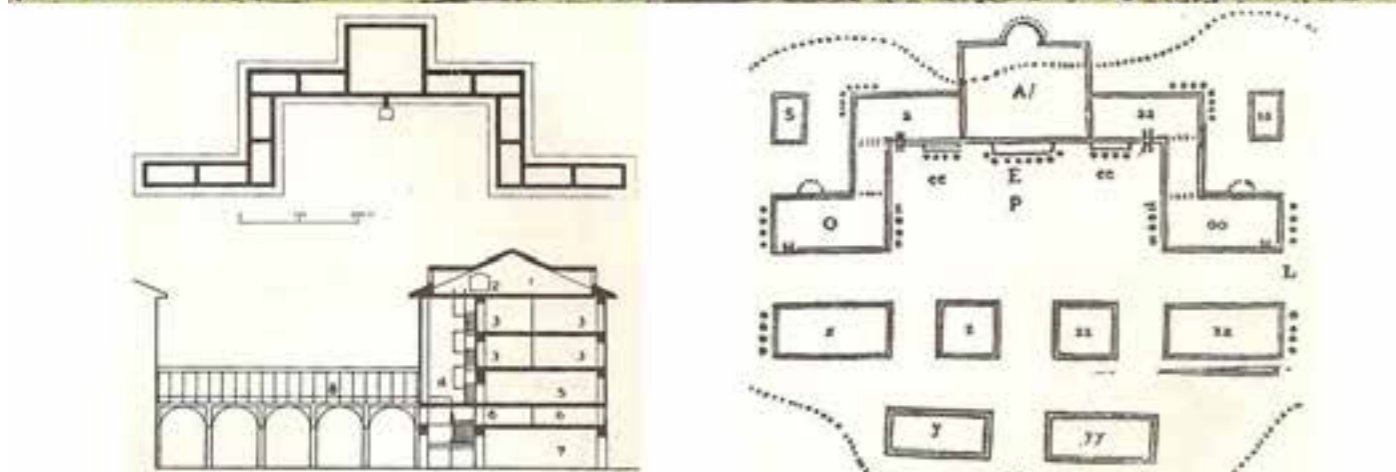
These renaissance ideas of the separation of vehicle and pedestrian traffic, which inspired modern urbanism, are adopted by Lúcio Costa in Brasilia centuries later.

II.A.2. 1. The Ideal City of Chaux by Claude-Nicolas Ledoux.

II.A.2. 2. Robert Owen's vision for New Harmony.

II.A.2. 3. Phalanstère urban model by Charles Fourier.

II.A.2.   Industrial revolution

One of the direct consequences of the industrial revolution was massive urbanization and a dramatic change in the relations between countryside and city. a new series of urban models would emerge in Europe, seeking to transform the established urban order. In a political context quite different from that of the Renaissance, here came into play the urbanistic discourse undertaken by the utopian socialists in the name of social reform.

To understand the genesis of ongoing urban transformations, one must consider what was happening in France and England, where economic, social, technological and legislative changes were transforming agricultural production and inducing urban population growth.

In turn, the consequent growth of the urban fabric in the period would have repercussions on the architectural practice due to the unprecedented demand for more housing for the less favored classes.

The first experiments were generally intended for homogeneous groups of workers, with rigid population limits and strict Geometric schemes.

Noteworthy for its complexity and partial accomplishment we have the Ideal City of Chaux (1), designed by eminent architect Claude-Nicholas Ledoux in 1775 by order of the king of France to ensure efficient exploitation of real-estate salt mines in the region, it was conceived according to a rigid hierarchy, even a strong monumentality, reflecting in its elements and in its circular plan the organization and centrality of the French royal power. But it would be the utopian socialists who would make the major contribution to the issue.

Several revolutionary thinkers of the second half of the nineteenth century, such as Karl Marx and Friedrich Engels voiced the public's dissatisfaction with the unhealthy situation of workers' neighborhoods, the utopians formulated a series of models of communities or cities always located at a distance from the major centers.

Robert Owen (1771-1858) having acquired in 1899 a mill in New Lanark, in Scotland (2), sought to apply his progressive ideas of social reform and cooperativism to create a model factory, with the principles of promoting health, hygiene and improvement of housing conditions for workers.

Another social and political reform project among the utopians is that of the Frenchman Charles Fourier (1772-1837). Presented in his first book, Theorie des quatre mouvement (1808), he had as its starting point the belief in the existence of a natural social order, parallel to the physical order of the universe, which would lead to an ideal stage in which human emotions would express themselves freely and society would be organized for the pleasure. To reach such a stage, Fourier predicted an urban model that he called Phalanstère(3): These buildings were four-level apartment complexes that he considered to be "cooperative units of production and consumption, rationally organized in opposition to the chaos of the industrial city." where the richest had the uppermost apartments and the poorest had a ground-floor residence. Wealth was determined by one's job; jobs were assigned based on the interests and desires of the individual.

II.A.3. 1. The plan of Cerdà, according to which the Barcelona Eixample was finally created, 1859.
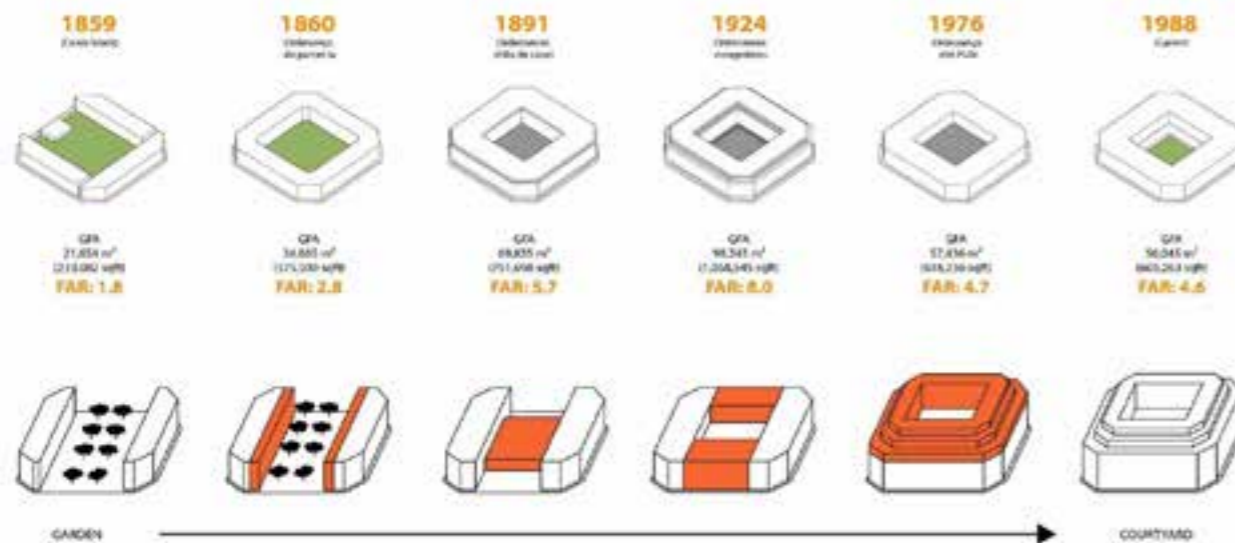
II.A.3. 2. Cerdà, mode of occupation of blocks in the Eixample plan for Barcelona.

II.A.3.   19th Century, Changing urban fabric

The nineteenth century brought new original urbanistic ideas aiming to confront the problems created - from the perspective of circulation and health - by the disordered growth of cities, Undoubtedly, what we call today the modernist city is the result of these experiences and theoretical formulations in response to social, economic and demographic transformations resulting from the industrial revolution.

the prime example of this urbanism is : Eixample, the plan of expansion for Barcelona, designed by Idelfons Cerdà (1859) (1) to respond to the demographic growth caused simultaneously by the industrialization and limitation of the medieval city walls.

Cerdà elaborated the project of an integral city, an urbanism manual based on the importance given to two urban functions: living and commuting.

The progressive aspect of the city of Cerdà is the prediction of an equitable distribution not only of services and equipment, but also the conditions of insulation and ventilation, made possible by the definition of blocks subject to multiple variations in placement, and in the layout of its buildings, gardens and Inner streets.

Eixample's blocks were designed to be true civic centers, allowing all kinds of use; each set of five blocks make up a neighborhood, anticipating Le Corbusier's future housing units, and creating a concept later echoed by Lucio Costa's idea for the superblocks in Brasilia's residential wings, with "neighborhood units" comprised of four superblocks.

Another component of Cerdà's influence is the independent layout of streets and public spaces, allowing the formation of a truly morphologically new urban fabric compared to the compact fabric of traditional cities.

The flexibility introduced by Cerdà in the mode of occupation of its blocks (2) and in the arrangement of buildings within it is an important reference for the conception of Brasilia's superquadra.

The concern with urban circulation inspired several proposals aimed at speeding up vehicular traffic, generally by separating different types of roads. The examples are numerous, ranging from Holborn's proposal for London in the mid-nineteenth century to Eugène Hénard's rue future (1910). Equal concerns about improving urban life can be identified in the work of architect Tony Garnier. His Cité Industrielle (1904), brings many answers to the constitution of a new urban logic that eventually came to be regarded as the product of modernist urbanism.

The main strategy was to define specific places for the different urban functions - residential, industrial, services, sports, health - so that each was grouped into its own areas, segregated from one another by extensive green barriers. For residential areas - which should be implemented taking into account the sun's orientation and the wind regime - it detailed a range of regulations ranging from block and block sizes and occupancy rates to building rules for houses. For these it required all rooms to have south-facing windows large enough to let in the full depths of the sun's rays.

Le Corbusier has used the linear solution in several studies, including plans for Rio de Janeiro, Algiers and Saint-Dié, as well as its well-known cité linéaire industrielle scheme. From Corbusier to Lucio Costa, the inspiration is clear: in the Brasilia Pilot Plan, the housing areas - that is, the superblocks - are arranged along an even finite circulation axis.
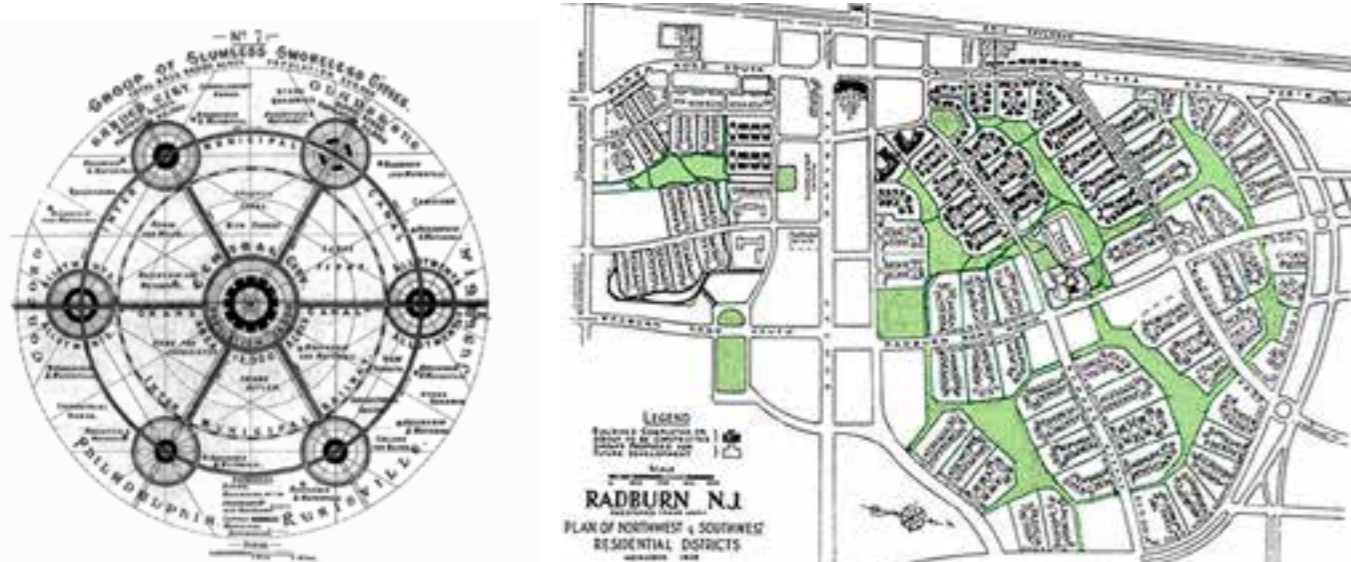
II.A.4. 2. City of the automobile age, Radburn, New Jersey, 1928.

II.A.4. 3. Letchworth garden city, 1903.

### II.A.4.   Garden City

The idea of a garden city was first proposed by Ebenezer Howard in his book Tomorrow: Peaceful Path to Real Reform (1898; 2nd ed., 1902), with a view to solve the urban and housing problems stemming from what he considered to be the evils of the industrial revolution. For him the urban chaos was mainly caused by the continuous migration from the countryside to cities that are already overcrowded, and the challenge was to contain this wave of migration by making the countryside more attractive than the city. Howard's originality was in contemplating a third option other than just two opposite alternatives "Urban life or rural life", he thought of the garden city as the perfect match of all the advantages of the most intense and active urban life with all the beauty, pleasures, harmony and nature of rural life. with easily accessible parks, combined with low rents and advantageous social opportunities. Howard did not conceive of a city project, but expressed his ideas in a circular diagram (1), which ended up being understood by many as an urbanistic proposal. His idealised garden city would house 32,000 people on a site of 2,400ha, planned on a concentric pattern with open spaces, public parks and six radial boulevards 37m wide, extending from the centre. The garden city would be self-sufficient and when it reached full population, another garden city would be developed nearby. Howard envisaged a cluster of several garden cities as satellites of a central city of 58,000 people, linked by road and rail. However, Howard's proposals were not to remain merely theoretical, the Garden City Association was set up in 1899 and Letchworth Garden City was built, its urban plan was developed by the architects Raymond Unwin and Barry Parker. Unwin and Parker designed a city organized according to activity zones -residential, industrial, commercial and civic center - and permeated by gardens. Urban growth was limited by a green belt for agricultural production. The treatment given to the residential area made it so Letchworth houses were set back from the edge of the plot, with front gardens; grass sidewalks, shrubs and trees; as well as a system of secondary cul-de-sac access streets. Despite Letchworth's early success, the principles of the garden city came to be applied not in building cities, but in neighborhoods all over Europe and the Americas.
With regard to the Brasilia's superblocks, the principles of the garden city are reflected in its concern with a new way of life, embodied in a new urban form, characterized by the dominant presence of open green spaces, parks and gardens, representing a break with the traditional city, subverting its main spatial relations, seeking to provide a greater public domain of the soil, instead of a widespread privatization of urban space.
In Brasilia's superblocks, the principles of the garden city are reflected in its concern with a new way of life, embodied in a new urban form, characterized by the dominant presence of open green spaces, parks and gardens, representing a break with the traditional city, subverting its main spatial relations, seeking to provide a greater public domain of the soil, instead of a widespread privatization of urban space.
A special precedent to Brasilia is the suburb of Radburn (1928) in New Jersey (2), designed by Clarence Stein and Henry Wright and known as "the city of the automobile age". the design was based on five guidelines: 1. replacement of the traditional narrow rectangular block with super blocks; 2. road specialization, designed for a single use, differentiating movement, service, parking and visit; 3. full separation of pedestrian and vehicle traffic; 4. inverted interior layout of the houses, so that living areas and bedrooms face the back, overlooking gardens and parks; 5. the parks as the backbone of the neighborhood. Finally, preceding Brasilia, Radburn was designed for low demographic densities.
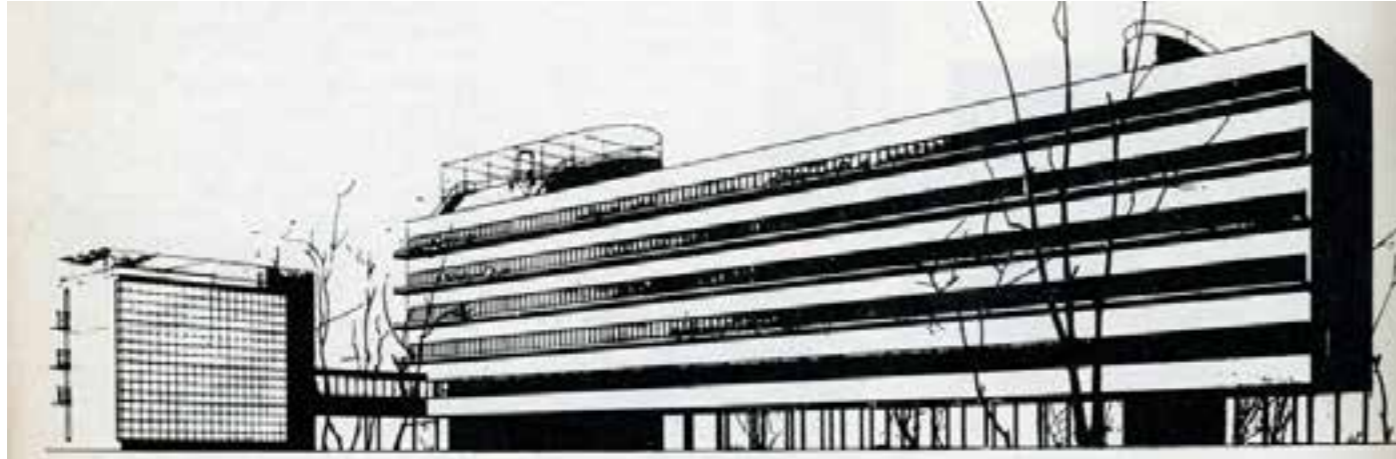
II.A.5. 1. Narkomfin Building by Ginzburg and Miljutin, Moscow, Russia., 1928.

II.A.5. 2. Praunheim, Frankfurt, One of the first mass produce housing projects after world war I, 1926-29.

II.A.5.   20th Century, social housing

Committed to the socialist dream of community living, avant-garde architects believed that not only the conception of the city should be transformed, but also the way of life of its inhabitants. The immediate consequence is a new-found importance of the social housing project. Collective housing experiments begin to gain momentum in the 1920s. In the Soviet Union, after abolishing the right to property of urban and rural land, the state became responsible for the first real opportunity to transform the conditions of urban housing, aiming at the abandonment of bourgeois values and the establishment of a communist society thanks to the standardization of habitat. The first experiences of houses with collective equipment is held on the outskirts of Moscow.

Along with the proposals for de-urbanization, the idea of domkomuna - communal housing- which should serve as a demonstrative example of the egalitarianism of the future communist society, was beginning to gain strength. Based on the economic logic, they opted for the rationalization of the construction process through the adopting standardized housing cells that can be aggregated, repeated and / or combined, allowing unlimited growth.

In the late 1920s, the Narkomfin Building (1), designed by Ginzburg and Miljutin, was built. Consisting of a main block - a six-storey horizontal blade on pilotis - intended for residential cells, it is completed by a smaller four-storey annex block for collective services.

In general, for the modernists of the 1920s the narrow rows of parallel blocks a la Hilberseimer and Gropius, spaced according to angles of light, became the norm - especially in Germany of the Weimar Republic.

Of various alternatives conceived in this modern period, perhaps none have been so prominent and influenced so much the conception of the Brasilia superblock as the german housing estates - the so-called siedlungen. One of the key features of these 1920s siedlungen was the concept of the linear block building, as opposed to the enclosed block - a reversal of the traditional city's figure and background.

Another trait shared with the case of Brasilia, the siedlungen were not thought of as an integral part of the city, but as self-sufficient structures that would complement the existing city network, that is, fragmented interventions, but coherently arranged in the territory. And yet, the siedlungen obeyed a geometric order in their layout that should ideally provide an equivalence of conditions of the various dwellings, suppressing an undesirable hierarchy between them, and offering an immediate relation of constructed space with nature.

The event that best demonstrates the prominence of the social housing issue for the Modern Movement was the large exhibition of residential projects, the Weissenhof, held in 1927 in Stuttgart. With Mies van der Rohe as chief architect, some of the leading European avant-garde architects participated, such as Peter Behrens, Hans Poelzig, Walter Gropius, Victor Bourgeois, Ludwig Hilberseimer, Le Corbusier, J. P. Pieter Oud, to name the best known.

A good example of this new transformations that urban space would undergo under the impact of modernist design, one of the most impacting are the three stages of Siedlung Praunheim (2), each stage more radical than the one before.

II.A.6. 1. Ville Contemporaine by Le Corbusier, 1922.

II.A.6. 2. Voisin Plan for Paris by Le Corbusier, 1925.

II.A.6.   Typology of linear form

To better understand the implications of the solutions adopted by the modernists in the resolution of housing shortages, it is also necessary to consider the typification of models and the particular option for linear block building, that is, with linear form, of special interest in the case of Brasilia superblocks.

In architecture, "typology" designates the various elements that characterize an architectural language or a model solution to be imitated, as well as the set of features and characteristic of a particular class of buildings, In this last understanding, a building typology represents a category of buildings or a set of examples.

With the Modern Movement, the meaning of the word "typology" has acquired more specific meanings. Among others, it would be a model building for a purpose, to be repeated in urban space whenever such purpose was required. In the case of social housing and its aggregation in sets, the adoption of the "type" - with the simultaneous connotation of "correct solution" and "standard solution", so pursued by modernists - would entail dramatic changes in the urban fabric, especially in residential areas. Needless to say, the modern era has led to an extreme typification of housing. As for the linear form in the urban context, according to Martí, it has a long historical tradition both in the rural world and in urban concentrations. Just think of the surroundings of the old city (residential formations arranged along the roads), However, with the Modern Movement, the linear form will also be associated with the building plan.

The linear form presupposes the absence of hierarchy between the parts, Precisely for this reason it has become one of the foundations of residential architecture of the Modern Movement. It is well known that the urban and housing solutions of Le Corbusier are the inspiration for Brasilia's superblocks. It was Corbusier, more than any other architect of the Modern Movement who cared about the architectural image of the city. Welcomed with enthusiasm, wonder and even anger, He believed that the imposition of a new order of distribution of activities in the urban fabric, the abandonment of the conventional block, and the widespread adoption of buildings isolated from each other and placed on pilotis, would eliminate the chaos of traditional cities.

Illustrative of his urban theories, his first major study was Ville Contemporaine (1) for three million Habitants in a series of skyscrapers (1922),
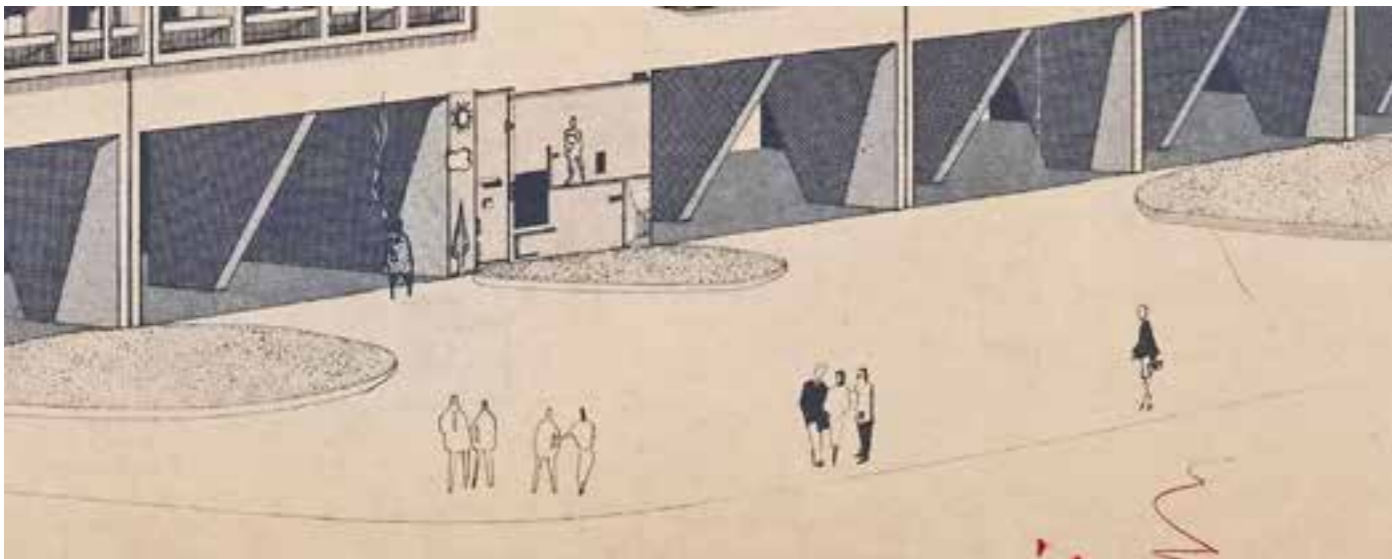
in his words: ... I removed all accidents; I gave myself an ideal ground. The goal was not to win pre-existing states of affairs, but to achieve by constructing a rigorous theoretical building, to formulate fundamental principles of modern urbanism. These fundamental principles, if not false, they can constitute the structure of the entire contemporary urbanization system; will be the rule by which the game can be played. When facing any specific case, that is, any case whatsoever: Paris, London, Berlin, New York or a tiny village.

An even more provocative example is the Voisin Plan (1925) for Paris, source of controversies that reverberate to the present day in Urbanism (2), he proposed to demolish a large part of central Paris and to replace it with a group of sixty-story cruciform office towers surrounded by parkland, in the center of the planned city was a transportation hub. it housed depots for buses and trains as well as highway intersections and at the top, an airport.

In 1930 Le Corbusier proposed the Ville radieuse as a blueprint of social reform, with principles that later became the basis of Brasilial's design.
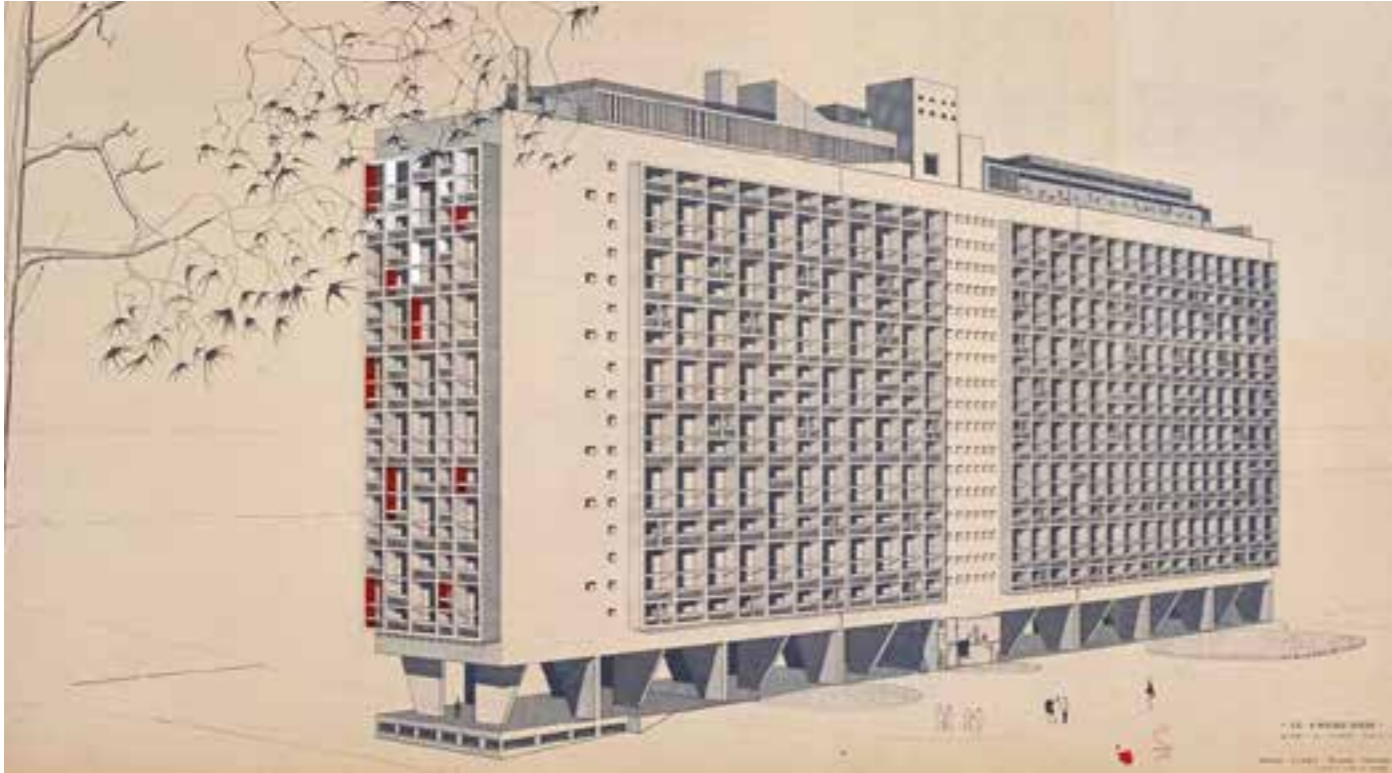
1. Unité d'Habitation by Le Corbusier, (the first was built in Marseilles, 1947).

2. Detail from Unité d'Habitation, Perspective of east facade.

II.A.7.   Modern city

The Corbusian city was always presented as an ideal image or a theoretical demonstration, almost an abstract city, designed for an imaginary place and without any context. Aiming for the decongestion of the center by increasing the height of the buildings and creating garden neighborhoods, speeding up circulation.
Le Corbusier saw the street as the main cause of unhealthiness, to be replaced by a new street - a masterpiece of civil engineering, organized on several levels and hierarchized according to the traffic that would circulate there. At Ville contemporaine, for example, he designed underground ways for the distribution of goods; ground-level streets for general circulation; finally, elevated one-way expressways and linked to ground level by ramps.
Fascinated by the plane, often the perspective drawings that accompanied his urban idealizations present the urban form from above, which underscores his architectural understanding of the city. Another objective of Le Corbusier's urban projects which is relevant to Brasilia is his five points of architecture - free plan, free facade, roof gardens, pilotis and horizontal windows, which, when Applied extensively in the urban context, profoundly alter some essential components of the city. The area in which the buildings are located becomes a public domain space (2); traditional urban activities begin to take place within buildings; The building becomes the main organizing element of the urban space. It is they who give technical support to the eminently architectural character of the Corbusian city, by informing the solutions of their housing estates, always isolated in the landscape.

Unité d'Habitation

From the spirit of the series came the unité d'habitation (1) - the collective dwelling machine, the basic morphological element of organization of the radiant city, and it is easy to see the Brasilia superblock as a horizontal unité d´habitation.
In general, the modernist city reversed the conventional urban logic of repetition and exception, establishing the inversion of the figure ground, overlapping the void over the volume. In the case of Brasilia, it was no different: here empty spaces predominate
over the full ones. It is also striking the change in the role of the streets, which in the traditional city were the stage of everyday life. But to the modernists it represented chaos, a jumble of unhealthy buildings. And so, the importance given to the issues of movement, hygiene and housing resulted in the experimentation of new urban morphologies and typologies. These, in turn, necessarily resulted in a thin urban fabric, which contributed much to what many consider "the death of the street".
Finally, in conclusion, the modernist desire to break the traditional relations of the building with the city territory and its streets should not be forgotten, due to the abandonment of the parceling of the land in conventional lots and the lack of continuity of the facades. For example, houses no longer had their own private garden to be surrounded by large lawns.
Together, the changes introduced in the street, in the square, in the block, in the relations between building and urban space by functionalist urbanism represented a definitive morphological rupture in the compact fabric of traditional cities. Lucio Costa's plan for Brasilia - including his superblocks- constitutes the most extensive and complete realization of modernist urban ideals.
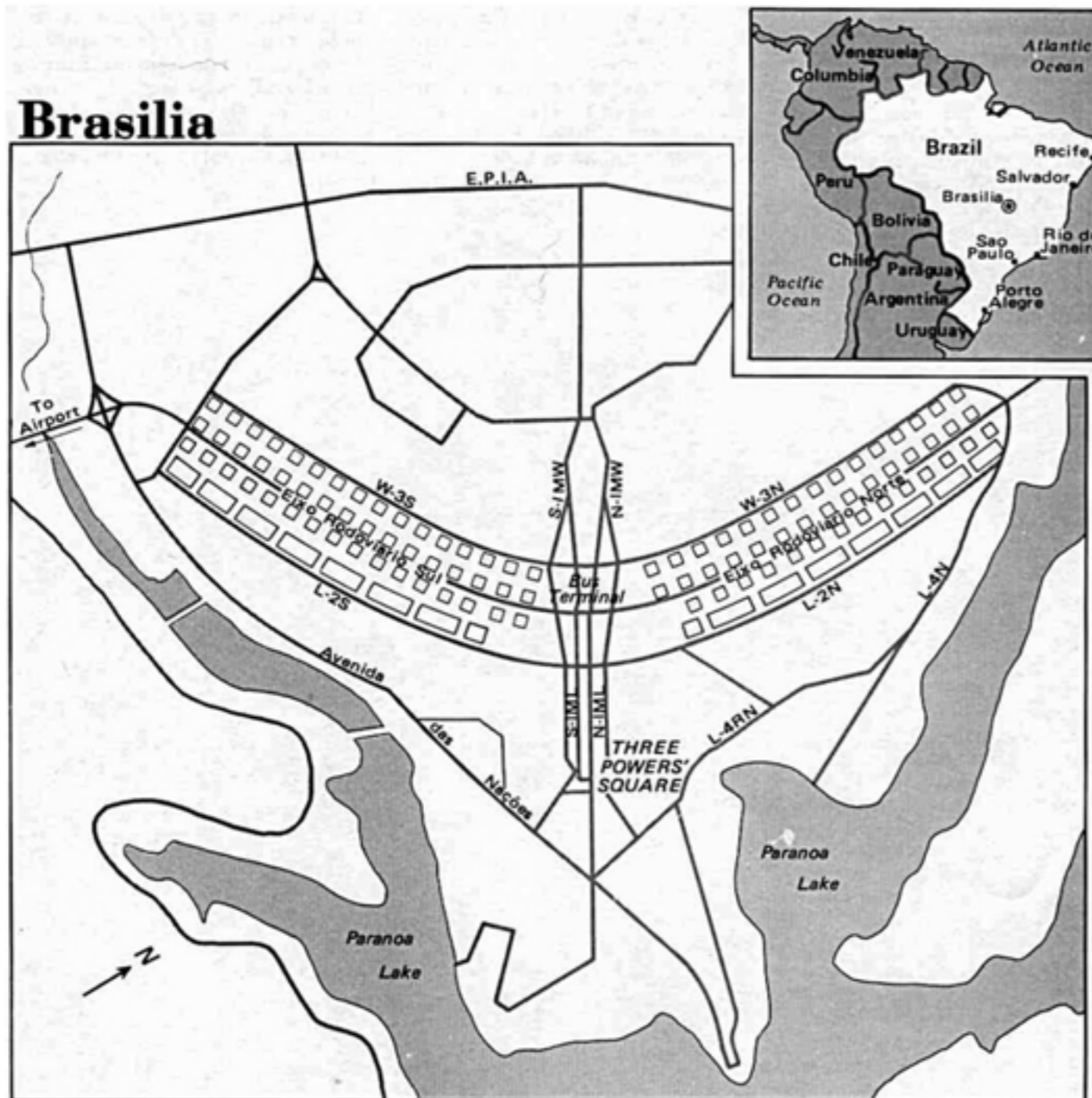
Brasilia

II.B

II.B.   Modernist Brasília

Brasília is a place of contradiction.
Dream and reality, a city with little history, a city with a history different from other Brazilian cities. Brazilian metropolitan cities surged during the colonization, as a result of the exploration of Pau-Brasil, of mining and of cultivation of cane sugar or coffee. Not Brasília; Brasília was idealized, planned and constructed to be the capital of Brazil.
From a promise of president Juscelino Kubitschek, the urban plans of Lucio Costa and sculptural architecture of Oscar Nie-meyer, Brasília was born.
The new capital was built in a little over three years and accom-plished its objective: Integrating the Central-West region with the rest of Brazil.
Moving the capital to the countryside.
And in the 21 of April 1960,
                                                Brasília was inagurated.
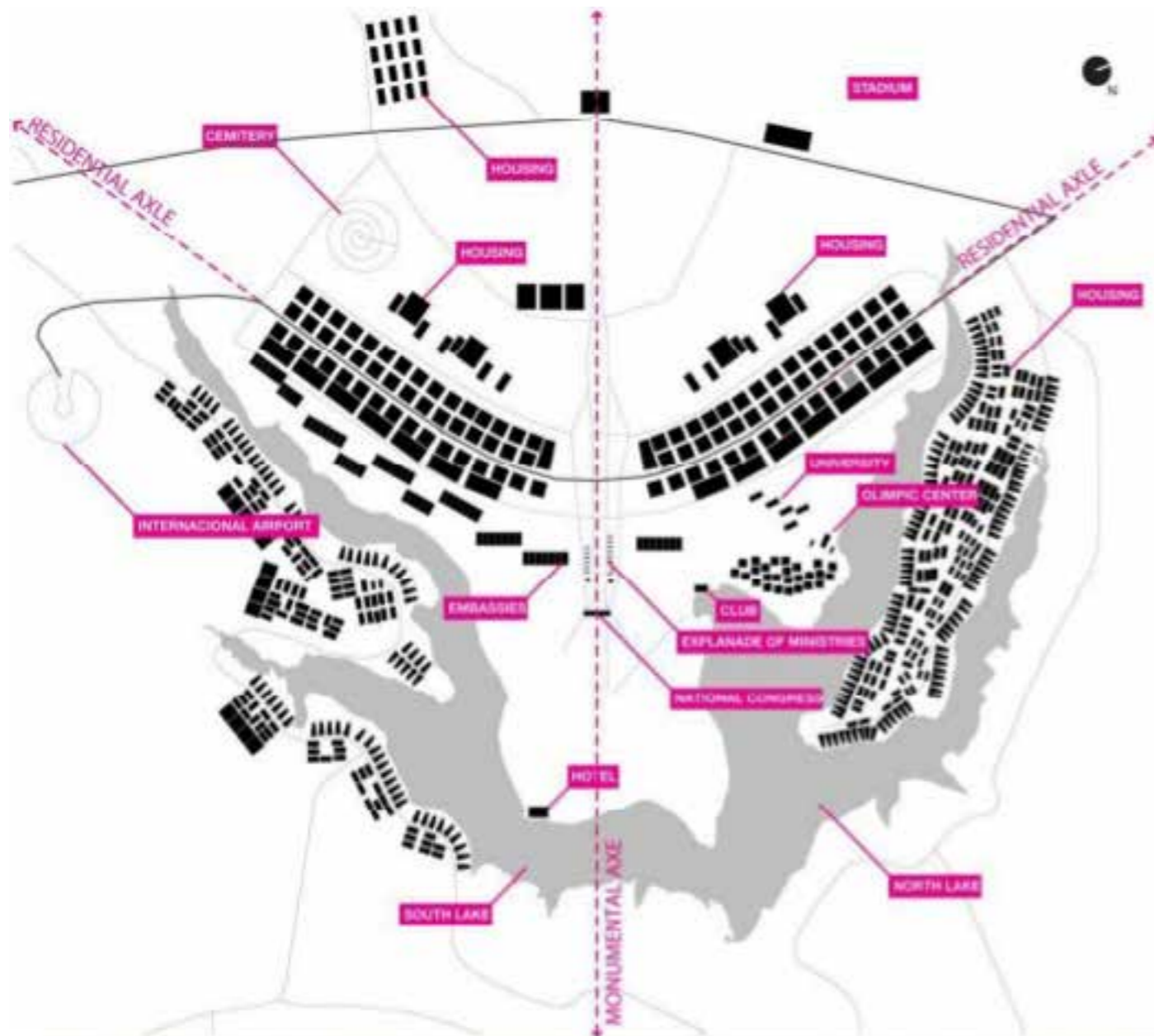
II.B.1.

II.B.1. Costa's concept for Brasilia

Modern Ideology in practice
Modernists of the (early) twentieth century saw architecture as an instrument of social change; they believed that people living in certain types of architecture would adopt habits associated with the type of building.
Brasilia was designed as an idealist modern utopia, to induce social change in favour of collectivism, and to eliminate the class gap by limiting the population of the city and applying collective housing ideas (super blocks), it was designed for a maximum of 500 000 middle class inhabitants and the master plan failed to evolve with the rapid growth of its exceeding population as a capital. The modernist ideals of socioeconomic change were also applied to the streets of Brasilia, with direct highways connecting the public and private, shaping a utopian city that belongs to the people, but this utopia lacks intersections, and the pedestrian is a non-entity in the new order.
The application of modern theory in Brasilia had the opposite results in reality, A strong stratification between the motorized elite, living indoors in the city, and the (poor) outdoor pedestrians of the lower class, coming to town from the "satellite cities" as the surrounding adminstrative regions were called. This is the unwanted result of modern idealism.
A city where any interclass dialogue is virtually absent, a city with little presence of social street life, and lack of human warmth.

Master plan
Costa's concept for Brasilia's master plan was the shape of a cross, an airplane or an arrow pointing to the future. The master plan was intended to provide Brasilia with the dignity of a capital, within 4 design scale: Monumental (symbolic), Residential (comfortable), Gregarious (social), and Bucolic scale (garden city).
Form: The plan has two axes crossing at a right angle. Monumental axis (the fuselage of the plane) intersecting in the centre of the city with the residential axis (the wings of the airplane). To adapt this design to the local topography, the residential axis was curved, making it fit into an equilateral triangle closed by the back axis.
Sectors: Residential districts of super blocks along the north and south wings, row housing around the south and north part of the paranoa lake.
Civic and administrative centre, recreation centre, and municipal administration facilities along the monumental axis. Banking and commercial districts alongside the intersection of the monumental and residential axis. Entertainment centre along the intersection of the monumental axis with the back axis.
Circulation: the plan is designed for cars, shaped by the highways that would either go on a platform, underground, or under the platform, with clover shaped turn-offs replacing intersections. Within each sector there is pedestrian circulation through local pathway systems which are separated from vehicular circulation.
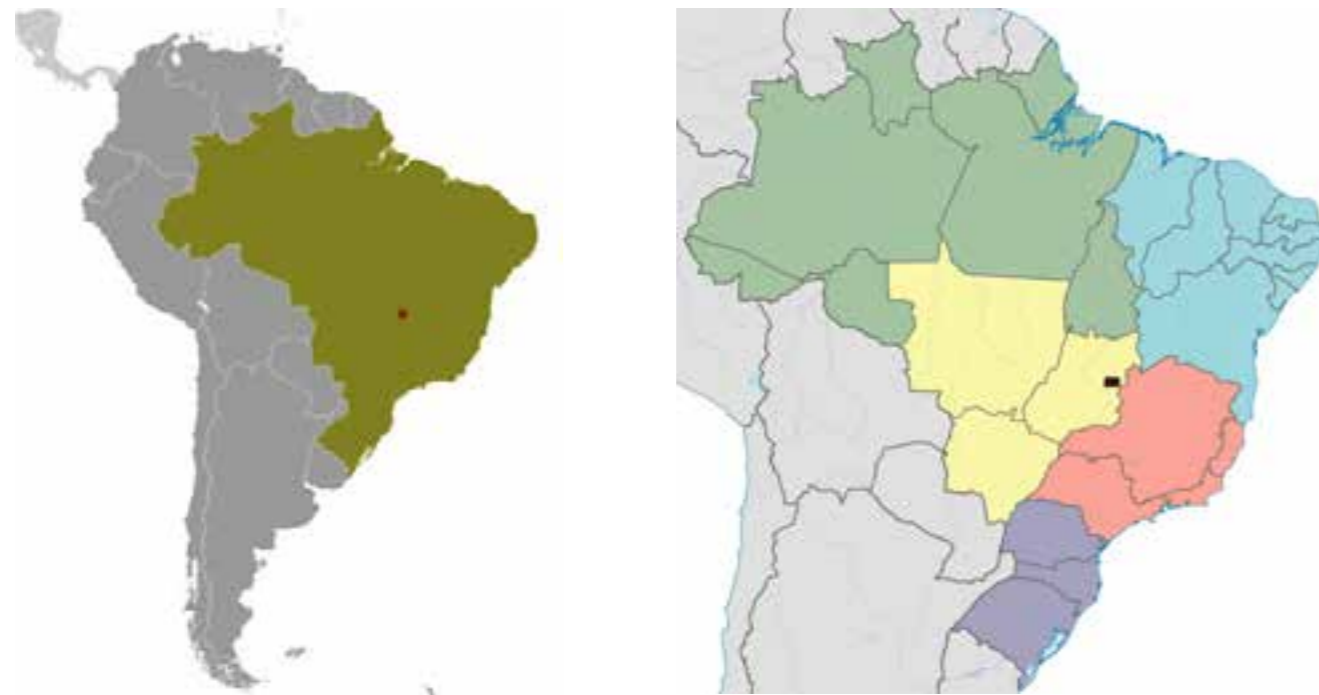
1. Location of the Federal District within the country, Central-West Region of Brasil.
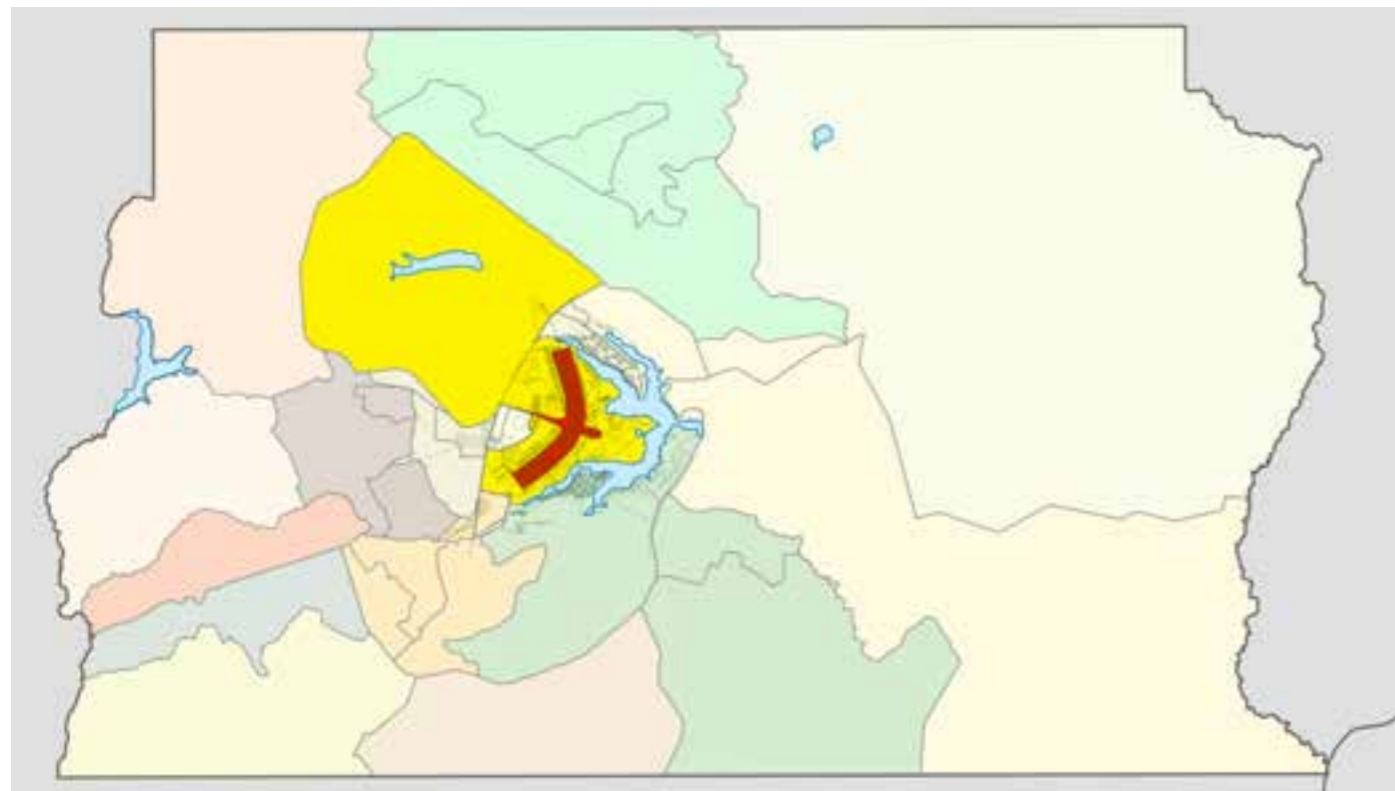
2. Location of the Pilot Plan within larger Federal District (first adminstrative region in yellow).

II.B.2.   Basic data

Name: Brasília
Country: Brazil
Region: Central-West
District: Distrito Federal
Founded: April 21st, 1960
Area: 5,802 km²
Elevation: 1,172 m

Population (2019):
Total population: 3,015,268 (IBGE)
Population density: 480.827/ km²
Female population: 52,2%
Male population: 47.8%

Population distribution:
  age 0 - 14   23.7%
  age 15 - 59   66.3%
  age 60 and above   10%

Inceasing population:
1960: 141,742
1970: 500,000 (Target Max Limit)
1991: 1,601,094
1996: 1,806,354
2000: 2,051,146
2007: 2,455,903
2010: 2,570,160
2015: 2,815,100
2018: 2,974,703

Average age: 25,7 (1991)
                 33.6 (2010)

Since the constitution of 1891, there was a provision for the change of the Federal Capital from Rio de Janeiro to the interior of the country.
In 1955, the then presidential candidate , Juscelino Kubitschek , made a campaign promise to follow the constituion and build a new inland federal capital, a national public tender was set up by the company NOVACAP, which Lucio Costa won with his project for the pilot plan.
The city's design is an application of modernist ideals on urbanism and architecture, two main axis highways cross shaping an aerial abstraction of a plane divided into numbered blocks as well as sectors for specified activities. The monumental axis adorned by the public buildings designed by architect Oscar Niemeyer, Landscape by architect Roberto Burle Marx; and the residential axis across the two residential wings of modernist super blocks.
Due to its modernist architecture and uniquely artistic urban planning, Brasilia was chosen as a UNESCO World Heritage Site in 1993.
Brasilia is the seat of all three branches of the federal government of Brazil: the Congress "legislative", President "executive", and Supreme Court "judiciary". As well as hosting 128 foreign embassies.
Unlike other Brazilian cities, Brasilia is not a legal municipality or city, Brasilia's (Pilot Plan) refers to the first adminstrative region out of 31 regions within the Federal District, composed in its urban part by the residential neighborhoods Asa Norte, Asa Sul and Vila Planalto, with a population of 209,855 inhabitants (2010 census), and an area of 472.12 km²   , being the third largest administrative region in population, after Ceilândia and Taguatinga.

II.B.3.   SWOT

Strength:
- The location of the city is not threatened by any kind of natural disaster.
- Virtually no air pollution for a metropolitan city.
- Good climate: the temperature is pleasant all year, and lake Paranoa helps alleviate the dry climate of the central west area of brazil.
- Vast, large green areas.
- Safe vehicle circulation over platforms, underground, or under the platforms, with clover shaped turn-offs to avoid intersecting traffic.
- Inspiring architecture of civic buildings.
- Comprehensive numeric and directional order of areas, sectors and buildings makes it impossible to get lost within the pilot plan.

Weakness:
- Housing prices are very high in the pilot plan.
- The centre is mostly empty no-man land.
- Great distances between the buildings.
- Inhuman horizontal scale in empty green areas.
- Public transportation is inefficient: the urban bus system has a lot of deficiencies and the metro lines were never completed.
- Highways with large numbers of car lanes, no bike paths or pedestrian possibility of crossing.
- Most people use cars, causing daily traffic jams in the highways leading to satellite towns.
- The satellite towns have very few green areas, unlike the pilot plan.
- Many of the famous buildings are beautiful but not functional.
-Low urban density in the centre (pilot plan).

Opportunities:
- Investing in the development of satellite towns.
- Government policy changes.
- Plans for integration of the transport system.
- Development of the public transportation system.
- Large areas of no-man land in the centre that can be successfully developed.
- Public movement towards occupation of the massive open public spaces within the pilot plan

Threats:
- Limited expansion due to immovable barriers like the lake in the south east of the city and a national preservation park in north west.
- Low density in the centre of the pilot plan.
- Unbalanced relation between location of jobs and homes (82% of formal jobs, and 44% of total jobs concentrated in an area in which only 10% of the metropolitan population live)
- Continuous population growth due to local migration, without adapting the urban infrastructure to accommodate this growth.
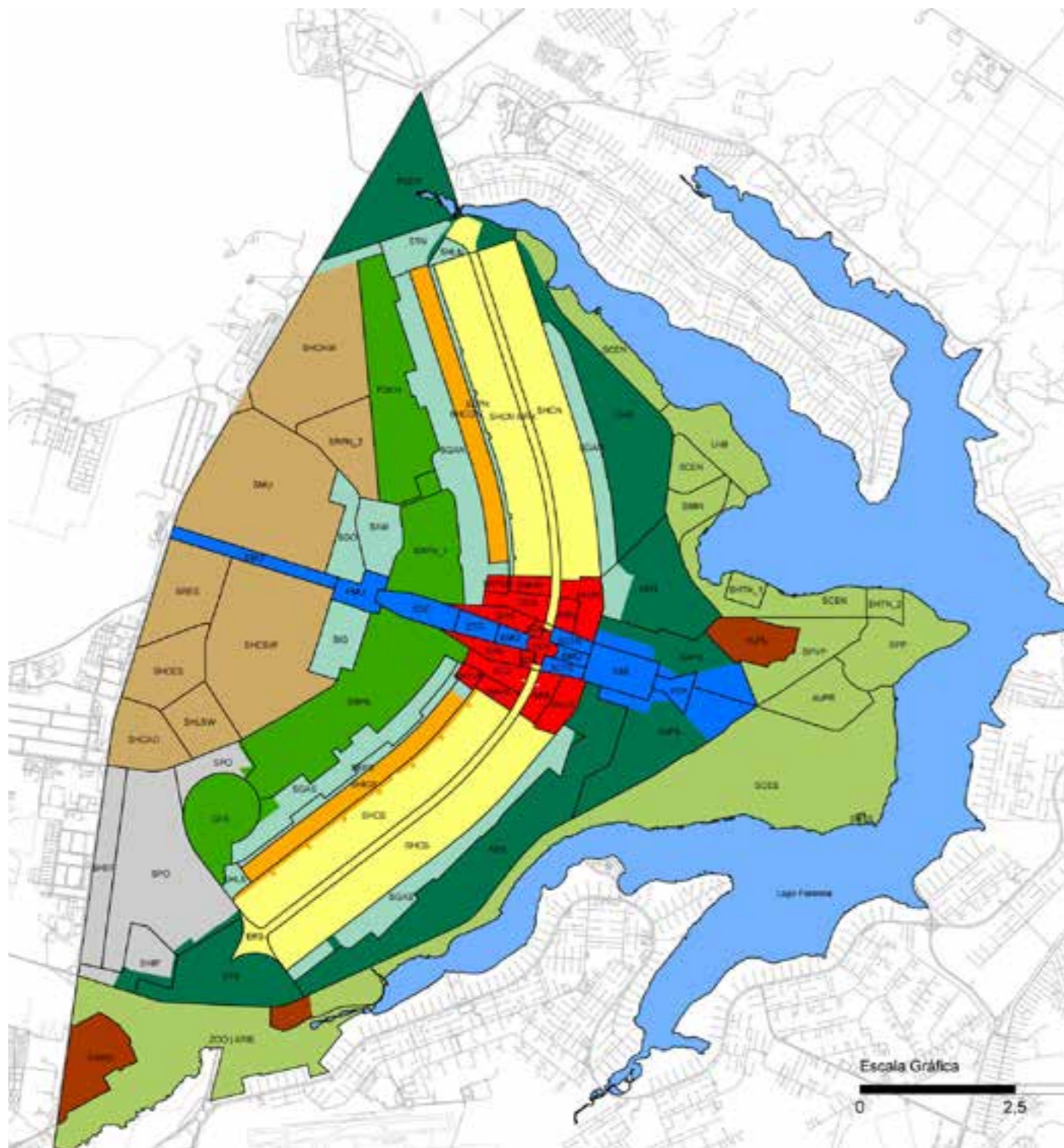
II.B.4.   Urban scales

Costa's master plan had 4 urban design scale:
   Monumental (symbolic),   Gregarious (social),
   Residential (comfortable),   Bucolic scale (park city).

The monumental axis (east-west) embodies the administrative city, and belongs to the Monumental Scale (Blue). This is where the flow of tourists is concentrated and where the city is constantly presented and explored iconographically with the civic representations of the Capital through the iconic buildings designed by architect Oscar Niemeyer.
At the intersection of the monumental and residential axis we find the Gregarious Scale (red), which guides the disposition of shopping, bank, hotel and leisure sectors of the city center.
Along the highway-residential axis is the Residential Scale (yellow), which guides the constitution of the superblocks in two parts on each side of the city center, North Wing and South Wing.
finally, Bucolic Scale (green), guides the definition of the parks, open public space and low density green areas of parts of the residential superblocks, the banks of the Paranoá Lake and the fringes of the pilot plan.

The Monumental and Gregarious Scales are often the focus of the study of Brasilia, It is in the Monumental Scale that are the architectural buildings that form the popularly known iconographies of the city, and the gregarious scale constitutes an area intended for work activities, they both present many problems with the segregation of land use, while at the same time presenting interesting culture and entertainment spots, theaters, museums, galleries and concert halls that make the work dynamics concentrated there more flexible.
This study contemplates the Bucolic Scale of Brasilia, which permeates practically the entire city but is most concentrated in the public space of the Residential scale.
Brasilia was designed by Lucio Costa as an "organism capable of filling satisfactorily the vital functions of any modern city, not only as urbs, but as civitas " (COSTA, 1957), that is, besides being designed as the administrative capital of Brazil, it was also designed to be a comfortable place that nurtures its inhabitants, in the ideas of Costa for the residential scale we can see the original urban plan values the human being.
There is little need to question whether or not the city is a pedestrian city, it was in fact built around the use of the automobile and that is clear from its concept to its reality, but within the residential scale it is possible to have a new look at the city and its conditions to welcome to pedestrians in their Residential / Bucolic Scale, with sidewalks and green areas, open spaces, necessary and leisure functions, gardens and public space of the pilotis.

II.B.5. Land use

RA I – PLANO PILOTO
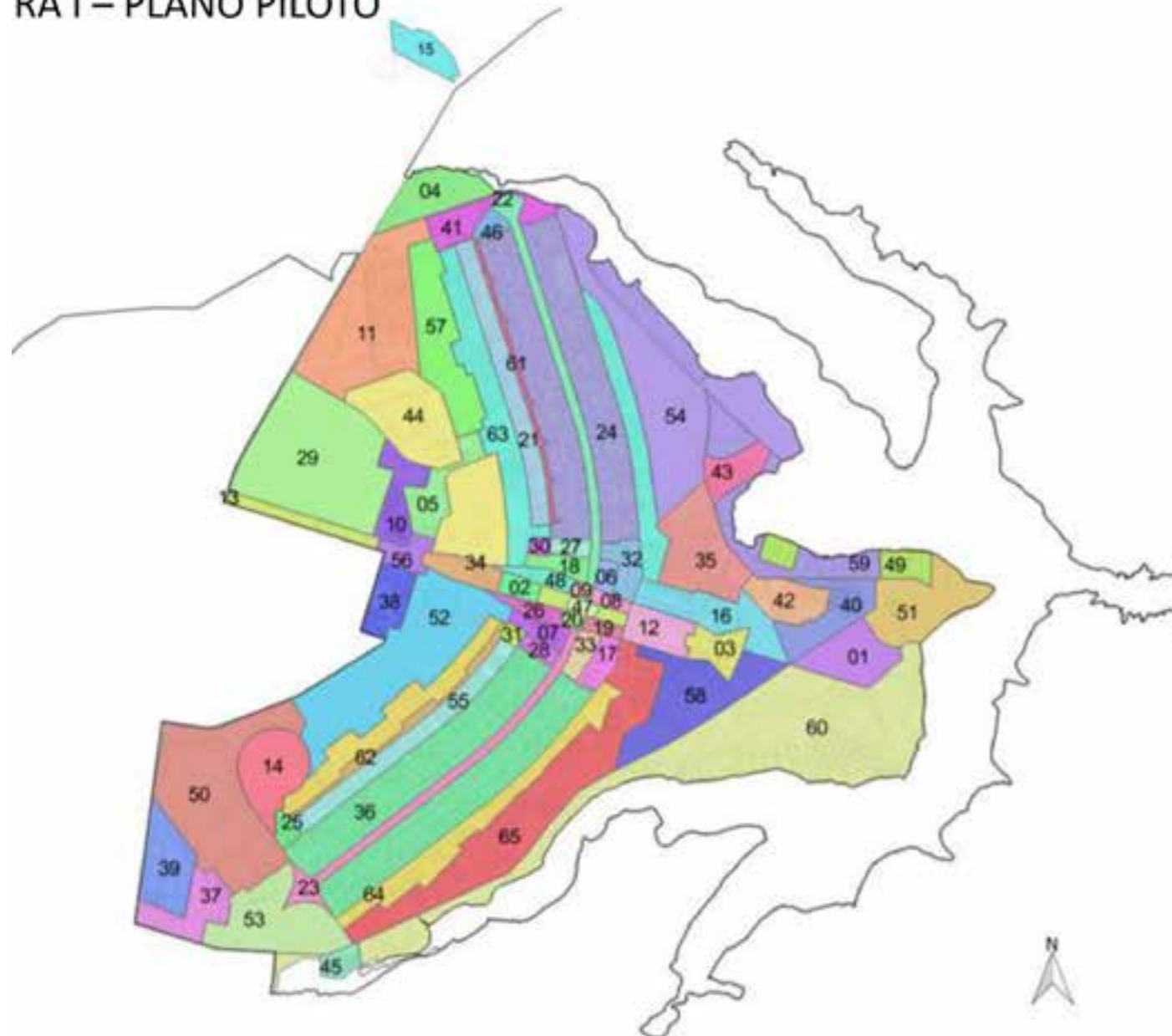
II.B.4. Brasilia, Land use plan.

Legenda

Setores

01 - AVPR - Área Verde de Proteção e Reserva
02 - ETO - Esplanada da Torre
03 - PTP - Praça dos Três Poderes
04 - PQEB - Parque Estação Biológica
05 - SAM - Setor de Administração Municipal
06 - SBN - Setor Bancário Norte
07 - SCS - Setor Comercial Sul
08 - SCTN - Setor Cultural Norte
09 - SDN - Setor de Diversões Norte
10 - SGO - Setor de Garagens Oficiais
11 - SHCNW - Setor de Habitações Coletivas Noroeste
12 - EMI - Esplanada dos Ministérios
13 - EMO - Eixo Monumental
14 - CES - Cemitério Sul
15 - GMT - Granja Modelo do Torto
16 - SAFN - Setor de Autarquias Federais Norte
17 - SAUS - Setor de Autarquias Sul
18 - SCN - Setor Comercial Norte
19 - SCTS - Setor Cultural Sul
20 - SDS - Setor de Diversões Sul
21 - SHCGN - Setor de Habitações Coletivas Geminadas Norte
22 - ERN - Eixo Rodoviário Norte
23 - ERS - Eixo Rodoviário Sul
24 - SHCN - Setor de Habitações Coletivas Norte
25 - SHLS - Setor Hospitalar Local Sul
26 - SHS - Setor Hoteleiro Sul
27 - SMHN - Setor Médico e Hospitalar Norte
28 - SMHS - Setor Médico Hospitalar Sul
29 - SMU - Setor Militar Urbano
30 - SRTVN - Setor de Rádio e Televisão Norte
31 - SRTVS - Setor de Rádio e Televisão Sul
32 - SAUN - Setor de Autarquias Norte

33 - SBS - Setor Bancário Sul
34 - SDC - Setor de Divulgação Cultural
35 - SEN - Setor de Embaixadas Norte
36 - SHCS - Setor de Habitações Coletivas Sul
37 - SHIP - Setor Hípico
38 - SIG - Setor de Indústrias Gráficas
39 - SMAS - Setor de Multiplas Atividades Sul
40 - SPVP - Setor de Preservação da Vila Planalto
41 - STN - Setor Terminal Norte
42 - VPLA - Vila Planalto
43 - SMI - Setor de Mansões Isoladas
44 - SRPN - Setor de Recreação Pública Norte
45 - Vila Telebrasilia
46 - SHLN - Setor Hospitalar Local Norte
47 - PFR - Plataforma Rodoviária
48 - SHN - Setor Hoteleiro Norte
49 - SHTN - Setor de Hotéis de Turismo Norte
50 - SPO - Setor Policial
51 - SPP - Setor Palácio Presidencial
52 - SRPS - Setor de Recreação Pública Sul
53 - STS - Setor Terminal Sul
54 - UNB - Universidade de Brasilia
55 - SHIGS - Setor de Habitações Individuais Geminadas Sul
56 - PMU - Praça Municipal
57 - PQEN - Parque Ecológico Norte
58 - SAFS - Setor de Administração Federal Sul
59 - SCEN - Setor de Clubes Esporticos Norte
60 - SCES - Setor de Clubes Esporticos Sul
61 - SEPN - Setor de Edifícios de Utilidade Pública Norte
62 - SEPS - Setor de Edifícios de Utilidade Pública Sul
63 - SGAN - Setor de Grandes Áreas Norte
64 - SGAS - Setor de Grandes Áreas Sul
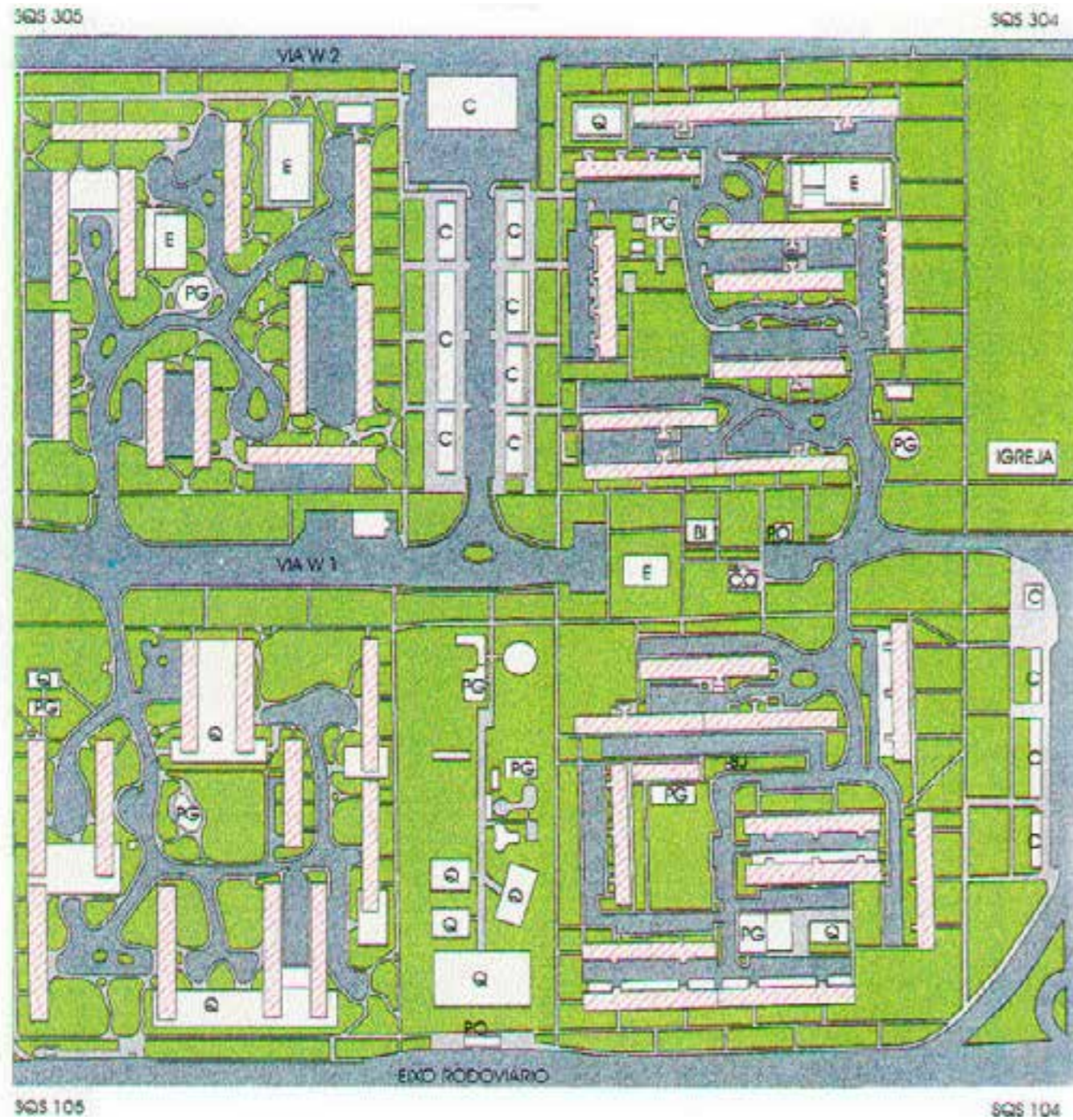65 - SES - Setor de Embaixadas Sul

II.C

II.C.   Superblocks (Residential scale)

In the residential wings of Brasilia, two complimetary urban scales are defined in Costa's Pilot Plan.
The Residntial scale, inspired by modernist theories, meets the Bucolic scale with ideas of ample greenery and garden city design.

Along the residential highway axis, rows of superblocks are arranged, neighbourhood units are made of four superblocks that are each semi-autonomous functional housing units with their most basic services within a 280 x 280 meter block.
Inside a superblock, there are between 8 and 10 6-storey linear block buildings, usually raised on pilotis or pillars, with all outside areas, including the ground floor of the building as public space.
Residents belong to the block, but the block does not belong to them, it belongs to the city, the public.

1. Sustainable Neighbourhood Unit, Arthur Perry, 1929.

2. Pendrecht, Rotterdam, Netherlands, 1948.

II.C.1.   Neighborhood unit

The Neighborhood Unit idea is attributed to Urbanist Clarence Arthur Perry, who in 1929 drafted this proposal for a New York plan. The conception of these units considers social relations as the guiding and fundamental principle. It was created to be a residential area capable of providing its residents with all their daily needs, like commercial, schools, and institutional civic functions, within the limits of this residential area. with a view of restoring and transforming of urban life. It considered a road hierarchy, with local roads, internal to the Neighborhood Unit, and other roads located outside the unit boundaries.

Perry's proposal (1), had as its principle the following basic references:
1. Size. A neighborhood unit should promote housing for a population to which an elementary school is commonly required, its area depends on the limited population density.
2. Limits. Neighborhood unit should be limited on all sides by streets wide enough to facilitate traffic rather than being penetrated by roads.
3. Public spaces. A system of small parks and recreation spaces for social needs should be provided.
4. Institutional Areas. Schools and other institutions within the neighborhood unit must be adequately grouped in a common central place.
5. Local Business. One or more appropriate commercial venues should be offered at the junction of traffic streets and adjacent to another similar commercial area in a nearby neighborhood unit.
6. Internal system of streets. The unit must be provided with a special street system, being proportional to the likely traffic load. The street network should be considered as a whole, facilitating interior movement, discouraging traffic from passage.

Construction of new urban settlements in the United States was guided by sprawl, a new way of living away from the conflicts of traditional cities. Capitalist speculation qualified the suburbs with new housing areas designed for car use, and without conflict with pedestrians as idealized by Perry.
Various proposals and implementations of development in new cities adopted the ideas of Perry's Neighborhood Unit, in both in the United States and in some European countries in the period of reconstruction of cities destroyed by World War II.
Some examples are the city of Greenbelt, founded in 1937, located in the state of Maryland, United States; and Pendrecht (2), founded in 1948, located in Rotterdam, the Netherlands. Besides the idea of the neighborhood unit, Pendrecht's plans of the blocks are also a clear inspiration for the Brasilia superblock.

VIA W 2

VIA W 1

IGREJA

EIXO RODOVIARIO

SQS 105

SQS 104

II.C.2. 1. Neighbourhood unit plan for SQS 305-304-105-104, Brasilia.

II.C.2.   Neighborhood unit- Brasilia

The classic conception of The Neighborhood Unit stems from the desire to revive local social life and the desire to organize the parts that makeup the whole city.

The conception of the neighborhood unit that Lúcio Costa made as a means of structuring Brasilia's housing sector does not ignore these concerns, although it has peculiarities such as the fact that it is fractionated in four superblocks instead of treated as one whole neighbourhood. "At the four-block parameter there will be a neighborhood church, and at the back of it the secondary schools, while in the edge with the, leaving the extensive free area for youth club with playground and playground.

Organized with certain conditions of self-sufficiency of equipment, each superblock would include an elementary school and a number of local level commercial establishments on the access roads facing the superblocks. As in the classic conception, there is a clear concern with the distribution of collective service equipment, placing them along the surround roads in order to make it accessible to those coming from other neighborhood units, there is also attention payed to the social and environmental conditions that would allow the restoration of "the ground to a fair extent to the pedestrian" with extensive free area for greenery, sports, youth club, neighbourhood clubs and playgrounds.

The idea of the neighbourhood unit was not fully applied in the residential wings of Brasilia, the closest applications of the model are in the older superblocks of the south wing rather than the later built north wing, with most groups of 4 superblocks having some of the design elements of the neighbourhood unit they are meant to be but not all, like SQS 104-105-304-305 (1). The only true full application of the concept with all the necessary functions happened in the south wing in the group of superblocks SQS 107-307-108-308, which is called the Model Superblock (II.C.4 - page55).
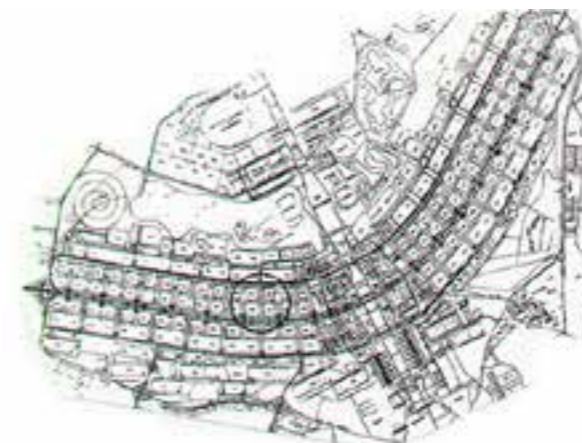
II.C.2. 2. Location SQS 305-304-105-104, Brasilia.
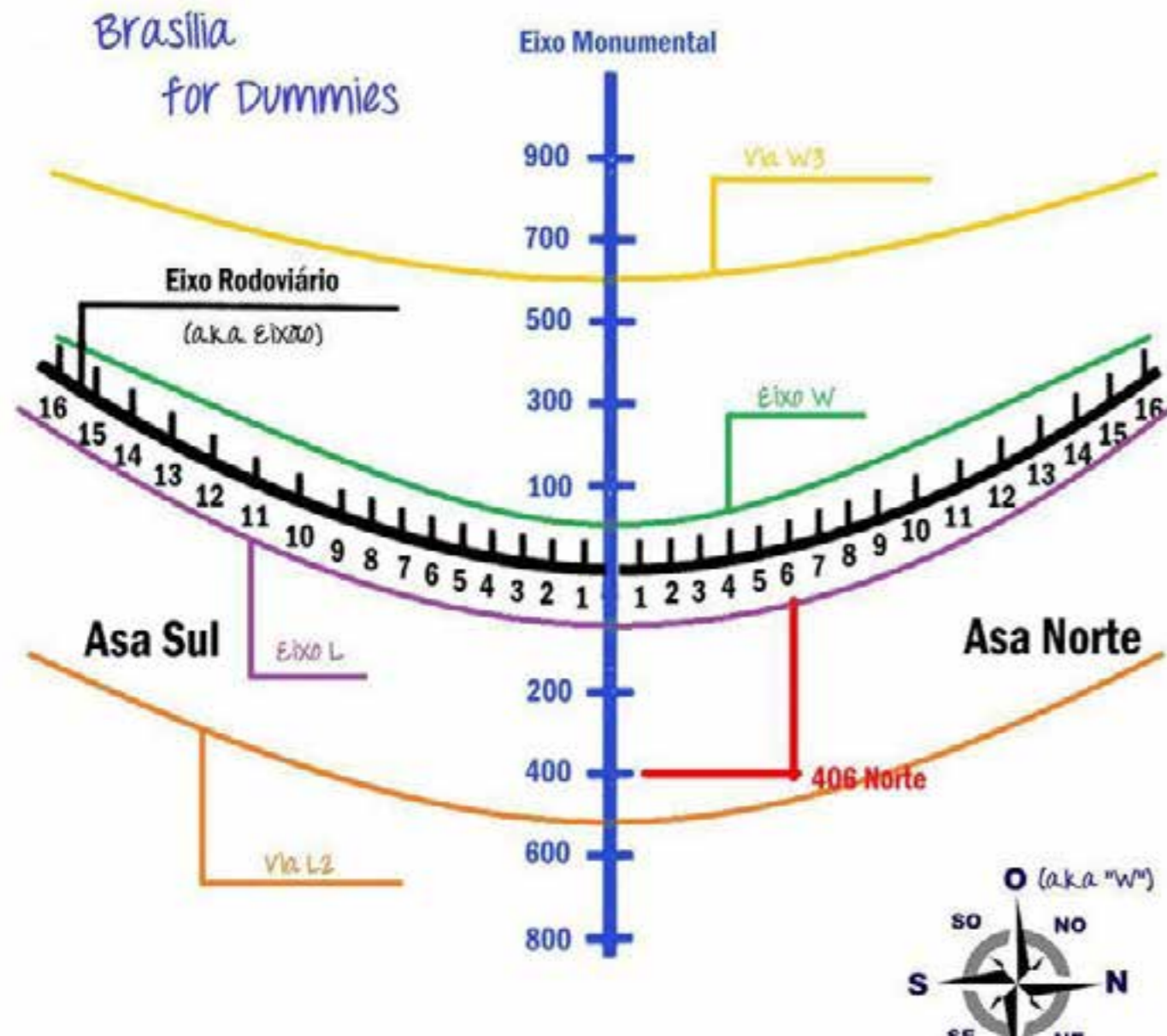
II.C.3. Brasilia Superblocks

The superblocks are organized in two symmetrical wings with respect to the Monumental Axis, and distributed parallel to the Residential road Axis (Eixo Rodoviário) in four lanes: in the west, lanes 100 and 300; to the east, initially strip 200, with six-story buildings, and later strip 400. The definitive configuration of the Brasília Pilot Plan superblocks coincided with the eastward displacement of the entire urban complex. In the first plans for the city, the strips 100 and 300 had seventeen superblocks on each wing, and the strip 200 had fifteen superblocks, resulting in 49 superblocks per wing and 98 in total. However, the actual built superblocks of the Pilot Plan have 60 superblocks per wing and 120 in total for the residential area: strips 100 and 300 have the same fifteen superblocks per wing, from superblock 2 to 16; strip 200 has sixteen superblocks numbered 01 to 16 on each wing; and strip 400 has fourteen superblocks per wing, numbered from 3 to 16.

The superblocks of the south wing were built first, and have a different atmosphere to the north wing were a few superblocks are in fact still under construction to this day.

The older superblocks have adapted to their users and their needs, with more public life and culture, while the north wing is the younger, more expensive, and less lively wing.

II.C.3. 2. Land use of Brasilia superblocks:
Residential (light brown), Education (blue), Commercial (red), Mixed use commercial (purple), Religious(pink), civic (dark pink), Leisure/sport (yellow), Vegetation (green).

II.C.4. 1. Park school 308 Sul, designed by Niemeyer.

II.C.4. 2. Chapel Nossa Senhora de Fátima, by Niemeyer.

II.C.4. 3. Residential block main facade.

II.C.4. 4. Residential block service facade with cobogó.

II.C.4. 5. Park designed by Burle Marx.

II.C.4. 6. Water mirror at 308 Sul.

II.C.4. Model Superblock - SQS 308

The 308 superblock in the south wing is known as the 'model superblock', because it strictly followed urbanist Lúcio de Costa's project of what all the superblocks of the pilot plan should look like. The block buildings have large horizontal glass windows on the front, while the back facade (service area) of the building is made up of cobogós (hollow wall with holes that allow greater air circulation and luminosity).

The layout of all block buildings was designed so that all rooms are positioned towards the rising sun. The buildings are lifted up on pilotis, freeing the ground floor as a public space sought to encourage pedestrian circulation and social contact - the ground floor in the buildings of the model superblock are patterned with dark marble floors and white marble columns. The famous 'little church' (Our Lady Fatima Church) also makes up the project of the superblock, as well as the first (escola classe) elementary school implemented in Brasilia, at the (escola parque) school for arts and sports, what stands out are its support columns in V format. However the most beautiful element of this supersquare is in fact hidden by block F, a beautiful water mirror with some fish, created by Burle Marx.

II.C.4. 7. Land use of Brasilia superblocks SQS 107,108,307,308:
Residential (yellow), Education (green), Commercial (red), Religious (purple), Leisure/culture (blue), Medical (brown).

II.C.5. 1. SQS 106, block B.

II.C.5. 2. SQN 308, block F.

II.C.5. 3. SQS 106, block B.

II.C.5.   Building typologies

In general, the buildings in Brasilia superblocks follow a standard. All buildings in the 400 stripe of superblocks have a maximum of 3 floors. The 200, 100 and 300 superblock strip with buildings of 6 floors.

It is possible to divide the buildings according to their period of construction into two large groups. The first covers buildings built in the 1960s until the late 1970s, and the second group comprises the most recent ones, built from the 1980s onwards.

Group 1: (images 1,2,3) 1960s and 1970s The architecture produced in the first 20 years follows the principles of the Modern Movement, especially Carioca Rationalism and Paulista Brutalism. Typical of this era are buildings with sliding windows (especially the Corbusian horizontal window), the presence of shading elements, and cobogos hiding the service areas. At that time, there was a great repetition of projects, sometimes resulting in poorly installed buildings, including solar orientation. Because of this repetition, it is possible to identify the most repeating façade typologies in the Pilot Plan, 418 buildings with sliding windows and no sun protection were identified, constituting 30% of the total.

Group 2: (images 4,5) From the 1980s Onwards,as a result of changes in architectural design and increased real estate activity, residential buildings have other characteristics, sometimes influenced by Postmodernism. The buildings of this period are mainly found in Asa Norte, since there is more recent occupation of the superblocks. The main features are the presence of balconies generating more jagged forms, and the predominance of certain types of opaque and transparent glass facades.

It is possible to identify some typological variations on the building blocks of the super-blocks. However, the presence of pure forms "bathed in light and air" is impressive. It is possible to recognize the absolute predominance of the rectangular shape in the projections of the buildings, that is, the horizontal blade, with 96.04%. This form has been used with some minor variations depending on the time of building and location of the superblock. The first variation is found in stripes 100, 200 and 300, with the circulation tower attached to the projection, measuring 12.6m wide by 84.35m long. Another variation was adopted in the first superblocks of the 400 stripe, the SQDS, whose narrowest projections measure 8.00m wide by 80.00m long. In some later superblocks The rectangular shape was used in projections with 12.65m wide and 84.25m long.

We can also find other projection typologies, even though in a much smaller proportion than the rectangular blade, the square and "H" projections.

II.C.5. 4. SQN 213, block A.

	Forma	Local
Tipo 1		SQS SQN
Tipo 2		SQDS SQDN
Tipo 3		SQS SQN
Tipo 4		SQS, SQN. SQDS, SQDN
Tipo 5		SQS 207
Tipo 6		SQS 207
Tipo 7		SQN 204

II.C.5. 6. Building typologies in Brasilia superblocks.

II.C.5. 5. SQN 208, block F .

II.C.5. 7. Basic apartment plan of Brasilia's superblocks.
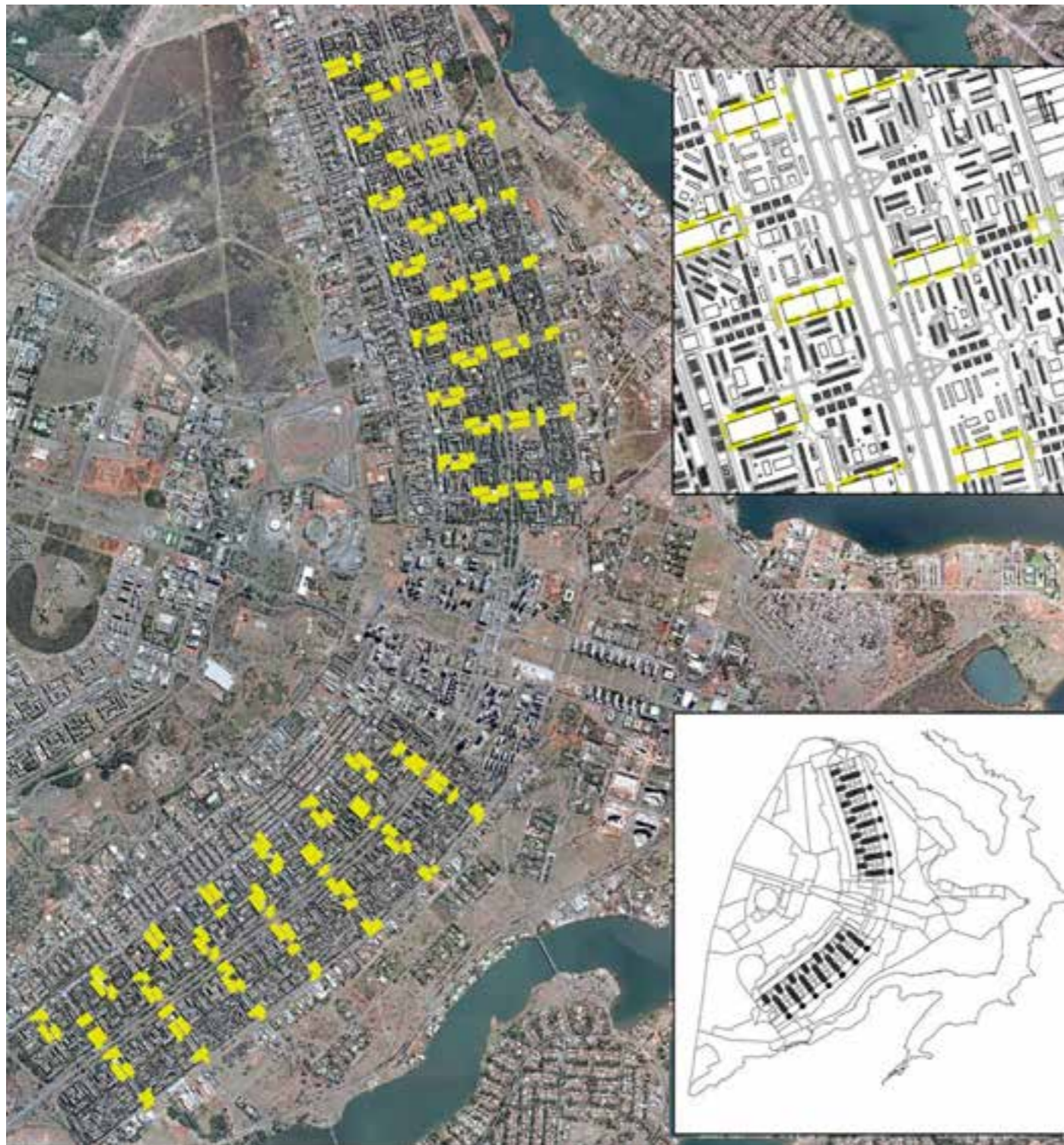
II.D

II.D.   Entrequadra (public space)

The Entrequadras (between superblocks), together with the superblocks and commercial areas, comprise the Neighborhood unit. While the superblocks serve the function of housing along with the possible placement of primary schools, it is within the the defined public space between the superblocks, in the en-trequadras, that Costa envisioned the rest of the functions of the neighbourhood unit: community center, neighbourhood clubs, temples, sports areas, shopping arcades, supermarkets. These services are needed for a self-sufficient neighbourhood unit and also are to be provided beyond the local level, connect-ing and inviting the inhabitants of nearby neighbourhood units with culture and leisure functions. It is a challenge that most entrequadras have no adequate treatment of the open spaces, in fact many of them still present unbuilt lots without their desig-nated functions.

II.D.1. Public space in the business district of La Défense, Paris.

II.D.1. Modernist public space

Modernists of the (early) twentieth century saw the car as the future for transportation, their designs focused on fast and efficient viehicle transportation and separation of the different modes of transport. That changed the nature of public space, instead of shared streets, roads and highways became the norm, parking takes over a big part of the modern city, and pedestrians were to have open public space within the residential areas, or vast open public spaces in areas of civic functions, that were either open green areas like much of Brasilia, or a concrete "pedestrian slab" style of design that was blamed for the failure of modernist urban planning projects, but which sometimes manages to be a working structure like in the case of the pedestrian square in the district of La Défense in Paris.

In Brasilia, the Monumental scale sets the perfect example of sculptural buildings placed into a minimalist canvas of perfectly cut green grass foreground, a clear blue sky background, and lonesome strategically placed trees, placed to adorn the view of the buildings from the moving car, and much less for the pedestrians that have no shade or paths to orient them the massive green open space in the middle of Brasil's Cerrado dry heat.
While the Gregarious scale of Brasilia also follows along with the idea of vast green "public space", it also holds many examples of the "pedestrain slab" public space typology, especially within the center with the main bus station and commercial city center.
The residential scale treats public space in what can be considered a more humanitarian way in terms of scale, and a "communal" approach to the way public space is treated in terms of ownership: all the ground level of Brasilia belongs to the people! that meant residential buildings of the superblocks were lifted up on pilotis, all blocks were free to walk through and gates, walls and fences were to be rejected by the original concept for Brasilia, instead of vertical obstacles, highways and vast horizontal green areas were the factor in setting limits for sectors of the city.

II.D.2. 1. "Public space" in the Monumental Axis of Brasilia.

II.D.2.   Brasilia public space

It was not difficult to conclude, based on interviews carried out for the public participation survey (III.D.6 page 115) , that public spaces, represented by the inhabitants mostly as the green areas, whether permeable or void – with particular attention to the pilotis and common areas – are a key element in the discourse regarding the city.

The quality of the supposed public space along the monumental axis, vast and unshaded, is not inviting to the pedestrian, rather it is more of a buffer zone for the heavy car traffic and a minimalist background for a spectacular, unobstructed view of the monumental buildings from a moving car.

The quality of the public space in the superblocks, however, is very different. There is respect to the human scale and accessibility between the superblocks through shared public spaces. Paradoxically, some of the interviewees do not often utilise the very spaces they claim to be indispensable. It is important to notice that for those who do not penetrate the Superblock, it's hard to perceive the use of common areas and public spaces inside it, usually relatively hidden among trees and buildings from those outside the superblock. The discourse present in the original plan, has been deeply internalised by the residents of the Pilot Plan, who often relive the progressive speech that justified Brasilia and its characteristics.

More than in practical terms, it is in the social representations and imagination – or common sense itself – that public spaces in Brasilia have achieved their largest projection. The public emerges as an extremely important characteristic of the city. However, this looks to be always more related to projective premises of the original design and the limited intimacy of superblocks than to the uses and less punctual practices in the whole context of the city.
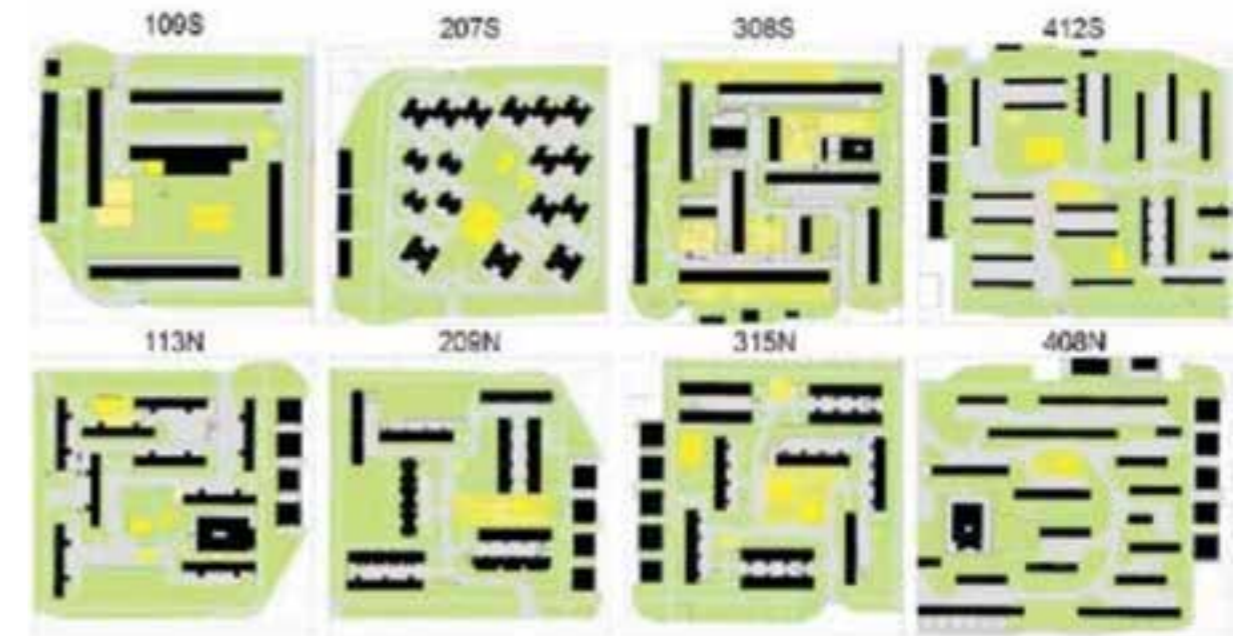
II.D.2. 2. Public place in Brasilia superblocks: ratio of built up to open public space.
Buildings (black), Public space (green), Activated public space (yellow), Circulation (grey).

View of the public space in an residential Entrequadra, South wing, Brasilia.

II.D.3.   Residential entrequadra

The Entrequadras (between superblocks), together with the superblocks and commercial areas, comprise the Neighborhood unit, while the superblocks serve the function of housing along with the possible placement of primary schools, it is within the defined public space between the superblocks, in the entrequadras, that Costa envisioned the rest of the functions of the neighbourhood unit: community center, neighbourhood clubs, temples, sports areas, shopping arcades, supermarkets.

These services are needed for a self-sufficient neighbourhood unit and also are to be provided beyond the local level, connecting and inviting the inhabitants of nearby neighbourhood units with culture and leisure functions. It is a challenge that most entrequadras have no adequate treatment of the open spaces, in fact many of them still present unbuilt lots without their designated functions.

In 1967, Lucio Costa highlighted the role of the Entrequadras to ensure unity to the built set: "Each set of 4 of these superquadras (...) constitutes a neighborhood unit with its indispensable services- primary and secondary schools, shops, clubs, etc. - thus intermingling with each other throughout extension of that axis. "

Many lots of Pilot Plan Entrequadras are still unoccupied. In Asa Sul (south wing), the proportion is lower than in Asa North (north wing).

This situation causes, especially in the north wing, undesirable discontinuity in the urban environment, leaving voids between the superblocks, without integration through the functions defined for the Entrequadras, the issue is not only that of lack of services and functions but also of safety in these large open voids in the urban fabric.

Regarding the ownership situation of the real-estate units, there is public land and private land, with most private land being occupied, while the lots still unoccupied are mostly public property. Park schools and religious buildings are the ones with the most empty lots.

the need for such functions may be reviewed, taking into in account the excess of religious buildings and the changing age profile of the population, which demands other types of public facilities.

We can say that there are three types of Entrequadras or areas between the blocks: Commercial areas; Sport Entrequadras; Institutional Entrequadras;

The commercial and institutional Entrequadras are probably the most altered and uncharacterized part of the Brasilia Pilot Plan.

Considering the changes in commercial spaces, adapted according to a succession of specific legislation or irregular occupations, but always under a business pressure to serve a consumer market, in the local commercial areas there is predominance of isolated environments, without flow or permanence of people and lacking daily urban life.

It is important to be weary of this effect and not let it continue with the future occupation of the institutional Entrequadras, in order to avoid the misunderstandings that we now find in commercial areas.

II.D.4. View of the public space at the east of the site: PHU, at EQN 104-105, North wing, Brasilia.

II.D.4.   Entrequadra EQN 104/105

It was not difficult to conclude, based on interviews carried out for the survey, that public spaces, represented by the inhabitants mostly as the green areas, whether permeable or void – with particular attention to the pilotis and common areas – are a key element in the discourse regarding the city. Paradoxically, some of the interviewees do not often utilise the very spaces they claim to be indispensable. It is important to notice that for those who do not penetrate the Superblock, it's hard to perceive the use of common areas and public spaces inside it, usually relatively hidden among trees and buildings from those outside the Super-block. The discourse present in the original plan, as we could conclude in 2011, has been deeply internalised by the residents of the Pilot Plan, who often relive the progressive speech that justified Brasilia and its characteristics. More than in practical terms, it is in the social representations and imagination – or common sense itself – that public spaces in Brasilia have achieved their largest projection. The public emerges as an extremely important char-acteristic of the city. However, this looks to be always more related to projective premises of the original design and the limited intimacy of Superblocks than to the uses and less punctual practices in the whole context of the city.

The Entrequadras are characterized by low height buildings, arranged separately in the lot, without railings or fencing, they are to be part of the landscape and integrated with adjacent superblocks, establishing direct relationships between public and private spaces and the free movement of pedestrians.
The entrequadras of the residential wings are organized into alternating lots of typologies based on their allowed use and functions, these are prescribed in the Urbanism and Preser-vation Parameters Worksheet:
Entrequadras 100:
Lots A, located every four superblocks, are for the neighborhood club; The other lots A,B or AB, with access to the Residential Axis highway, are intended for diversified activities of com-merce, services and institutional sports, leisure and culture.
B lots are intended for sports courts.

EQN 104/105 falls within lot type A of the 100 stripe of the north wing (Lt. A);
It is an Institutional entrequadra.
The allowed functions that can be built on the site are those specific the neighbourhood club:
Sports, recreation and leisure activities.

III.   Site analysis:

A. Methodology

B. Site context: Asa norte
1. Transportation
2. Superblocks and Neighbourhood units
3. Entrequadras

C. Wider site: Neighbourhood unit
1. SQN 104-105-304-305
2. Historic maps
3. Transportation
4. Land use analysis
5. Massing model
6. Building typologies
7. Photographic survey

D. Site context: EQN 104-105
1. Policy analysis/ guiding framework
2. Character assessment
3. Zones- areas
4. Photographic survey
5. Stakeholder narrative
6. Public participation "User assessment"
7. Urban use study, Time lapse observation

III.A.   Methodology

The program for the design project and development of the public space on the site of PHU, EQN 104-105, is to be based on a full understanding of the site and its context, with results of the analysis as the basis for the proposed program and urban interventions. In the previous chapter the analysis of the urban and architectural context of the site was done in 4 scales, from the largest context of the urban and architectural precedents of modernist ideas to the more local and focused application of these modernist theories in Brasilia. In this chapter a closer, more specific analysis of the particular site was done in 3 scales:

1. Context of the north residential wing. Main roads, commercial/civic sectors, neighbourhood units of superblocks/ Entrequadras.
2. Context of the surrounding neighbourhood unit of four superblocks. The neighbourhood unit of the EQN104-105 are SQN104-105-304-305, at this scale the historical analysis, morphology, transportation, landuse and civic functions, and surrounding building typologies are most relevant.
3. Context of the Entrequadra 104-105 itself. In the context of the square itself, the analysis starts with the guiding framework and rules set by the government for the square as a part of the original Costa concept for the Pilot Plan of Brasilia, which is a Unisco protected world heritage center. Next is the character assessment of the site through the history of the site in professional literature and the press, then defining areas and zones of the site based on functions and activities observed through casual use of the space. Followed by a photographic survey.

Interviews with stakeholders started with mmbers of the Being Tao Assosiation responsible for keeping the square functional. And representatives of the Secretary of Health, which now owns the plot. Interviews with the local inhabitants of the surrounding superblocks SQN104 and SQN105, as well as regular users of the square, were the basis for making the quaestionnaire for the user assessment survey, with the goal to find out the perception of the public space by its users. The survey took place on site as well as online, and the results along with the urban use study, done through on-site time lapse observation, movement and activity mapping, define and reflect the chosen program of the integrative health center, and its spatial requirements, as well as the urban interventions in the surrounding public space of the square.

III.B.   Site context: Asa norte

This scale is important for understanding the structure of the urban fabric of the superblocks. The transportation and segregation of functions between circulation, residential and commercial space, location of the superblocks and their neighbourhood units, as well as the rhythm of repetition of the entrequadra typology.

III.B.1   Transportation

The main concept of Brasilia is the intersection of two massive highways, The Monumental Axis (east to west) and the Residential Axis (north to south)..

The north residential wing "Asa Norte" is made of up 2 strips of superblock on each side of the Axis highway "Eixo Rodoviário de Brasília" or "Eixão". East of the Axis highway are the superblock strips 200 then 400, separated by a calm residential road named "L1", and the the 400 strip is bordered by the heavier traffic road "L2". West of the highway are the strips 100 then 300, separated by the calm residential road "W1" which has most of the pedestrian traffic. And the 300 strip is bordered to the west by the a somewhat calm "W2" road with some civic functions, and further west by the "W3" main road, which is a mainly commercial road with some public buildings.

The Axis highway carries most of the traffic in Brasilia, without any intersections or red lights, instead the circulation between the highway and other roads is made through cloverleaf interchanges as a series of ramp roads. To go left (in right-hand traffic), vehicles continue as one road passes over or under the other, then exit right onto a one-way three-fourths loop ramp (270°) and merge onto the intersecting road.
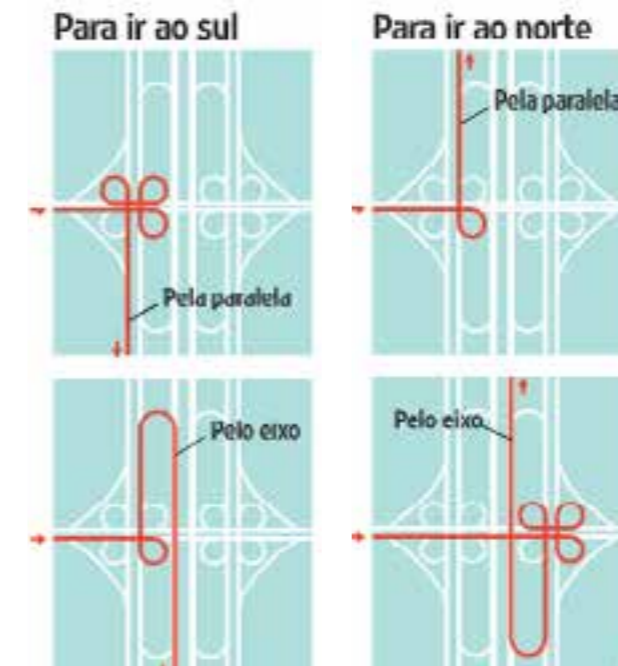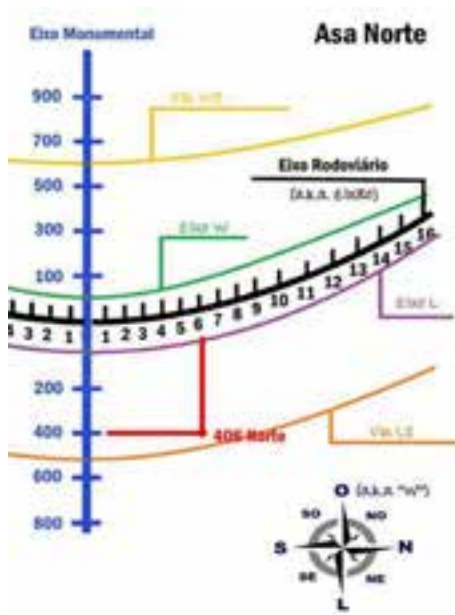
III.B.2   Superblocks and Neighbourhood units

The north residential wing has a total of 60 superblocks. The area most relevant to the site of this project is the group of superblocks within the strips 100 and 300, situated west of the main Residential Axis Road "Eixao". Each of these two strips contain fifteen superblocks, numbered from superblock 2 to 16.
The superblocks are named based on their locality within this grid.
SQN: SuperQuadra Norte "North SuperBlock". For example: SQN102 is the a Superblock of the north wing, at the 100 strip, and it is the closest to the "center" - aka, the intersection of the monumental and residential road axis. Close to it at the 300 strip is the superblock SQN302, and so on...The furthest from the center is SQN116 and SQN316, which are at the north border of the pilot plan, neighbouring the Hospital Sector of the north wing.

From south to north, each group of 4 superblocks makes a neighbourhood unit, SQN102,103,302,303 make one neighbourhood unit, SQN104,105,304,305 make another neighbourhood unit (which is the neighbourhood unit of the site of PHU at EQN 104-105), SQN106,107,306,307 make the third neighbourhood unit of the north wing, and so on until the last neighbourhood unit SQN114,115,314,315.
The remaining superblocks SQN116 and SQN316 characterized by the commercial activity on their north edge with clinics and services relevant to the adjacent Hospital Sector.

III.B.3   Entrequadras

Each neighbourhood unit is made up by four superblocks: two superblocks from two strips. The space between the adjacent superblocks of the same strip is named an "Entrequadra", meaning "between superblocks". These spaces alternate between commercial areas and public spaces. The commercial areas are on the road leading out of the cloverleaf inter-change, while the public space entrequadras are the spaces between two residential super-blocks and without any roads.

These public space entrequadras are repeated along the entire residential axis, and should have -according to the original plans- alternating functions, from institutional entrequadras with educational, cultural and religious buildings, to leisure and sports entrequadras with neighbourhood social clubs, to entrequadras which are to be left as open green public space. All entrequadras are to remain fully open to the public, without fencing, and the amount of buildable area of the plot is limited, along with a maximum height limit of 9 meters. Unfortunately these rules are not always respected.

III.C.   Site context: Neighbourhood unit

The neighbourhood unit of the site of PHU, EQN104-105, is made of the superblocks SQN104-105-304-305, at this scale it is important to understand the historical context, transportation, landuse and civic functions, surrounding building typologies and current state of the public spaces.
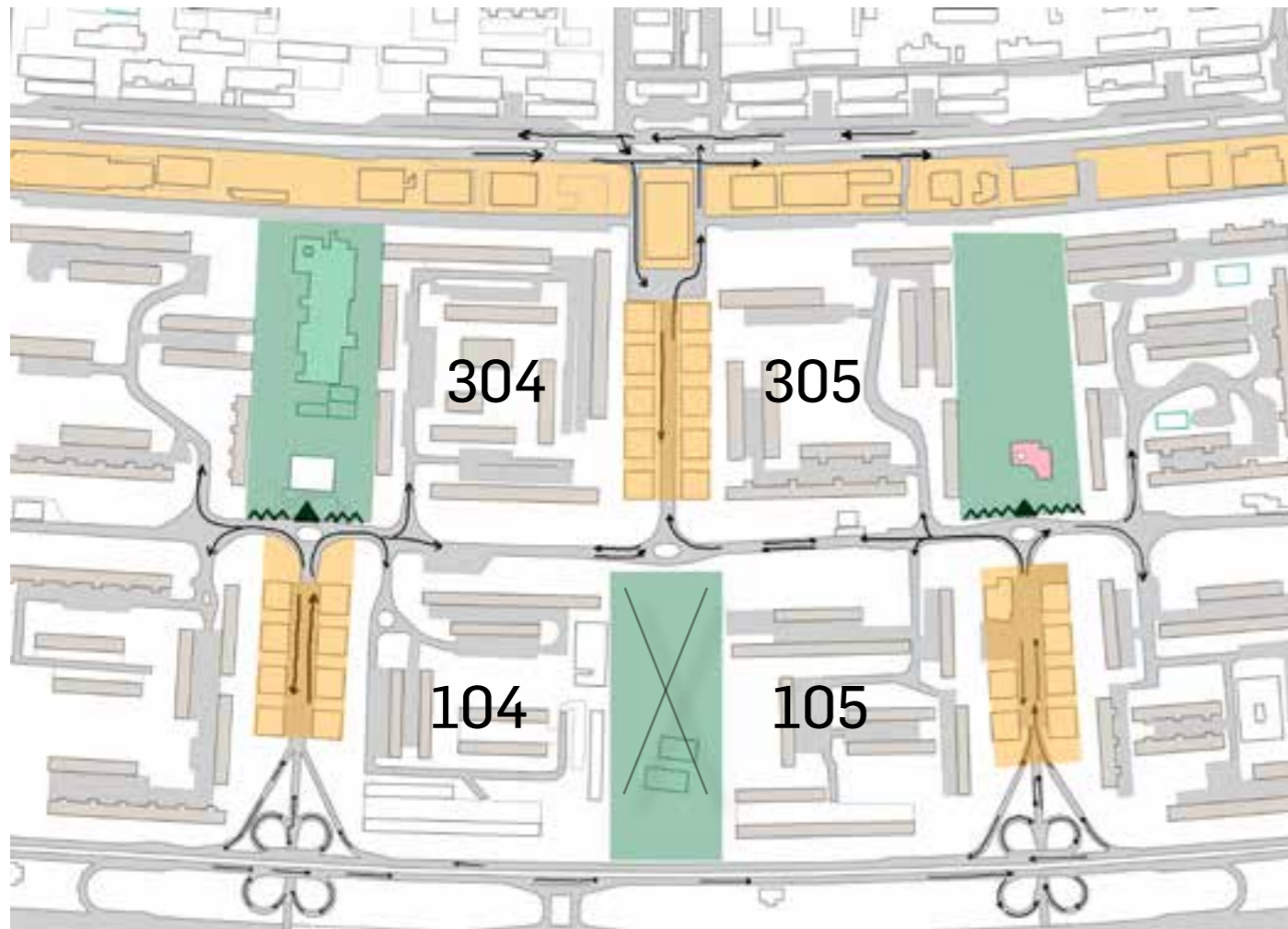
III.C.1   SQN 104-105-304-305

The neighbourhood unit of PHU includes 4 superblocks located west of the main Axis high-way. Access to the neighbourhood unit from the highway is possible through cloverleaf interchanges at the commercial areas between the superblocks SQN105 and SQN106, and the commercial area between SQN104 and SQN103. The roads through the commercial area lead to the calm inner road (W1) with mild car traffic, pedestrians and cycling paths. From this road it is possible to access the residential areas of the superblocks that make up this neighbourhood unit: SQN104,105,304,305. this is the only way into and out of the super-blocks.

"W1" road also connects through the commercial area between SQN304 and SQN305 to road "W2", which forms a border between the west edge of the 300 strip superblocks and the strip of civic buildings along the other side of the road. This road is mostly a service road for these buildings, while their main facades are onto the "W3" road further west.

"W3" road is the center of commercial activity of the north wing. while the commercial areas between the superblocks provide the bare necessities of the neighbourhood unit, like phar-macies, grocery shops and small cafes. And more specific commercial functions like hard-wear shops, banks..etc are placed along the (W3) road.

1965

1975

1980

1997
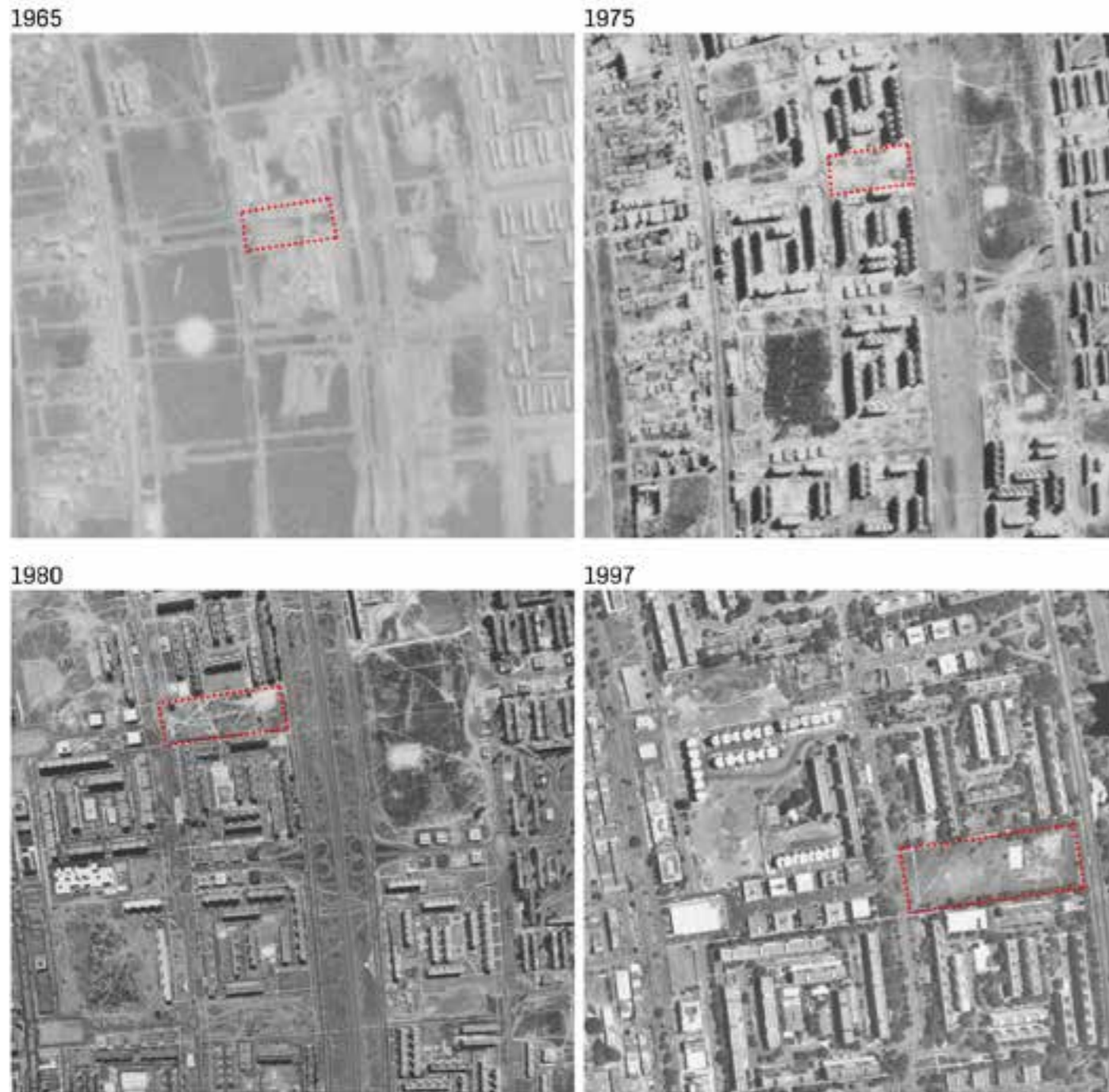
III.C.2   Historical context

Construction of the residential superblocks in Brasilia started first in the south wing and later the north wing. Concepts like the neighbourhood unit were only implemented in first four superblocks to be built SQS108,SQS109, SQS308,SQS309 at the south wing, with functions such as a church, elementary school, park school, secondary school, cinema, and an extensive free area for youth club with playground and playground.

Subsequent development do not provide such services. Instead, rapid construction of the residential superblocks continued, while public space remained undeveloped and civic buildings unbuilt - with the exception of an overwhelming number of churches.

In the original project of the Brasilia Pilot Plan, a neighbourhood club was to be created for every neighbourhood unit. These social and sports clubs were to be built at the entrequadras of 104/105, 108/109 and 112/113, on both the north wing and the south wing.

Out of the total eight projected neighbourhood clubs in Brasilia, only three were built and are in operation, one in Asa Sul at EQS108-109, one in Asa Norte at SQN604 and one in Vila Planalto.

All three neighbourhood clubs have been privatized and fenced off, going against the original ideas of Brasilia's fully open public spaces.

According to Pilot Plan, the four superblocks of SQN104, SQN105, SQN304, SQN305 are supposed to make up a neighbourhood unit.

By 1965 construction of the superblock 105 was started, followed by the nearby superblocks 104 and 304 which were built up by the mid 1970s, and the final superblock 305 built up by 1995.

Many of the services planned for this neighbourhood unit were not actually built, including an elementary school at 105 and a park school at 104, as well as the neighbourhood club which was supposed to be built at the entrequadra between them at EQN104-105.

For a long time, the open, undeveloped public space of the entrequadra EQN104-105 was used as a dumping ground, with some older residents remembering a time in which an aborted fetus was found between the trash and construction rubble.

One of these older residents is a doctor of Chinese medicine who incentivised the residents to take it upon themselves to clear the space that the government seemed to forget about, he started a daily practice of Tai Chi Chuan and started building a community that turned the entrequadra into what is now known as "Praça da Harmonia Universal".

"Universal Harmony Square".

Finally getting a sports court in 1997 seemed to the people a step towards the actualization of the place as a social, sports and recreation Neighborhood Club, but it never came to be.

Upon the declaration of the square as a Cultural Heritage in 2007, the community efforts to take care of this public space, and continued integration of new activities aimed at preventive health that were the driving force for its existence, finally the government has an interest in maintaining and future development of the place.

III.C.3   Transportation

III.C.4   Land use analysis

Vehicles
Cycling
Pedestrian
Obstruction
Site

Residential
Commercial
Educational
Religious
Civic / Public
Health

III.C.5   Massing model

Toldo
Película
Grades
Ar-condicionado

Pilotis
Espaço permeável
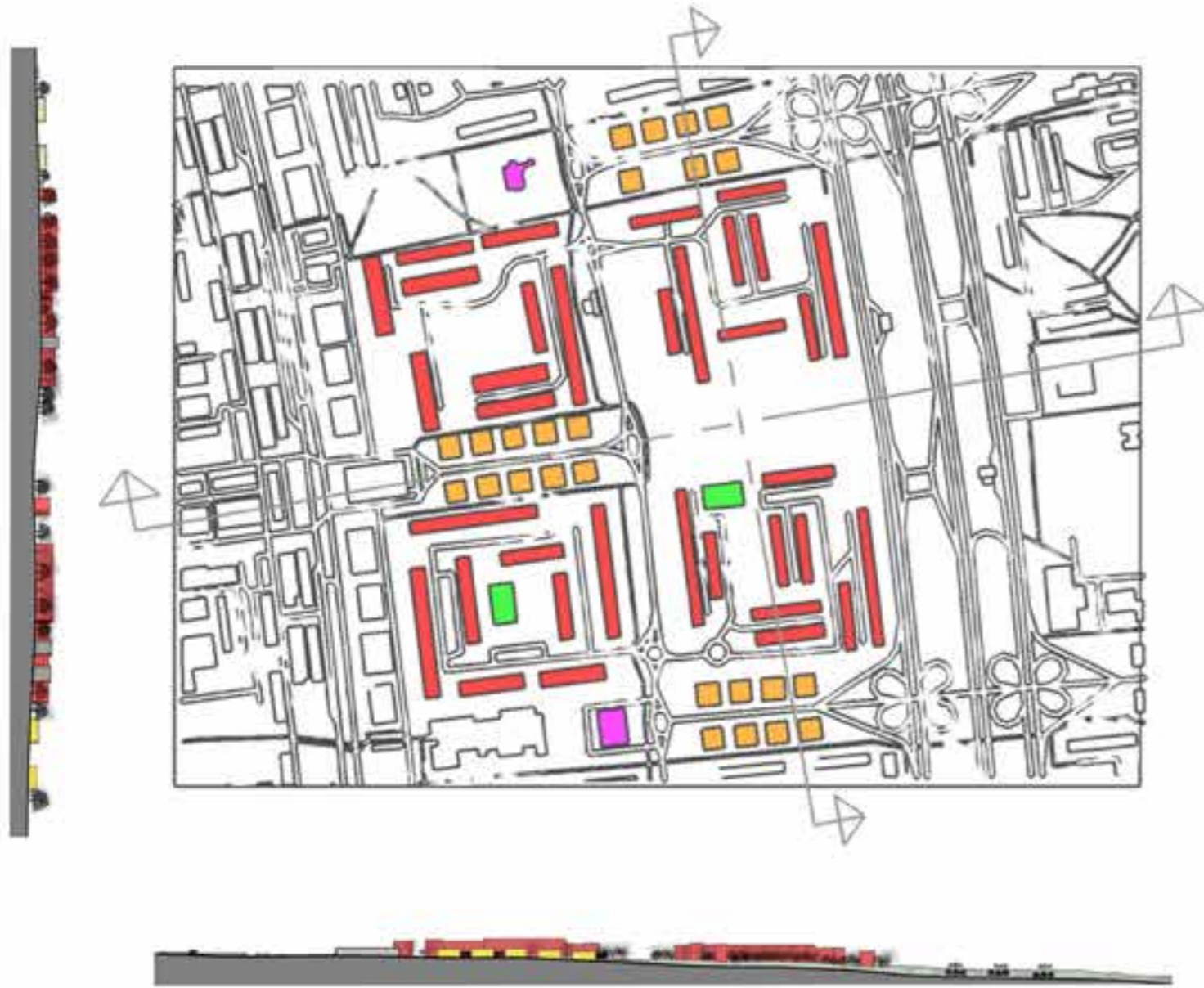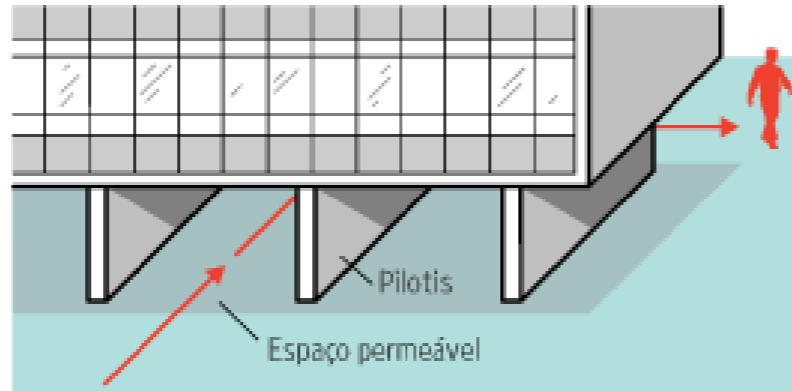
III.C.6   Building Typologies

The residential buildings that make up the superblocks of this neighbourhood unit are all linear modernist blocks, with an average width of 12m, and length of 80m. These buildings are called blocks - "Bloco" - and named by letters of the alphabet. For Example: SQN104, BL E, is the building block E, situated at 104 north superblock.
The ground floor of the building block is always accessible public space, Pilotis, in which there are entrances to staircases and elevator leading to six floors of apartments above the pilotis.

The main entrances of the buildings are towards greenery and pedestrian paths or the public space of the entrequadra. These facades tend have a lot of glass windows.
Service entrances are in the back of the building, accessible from the parking. In older building blocks, like in the buildings of SQN105, there is no underground parking. Instead, much of the public space inside the superblocks is taken up by outdoor parking areas
The newer buildings have parking which slopes from the road curving downward into the shorter side of the building. The parking continues along the entirety of the building, exiting on the other side with the same type of curved ramp.

The construction system is reinforced concrete columns and beams, allowing for a thin glass system main facade that opens up to the greenery.
Sometimes these facades are modified through the use of exterior shading elements, dark film adhesive on the glass "película", railings and metal bars on windows, as well as air conditioning units.

The facades of the service areas are covered by Cobogós, a type of perforated brick cladding which allows for natural ventilation, shading. And is one of the design elements most referenced in Brasilia architecture, not only in residential buildings but also in large public buildings as is the case of the Biblioteca Nacional, or National Library in Brasilia.

III.C.7   Photographic Survey- SQN104

III.C.7   Photographic Survey- SQN105

III.C.7   Photographic Survey- SQN304

III.C.7   Photographic Survey- SQN305
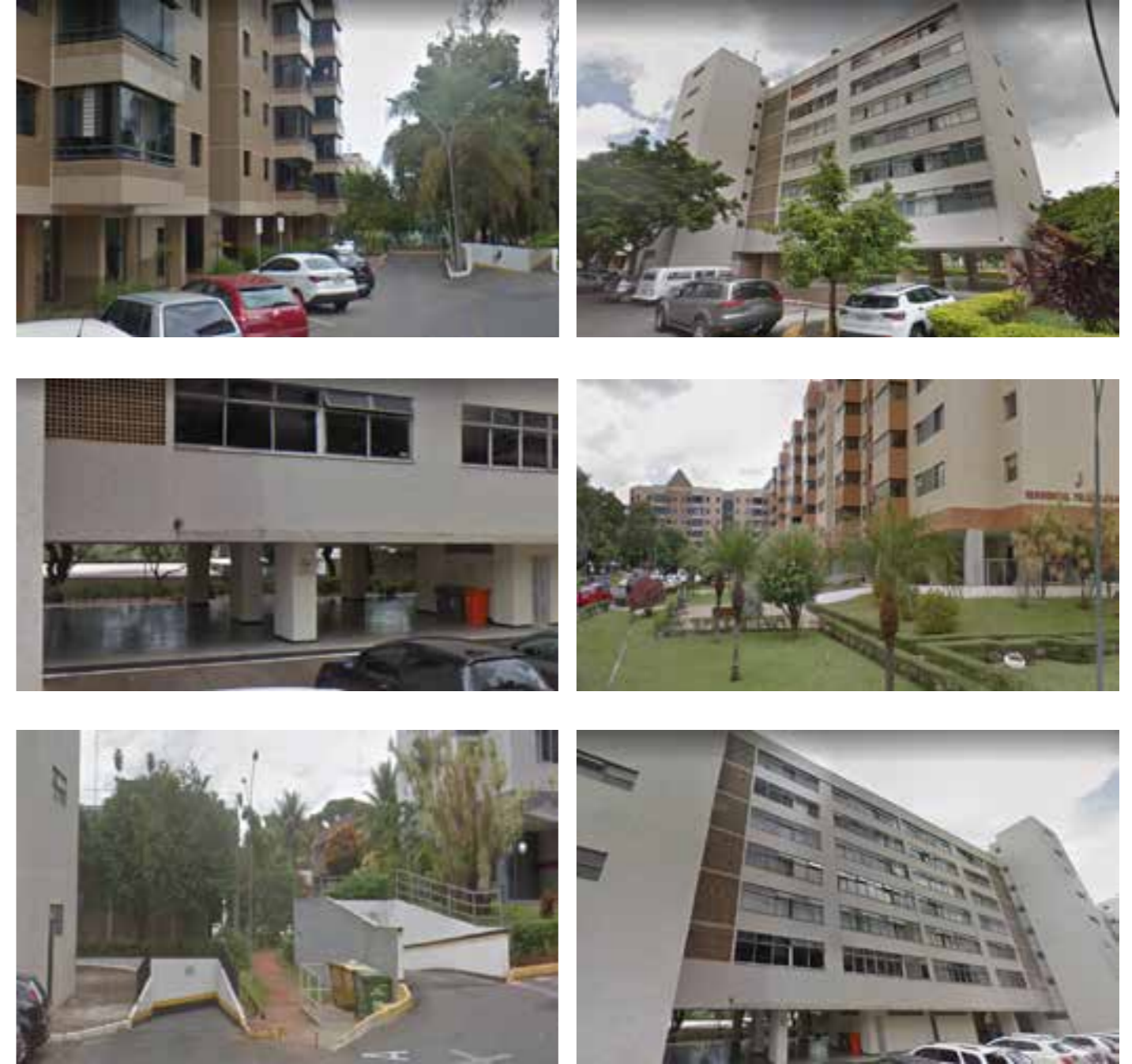
III.D.   Site context: EQN 104-105

The site of the project is the public space of the entrequad-ra EQN104-105, located between the superblocks SQN104 and SQN105 of the north wing.
The site of the entrequadra is a 30000m2 plot, with a lot of greenery and trees, some concrete seating, a concrete sports court, a sand court, and a beautiful garden at the north east corner.

In the context of site itself the analysis starts with the guiding framework and rules set by the government for the square, as a part of the original Costa concept for the Pilot Plan of Brasilia - which is now a Unesco protected world heritage center.
Next is the character assessment through understanding the history of the site, general opinions of the public, professional literature and the press. Then defining areas and zones of the site based on functions and activities observed through casual use of the space. This is followed by a photographic survey, Interviews with the stakeholders, starting with members of the "Being Tao Association" responsible for keeping the square functional. interviews with the representatives of the Secretary of Health which is the current owner of the plot. And interviews with the local inhabitants of the surrounding superblocks SQN104 and SQN105, as well as regular users of the square.
The results of the interviews were used as a basis for making a standardised questionnaire for the user assessment survey, with the aim of having qualitative and quantitative data that reflects the users perception and needs. The survey took place on site as well as online, and the results were compared to the urban use study done through on-site time lapse observation, as well as movement and activity mapping.
The results of this analysis define and reflect the chosen program of the integrative health center, and its spatial requirements, as well as the urban interventions in the surrounding public space of the entrequadra.

III.D.1.   Policy analysis/ guiding framework

As mentioned before in the analysis (II.D.4 page 67), the entrequadra EQN 104/105 falls within lot type A of the 100 stripe of the north wing (Lt. A); It is considered an Institutional entrequadra and has an allowed buildable area. Originally, the allowed functions that can be built on the plot are those specific to the neighbourhood club: Sports, recreation and leisure activities.

The rules for building on the plot of EQN 104/105:
1. Maintain the standard of a maximum of 2 floors, with buildings arranged separately in the lot without railing or fencing.
2. The building should be directly related to the roads, integrating public and private space.
3. Occupancy Rate (ratio between building projection and land area): Ground: 30% Underground: 30%.
4. Utilization Coefficient (a number that, multiplied by the area of the lot, indicates the maximum amount of square meters that can be built in a lot, including the areas of all floors): 0.60.
5. Maximum Building Height: 9,00m;
6. Permeability Rate (ratio of permeable area which allows the infiltration of water into the soil, to the area of the ground): 70% of the lot area.
7. Community use of public lots must be ensured and public property maintained, private use possible through a concession contract.
8. Ensure that public lots reserved for schools, kindergartens, day care centers and libraries have educational and cultural use as a priority.
9. In case of covered sports courts and swimming pools of schools, the covered areas will be computed in the occupancy rate and the coefficient of utilization, limit the maximum height of covers to 12m.
10. There is the possibility of underground commercial parking in Lots C and A of Entrequadras 100, 300 and 200. Due to the character of local use of the Entrequadras, parking spaces should be sized to primarily serve employees and regular users.
12. There should be a cohesive landscape design for Entrequadra, considering the existing lots and the proposed lot as well as their connections to superblocks, and W and L roads.

III.D.2.   Character assessment

The public place of EQN104-105 is named PHU: Praca da harmonia Universal (Universal Harmony Square), it was originally intended to be the place for a neighbourhood social club, with leisure and sports activities servicing the residents of the neighbourhood unit.
However, implementation of the original plan was not feasible and until 1975 the site was used as a dumping ground. Since then, the community has taken charge of cleaning, maintaining and choosing to use the public space. One of the first initiatives was taken by one of the residents of the superblock SQN105, a Chinese medicine doctor and martial arts master, Mestre Woo. He started daily Tai Chi Chuan and meditation practices open to the public, and encouraged the formation of a new vibrant community from all over Brasilia that comes to the site for these daily practices as well as regular educational events and workshops.
The practice of Tai Chi Chuan that started this movement 45 years ago has warranted the square to be announced an immaterial cultural monument of the Brasilia, with the motto: "Fraternity, Health and Peace".
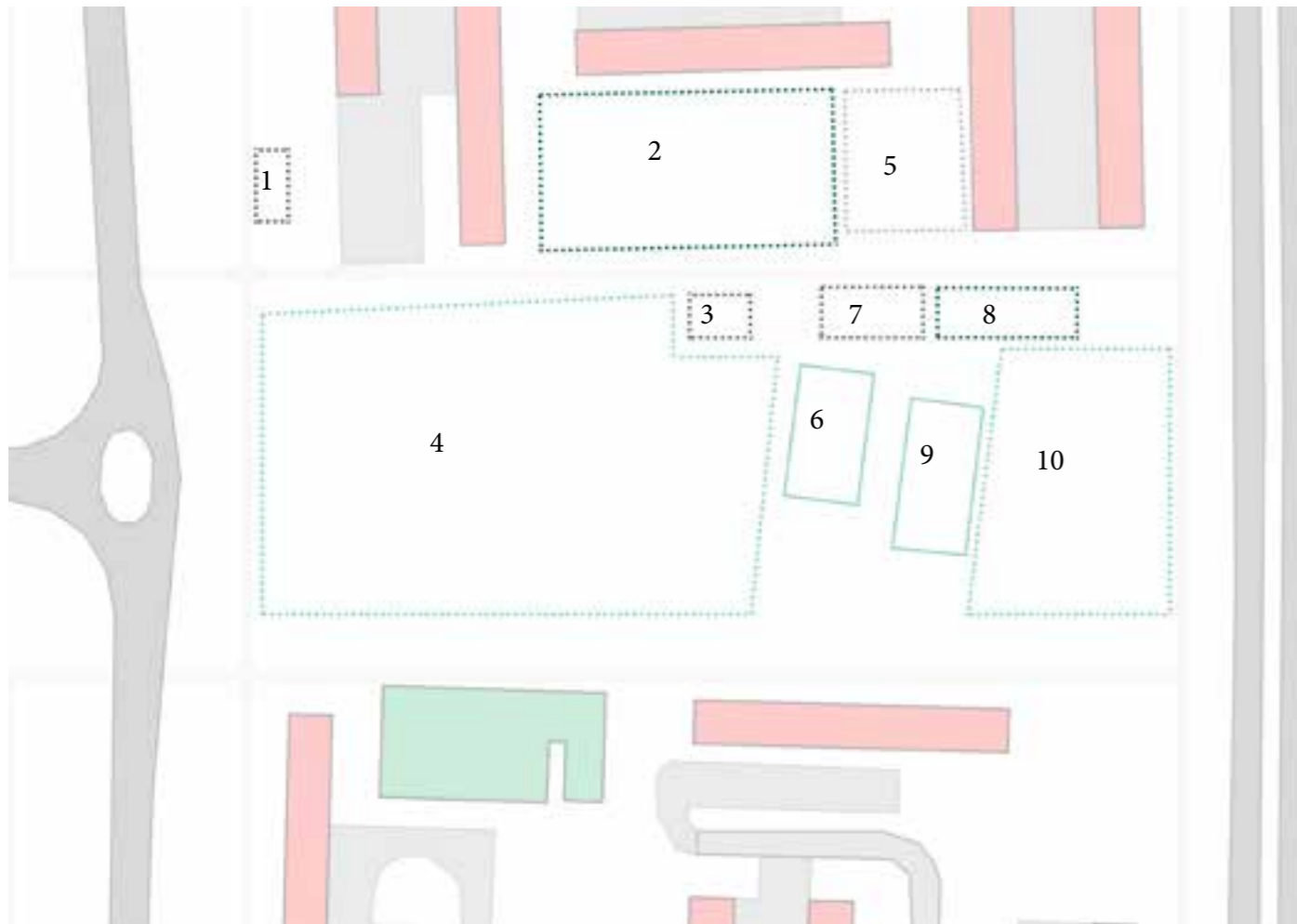
III.D.3.   Zones- areas

North of EQN104-105 is the superblock SQN105 made up of purely residential buildings, South is the superblock SQN104 with residential buildings, as well as a preparatory school at the southwest border of the site. The eastern edge of the site is defined by the main Axis highway that cuts through the entire residential wing. To the west of the site is a calm residential road (W1) with access points to the surrounding superblocks..

At the north, within the area of SQN105 there the zones 1, 2 and 6.

Zone 1. The area at the end of the pathway leading to the site parallel to (W1) road, there is mobility exercise equipments.

Zone 2. Green grassed areas with trees, where exercise practices like Yoga and meditation take place.

Zone 6. Paved area under the shade of a block building of the SQN105, where standing practices like Tai Chi, Circular dance.. Etc take place in the middle, and there is seating along the edge with the trees.

Within the site itself, there is vast areas of greenery and some pockets of activities.

Zone 4. Grassed green area with a few trees, desire paths connecting the superblocks SQN104 and SQN105. This area is mostly used for dog walking, informal seating on the ground. etc.

Zone 5. The concrete sports court where group activities and team sports are practiced.

Zone 7. Seating areas shaded by massive trees, the seating is concrete benches decorated with colorful mosaics.

Zone 8. Garden of positivity, with trees and shrubs assigned names like: friendship, community, hope, love, patience, and so on..

Zone 9. Sand sports court for volleyball, exercise and for children to play.

Zone 10. Area closest to the highway at the east of the site, not much activity takes place here, but the view of the changing colors at sunset are breathtaking.

III.D.3. Zones- areas

1-Mobility exercise equipment   2-Grassed area /tees SQN 105   3-Seating with barbecue grills   4-Grassed area facing the comercial space of 300s superblocks
5-Concrete sports court   6-Paved area SQN 105   7-Seating with mosaic tables and benches   8-Garden   9-Sand court   10-Grassed area by the main highway
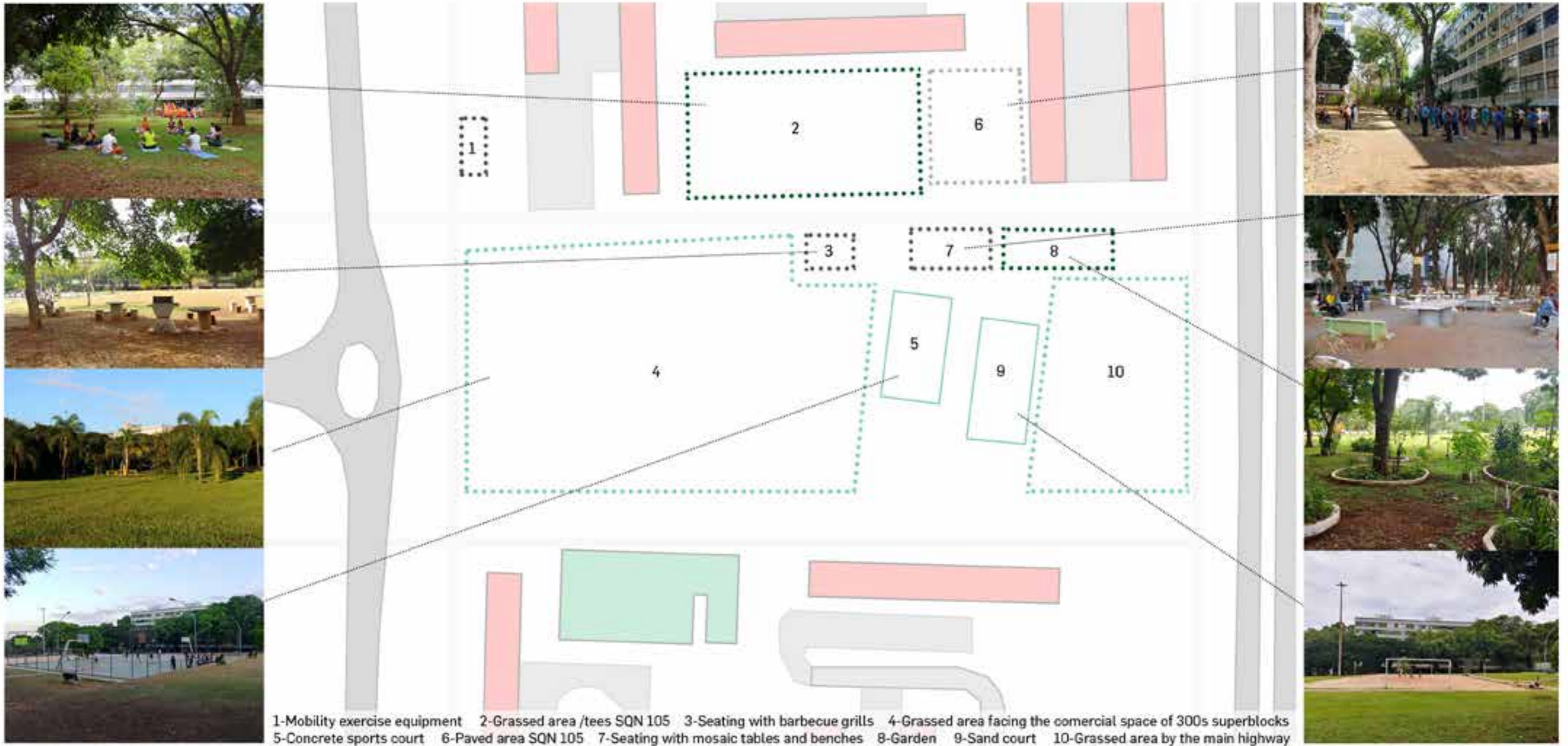
III.D.4.   Photographic Survey- Zones

III.D.4.   Photographic Survey- Views

III.D.4.   Photographic Survey- Facades

III.D.4.   Photographic Survey- Pilotis

III.D.4.   Photographic Survey- Materials
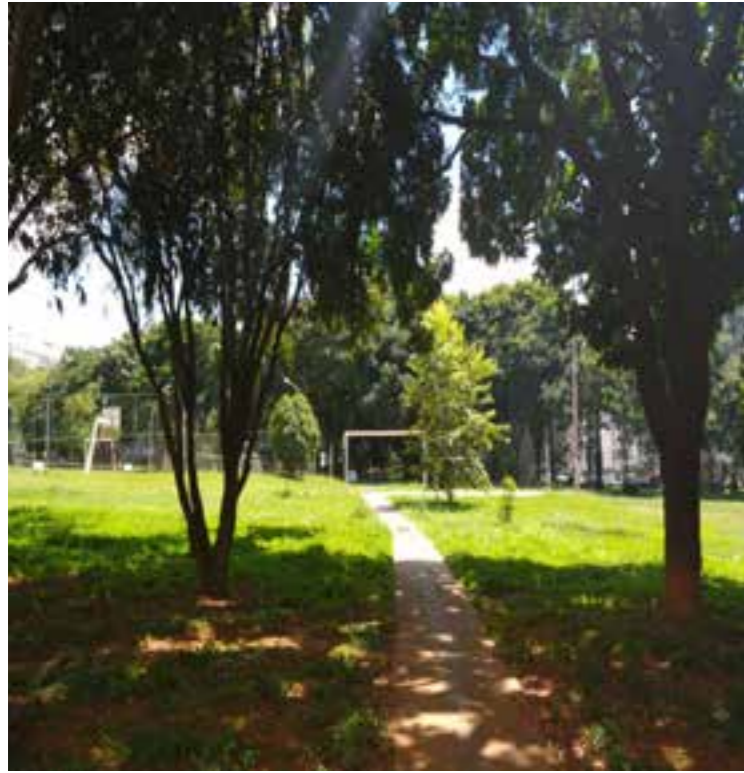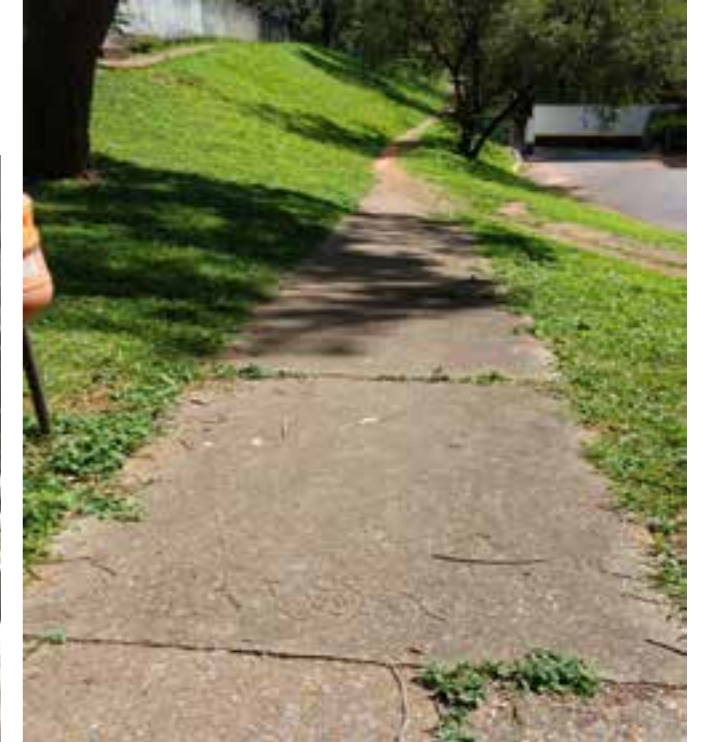
III.D.4.   Photographic Survey- Vegetation

III.D.4.   Photographic Survey- Activities

III.D.5.   Stakeholder narrative

In 2010 the ministry of health made a decree to start building health units and related build-ings that service the secretary of health's endeavor for promoting health and prevention of illness throughout Brazil.

At that time PHU had already established itself as a public space dedicated to promoting health and wellbeing, with an open air daily practice of Tai Chi since 1975, which expanded into new practices like Qi Gong, meditation, yoga and capoeira. This in turn warranted the transfer of ownership of the site from the government of the federal district to the secretary of health. Since then, different plans for the site were discussed. The main principle was to maintain the area as an open public space, not for private ownership of a person or a single entity, and to have a program that complements and completes the services at the nearby Basic Health Unit at SQN905, as well as providing space for educating the public, and preven-tive and complementary health practices.

While many of the residents of the superblock like the idea of having a neighbourhood club on the site of PHU, this would mean the privatization of the site, fencing it off and having the area serve the associates of the club only. Another part of the residents would have the site stay exactly the way it is, they enjoy the vast greenery, peace and calm, and they worry that adding more functions can attract "undesirable" activities, a sly nod towards teenagers listening to music and drinking after school. These same teenagers feel the public space doesn't offer them enough. and so on.. This is but one example of the conflicting wants and needs of the users of the public space, therefore it is important to understand these needs in order to design a program that consolidates a balance that can satisfy the variety of users.. This is why public participation is very important.

III.D.6.   Public participation

The first step towards planning the public participation survey was to conduct Interviews with the Being Tao association president and chairman, Tai Chi and Yoga masters, facilita-tors of the practice, as well as participants, local inhabitants of the superblock 105 and 104, and casual users of the public space at PHU. Based on the interviews, a set of questions and possible answers were assembled to make a wider survey questionnaire -to be conducted on site as well as online.

the questions are both qualitative and quantitative, aiming to measure the perception of ur-ban use on site, to later be compared to the analytical observation of the conditions and use of the site.

the questionnaire was made in portuguese and later translated to english for the booklet.
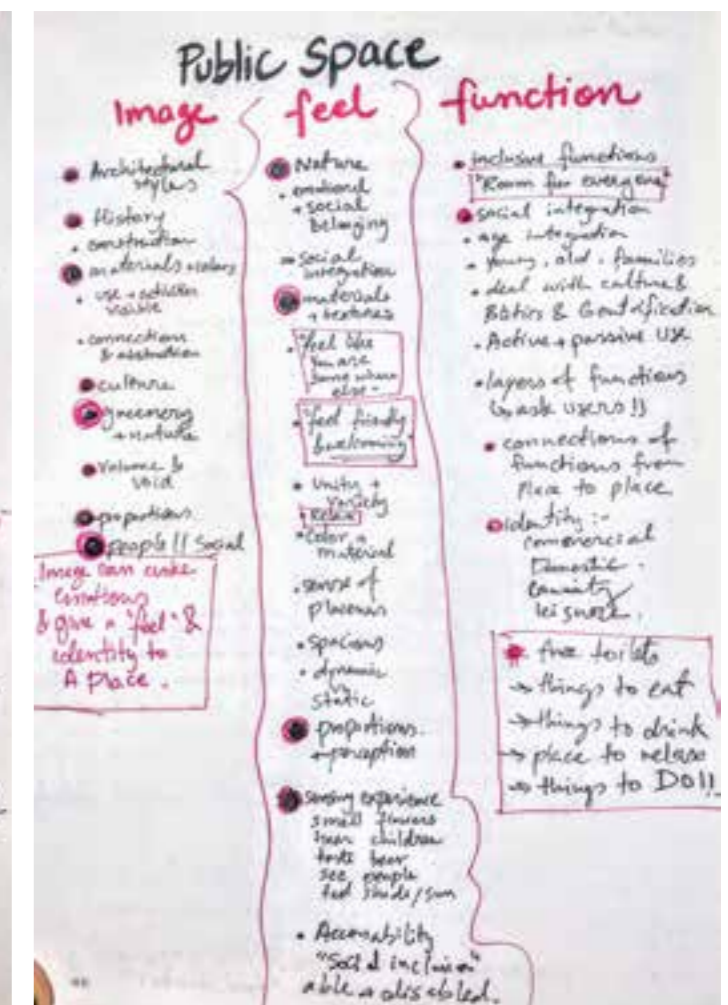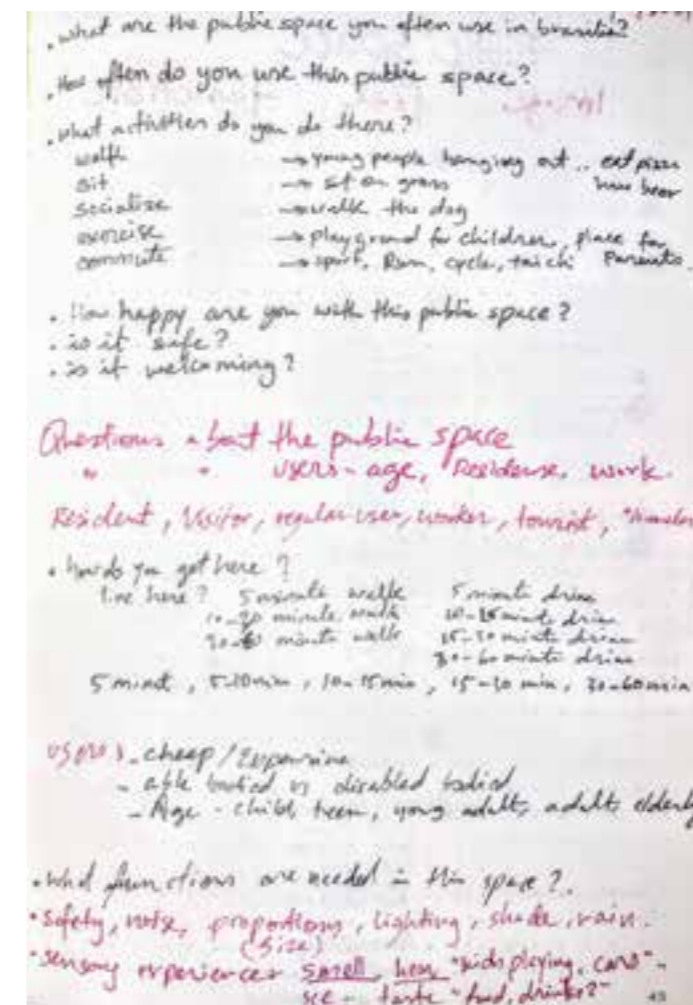
Urban Use Questionnaire "Universal Harmony Square"

I invite you to participate in a survey about the environmental perception and satisfaction of users of the public space at Entrequadra 104/105 "Praça da Harmonia Universal"

* Required

I. USER

1. **Sex:** *
   Mark only one oval.

   ( ) Masculine
   ( ) Feminine

2. **Type of user:** *
   Mark only one oval.

   ( ) Resident of surrounding superblocks
   ( ) Non-resident
   ( ) Worker at superblock or comercial area
   ( ) Other: _____

3. **Age:** *
   Mark only one oval.

   ( ) 7-17 years
   ( ) 18-34 years
   ( ) 35-50 years
   ( ) 51-64 years
   ( ) 65 or more

4. **Nationality:** *
   Mark only one oval.

   ( ) Brazilian
   ( ) Other: _____

5. **Ethnicity:** *
   Mark only one oval.

   ( ) White
   ( ) Mixed race
   ( ) Black
   ( ) Asian
   ( ) Indigenous
   ( ) Other: _____

6. **Marital status:** *
   Mark only one oval.

   ( ) Single / Never married
   ( ) Dating
   ( ) Married/ domestic partnership
   ( ) Divorced
   ( ) Widowed
   ( ) Other: _____

7. **Education:** *
   Mark only one oval.

   ( ) No schooling completed
   ( ) Primary school, incomplete
   ( ) Primary school, complete
   ( ) Secondary school, incomplete
   ( ) Secondary school, graduate
   ( ) Higher education, incomplete
   ( ) Higher education, graduate
   ( ) Postgraduation, incomplete
   ( ) Postgraduation, complete
   ( ) Other: _____

8. **Employment Status:** *
   Mark only one oval.

   ( ) Student
   ( ) Employed / Self employed
   ( ) Retired
   ( ) Homemaker
   ( ) Out of work
   ( ) Other: _____

I. USER

9. **Mode of transport used to arrive at square:** *
Check all that apply.

☐ Car
☐ Motorcycle
☐ Bus / Public transport
☐ Bicycle
☐ Walking
☐ Other:

10. **How much time do you spend at the square?** *
Mark only one oval.

◯ Up to 30 minutes
◯ Between 30 minutes to 1 hour
◯ Between 1 hour and 2 hours
◯ More than 2 hours

11. **How often do you go to the square?** *
Mark only one oval.

◯ Rerely (1 to 4 X per year)
◯ Moderatly (monthly)
◯ Frequently (1 X per week)
◯ Very frequently (2 to 3 X per week)
◯ Extremely frequently (4 to 7 X per week)

12. **Which days do you usually go to the square?** *
Check all that apply.

☐ Weekdays
☐ Weekends
☐ Holidays
☐ Events
☐ Other:

13. **What time do you usually go to the square?** *
Check all that apply.

☐ Morning
☐ Afternoon
☐ Evening / Night

14. **How much time do you usually spend at the square?** *
Mark only one oval.

◯ Up to 1 hour
◯ >1 to 2
◯ > 2 to 3
◯ > 3 to 4
◯ > 4 hours

II. ASPECTS OF USE

15. **What do you usually do in the square? (may mark more than one option)** *
Check all that apply.

☐ Just passing through
☐ Trip/ outing
☐ Sunbathe
☐ Sitting / Relaxing
☐ Eating / Drinking
☐ Taking children to play
☐ Walking pet
☐ Get in touch with nature
☐ Hang out / Meet friends
☐ Date
☐ Visit an event
☐ Play music
☐ Physical activity alone
☐ Physical activity in group
☐ Group sports:
☐ Football
☐ Basketball
☐ Capoeira
☐ Tai Chi
☐ Yoga
☐ Other:

16. **Usually you do activities in the square:** *
Check all that apply.

☐ Alone
☐ As a couple
☐ With children
☐ With family
☐ As a group / with friends
☐ Other:

17. **Where do you most like to spend time? (may mark more than one option)** *
Check all that apply.

☐ Grassed area by the main highway
☐ Grassed area facing the comercial space of 300s superblocks
☐ Grassed area under the trees of SQN 105 / Yoga practice area
☐ Concrete sports court
☐ Sand court
☐ Seating with mosaic tables and benches
☐ Seating with barbecue grills
☐ Other:

18. **Rate the following points according to your level of satisfaction. Consider "Great" something that is totally to your liking; "Good" is acceptable, but with few considerations for improvement; "Regular" a compromise between positive and negative aspects; "Bad", more negative than positive aspects and "Awful" for totaly unacceptable conditions.** *

Mark only one oval per row.

	Great	Good	Regular	Bad	Awful
Transport accessibility	○	○	○	○	○
Security	○	○	○	○	○
Cleanness	○	○	○	○	○
Signaling (crossings, indicative signs, etc.)	○	○	○	○	○
Paving quality	○	○	○	○	○
Seating quantity	○	○	○	○	○
Seating quality	○	○	○	○	○
Artificial lighting	○	○	○	○	○
Thermal sensation during the day	○	○	○	○	○
Acoustic comfort from external noise	○	○	○	○	○
Trees and vegetation	○	○	○	○	○
Shading at areas of use	○	○	○	○	○
Rain protection at areas of use	○	○	○	○	○
Surrounding landscape	○	○	○	○	○
Appearance of the square	○	○	○	○	○
Connection between the square and superblocks	○	○	○	○	○
Age diversity of users	○	○	○	○	○
Spaces / activities for children	○	○	○	○	○
Spaces / activities for teenagers	○	○	○	○	○
Accessibility for the elderly	○	○	○	○	○
Accessibility for the physically disabled	○	○	○	○	○
Gender diversity and inclusion of female users	○	○	○	○	○
Diversity and inclusion of LGBTQ users	○	○	○	○	○

19. **What projects would you like implemented for the development of the square? (may mark more than one option)** *

Check all that apply.

☐ Neighborhood Club "Clube de Vizinhança"

☐ Integrative Health Center

☐ Cultural Center

☐ Commerce

☐ More sports courts

☐ Playground for children

☐ More spaces to sit / socialize

☐ Espelho de água

☐ Garden / more trees and greenery

☐ Urban gardens

☐ Other:

III. AFFECTIVE ASPECTS

20. **Evaluate the following qualities according to what you believe defines Universal Harmony Square:** *

Mark only one oval per row.

	Strongly agree	Somewhat agree	Neutral	Somewhat disagree	Strongly disagree
Welcoming / inviting	○	○	○	○	○
Useful / practical	○	○	○	○	○
Charming	○	○	○	○	○
Spiritual	○	○	○	○	○
Special	○	○	○	○	○
Sustainable	○	○	○	○	○
Suitable for activities	○	○	○	○	○
Suitable for events/ celebrations	○	○	○	○	○
Cultural value	○	○	○	○	○
Vital space	○	○	○	○	○
Cooperative space	○	○	○	○	○
Fun space	○	○	○	○	○
Espaço amigável	○	○	○	○	○
Calm / quiet space	○	○	○	○	○
Interactive	○	○	○	○	○
Neighbourly	○	○	○	○	○
Stimulate user pride	○	○	○	○	○

21. **What importance does the square have for: you / the community / the city?** *

_____

_____

_____

_____

_____

22. **What would you like to change / improve in the square?** *

_____

_____

_____

_____

_____

_____

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🔲 Google Forms

III.D.7.   Urban use perception survey observations and results

Types of users :
The survey was taken by 121 people. The majority of which were Male (55,4%), while 44,6% were Female.
The user's age groups spanned between 07 years to 65+ years, with the majority being of the age group 51-64 years old, and second majority aged between 18 and 50. While the minority of users were 17 years or less.
The majority of users were Non-residents of the block (60,3%). the second most common group of users were residents of the block (30,6%), while the third most common group of users were essential or commercial worker at the block (3,3%). A small percentage of users were neighbours from nearby blocks and people who came for Tai chi practice.
The majority of users are Brazilians, while minorities presented from other latin-american countries, England and Japan, in equal percentages..
As for the ethnicity of the majority of users, it is as follows: most common is mixed race, following is caucasian, then Black, then Oriental, and less commonly, Indigenous.
The marital status of most users is "married", second is "single", following is "divorced", least commonly is "widow".
The majority of users had completed post-graduate degrees (37,2%), following at 20,7% completed graduate degrees. 15,7% completed only highschool degree, and 2,5% only completed primary school education.
Most users are employed, 2nd majority is retired, following are freelancers and housewives. And least commonly, students.
Most users walked to the square, second most commonly users would drive to the square or take the bus. And least commonly, people would use Ubers or skate to the square.
Most users only needed to commute for 30 minutes to reach the square. In rare cases users took up to 1 hour to reach the square.

Frequency of use of public space:
Most users would frequent the square 1-4 times a week. Less commonly, some users would frequent the square almost everyday.
Most users would visit the square during the weekdays (54,5%). A slightly less percentage of people would frequent during the weekends (48,8%). Least commonly, users would visit the square when visiting Brasilia during holidays.
Most commonly people would visit the square in the morning hours (76%), second most commonly people would visit at night. Least commonly people would come during the afternoon.
Most people spend up to 2 hours at the square when they visit. Less commonly, people would spend up to 1 hour. And least commonly, people would spend up to 4 hours at the square.

Activities users engage in:
Most commonly, people who visit the square engage in conversation and meeting with friends. Second most common activity is Tai Chi. Following most common activity is walking dogs, going for walks, playing music and practicing Capoeira. Less commonly, people come to play football and basketball or smoke with friends.
Most people tend to do their activities with friends, or in a group. less commonly, people do their activities alone or with their partner/child.
Most people like to spend their time at the space with tables and chairs.or on the grass and in open spaces. less so on sports court and sand courts.

Opinion of different users:
Most people described the accessibility, the amount of greenery, the age diversity at the square as Optimal.
Most people described the cleanliness, ground signaling, amount of chairs, llumination, thermal state, shading and appearance of the square, as well as gender and LGBTQ+ diversity of the users as Good.
Most people described the safety, protection from rain, space for children to play, accessibility for elders and special needs ni the square as Regular.
Most people strongly believed the square offered a welcoming, friendly, interactive, spiritual, special, enchanting, vital, cooperative environment that gives value to culture and stimulates friendliness and makes the users proud.
Most people believed the square is a useful, safe, calm, sustainable place for activities and celebrations.

Activities that are desired to be on site:
Most people would like to have more trees andgardens on the square. Many expressed a desire to have a center for integrative healthcare and a cultural center. Users also expressed liking to having more sitting space and skate parks for the children. Least common requests were for public swimming pools and bathrooms.
Adored parts of the public space that give it its identity and should remain:
Free physical, mental and social health promotion for all, with activities like tai chi, promoting balance, harmony emotional and physical balance, physical flexibility and spirituality.
A place for spreading peace and socializing.
A good green space for community life.
A calm and quite place to practice musical instruments.

Public space conditions that need to be improved :
Implementation of security and construction of a headquarters for integrative practices.
Presence of a covered area for practicing physical activity, especially in times of rain.
More trees, a public bathroom, more benches, more accessibility wheelchair users.
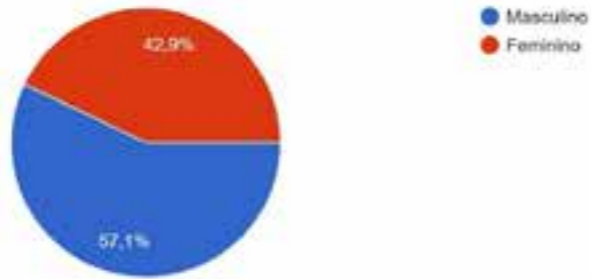Better development of activities.
Presence of drinking water.
Better maintenance of the place and the utilities.
More activities for children, and better development of sandboxes for the children.
Adequate night lighting and beautiful landscaping.
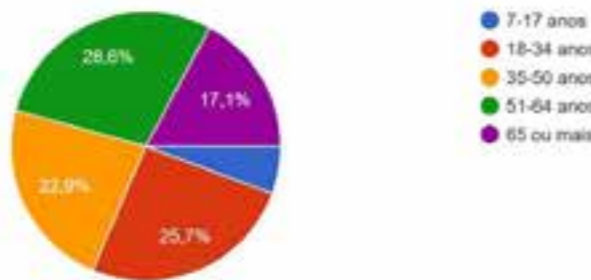Indoor court for indoor activities and celebrations.
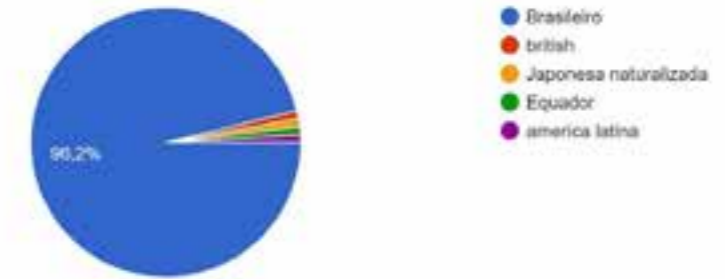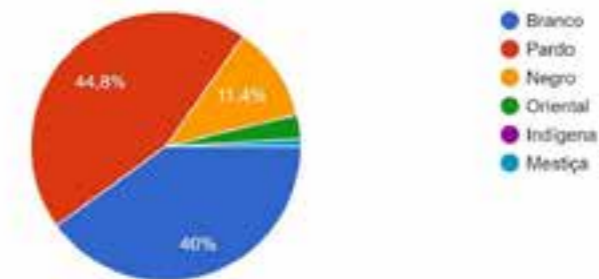
Sexo:
105 respostas

- Masculino
- Feminino

42,9%

57,1%

Tipo de usuário:
105 respostas

- Morador da quadra
- Não morador
- Funcionário da quadra ou comercial
- Morador da quadra vizinha.
- Praticante de Being Tao
- Praticante de tai Chi
- Morador de uma quadra próxima - 203N
- Praticante de Tai Chi Chuan

56,1%

33,3%

Idade:
105 respostas

- 7-17 anos
- 18-34 anos
- 35-50 anos
- 51-64 anos
- 65 ou mais

28,6%

17,1%

22,9%

25,7%

Naturalidade
105 respostas

- Brasileiro
- british
- Japonesa naturalizada
- Equador
- america latina

96,2%

Etnia:
105 respostas

- Branco
- Pardo
- Negro
- Oriental
- Indigena
- Mestiça

44,8%

11,4%

40%

Estado civil:
105 respostas

- Solteiro
- Namorando
- Casado/ vive junto
- Divorciado
- Viúvo

40%

16,2%

37,1%

148   149
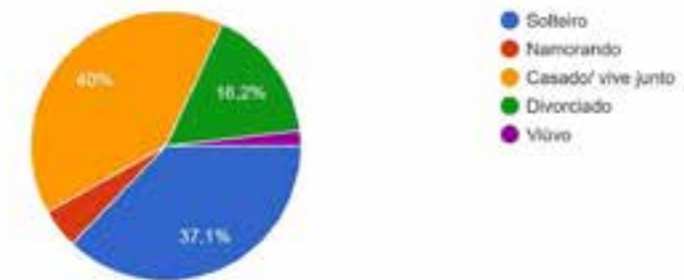
Escolaridade:
105 respostas

- Não alfabetizado
- Ensino fundamental incompleto
- Fundamental completo
- Médio incompleto
- Médio completo
- Superior incompleto
- Superior completo
- Pós Graduação incompleta
- Pós graduação completa

Atividade ocupacional:
105 respostas

- Estudante
- Trabalha
- Aposentado
- Dona de casa
- Desempregado
- Profissional autônomo

Transporte que utiliza para chegar a praça
105 respostas

Carro	40 (38,1%)
Moto	3 (2,9%)
Ônibus	13 (12,4%)
Bicicleta	4 (3,8%)
À pé	53 (50,5%)
skate	1 (1%)
Apenas desço de meu apartamento e me di...	1 (1%)

Quanto tempo você gasta para chegar à praça?
105 respostas

- Até 30 minutos
- Entre 30 minutos e 1 hora
- Entre 1 hora e duas horas
- Mais de 2 horas

Com que frequência costuma ir à praça?
105 respostas

- Raramente (1 a 4 X ao ano)
- Moderadamente (mensalmente)
- Frequentemente (1 X por semana)
- Muito frequentemente (2 a 3 X por semana)
- Extremamente frequente (de 4 a 7 X por semana)

Quais dias você costuma frequentar mais?
105 respostas

Durante a semana	59 (56,2%)
Fim de semana	50 (47,6%)
Feriado	9 (8,6%)
Evento	9 (8,6%)
01 dia semana e final de semana	1 (1%)
Quando estou aqui em Brasília costumo ...	1 (1%)
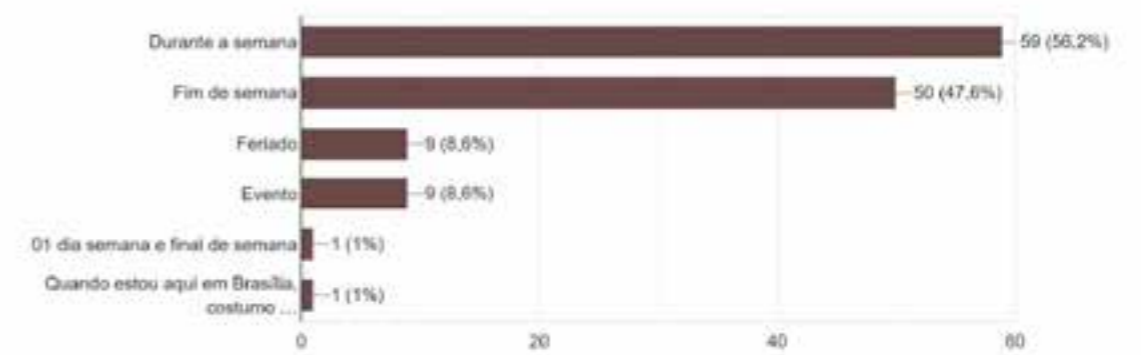
Qual horário costuma ir à praça?
105 respostas

- Manhã — 77 (73,3%)
- Tarde — 16 (15,2%)
- Noite — 29 (27,6%)
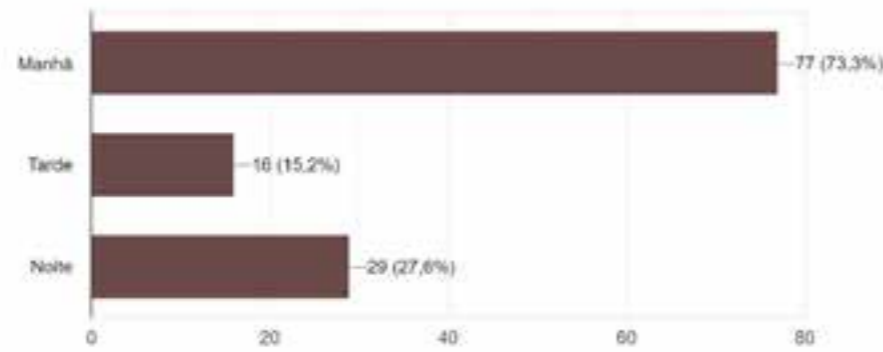
Quanto tempo costuma permanecer na praça?
105 respostas

- ● Até 1 hora
- ● >1 a 2
- ● > 2 a 3
- ● > 3 a 4
- ● > 4 horas

45,7% / 28,6% / 18,1%
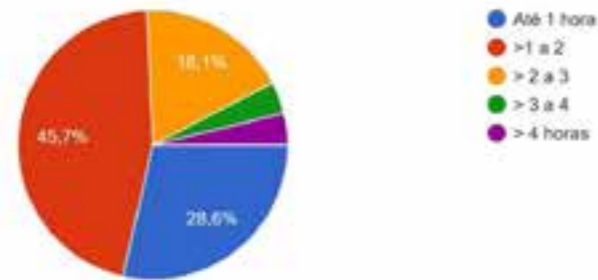
Onde você gosta mais de estar? (pode assinalar mais de uma opção)
105 respostas

- Gramado para o Eixão — 20 (19%)
- Gramado para a área comercial da 300 — 17 (16,2%)
- — 35 (33,3%)
- Quadra esportiva de concreto — 40 (38,1%)
- Quadra de areia para esportes — 8 (7,6%)
- Espaço com mesas e bancos de mosaico — 58 (55,2%)
- Espaço de churrasco — 7 (6,7%)
- The garden with trees for peace and fri... — 1 (1%)
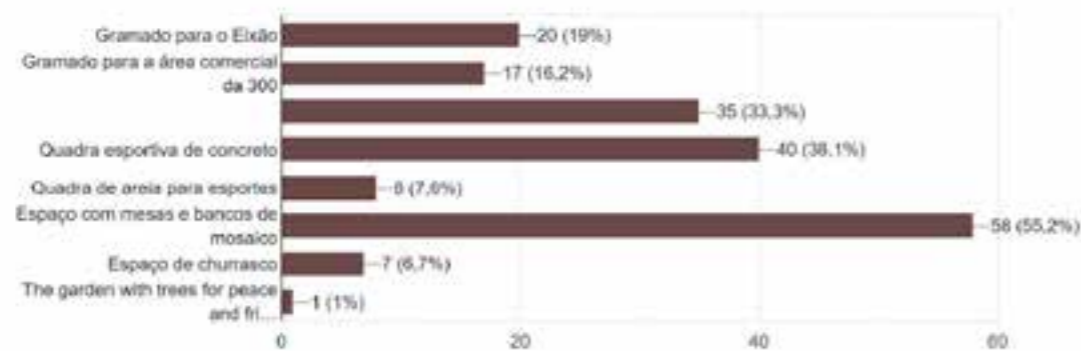
O que costuma fazer na praça? (pode assinalar mais de uma opção)
105 respostas

- Apenas passagem — 9 (8,6%)
- Passeio — 26 (24,8%)
- Tomar Sol — 18 (17,1%)
- Sentar-se / Relaxar — 41 (39%)
- Comer / Beber — 18 (17,1%)
- Levar criança para brincar — 12 (11,4%)
- Andar com cachorro — 11 (10,5%)
- — 37 (35,2%)
- Conversar/encontrar amigos — 56 (53,3%)
- Namorar — 8 (7,6%)
- Visitar um evento — 16 (15,2%)
- Tocar musica — 1 (1%)
- Atividades físicas sozinho — 14 (13,3%)
- Atividades físicas em grupo — 32 (30,5%)
- — 13 (12,4%)
- Futebol — 2 (1,9%)
- Basquete — 0 (0%)
- Capoeira — 1 (1%)
- Tai Chi — 46 (43,8%)
- Ioga — 4 (3,8%)
- fumar — 2 (1,9%)
- skate — 1 (1%)
- — 1 (1%)
- basketball — 1 (1%)
- Dar aula — 1 (1%)
- — 1 (1%)
- (F1) smoking a joint w friends — 1 (1%)
- (F1) smoke a joint with friends — 1 (1%)

Geralmente você faz atividades na praça:
105 respostas

- Sozinho — 27 (25,7%)
- Em casal — 16 (15,2%)
- Com criança — 6 (5,7%)
- Em família — 13 (12,4%)
- Em grupo / com amigos — 61 (58,1%)
- Não pratico esporte na praça — 1 (1%)
- smoking weed — 1 (1%)
- Andar — 1 (1%)
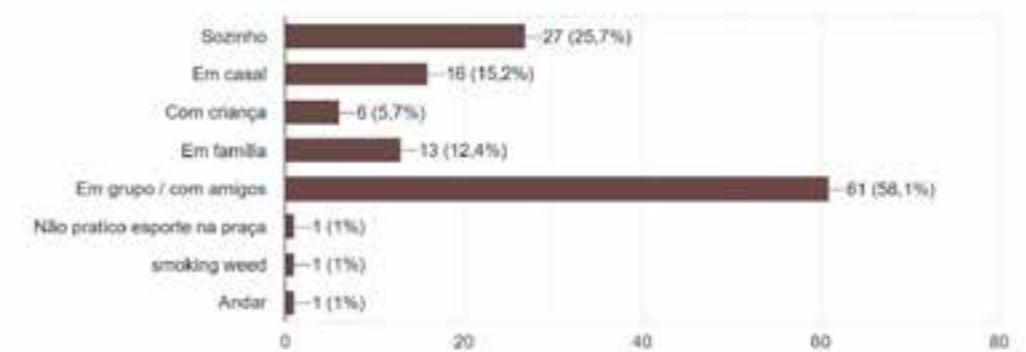
Quais projetos você gostaria que fossem implementados para o desenvolvimento da praça? (pode assinalar mais de uma opção)

106 respostas
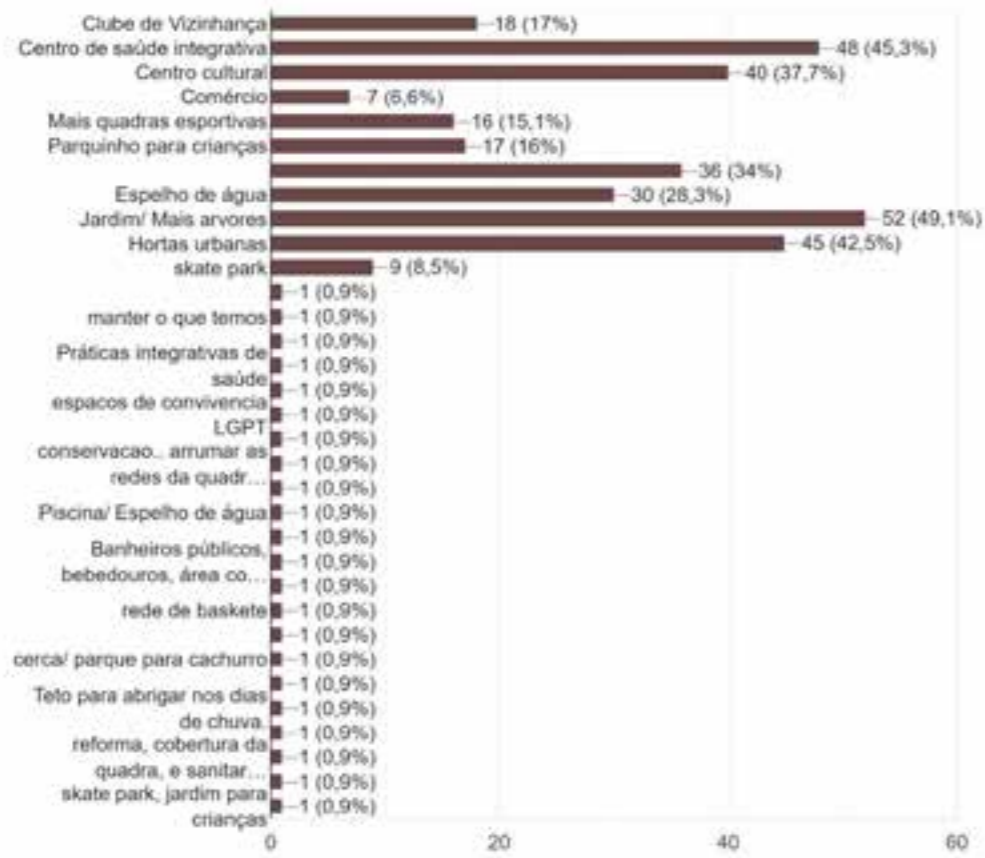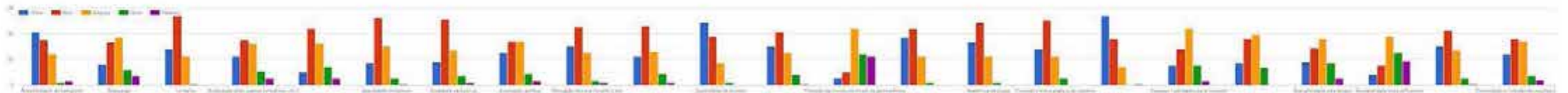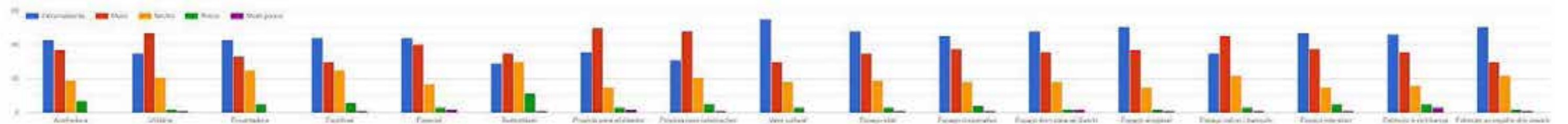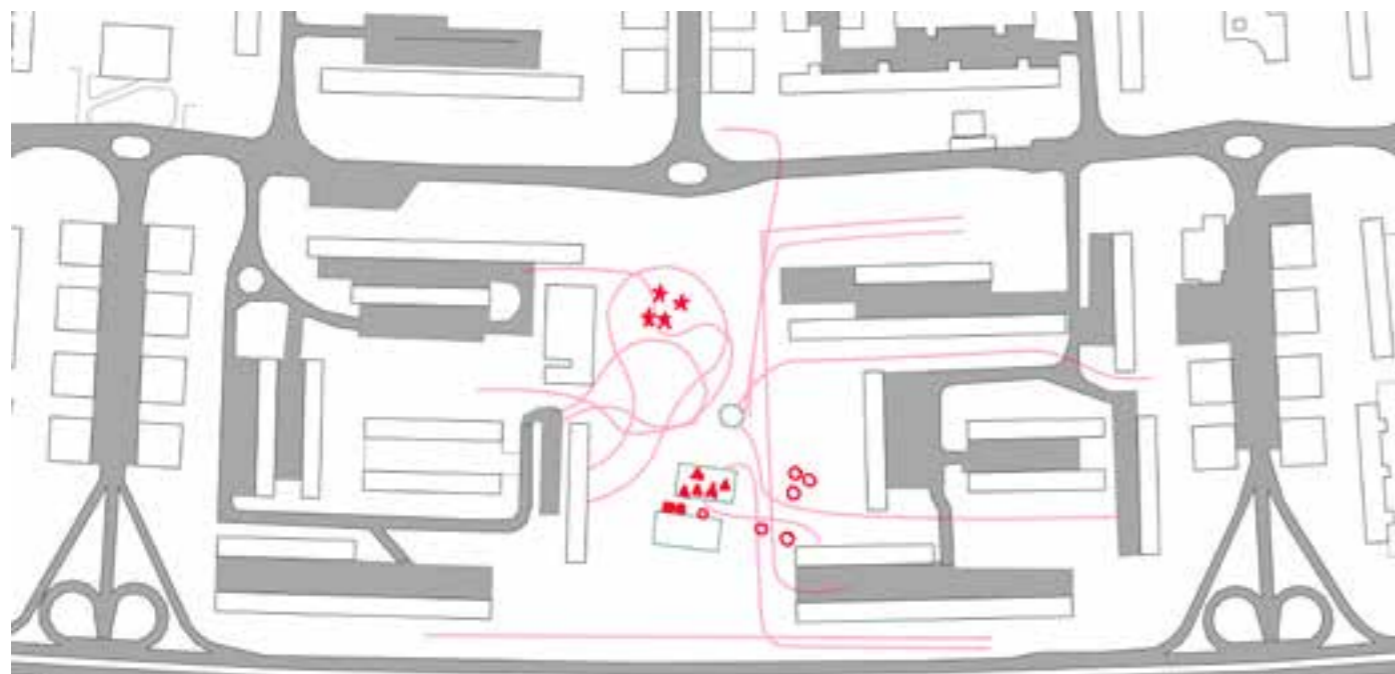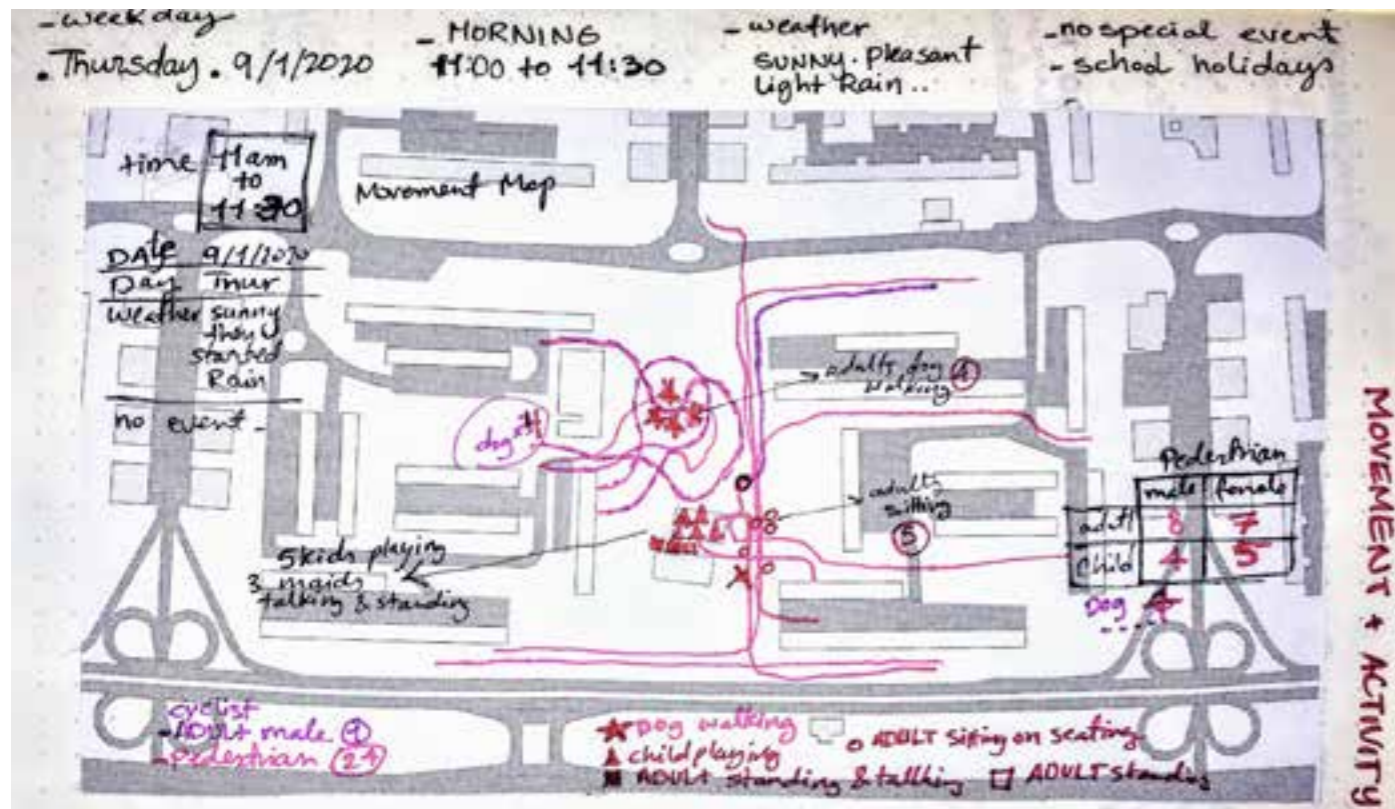
III.D.7. Urban use study, Time lapse observation

Time lapse observation of the site shows much more variety of users and activities than the number of people that participated in the survey, children accompanying their parents or caretakers, neighbours walking their dogs, casual users visiting their friends or waiting for the next bus at the safety of the entrequadra instead of the hidden bus stop at night..
Early in the mornings most of the movement was that of regular users coming to Practice Tai Chi, or residents leaving to work. In the afternoon the area there are people sitting around sharing lunch, running around the entrequadra and through the greenery of the superblocks SQN104 and SQN105, students finish the school day and head to the sports court to play basketball or sit on the benches nearby waiting for Capoeira class to start.. In the late afternoon there is a lot of pedestrian circulation as workers head home, throughout the day the place is mostly quiet and the sound of traffic is lower the further you move from the main Axis highway.
The square is vibrant on weekends and holidays, people tend to group in the mosaic seating area in search for shade, by the night time the street lights flicker on and off and people slowly start leaving. There is a general sense of security on site, the superblocks of Brasilia are generally very safe during the day, but the vast badly-lit greenery can be dangerous at night.
There is good accessibility at the site, the paths are at gentle slopes, although the weathered material is a negative aspect.
All in all, the users of PHU love the place tend to often speak of the positive energy they feel within it, I can say this is reflected in the way people behave in the site and express their sense of wellbeing.
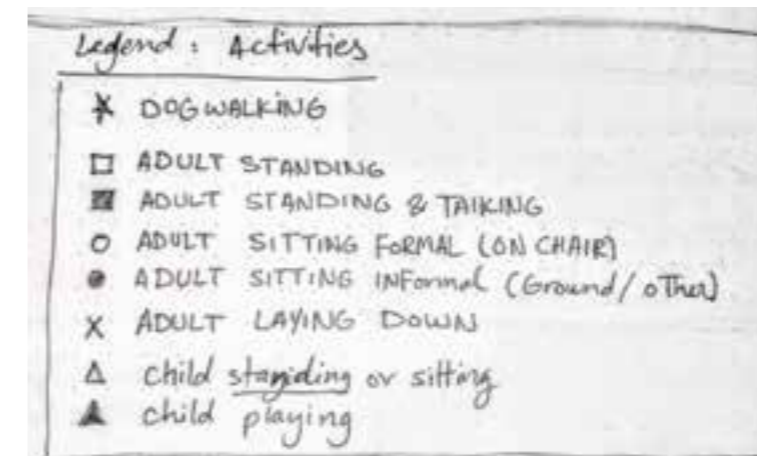
# IV. Design Project:

A. Concept
1. Program location
2. Defined program list
3. Function: integrative health center
4. Form: ground-nested clusters
5. Materials

B. Project Documentation

IV.A.   Concept

Based on the analysis and understanding of the identity of the site, original plans for the area, future plans for the site, stakeholder narrative and the needs of the users resulting from the public participation. All elements and results of the analysis are reflected into the chosen program for the site. An integrative health center.

The proposed building is to fit into the the natural slope of the site, situated in the lower point, being almost invisible from the highest point, then peeling up off the ground revealing the famous elements of the Brasilia superblock architecture, Pilotis and cobogós.. through the facade a hidden surrounded by the program of the building is a sanctuary and a source of light for the interior of the structure.
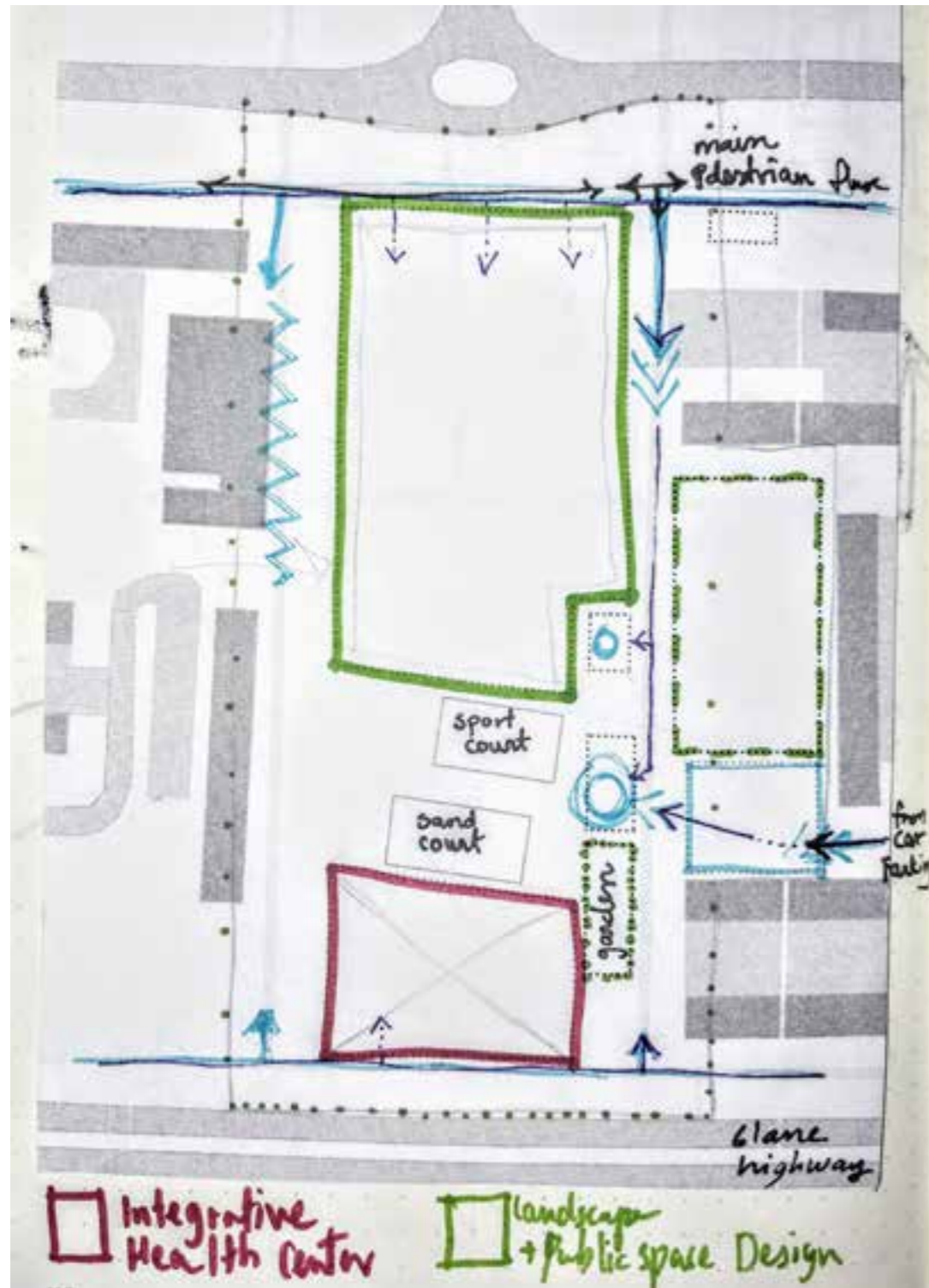
IV.A.1. Program Location

Based on the analysis, it is important to keep the existing pedestrian conncetion along (W1) road, therefore it makes sense to situate the new building of the integrative health center on the east part of the side, having the entrance from the main road instead of the inner road, by doing so it is possible to avoid causing a visual disconnect like in the case of most of the other built up entrequadras.

Another aspect of the project is the activation of the public spaces, providing a source of humidity for the long dry months, provide seating and more greenery as was suggested in the results of the public participaction survey. Most importantly, the projec is to bring out the existing charm and identity of the site, not impose upon it.
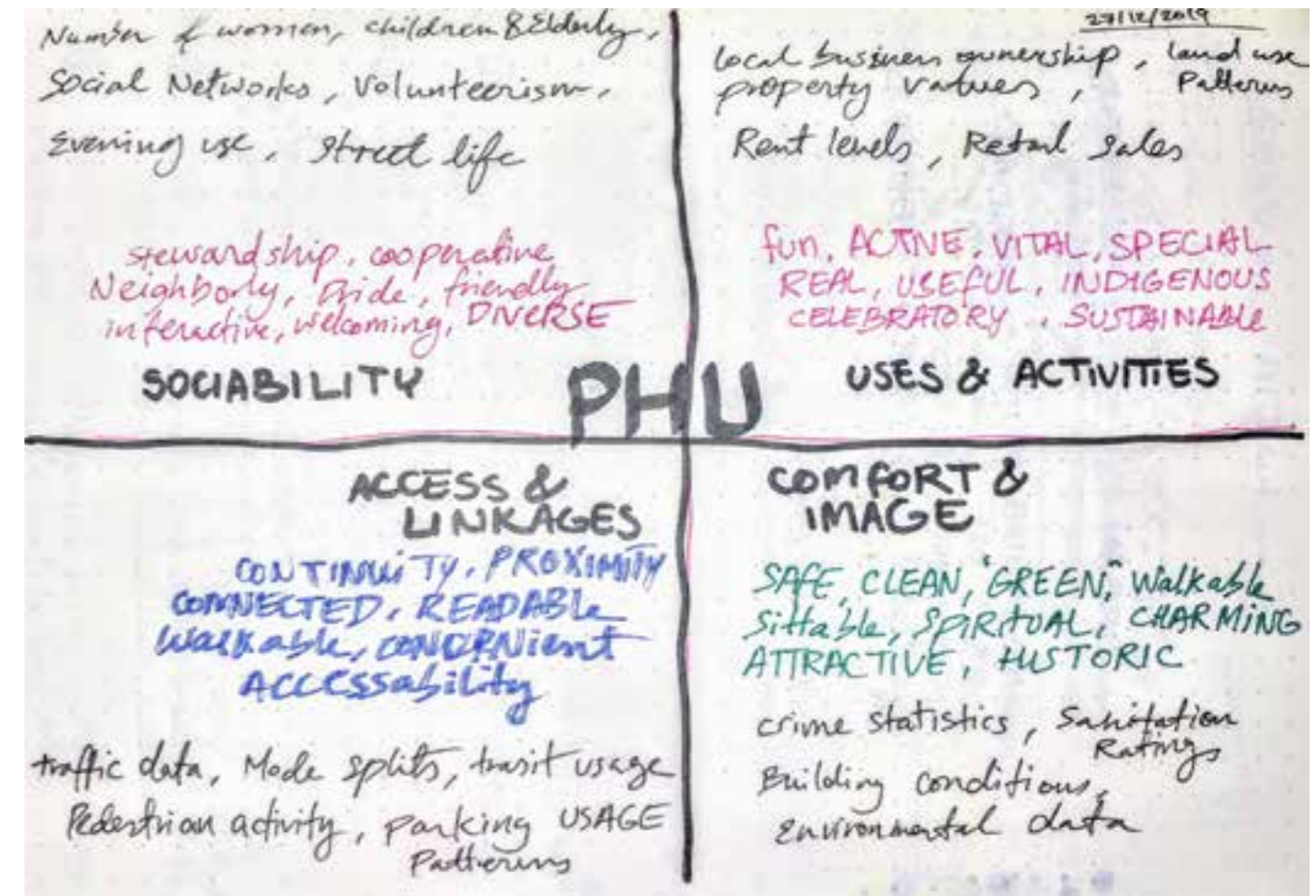
IV.A.2.   Defined program list

Private: for staff only / for staff and patients only
Semi private: open to public at opening hours "with agreement or signing in"
Semi public: open to public at opening hours
Public: pubic at all times

PRIVATE:
1. Administration/ offices 80 m 2
2. Storage 30 m 2
3. Staff rooms 25 m 2
4. Staff kitchen 15 m 2
5. Staff bathrooms 10 m 2
6. Direct Service Support Office Space* 60 m 2
1. Exam Rooms 5X 20-30 m 2
2. Doctors / health practitioners offices "individual care" 10X 20-30 m 2
3. Meeting Rooms* "group or individual care" 3X 60 m 2 + 80 m 2 + 100 m 2
4. waiting room 30 m 2

SEMI PRIVATE:
1. Lecture hall 125-200 m 2
2. Library 80-180 m 2
3. reading rooms 50 m 2
4. workshop "art therapy, etc" 80-100 m 2
5. Indoor pool 300 m 2
6. lockers and showers 100 m 2
7. Bathrooms 50-80 m 2
8. Medicinal plant garden 500-1000 m 2

SEMI PUBLIC:
1. Parking 2000 m 2
2. Reception 50-100 m 2
3. Cafe 100 m 2
4. Shop 80-100 m 2

PUBLIC:
1. Outdoor sports facilities 700 m 2 +1000 m 2
2. Public bathroom and water fountains 35 m 2
3. Playground 150-250 m 2
4. Outdoor seating and socializing spaces 600 m 2
5. Water element "Espelho d'água" 500-1000 m 2
6. Community garden 800 m 2
*Direct Service Support Office Space: "Collaborative team space with workstations in a shared space with access to a swing or spare office for privacy should be planned as opposed to dedicated, private offices for uses such as charting and occasional administrative duties."
*Meeting Rooms: "Effective scheduling of the programs should facilitate sharing of rooms across multiple program groups, or rooms subdivided for flexibility. If the facility's full programming is met and there is still scheduling time available, the space may be considered for use for other community partners. Using data such as number of group types, frequency and length of group sessions, and a draft schedule, will help determine the optimum number of rooms."
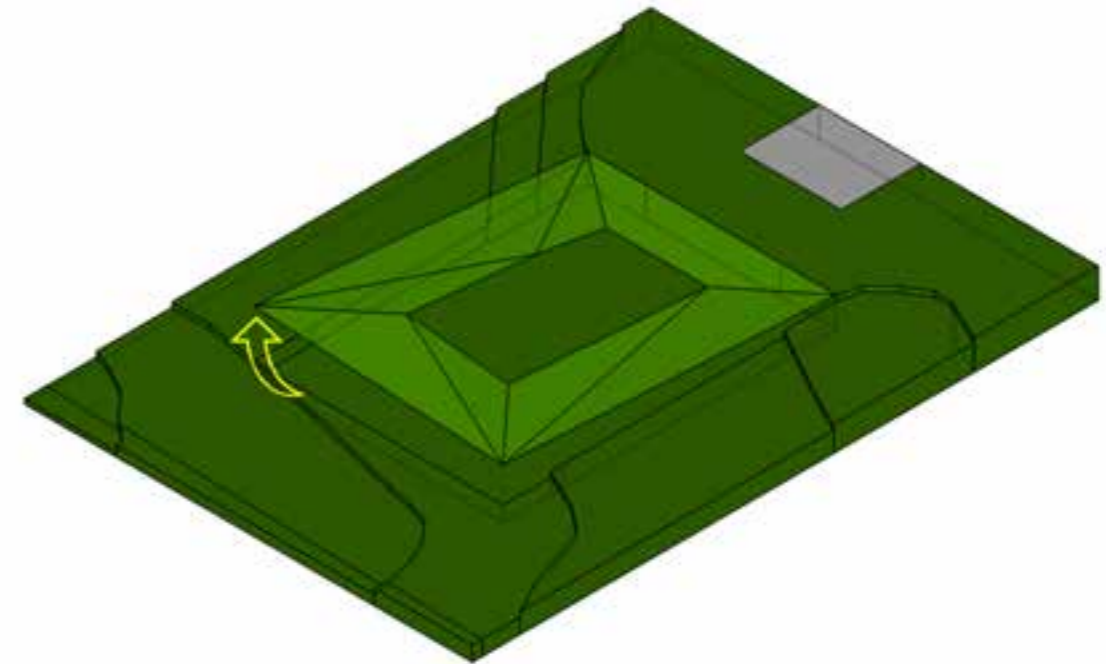
IV.A.3. Function
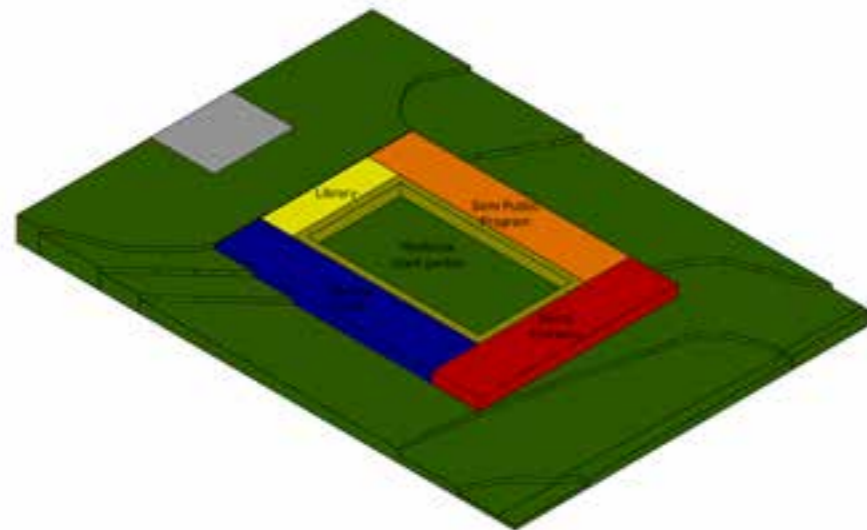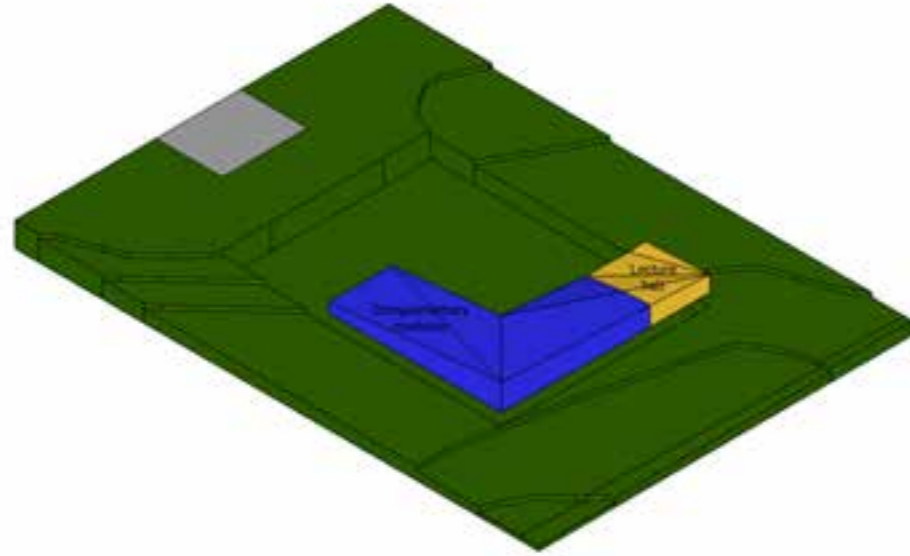
IV.A.4. Form

The building is nested in the ground, with the main facade lifting up the green roof to reveal the Pilotis on te ground floor and cobogó shading elements above.

All ground floor is fully public, from the pilotis in the east part to the walkable roof at the west.
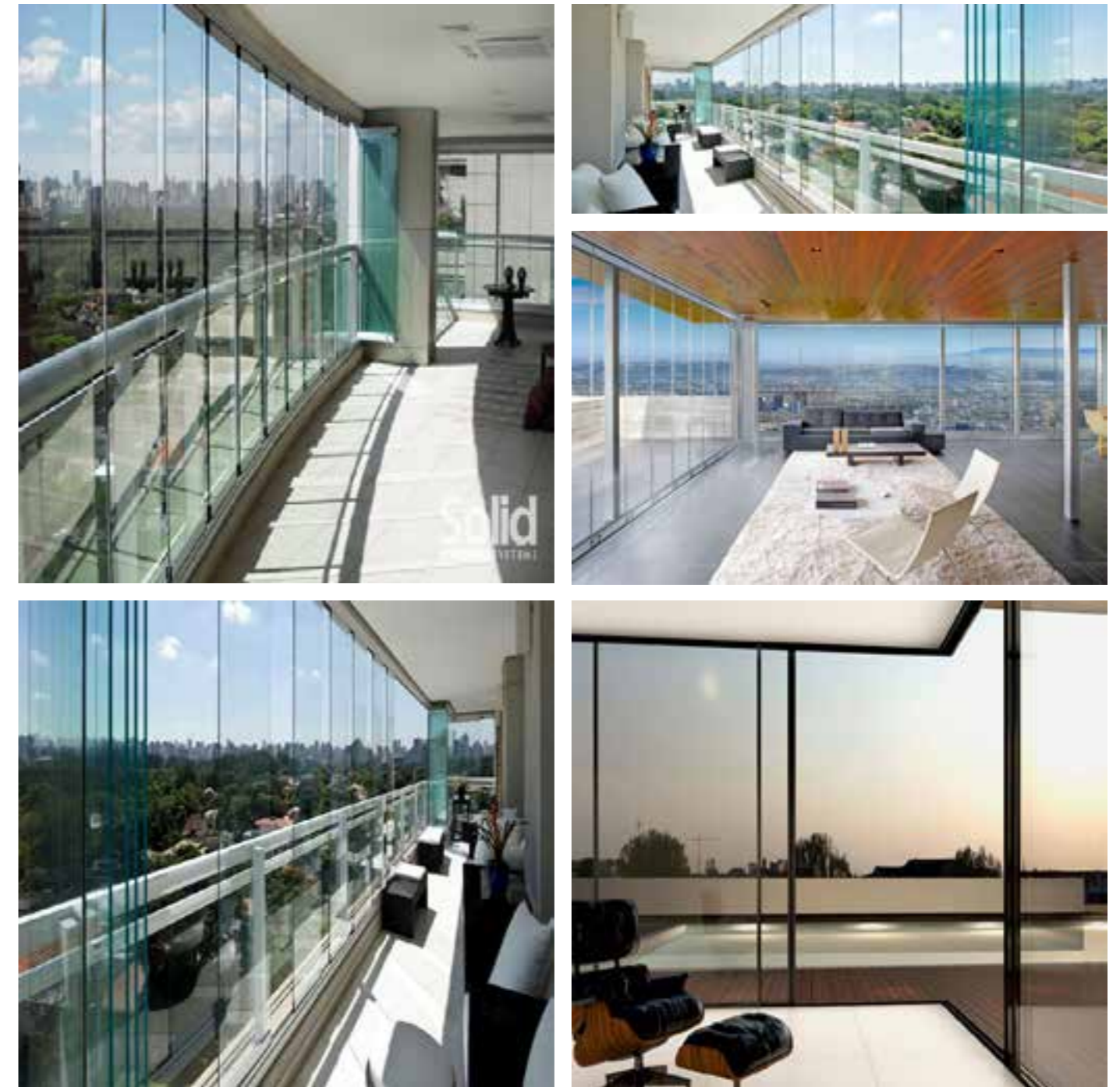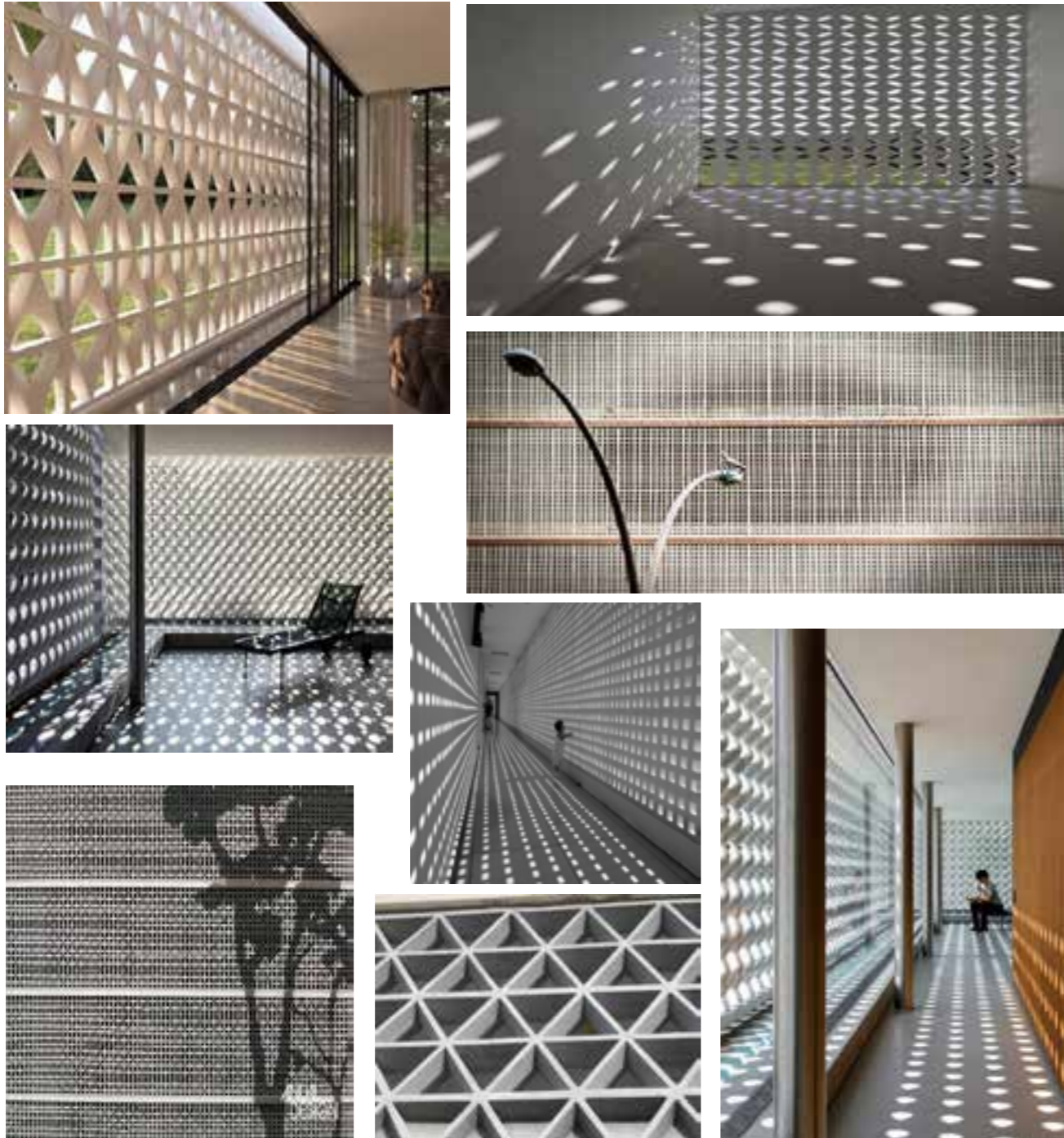
IV.A.4.   Form - Ground

IV.A.4.   Form -Pilotis

IV.A.4.   Form -Invisable curtain wall frame towards garden

IV.A.4.   Form -Water Element

IV.A.4.   Form - Desire paths to paved walkway

IV.B.   Site Documentation

Community
Garden

BBQ

Mosaic
Seatung

Concrete
Sports Court

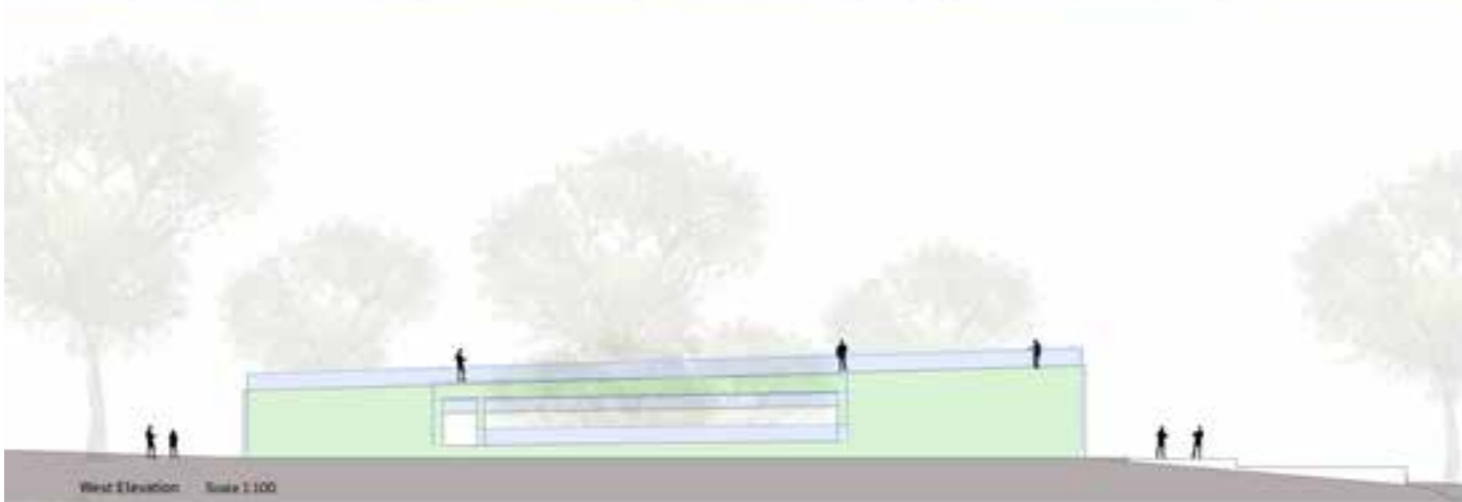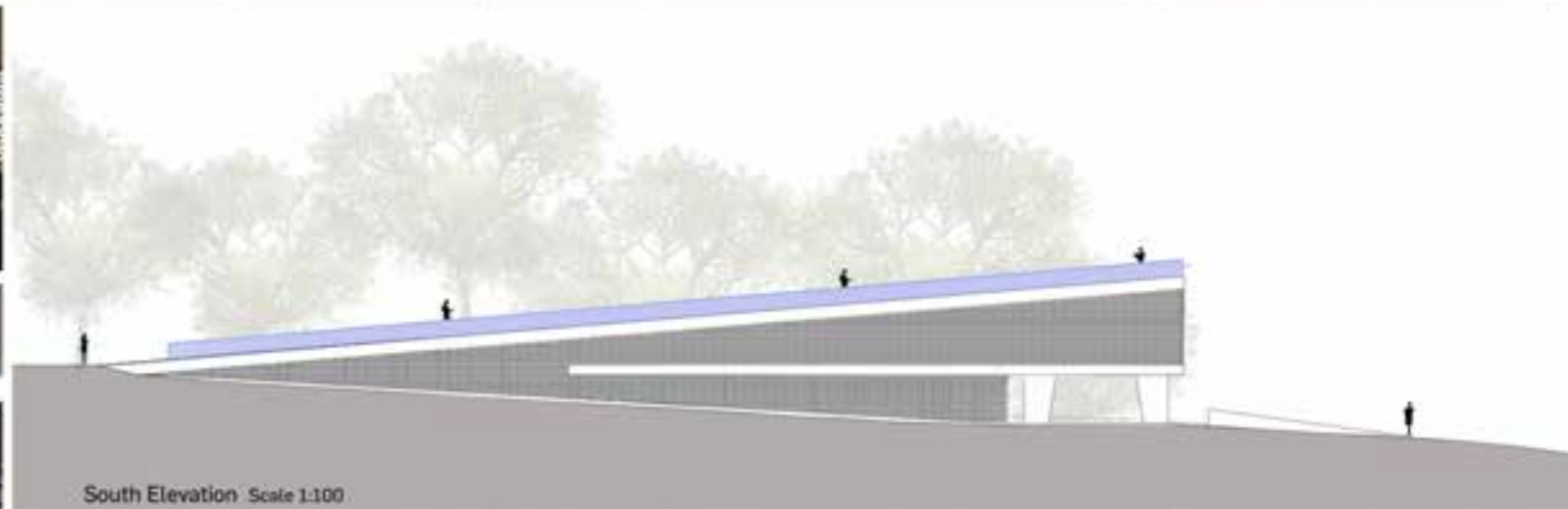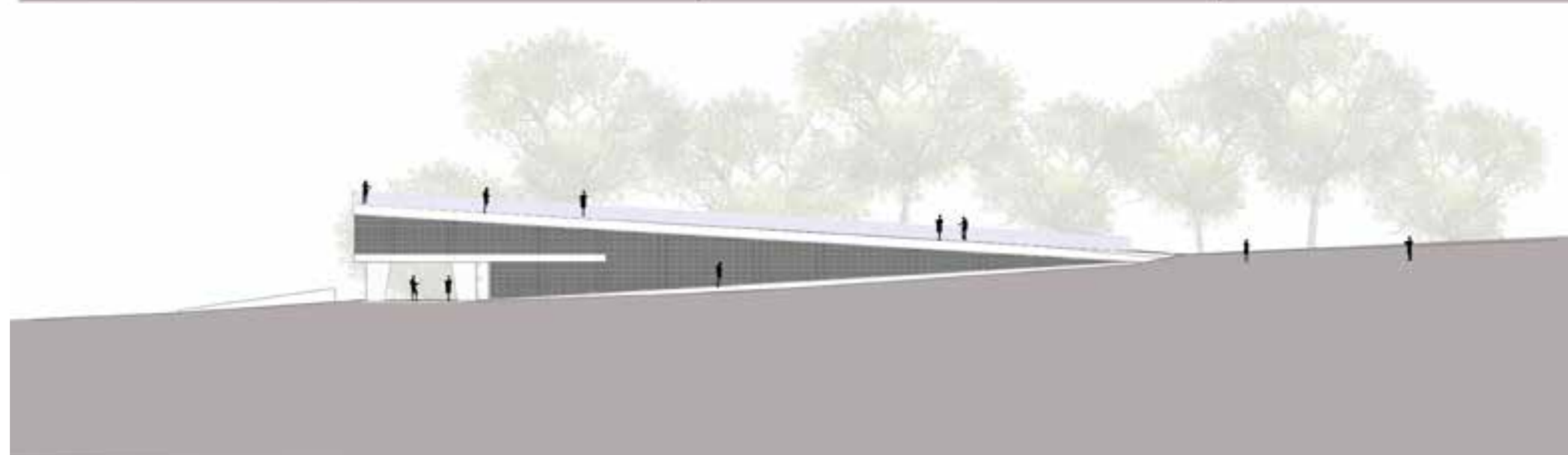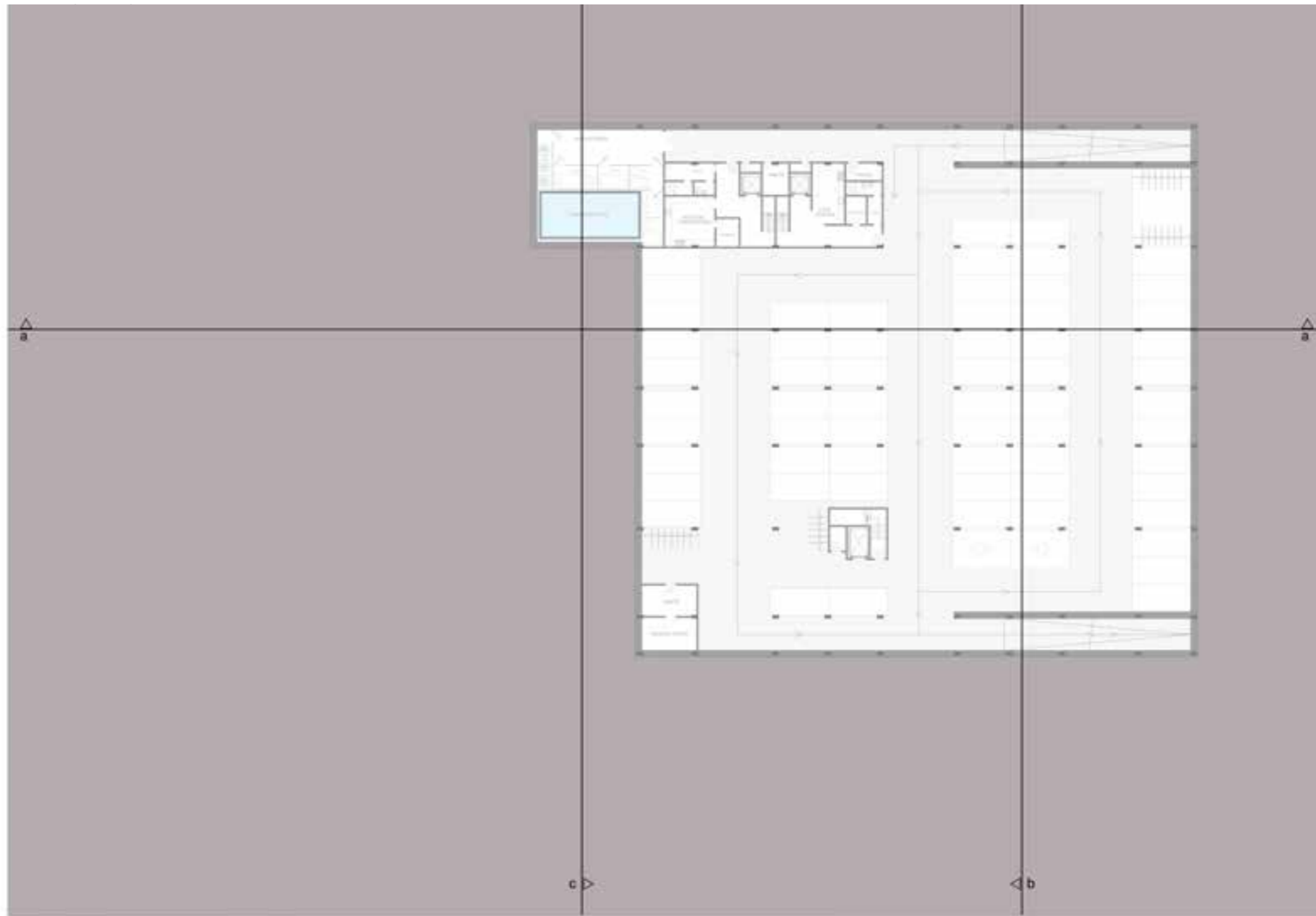Sand Court

Site Plan \ Sections   Scale 1:1000

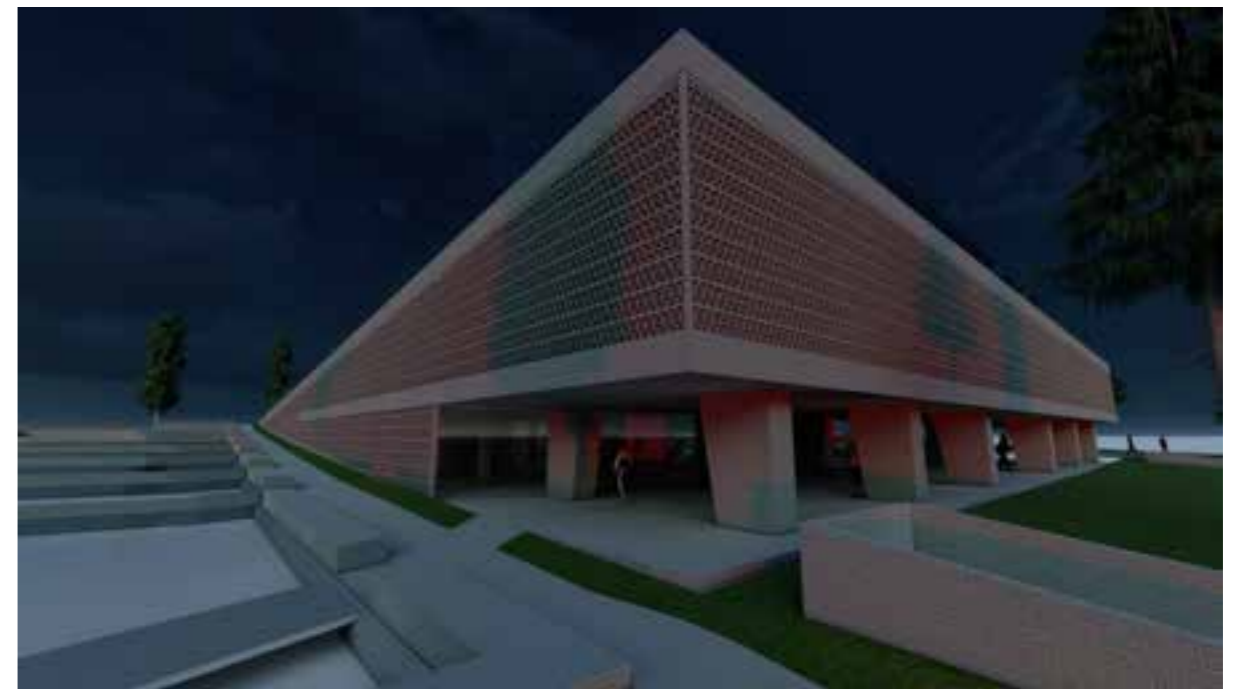Ground Floor Plan Scale 1:100

Longitudinal Section A-A Scale 1:100

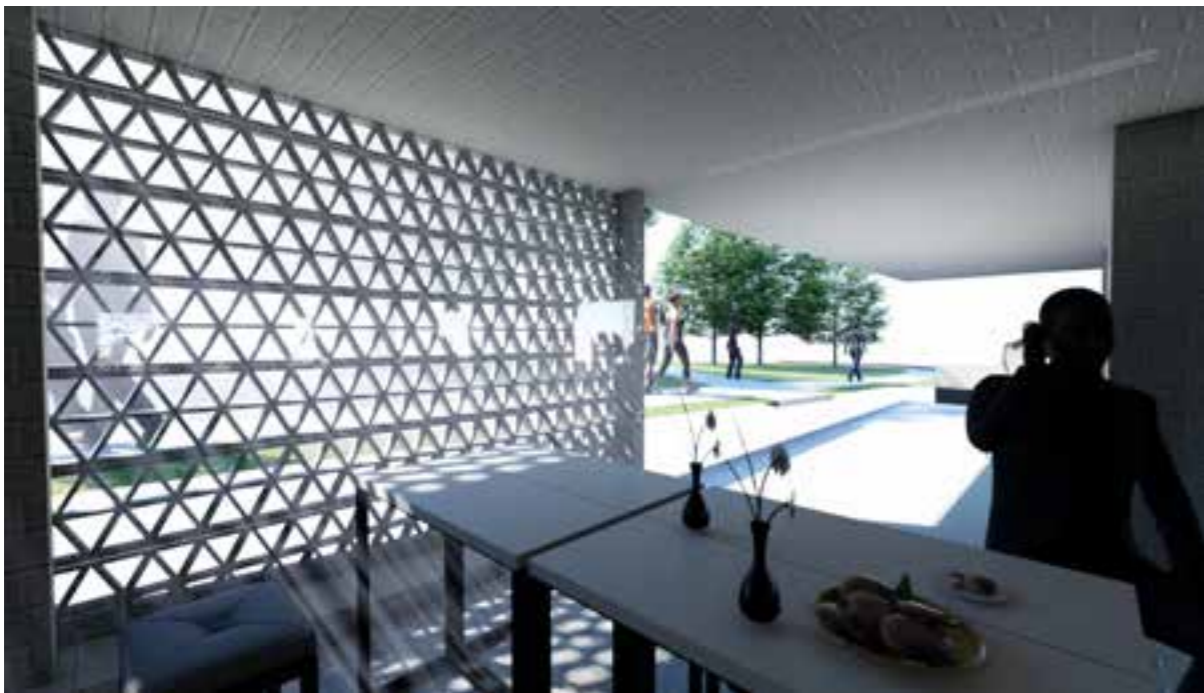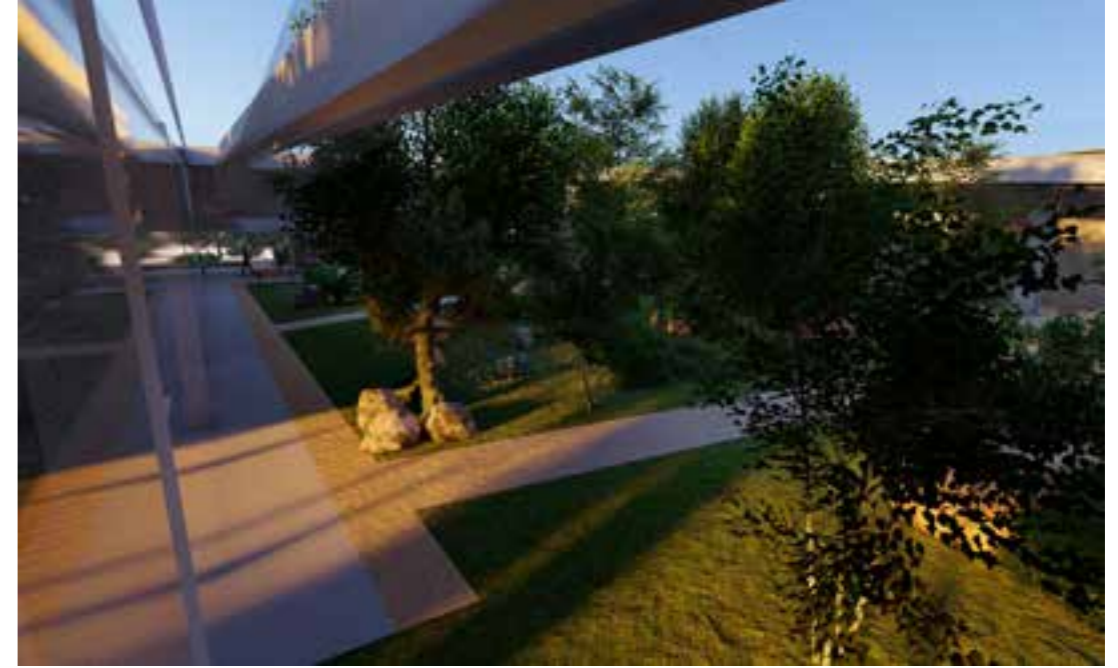East Elevation   Scale 1:100

Green Roof

Lecture Hall facade

Invisible grass framing system

Group Therapy Rooms

Lecture Hall

Green Roof

Pilotis

Parking

Ground Floor Indoors Cafe

Ground Floor Photo Outdoor

Underground parking

Water Element Detail

Cross Section B-B   Scale 1:100

Facade Section Detail

West Elevation   Scale 1:100

Cross Section C-C   Scale 1:100

Medicinal Plant Garden

Nurses Station

Exam Room

Service

Pool

Attachment to ceiling

Glass window

Attachment Floor slab

Attachment to column

Mullion between frames

Dilatation Mullion

Corner Detail

Invisible Frame Curtain Wall Detail

First Floor Plan Scale 1:100

South Elevation Scale 1:100
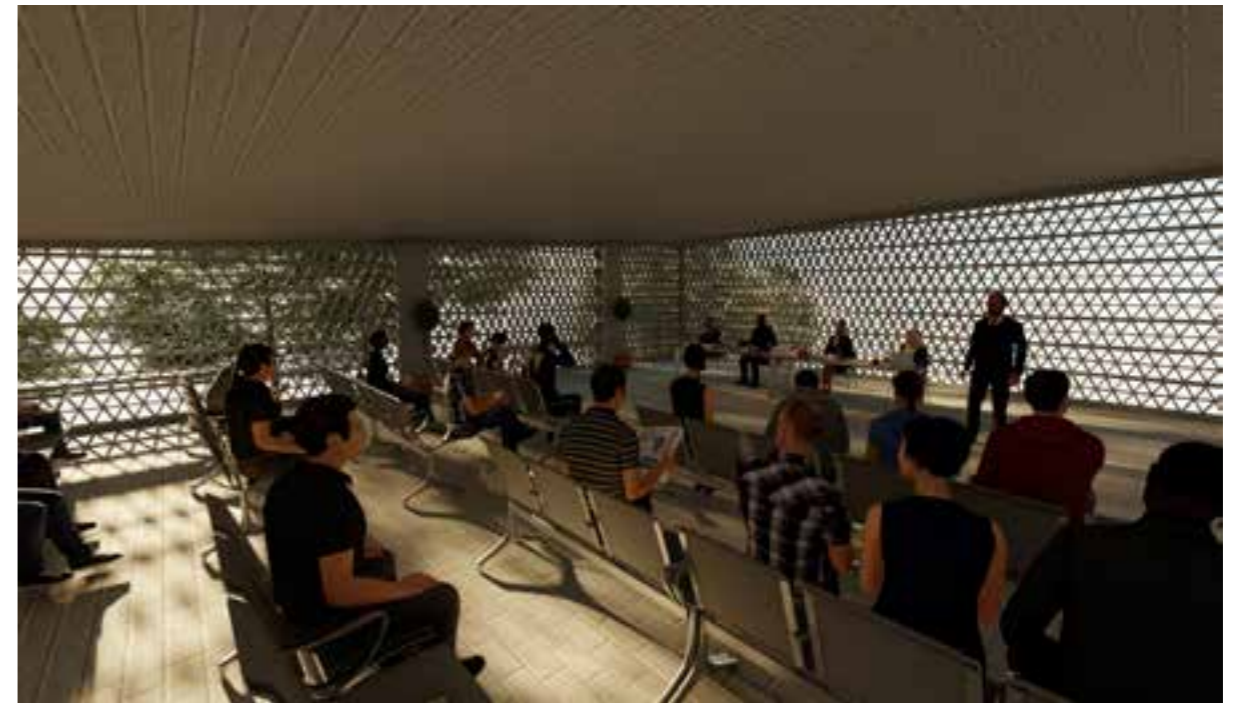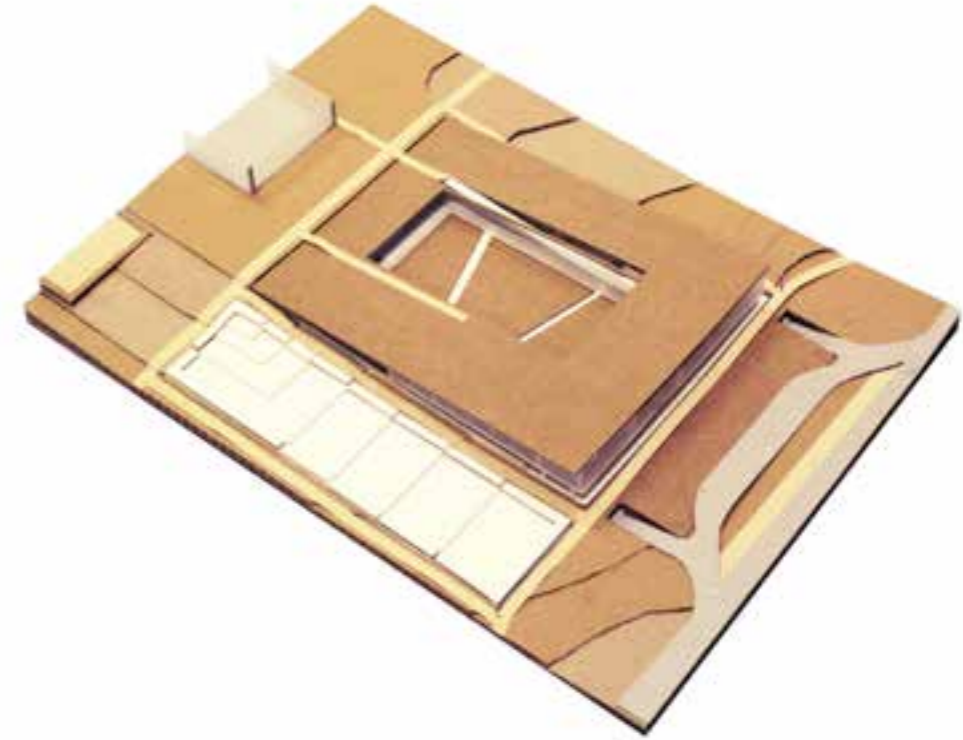
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II.D.4.   Foto by Iman Aljoaki 2019

In the very center of the Brazilian arid Cerrado is Brasilia, a planned city, a Federal district, a dream as old as the Brazilian colony, a promise since Brazilian independence, and a come-alive ideal utopian city plucked from a modernist dream.
For its conception teamed up the brightest minds Brazil had at the time, unfortunately, many of the ideals and dreams Brasilia was meant to encompass faltered between inception, inauguration and inhabitation.
60 years later, much of its proud modernist urbanism has not aged well in terms of urban use and human scale.
At the core of the Brasilia imaginary are the superblocks intended to form neighborhood units bustling with life and activity. A fully public ground level whether it be built or unbuilt. Greenery and quiet, and integration of socioeconomic classes.
The attempt is still obseravable in reality, although it has not fully lived up to the high expectations. Many of the public spaces that are meant to be the center of life and human interaction, where functions and services flourish, are instead repeated empty lots adorned by greenery that somehow managed to take over in contrast to the parched land that was in place 60 years ago. These are our beloved Entrequadras, with so much potential to give identity to their surroudning superblocks beyond the simple logical numbering they have instead of names.

In Latin cultures, names always have meaning, they are based on an identity, history, a sense of placeness.
In Brasilia, monumental buildings have names, but not streets, not superblocks, or entrequadras. Sectors are named after the segregated functions they were designed for, but public spaces are human, their functions mixed, and their identity has slowly formed itself in the past 60 years despite the rigidity of the urban fabric they were cut out of.
This booklet is about such a place. At EQN104-105, PHU came to be.

PHU: Praça da Harmonia Universal, or Universal Harmony Square.
Where the motto is "Fraternity, Health and Peace".
Where the community brings the public space alive and Integrative health is a goal and objective.
This project is a proposal for the design of the integrative health center and urban design interventions of the public space that is the Universal Harmony Square.

Iman Aljoaki
ARCHIP 2020