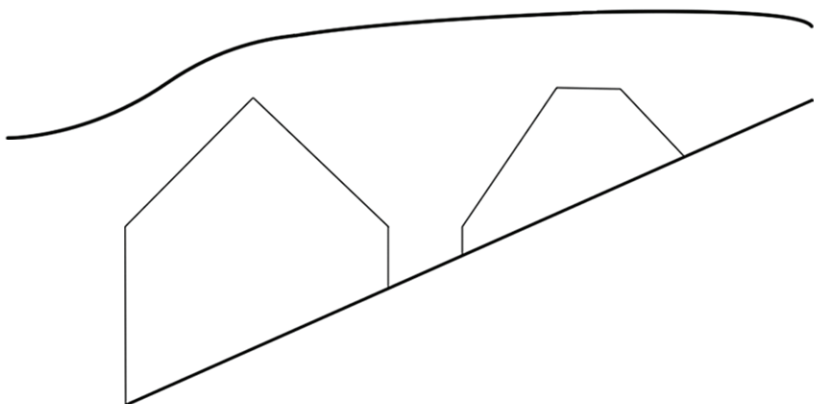


既存のビルドの上に構築する

ARCHITECTURE MASTER THESIS



BUILD ABOVE THE EXISTING
a strategy for new land use in Tokyo

MARTINA MELOGNO

ADVISOR: Subhash Mukejjee

CO - ADVISOR: Kengo Kuma / Francesca Governa

修士論文

ARCHITECTURE MASTER THESIS

ARCHITECTURE CONSTRUCTION CITY

Polytechnic University of Turin

December 2018

Student: Martina Melloagno

Advisor: Subhash Mukerjee

Co-Advisor: Kengo Kuma
Francesca Governa



A mio fratello.

CONTENTS

終わりのない街

01

TOKYO URBAN DENSITY 16 - 47

HOW TOKYO BECAME TOKYO 18

- the never ending city
- Edo facing modernization
- Tokyo horizontal expansion
- cultural appropriation of smallness

TOKYO IMPERMANENCE 30

- change belongs to Tokyo nature
- Tokyo balance in contrast
- Tokyo multilayer

FUTURE: FROM THE CORE TO THE VOID 38

- overcoming limits with utopia
- Metabolism
- flexible and exchangeable architecture
- Void Metabolism

02

TOKYO SOCIAL INTENSITY 48 - 67

BE PART OF SOMETHING BIGGER 50

- Japanese belongingness to the city
- space designed by people
- Machizukuri

FOCUSING ON PEOPLE BEHAVIOUR 58

- densely built / poorly lived
- traslating public in Japanese
- "Measuring the non measurable"

03

FROM THE NEED TO THE PROPOSAL

68-99

- possibility in skyline void
- build above the existing
- reference: raise without weighing on the existing
- reference: platform as a container
- reference: fill the gap between buildings
- reference: stack buildings over the buildings

THE ZOOM-OUT: URBAN ANALYSIS 82

- Tokyo districts
- Aoyama

INTENSILY BIG / INTENSILY SMALL 90

- de-layering building area
- de-layering street dimension
- de-layering build-height
- de-layering Ura / Omote

04

THE DESIGN PROPOSAL

100 - 145

- the project site
- the existing building
- the project intention
- the land property policy
- the decision-maker
- the agreement policy

THE RULES OF THE GAME 114

- rule 1: the distance
- rule 2: the permeability
- rule 3: flexibility & participation
- rule 4: the stylistic freedom

THE PROJECT 130

BIBLIOGRAPHY 142

IMAGES 145



The first photo I took in Tokyo

MY FIRST IMPACT WITH TOKYO

終わりのない街

INTRODUCTION

When someone ask me to describe myself with few words, I always say "I can adapt to anything". I don't know why, I think there are more incisive sides of my character, yet this is always the first thing that comes out of me. Perhaps this phrase remained in my mind when I bought a bag a few years ago, of net, in canvas, like those to go shopping, on the label was written: "I can hold anything, without ever losing my original form". And I thought: I want to be just like this bag. It was this spring, for the first time, that I thought that perhaps I did not know myself at all, that perhaps the phrase with which I have always proudly described myself did not really belong to me. The first impact with Tokyo was devastating: I did not understand her, she did not understand me. She totally escaped the preconceived logic I had of the city, of centrality, of planning, of rule. Even the simplest thing, orienting at the exit of the subway, became impossible: everything led to an inside, even more inside, which was still followed by an inside. If in the

Western world to exit meant entering an open space, in Tokyo it simply meant entering into something else. Every morning I woke up without getting out of bed, I had to get up from the floor. My window did not open, it scrolled sideways. After a while I got into the habit, leaving the house, to water the hydrangeas at the entrance of my neighbor, because I realized that in fact, its entry was the same as my entrance, that there was not a *mine* or *yours*, but an *our* to take care of. I was disoriented, but never scared. I walked a lot, I observed a lot. I marveled at the contrasts: 4 million people on a subway, and the prohibition of talking inside, and the diligence with which the rule was respected. Google Maps showed me to be in the heart of the city, but around there were only two-story wooden houses. Then I took a wrong way, and around the corner I found skyscrapers and the reproduction of the Eiffel Tower. It was a slow appropriation, but chaos gradually began to become familiar to me. Comfortable.

I left Italy with the idea of writing a personal diary, pinning the first impressions, imagining a continuous stream of consciousness for the thousand visual stimuli I would receive. It remained empty until March 27th. Then, I do not know what happened during the night, but in the morning I write in the diary: "Tokyo - This morning I woke up at home." And then nothing ever, never again a note or a sensation, only this awareness, as if was suddenly proved true, *I can adapt to anything*.

THE WHOLE IS GREATER THAN THE SUM OF ITS PARTS

ASSUMPTION

My thesis starts from the identification of a problem, the large use of land in Tokyo, and proposes as a solution an architectural strategy aimed at a creative and alternative use of space: building above the existing. The analysis that is done retrospectively is therefore completely focused on the application of this specific solution, going to break the analysis-project temporal dogma. The analytical part intends to observe Tokyo as a city in the most complete sense of the term, deliberately jumping between physical and social descriptions, in order not to fall into the reductionism of classifying Tokyo as a simple sum of the two parts.



01

TOKYO URBAN DENSITY
CHAPTER ONE

都市の物理的な幅



01.1

HOW TOKYO BECAME TOKYO

To read its past to understand its present. In this chapter is made a brief excursus to outline what were the fundamental steps that made Tokyo the city that is today, the most populated metropolitan area in the world. From the opening to the West, to the dizzying growth after the post-war destruction, to the breaking of the economic bubble of the 80s; every factor has been instrumental in creating today's Tokyo, transforming it both physically and in character, making it possible that the largest city in the world was at ease in the smallness.

THE NEVER ENDING CITY

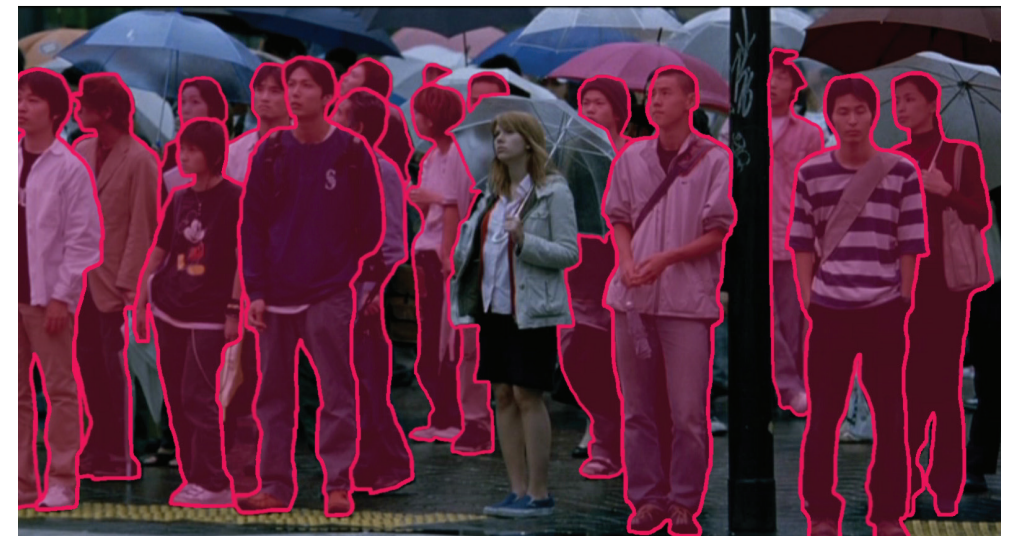
終わりのない街

HOW TOKYO BECAME TOKYO

It's difficult to find a definition that can describe Tokyo in its entirety. In the collective imagination this Japanese city is a whole of neon lit building facades, overlapping faces and flow of people crossing roads disproportionate for the effective duration of the traffic lights. The real size of the city goes beyond the imagination, because impossible to be perceived by the human eye. The horizon line that the mind perceives as "end of the city" moves as you approach, until it reaches an infinite extent. There is nothing but city: the total built-up area of Tokyo exceeds 3000 square kilometers. All this enormous territory is extremely densely built, made up of high or mid-rise buildings, with no more empty space between them.

The exponential growth of the city must be seen as its way of adaptation to the rapid sprawl of population, which has recently reached 38 million inhabitants, making Tokyo the most populated metropolitan area in the world.

Scenes from the movie
Lost in Translation, by
Sofia Coppola



EDO FACING MODERNIZATION

江の近代化

HOW TOKYO BECAME TOKYO



The rapid change that has invested Tokyo started at the beginning of the XX century, when the westernization push is strengthened, initiated in 1868 with the Meiji restoration after Japan opens its doors to the West, and Edo becomes the new capital of the whole country changing its name to Tokyo. From this moment Tokyo began an unstoppable and vertiginous race towards modernity, which led to a morphological transformation of the original urban structure. Within a short time period Tokyo completely reshaped its cityscape. Population growth, driven by

industrialization and strong internal immigration, continues unstoppable, forcing the city to confront itself with problems that are difficult to manage regarding space issues (Sacchi e Mercuri 2004). The prefecture of Tokyo almost doubled its population in just over two decades, reaching 4 million inhabitants in 1920 and 8 million in 1945 (Sacchi e Mercuri 2004), becoming uncontrollable starting from '60s, with consequent repercussions on the morphology of the city and on the conditions of life inside it, which began to become expensive and difficult.

Reproduction of the ancient Edo,
unknow artist, Early 17th century



Shibuya crossing, 1959



Shibuya crossing, 1974

TOKYO HORIZONTAL EXPANSION

東京ホライズン エキスパンション

HOW TOKYO BECAME TOKYO



As a result, the major planning issue was to expand and intensify the urban area in order to accommodate rapid growth. The prefectures surrounding have rapidly developed as sub-urban area, inducing as a consequence a rapid land-use and land-cover changes (Bagan e Yamagata 2012). Tokyo faced the geographical constraint of the land in which stands: the impossibility of expansion of an island. The physical limits that characterize Tokyo have forced the search for alternative solutions to allow its expansion.

On the one hand, the intensification of the railway network has facilitated horizontal expansion, making Tokyo one of the mega-cities most oriented towards public transport; on the other, were thought solutions to maximize exploitation of the cubic square footage. Legislation authorizing the subdivision of the property into smaller lots was promoted, and the height limits were radically raised, starting the unstoppable process of verticalization of the city in order to make the most of the allowed cubing (Sacchi e Mercuri 2004).

Tokyo urban growth, data
taken from *Made in Tokyo*

CULTURAL APPROPRIATION OF SMALLNESS

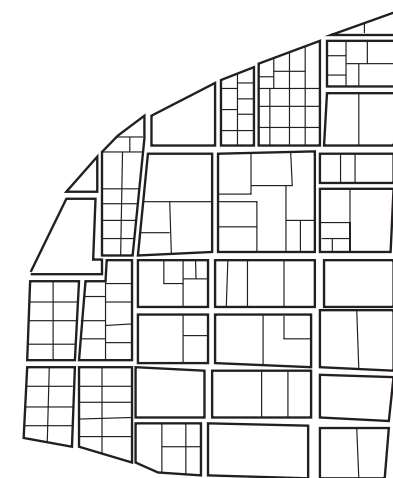
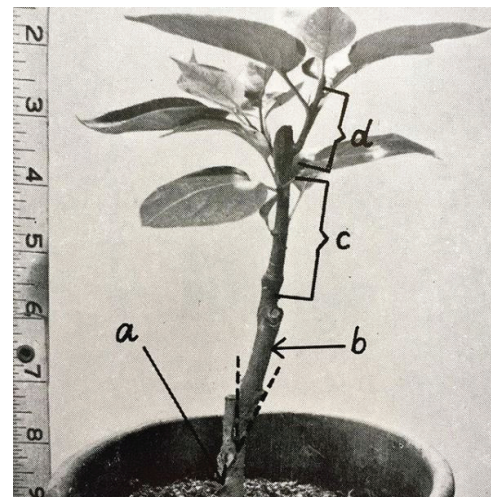
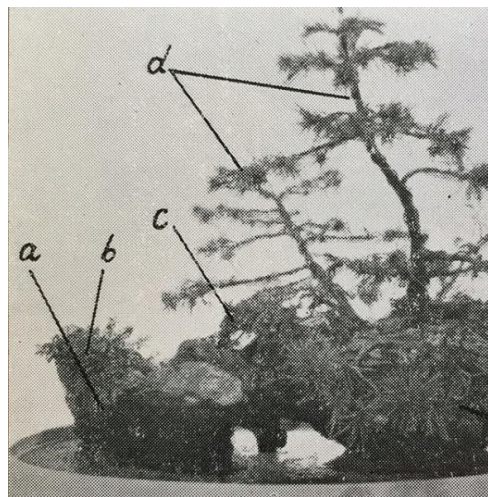
小企業の文化的適

HOW TOKYO BECAME TOKYO

Smallness became a direct consequence of the spatial constrain in which Tokyo turned, embraced in a positive manner not only as an aesthetic category, but as a survival skill (Radovic e Davisi 2012). Smallness has profoundly shaped the Japanese culture, exploiting scarcity as a challenge to find alternative and creative solutions, appreciating the possibility of working with defined limits, seeing small as satisfactory. The problems that the modern Tokyo had to face were no

longer linked only to a question of size, but starting from the '80s also to financial nature issue. The economic bubble, which led the city to break all record with unprecedented levels of prosperity, broke out. The after effects was a skyrocketing land value, which also caused the consequent, progressive, downsizing of housing, becoming very common the redevelopment of large single-family dwelling into small size apartment (Sacchi e Mercuri 2004). As a result of this

compulsively division of land and a relatively weak planning system, the city is a patchwork of various types of urban space and a high amount of variety of urban structures (Ackerl 2009). Tokyo is an incubator of different urban realities, which overlap and contrast, in a surrounding dominated by intensity and density, with some of the highest urban population densities in the world, with more than 20 000 people per km2 (Bagan e Yamagata 2012).



Previous: photos from *The Japanese Art of Miniature Trees and Landscape*, by Yoshimura & Halford, 1957
Next: Tokyo's plot division through years from *Tokyo Metabolizing*



01.2

TOKYO IMPERMANENCE

Tokyo evolves as a living organism. The disasters of war and nature, and a particular building code that provides a life span of buildings of only 26 years, make sure that the city is constantly changing. The nature of Tokyo has always been metabolic, of continuous growth on multiple and different levels, where the boundaries blur and intersect each other. Every building is an island, changes without worrying about the uniformity it has around, giving life to a varied skyline with contrasting heights and dimensions.

CHANGE BELONGS TO TOKYO NATURE

化は東京の性質にする

TOKYO IMPERMANENCE

The foreigner who dive into the urban reality of Tokyo is subjected to a real visual trauma. The city grows in an infinite and chaotic accumulation of different buildings, but at the same time paradoxically similar. Roads and trainlines run over houses. Cars run ramps that go up on the roof of the buildings. Minimum and enormous size chase and contrast each other (Sacchi e Mercuri 2004). Exactly as if I were on Lost in Translation's set by Sofia Coppola, the city presented itself to me as a text difficult to read, in which to understand the differences it had to be deciphered and translated. My first step to understand was change the point of view: observing the city without falling into comparison with the European ones that I know. Western cities are based on "unchanging model". In Japan the cities are based on a model of "change". People's lives evolve, and values too, and because they evolve, the idea of city evolve consequently (Kitayama, Tsukamoto e Nishizawa 2010). The differences in the structure of the cities can be seen as a reflection, first of all, of a profoundly social and cultural difference between the two worlds. If on one hand the western cities are based on a model of centralization, "the Japanese cities, buildings, garden, system, are all based on inwardness. This essential concept in the

Japanese culture is translated as *Oku*, that literally refers to the "innermost", laying at the core of a space, which is organized into multiple layers, similar to an onion, and give depth to a specific area (...) Since the Edo period Tokyo was multi-nodal, with ambivalent centers and edges, made up of intermediate spaces with a particular order that positively values ambiguity and incompleteness" (Radovic e Davisi 2012). Tokyo is a moving city that evolves like a living organism. This characteristic also derives from its repeated history of tragic disaster (fire, earthquake, war), which forced it to develop a detached attitude towards the past, to reject melancholy and embrace change, seen in a positive sense as evolution. There is no real "old town" neighborhood in Tokyo, natural and not disasters have destroyed everything that we classify as a material record of the city's past (Kitayama, Tsukamoto e Nishizawa 2010). If the European city is comparable to stone - designed to exist longer than a man's life - Tokyo is comparable to a flexible structure, able to change its layout according to the needs of those who live it. "As a result, the average life span of a house in Tokyo is a mere 26 years, the structures that form the landscape are likely to be completely different in just a couple dozen years" (Kitayama, Tsukamoto e Nishizawa 2010).



Images of construction site sheets, by **Daniel Everett**

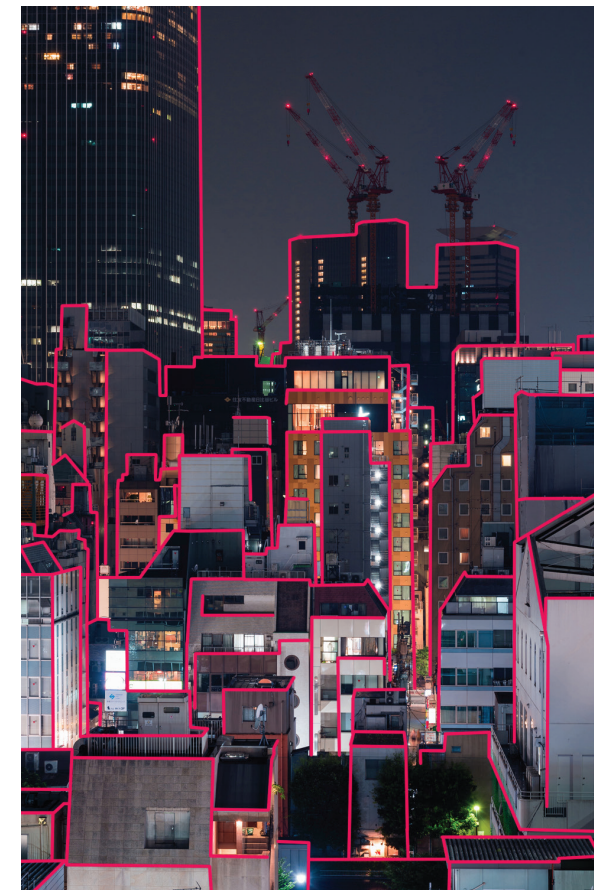
TOKYO BALANCE IN CONTRAST

照的に東京のバランス

TOKYO IMPERMANENCE

The flexibility in changing leads to a rather vague set of circumstances. The result we see looking at the Tokyo skyline comes from a series of processes independent of each other. Tokyo is democratic. Respects everyone's thinking and idea: every building is an island that has no concern for anyone. No one thinks of formal uniformity, therefore no one finds the types or height contrasts strange. "No one sees anything strange about a superhigh-rise building going up next door to a two-story wooden house. The city seems to have been created out of a series of structure that people built in any way they saw fit. It's as if one of Archigram's Instant Cities have sprung up on the other side of the globe" (Kitayama, Tsukamoto e Nishizawa 2010). For a stranger like me, one of the key quality of Tokyo is the ability to create a sense of balance and order in a scenario that is actually fragmented, an assemblage of independent buildings.

Expiring the texture of the city, feeling the topographical change, seeing the scalar diversity of its elements, scanning the city like a series of frames, the only thought I had in mind was: everything is in its right place. The difference in scale is not to be understood in absolutistic terms, but is to be perceived in a relative and personal sense. Smallness or bigness has sense only in comparison with other. One of the features that makes Tokyo so charming is its natural predisposition to live of contrasts, finding in them a subtle balance that never results in conflict, but in harmony between all its different personalities. The everyday realities of Tokyo are made up of contradictions and juxtapositions, and that's ok. The largest city in the world and the smaller plot of land; the most modern skyscraper and the old traditional shrine; the smaller residential homes and the large-scale shopping mall; high speed highways and roji large as a person's shoulders.



Tokyo contrast in height,
photo by *Lukasz Palka*.

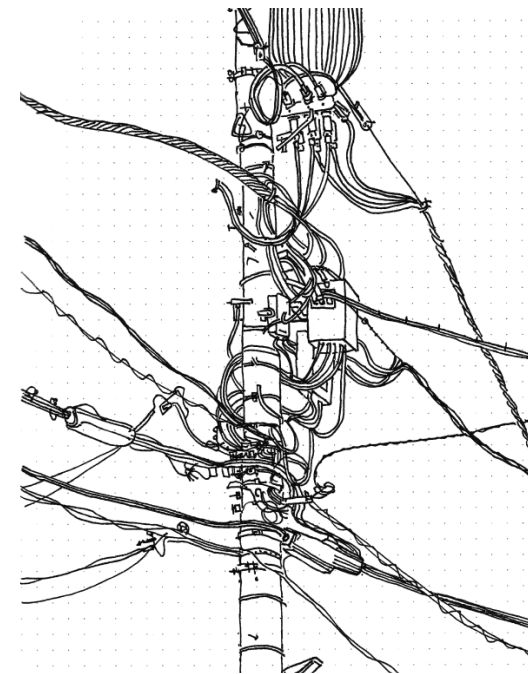
TOKYO MULTILAYER

東京多層

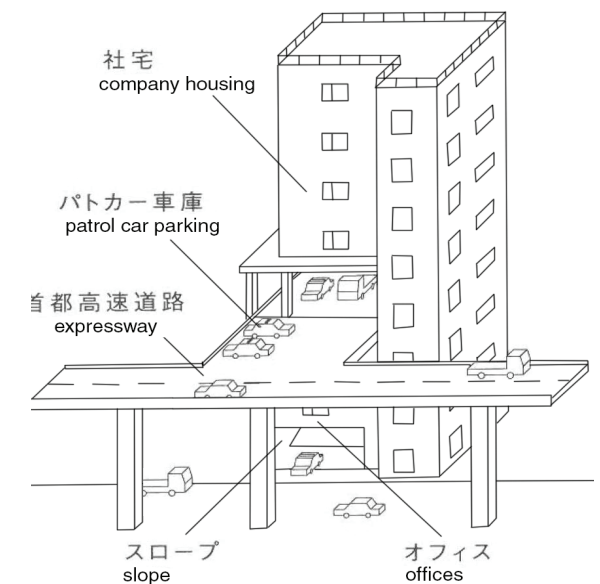
TOKYO IMPERMANENCE

Most of the buildings in Tokyo were built as surplus, over and above what was already existing, resulting thus as a system of overlapping historic urban layers (Kaijima, Kuroda e Tsukamoto 2001). It almost seems that in order to remain coherent with its non-order of the urban system, Tokyo translates the same non-order into its architecture. The Japanese multi-storey building contains within the most disparate services, mixed together without any functional logic. Any particular building of this cannot be specifically classified as architecture, or as civil engineering, city or landscape, but more like the sum of all these together. Atelier Bow-Wow decided to name such situations of adjacency “environmental units”. “We are in a fluid situation, where rigid distinctions such as between shallowness and depth or front and back, private or public, are easily overturned by a shift in the setting of the ecological unit” (Kaijima, Kuroda e Tsukamoto 2001). Contemporary Tokyo situation is a crazy mixture of the

main-product and by-product of modernization. The differences in scale and height between the elements that make up the city have seen the creation of an unusual skyline, characterized by holes, unused urban voids. Yoshiharu Tsukamoto define by-product as the gap between building born from the random juxtaposition of them, resulting as dead space (Kaijima, Kuroda e Tsukamoto 2001). The challenge for a city like Tokyo, devoid of spaces in which to build, is to think of a creative and intelligent way to use the so-called by-products. This architectural category indicates spaces currently unused, urban voids to which the current attitude is a kind of void-phobia, which seeks to fill the gaps without paying particular attention to the real potential of the place. They often become the seat of vending-machines, paid parking or smoking area, thus not taking into consideration the possibility of using them as tools for the future urban planning of Tokyo (Kaijima, Kuroda e Tsukamoto 2001).



Overlapping light cables /
Expressway patrol building, multilayer building
from *Made in Tokyo*.





01.3

FUTURE : FROM THE CORE TO THE VOID

As we said, Tokyo has always been Metabolic in some way. In this chapter two similar, but contrasting, architectural movements are compared: Metabolism and Void Metabolism. Along with the same aim -the overcome of the city limits- they look for the solution in different and almost opposite ways, also validating the different historical period in which they develop. If the one of the 60s saw the potential of the city growth in the fullness, growing accumulating around a core; that one of the '00 sees as potential the city of the voids, remained the only urban spaces that can still be colonized.

OVERCOMING LIMITS WITH UTOPIA

とのオーバーライジング制限

FUTURE : FROM THE CORE TO THE VOID

If previously the geographical condition of islandness was known as Japan limitation, after the dizzying growth of Tokyo in the post-war period, became known as Japan impossibility. The 1960s decade was a period of immense and unexpected faith, both from an economic and technological point of view, going to feed the dream of renewal and change that the Japan was looking for after the destruction of the bombs. The sudden growth of the population in Tokyo had as a natural consequence the change of the historical morphology of the city, which in a short time doubled its original dimensions.

The city advanced inexorably, absorbing the available ground in every possible way, in order to respond to the new population needs. As long as it was possible, Tokyo's limits expanded horizontally, when the space was exhausted the city began its vertical growth, but soon it becomes clear that not even this was enough. In a short time, the archipelago had run out of space. It became necessary look for solutions to the urban crises caused by Japan's explosive economic growth and its unstable and scarce land (Koolhaas e Obrist 2011).



Haus-Rucker-Co, *Installation Oasis no.7*

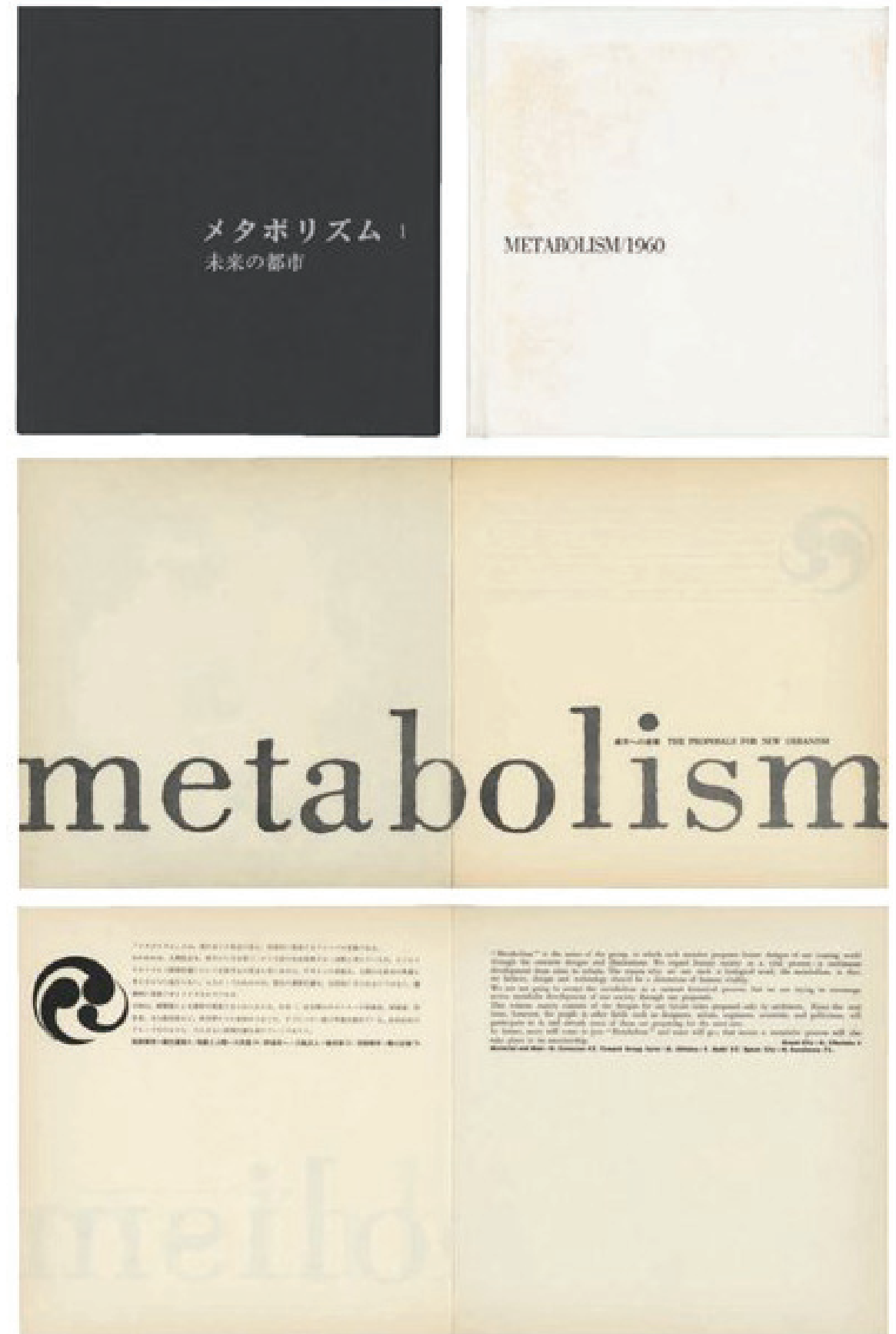
The utopian conditions of wellness and progress that Japan was living in those years, was like a fertile ground for equally utopian and avant-garde minds. A group of young architects, called Metabolists, were ready to transform what was felt as an insurmountable limit, the lack of empty land, into an architectural opportunity for a new impossibly growth. "If there is no more ground to build on, Metabolism will adapt and build its own ground" (Koolhaas e Obrist 2011). Riding on the global wave of hyper-engineering, the Metabolist utopia seemed possible. The answer that the architects proposed to a city that was too densely populated, stucked between the sea and the mountains, seismically unstable, was simply to create a new surface, an artificial ground upon which build. The problem of the lack of soil was overcome considering the ground no longer as the only place in which built, but looking for new solutions in every direction: on the land, on the sea, on the air (Koolhaas e Obrist 2011). "The group codifies its work and concepts in a short book that is something like a manifesto: *Metabolism 1960: The proposal for New urbanism*. They suggest a new architectural strategy: "buildings and cities must be able to adapt, grown, elevate, even float, if they are to survive the dual pressure of rapid modernization and inevitable natural change" (Koolhaas e Obrist 2011). The diversity of the personalities that composed the group, was equal to the sum of the different personalities of which Japan was composed. The Metabolists presented itself as a varied group of artists, intellectuals, architects, first of all Tange, followed by personality as Isozaki, Kikutake, Kawazoe, Maki, Kurokawa, among which the common denominator was the overcome of Japan impossibility.

METABOLISM

代謝運動

FUTURE : FROM THE CORE TO THE VOID

"Metabolism is the name of the group. We regard human society as a vital process, a continuous development from atom to nebula. The reason why we use such a biological word, metabolism, is that we believe design and technology should be a denotation of human vitality. We are not going to accept the metabolism as a natural historical process, but we are trying to encourage active metabolic development of our society through our proposals."



FLEXIBLE AND EXCHANGEABLE ARCHITECTURE

柔軟で更可能なアーキテクチャ

FUTURE : FROM THE CORE TO THE VOID



Immediately, flexibility and modularity became key words in their design approach. The growth of the city had to take place through accumulation: a central tower functioned as a core, into which living units could be plugged, as capsule. "In their imagination the landscape of future cities will be determined by a colossal aggregation of individual unit space" (Koolhaas e Obrist 2011). It is not a coincidence that the Caspsule Tower by Kurokawa became the icon of Metabolism: 144 capsules, prefabricated in a factory normally producing shipping containers, are plugged into two main cores, heralding the era of moving and changeable architecture (Koolhaas e Obrist 2011). In the same years in Europe, the provocative group Archigram, faced the same themes and proposed solutions similar for the growing cities. Peter Cook, with his project Plug-in City, imagined a city of the future consisting of a series of central

cores to which were attached modular residential units as if they were plug-in attachable and removable elements. His thought has to be understood in a more extended sense of the single building, the concept of expandable framework had to be applied to the entire city: the megastructures contained residences, schools, services and transport, able to change and adapt to the needs of the city in evolution. "Imperative for Archigram's generation was to create 'open ends', an architecture that would express its inhabitants' supposed desire for continuous change" (Sadler 2005). This tradition of continuous change is deeply rooted in the Japanese culture of building cities and buildings as temporary. An emblematic example is Ise Shrine, which is cyclically reconstructed every 26 years since 690 CE, and represents the quintessence for Metabolism's ethos of impermanence (Koolhaas e Obrist 2011).

Capsule Tower by Kurokawa, from
Project Japan: Metabolism talks

VOID METABOLISM

空隙代謝

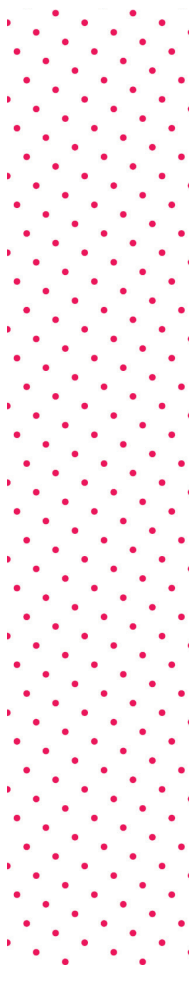
FUTURE : FROM THE CORE TO THE VOID



Photo by
Jan Vranovsky

However, the design approach of vertical spaces to support crowded horizontal urban density, it has not proved to be an effective solution. Over time, the design approach of the city has reversed its principles: if first the attention was placed in the addition, in the fullness; now is designed the city of empty spaces, paying attention to the city's gaps as a potential strength for Tokyo's future growth. Fifty years after the birth of the Metabolism, other architects, equally avant-garde but less utopians, reflected on the evolutionary and metabolic nature of the city, but declined in different terms. The urban regeneration of the '60s started for the Metabolists from the capsule, from its ability to be modified and renewed over time, and from the composition of vertical core. Instead, for Atelier Bow-wow, the regeneration of contemporary Tokyo is not around a core but a void, referring to the left-over space between buildings. What they're doing in the 2000s it's also a way of metabolizing the city, it's "void metabolism" renewing the city starting the urban absence (Kitayama, Tsukamoto e Nishizawa 2010). The particular conformation of Tokyo, composed of millions of isolated-buildings islands, without formal homogeneity, with different and contrasting heights, has led to the creation of numerous urban voids between the buildings.

"Tokyo, the largest city in the world in the one land, and the void and vacancy in the other land. In light of city's specific urban condition of extreme density, scarcity of space, rapid transformation, and urban growth, why these urban voids were not used or even considered for alternative design?" (Jonas e Rahmann 2014) If Metabolism answered to the question of space by creating a new artificial ground on which to build, Void Metabolism can exploit the same principle, but using the existing low-rise buildings as new ground zero for the urban community growth. "In a future of increased building density, the current ground floor, concerned as base of the ordinary urban experience, could be shifted on above high-rise buildings, opening to an innovative and alternative urban vertical expansion of filling the existing voids" (Jonas e Rahmann 2014). Alison and Peter Smithson's thinking about the As Found principle, can be considered as a starting point for the design approach of the contemporary city. Whereas we relate to an already extremely built urban reality, rather than an environment with new development, one of the great challenges faced by today's architects is the creative handling and inspiring transformation of such architectural remains (Klanten e Feireiss 2009).



20

TOKYO SOCIAL INTENSITY

CHAPTER TWO

東京社会的口さ



02.1

BE PART OF SOMETHING BIGGER

The answer to all the problems of the city, lies in the city itself and in the people who live there. It is therefore important to take a step beyond the physical dimension of Tokyo, to try to understand more closely the people within it, to understand the sense of community that drives them, intended as a sense of belonging and responsibility towards the place in which they live. In this chapter I give voice to people's ability to design the surrounding space spontaneously, simply by living it. Emphasizing the potential of a bottom-up participatory planning instrument, called in Japanese *Machizukuri*.

JAPANESE BELONGINGNESS TO THE CITY

日本の都市への緊張

BE PART OF SOMETHING BIGGER

To generate a project capable of responding to the new needs of Tokyo, both in terms of land use and social spaces, it is first necessary to understand “how in one of the densest cities in the world, residents feel belongingness to the city” (Padron Rodriguez 2018). The sense of community is a very strong feeling in Japanese culture, even if it differs from the western common meaning. Here the collectivity is not composed of single individuals, but each person contributes to a bigger purpose, the one of the community. As a result, the opinion and characteristic of each of the individuals get diffused into the group, creating one single element (Inoue 2007). This difference in the meaning comes out clear from the fact that there is no Japanese word that means community, in the meaning we commonly know. The most widespread one is “Komyuniti”, which is a phonetic translation from English, written with the characters of katakana. Setsu Inoue, in his “A study of Japanese sense of community”, try to find out what could be the original Japanese words comparable to

the western denotation, analyzing the terms *Shakai* and *Seken*. The two have similar but not same meanings: the first can be simply translated with “society”; the second one has a more complex acceptance, which cannot be reduced in simplistic terms to “collective”, but that include also a sense of responsibility and attachment to the space they live (Inoue 2007). The sense of belonging to the community is also part of Japanese heritage for the historical events that have affected the country. The numerous series of destructions that struck Japan during the last century, both natural and bellicose, meant that a stronger relationship developed within the community, seen as a safe and reciprocal helpful place in case of need. People living in the area of the city which survived the destruction, are very concerned about preserving what is left, feeding a strong sentiment for this living heritage (Padron Rodriguez 2018). This sense of belonging to something bigger, allowed citizens to become more aware of their city, and encouraged them to promote a new kind of urbanism participation called *Machizukuri*.



Local festival celebration, by *Lukasz Palka*

SPACE DESIGNED BY PEOPLE

人が設計した空間

BE PART OF SOMETHING BIGGER

The idea of architecture dropped from above has often been unsuccessful. What was imposed by architects and designers after careful and thorough analysis was often modified by those who had no knowledge of the subject, but had knowledge about the place inhabiting it. What was the problem? What was not taken into consideration by the architects? Maybe the non-predictability of people, the idea that the project is not deducible from a mathematical formula, the idea that we will never reach a correct answer, but perhaps the most appropriate way to approach it is by observing the habits of people living the space around them. This kind of approach belongs to a wide architectural thought, developed parallel to the emergence of Metabolism in England, where architects such as Cedric Price, the Smithson and the Team X emphasized the necessity of architecture as a question of time and not just as a question of space, proclaiming the need of a more appropriate connection between the city form and its psychological and social needs (Koolhaas e Obrist 2011). For the first time, non-objective factors of the city are considered, as a complex system which also includes personal experiences and the social dimension. It's called **everyday urbanism**, and address the attention toward the residual, the voids, the fragments and the empty space of the city, learning how to look at, describe and finally design them. The analysis of the society and how space is spontaneously produced by it, can help us to understand how the urban voids of Tokyo can become shared resource for the people, rather than individual properties.



The independent group, promoter of everyday urbanism
E. Paolozzi, P. Smithson, A. Smithson, N. Henderson.

MACHIZUKURI

まちづくり

BE PART OF SOMETHING BIGGER

Machizukuri has to be mean as a bottom-up participatory planning instrument (Jonas e Rahmann 2014), where the local resident work in cooperation with the government to make their place attractive and appropriate to live in (Evans 2014). The term Machizukuri derives from the union of two different words: maki + zukuri. The first one can be translated as “city”, not only in its physical meaning, but in a broader sense as a place in which social interactions take place; the second word is instead the gerund of the verb to make. In general, therefore Machizukuri can be understood as the will of citizens to create their community, not simply relying on governmental decisions but involving the locals in the planning. The origin of the term is ambiguous and vague. Its spread starts from the post-war period, when the changes in the city become substantial and

people start to be aware about the right to decide their lifestyle. Strong communities started to get formed to express their opinion about city planning, an example is the case of the University of Kunitachi, which together with the residents gave life to a participatory planning for the design of a quality area where to live, for this occasion the term Machizukuri was published for the first time by the professor Shiro Masuda in one of his article (Padron Rodriguez 2018). From this moment the term slowly begins to enter the bureaucratic decrees. Until 1922 citizen's participation was implemented, however it was always considered more a suggestion than a real decision, but with the introduction of the Amendment Law Machizukuri became a reality in Tokyo, and every city decision should be done through public participation.



Photo by *Nguan*



02.2

FOCUSING ON PEOPLE BEHAVIOUR

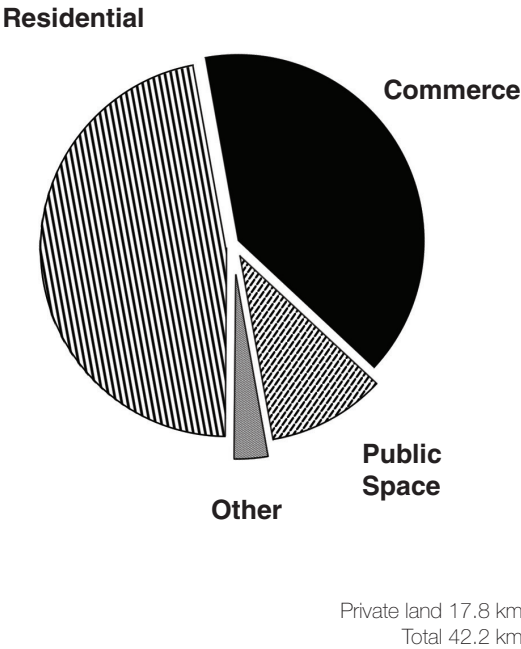
The first risk to avoid in observing a culture different from ours, is the presumption of knowing it comparing with ours for the things they have in common, or those that do not have in common. In this case, describing the Japanese public spaces with the meaning that we Westerners give. In this chapter I tried to do the opposite, I asked myself the question "Where do people meet in Tokyo?" and I tried to answer simply by observing their habits and behaviors. The deduction I have reached is that it is not possible to draw a clear boundary between what is public and what is private, and that the street is the main place where social interactions take place.

DENSELY BUILT / POORLY LIVED

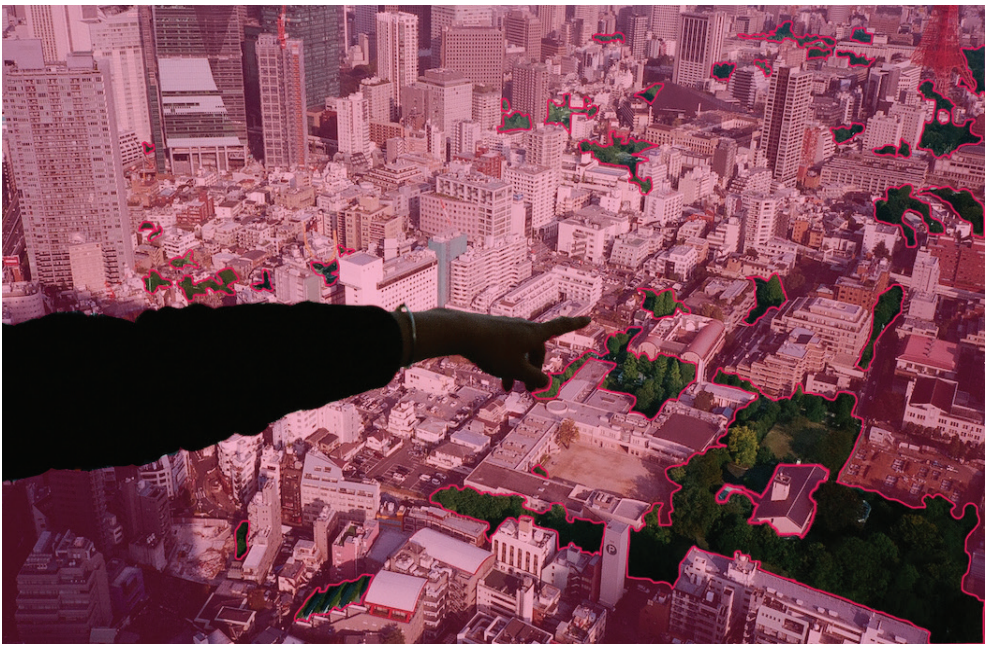
密集している/不十分に住んでいる

FOCUSING ON PEOPLE BEHAVIOUR

Playing on words by deduction: urban density is urban intensity. Urban intensity is about people intensity. People are where they need to be, or where they like to be. Consequently, the urban is the place where meaningful social activities, conversations and intense experiences take place. That's why, among the many contrasts of Tokyo, this is the one that surprises me most: the most populated city in the world, and at the same time one of the most lacking of public spaces. If in the collective imagination Tokyo is synonymous with extreme urban construction, lack of free land, is it possible that in all its square kilometers of extension there is no space for public social interaction? Isn't the city, according to Lefebvre, the spatial projection of society on the ground? (Lefebvre 1991) Where do people meet in Tokyo? The intense use of land and a basic cultural difference in the living of public spaces, mean that in Tokyo a small percentage of the total area is dedicated to parks, or more generally to public spaces: only 6.3%, compared to 24% of New York (Sacchi e Mercuri 2004).



Land use in Tokyo central wards, from Tokyo Metropolitan Government, "Tokyo Land 2014 (land-related data)" (October 2015).



From Somewhere to Elsewhere
by Lukas Korschan

A few big parks have been introduced during the Meiji restoration, but the majority of public spaces are a miniature niche, almost hidden in the urban texture (Radovic e Boontharm 2012). Furthermore, the vertical growth that has invested the city in recent decades, has not helped to enhance the few open spaces left, forgotten by the development processes of the city, more focused on large-scale interventions. New strategies for the design of public spaces are needed, and the residual space of the city has to be considered as a possibility in the future urban planning (Radovic e Boontharm 2012).

TRANSLATING *PUBLIC* IN JAPANESE

日本人の

FOCUSING ON PEOPLE BEHAVIOUR



A strategy of this kind is difficult to apply in a city where the boundary between public and private is blurred. So probably the most correct question to ask before start is: "how does the density and the intensity relates with public and private space in Tokyo?" (Radovic 2013) Growing up in a completely globalized Western world, has limited my views on the rest of the world not completely Westernized, using certain terms without thinking, assuming that the meaning that I attribute to a particular word

is the same even for a person who has grown up in a cultural context different from mine. Public is one of such words. In my imagination the concept of public makes sense if in opposition to the concept of private, thus indicating a knowledge, a good, a space shared with people who go beyond the narrow family circle. But the fact that the Japanese language does not have a word equivalent to the term public indicates absence of, or at least an unusual situation with, that concept.



Blurred boundary between public and private, photos taken by the author

Public interest in Japanese cities is a contentious issue, that goes to touch deeper issues, belonging to their culture individuality (Radovic & Boontharm, 2016). The conception of public space, as it is conceived in Europe, does not seem to belong to Tokyo. The parks and squares are dissociated from their idea of public lives, and even if we'd tried to impose this approach, they would not understand how to use them. Consequently, the design of spaces for the community must first of all

pass from the knowledge of their culture, habits and needs. With the change in the society, the traditional park and classic square may be obsolete, as they are not fitting for the needs anymore. New ones need to appear, more focused on being polyfunctional, so they can attract new people. These spaces could be open space, or buildings, or both, allowing the residents to feel closer to the community (Radovic e Boontharm 2012).



How people use public space, by Lee Chapman



Tokyo Jiyugaoka, diagram of where people meets

Since my arrival in Tokyo, I understood that my foreigner's eye saw differently from the local ones. Perhaps the value of my words does not lie in discovering something new, but more in pointing to some maybe obvious but overlooked facts (Radovic 2013). For example, what I have understood, is that In Japan the lack of open spaces creates the need for using other spaces as a community focus, social relations take place inside, in the space left free, in the streets, in small-scale spaces. There is an ambiguous border between public and private realm. The urban setting emerges spontaneously from a collaboration between public, private and nature. In the West there is always an intention behind design, in Japan spaces like this are ad hoc creations, in which public and private leak into each other (Radovic e Boontharm 2012). If what Bagnasco writes in "Traces of Community" is true, that cities and roads are in fact two aspects of the same reality, in Japan this affirmation is fully applied. Tokyo feeds on movement, but also organizes and produces movement; and the street, together physical and social reality, does not join only distant points of the city, but develops and regulates an internal movement made of interactions and social exchanges (Bagnasco 1999).

“MEASURING THE NON MEASURABLE” *

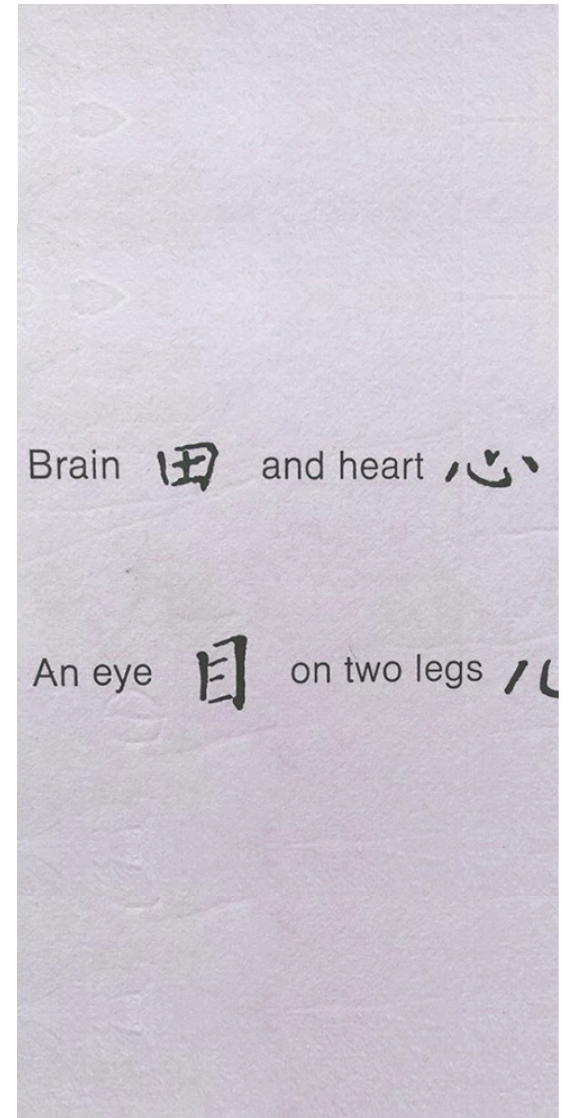
都市の感性

FOCUSING ON PEOPLE BEHAVIOUR

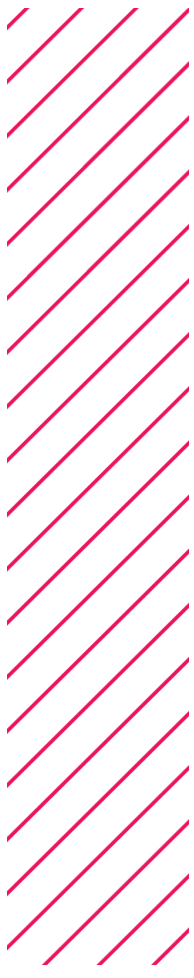
“The city is a settlement with a soul” (Radovic e Boontharm, 2016). The design approach that I try to achieve, start taking into consideration most of all his soul. My research begins from a careful study of the work done by the International Keio Institute of Architecture and Urbanism on a definition of the urban in a non-reductive way, but in a qualitative term. **Measuring the Non-Measurable: Tokyo Derivè** is the result of researches conducted by Professor Darko Radovic and an interdisciplinary team among architects and urban planners, whose efforts were to analyze the city as a whole, seeking the sense of what Levi-Strauss named “total social act”- a system of interpretation accounting for the aspects of all modes of behavior simultaneously, physical, physiological, psychical, and sociological (Augè 1998). The term “measurable” in the title is intended to be a provocation. “An important aim of the project is to challenge the unsustainable schism between “measurable” and “non-measurable”, combining at methodological levels standard research practices with emerging sensibilities” (Radovic 2013). The approach aims to describe the city in the Lefevrian entirety of “oeuvre”,



developing a new design vocabulary that takes into account not only numerical and objective data, but also includes behavioral qualities of the city. If Tokyo is the product of the people that inhabits it, it becomes fundamental for its urban improvement to include subjectivity, difficult to measure but important in order to answer the social space needs effectively and functionally. This design approach is similar to the method developed by Lefebvre as “Rhythmanalysis”, and subsequently resumed by the Atelier Bow-Wow with the concept of “Behaviorology”. In both cases the object of interest is the relationship between the subject, the time and the space: the behavior that an organism assumes in adapting to a given environment, or in our case the relationship between the human being, the architecture and the surrounding environment (Escher e Komura 2013). The aim of this research is to understand how space is produced by society, how in everyday life people take possession of the space around them to meet their needs, generating unplanned habitats and spontaneous activities (Radovic e Boontharm, 2012).



* Title from the workbooks series “Mn'M” by co+labo



3

FROM THE NEED TO THE PROPOSAL

CHAPTER THREE

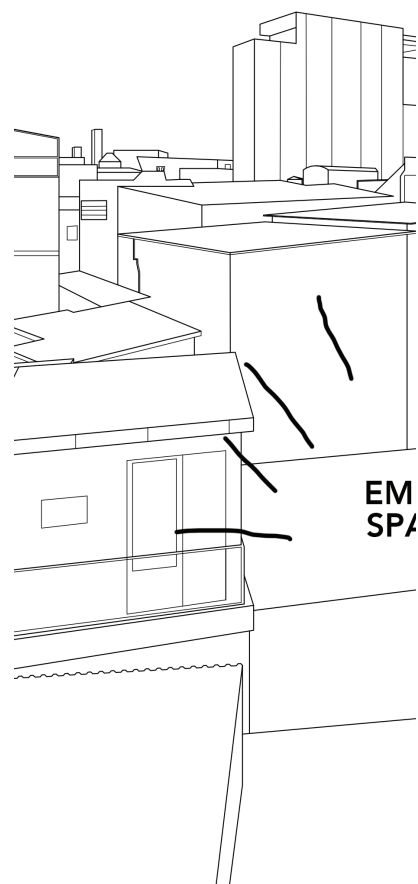
3

から必要に至るま

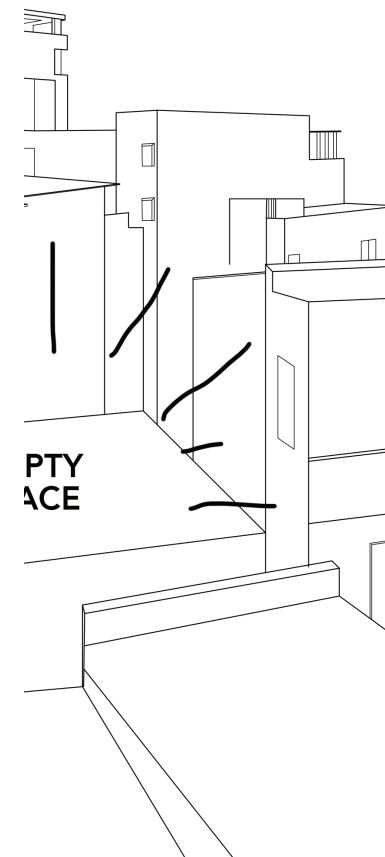
POSSIBILITY IN SKYLINE VOID

スカイラインボイドの可能性

FROM THE NEED TO THE PROPOSAL



The understanding of Tokyo possibility in filling the empty space in height, start from the approach with SmallTokyo — a collection of essays edited by Darko Radovic and Davisi Boontharm. Through different theoretical lenses, the book brings to light how two aspects live alongside one another in Tokyo: that of irreplaceable largeness of the city, and the ubiquitous presence of the small (Liotta 2012). The book demonstrates how this particular condition of intimacy, is rediscovered culturally in small spaces in Tokyo. Micro public spaces are as spatial condition capable of generating a stronger sense of community, stimulate the social interaction, and generate positive psychological effect. Why then not look for this sense of community in the urban gaps between buildings?



If, as we have said several times before, the lack of a precise planning system has led to the emergence of a manifold skyline in Tokyo, where the heights of the buildings differ and contrast each other, new building settlements starting from the empty height could be an alternative architectural strategy. If the architects of the past were called to rebuild, those of the present are called to modify the one already built, using the existing limits as stimuli for creativity. In response to city changes, new social movement are already emerging in Tokyo, in which people reoccupy and reinterpret small urban places creating new form of hybrid spaces that support diversity and creativity (Radovic e Boontharm, 2012).

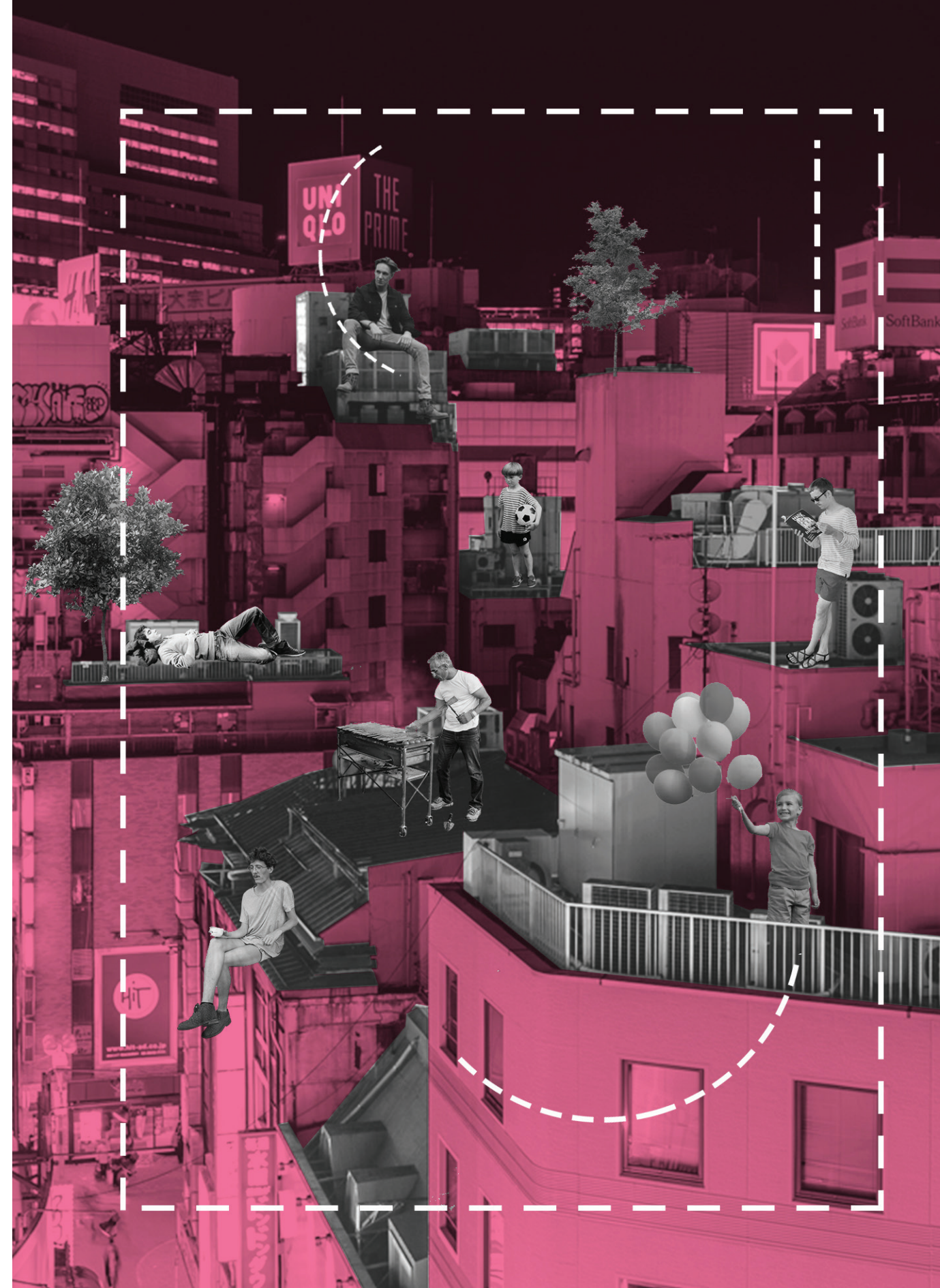
BUILD ABOVE THE EXISTING

存のビルドより上に構築する

FROM THE NEED TO THE PROPOSAL

The solution I propose in this research to the problem of land consumption can be the application of an urban planning policy aimed at densification, thus contrasting the uncontrolled expansion of the city (Papa 2012). Reading Tokyo for what it already is, an overlay of layers belonging to different times and typologies, what can be done is to intensify the actual architectural stratification by filling the existing urban gaps with new settlements, called to meet the needs of an evolving society. This type of vertical expansion of the city can be read as a stimulus to promote diversity in ways of living and inhabit residual spaces, breaking down the most conventional barriers of the human settlement (Minero 2012). Starting from the attention to the existing, in the case of Tokyo from the low-rise buildings, which flanked to the skyscrapers or those of large dimensions become empty

space on which to build new possibilities. As Pippo Ciorra specified in the introduction to his MAXXI exhibition, the new challenge must be “to build on around inside above, inhabit the existing instead of building, re-naturalize instead of re-urbanize”. With this project I try to demonstrate that a creative use of residual space is the key for new approaches, for live the city of the future. The analysis that will be reported in the following pages has been made retrospectively, starting with the intention to find a concrete application to this specific architectural strategy, going to break the analysis-project temporal dogma. After an overall observation of Tokyo, and the characteristics that distinguish its neighborhoods, I found in the district of Aoyama the optimal conditions for the build-above application, which will be developed more in depth in the following chapters.



REFERENCE : RAISE WITHOUT WEIGHING ON THE EXISTING

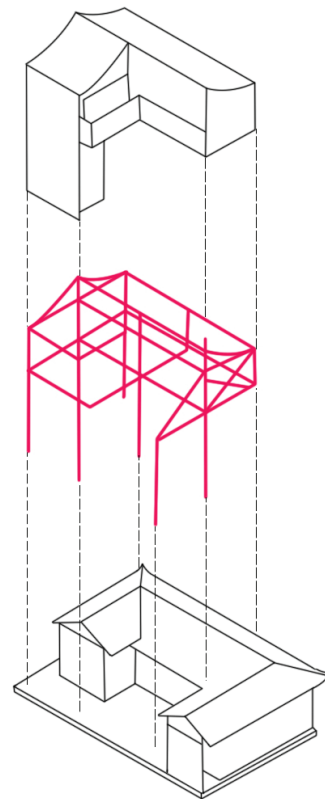
存の重さをやすことなく上げる

FROM THE NEED TO THE PROPOSAL

HANOK VERTICAL EXTENSION

by CoRe Architects

The elevation project was carried out by the CoRe studio in Seoul, South Korea. The request was to create an additional space to the present one, to be allocated to book coffee and office. The problems with which they had to approach were related to the ancient nature and the lack of resistance of the hanok. The expansion project clashed with the will to keep the pre-existence unchanged, preserving the traditional wooden structure. The design strategy adopted was that of making the new volume float above the previous house. The structure stands on steel pillars, thus presenting itself as a structure independent from the existing one. The result is an intervention in which old and new blend in a balanced way, the ancient hanok has kept its shape and make balance with the modern architecture at the same time.



Facade of the elevation, where the two volume are visible, from *Designboom*

REFERENCE : PLATFORM AS A CONTAINER

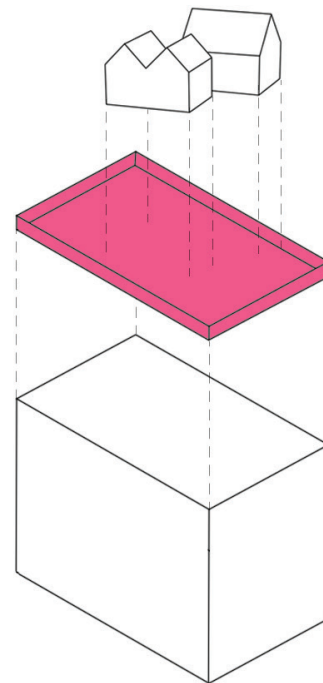
ナとしてのプラットフォーム

FROM THE NEED TO THE PROPOSAL

DIDDEN VILLAGE

by MVRDV

The project is located in Rotterdam, and arises from the need of the Didden family to expand their home-atelier. What MVRDV proposes is a rooftop expansion that create a crown on the top of the existing building. The extension is an example of the growing trend to exploit the urban roofscape for new living and working spaces (Archdaily). The raising project is designed as a rectangular platform of the same size as the roof, a container of architectures and situations. The negative space, residual from the houses with bedroom functions, become the place of outdoor activity, making the project similar to a rooftop village. The last trick to making the project even more original is the blue color, which indicates a clear division between what is old and what is new.



The contrast declared with the existing, from *Archdaily*

REFERENCE : FILL THE GAPS BETWEEN BUILDINGS

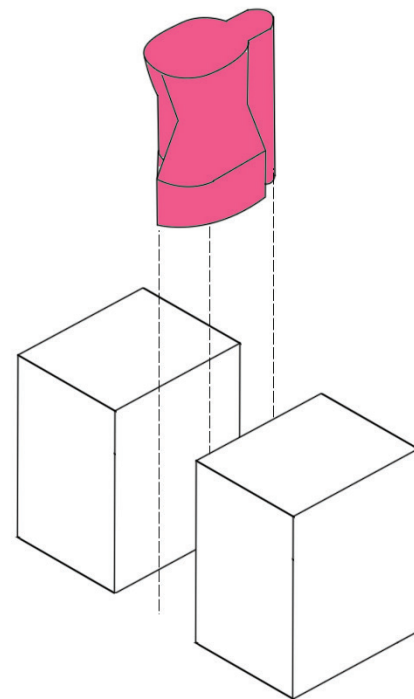
建物間の隙間を埋める

FROM THE NEED TO THE PROPOSAL

BREATHE

by SO-IL

This project belongs to an initiative called "Mini Living: big life small footprint" with the aim of encouraging the creative use of space into real solution suitable for the present overcrowded cities. Nestled between two industrial buildings, in an unused plot in Milan's Tortona District, the challenge for the SO-IL firm was to give new life to those 80 square meters of space in an innovative way. The architects "examine the in-between meaning, with a minimal eye and a daring sense of exploration in texture and proportion. The result is a poetic statement set against the backdrop of urban concrete and brick" (Mini Living). The use of a textile layer as a skin allows to make blurred the boundary between what is public and what is private, reinforcing the relationship between the inside and the outside, conceived as part of the same entity.



From *Mini Living*

REFERENCE : STACK BUILDINGS OVER THE BUILDINGS

の上に建物を積み重ねる

FROM THE NEED TO THE PROPOSAL

TOKYO APARTMENT

by Sou Fujimoto

The project is located in a low rise suburban neighborhood of Tokyo, and presents itself as an elementary answer to the lack of space: a pile of houses. It is a four blocks dwelling, looking like a child's drawing of a house, which vary in size, going to host an entire apartment, or single rooms. The concept has been compared by Fujimoto to a mountain, where the pitched roofs play the role of stairs, giving the occupants the sensation of climbing (Julian Worrall). The project has a very strong imaginative power, if it were not really built, it would have been an utopian idea, but instead found a real application in an open and experimental country like Japan. Starting from a limit, the high urban density, the project is a solution to overcome it, with an alternative architectural strategy that sees the overlapping of dwellings on the same plot.

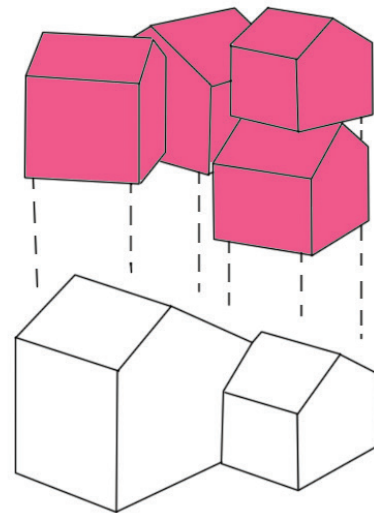


Photo by *Jonas Aarre Sommarset*



03.1

THE ZOOM-OUT: URBAN ANALYSIS

After the definition of the problem and the proposal of a solution, begins the application of this starting from a more specific analysis of the physical and morphological conditions of Tokyo. In this chapter we start with a general vision of Tokyo, up to enter more specifically about what is the district and the area selected for the application of the project. The zoom-out application allow to take a step back, considering not the single architecture but the context that define it, and which in turn defines (Escher e Komura 2013).

TOKYO DISTRICTS

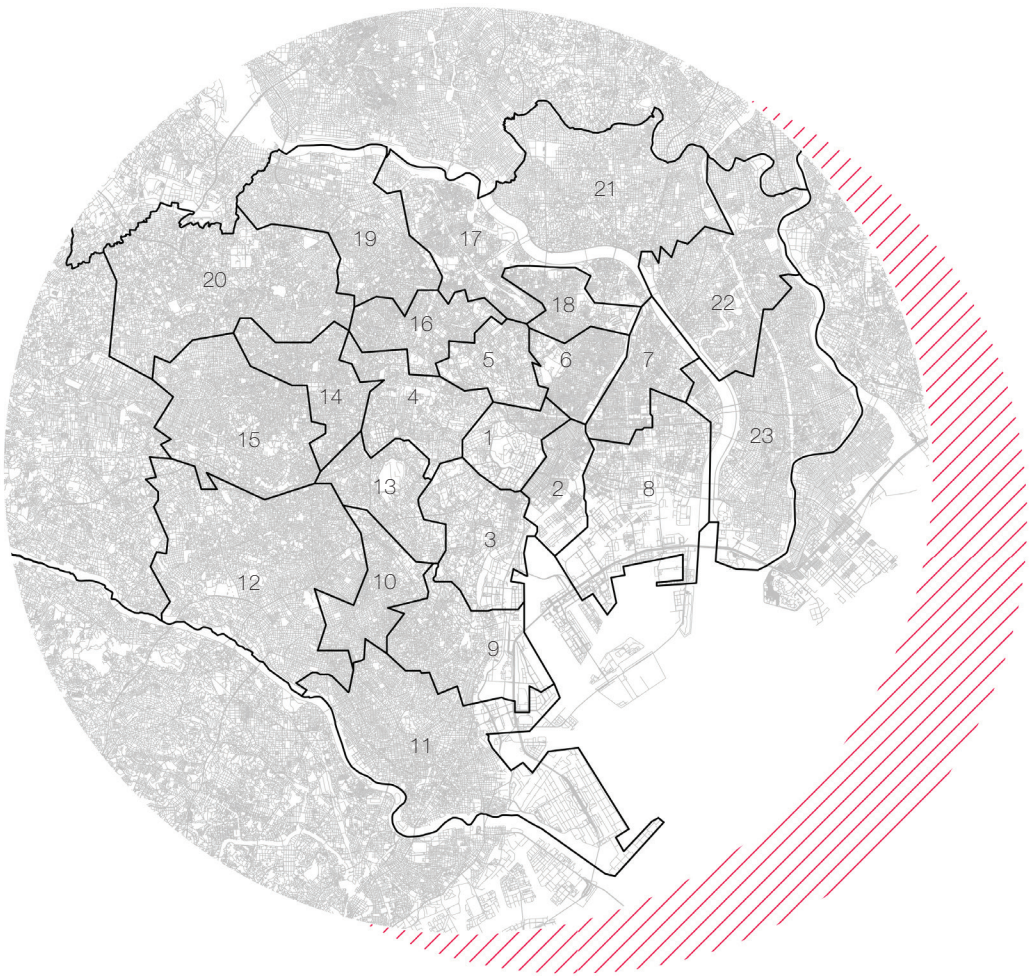
東京都

THE ZOOM-OUT: URBAN ANALYSIS

The variety of Tokyo made leads to the creation of proportionate various communities and different levels of social participation. To clarify the divisions within the city, we can rely on those made by the Government of Tokyo, each of which has influenced the type of community created inside. Tokyo is divided in 23 wards, 26 cities, 5 towns, 8 villages. Each ward is in turn divided into neighborhoods, here is where the community get formed. The neighborhoods are divided into blocks called Chome. The streets don't have a name and each of the blocks are numerated. Each of the numerated block is considered a community in official terms. The last degree of division translates into Chou Nai Kai, neighborhood association involved in the organization of community's activity (Padron Rodriguez 2018).

Wards identified
by Tokyo Municipality.

- 1. Chiyoda
- 2. Chuo
- 3. Minato
- 4. Shinjuku
- 5. Bunkyo
- 6. Taito
- 7. Sumida
- 8. Koto
- 9. Shinagawa
- 10. Meguro
- 11. Ota
- 12. Setagaya
- 13. Shibuya
- 14. Nakano
- 15. Suginami
- 16. Toshima
- 17. Kita
- 18. Arakawa
- 19. Itabashi
- 20. Nerima
- 21. Adachi
- 22. Katsushika
- 23. Edogawa

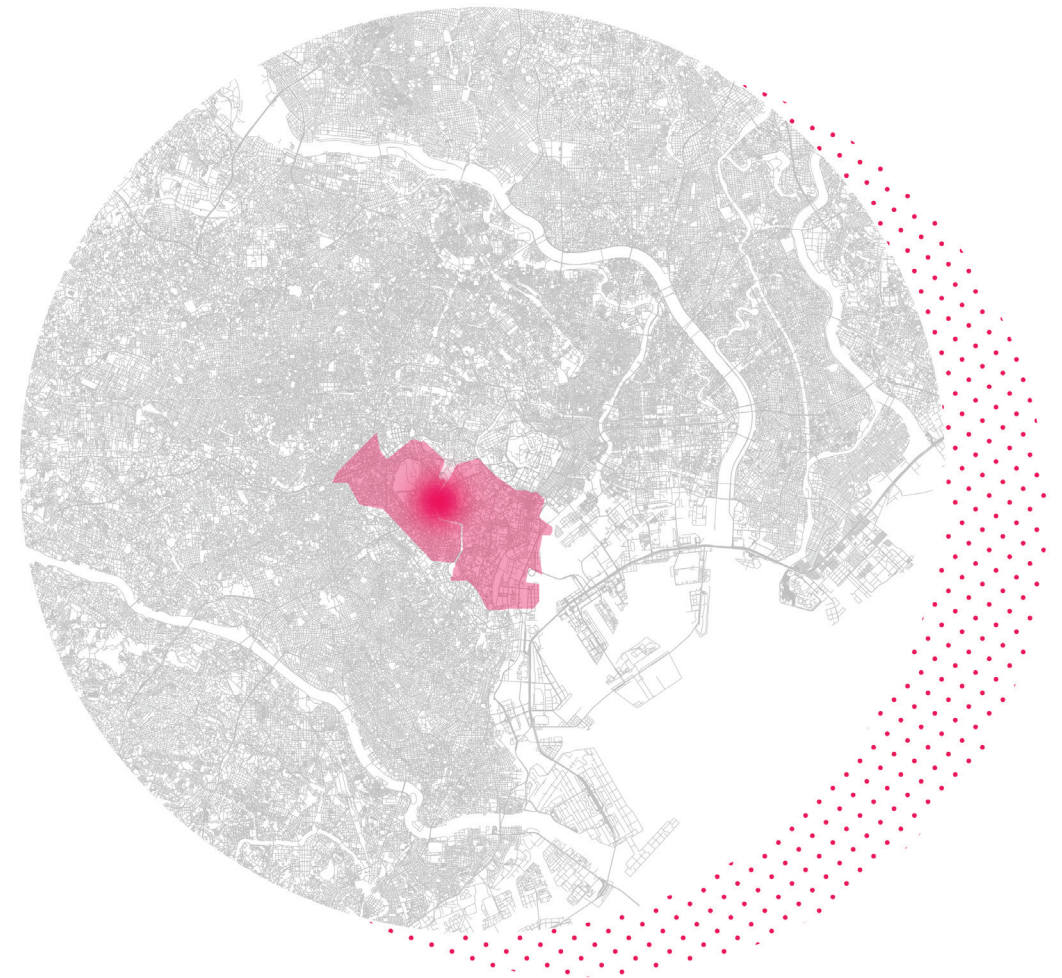


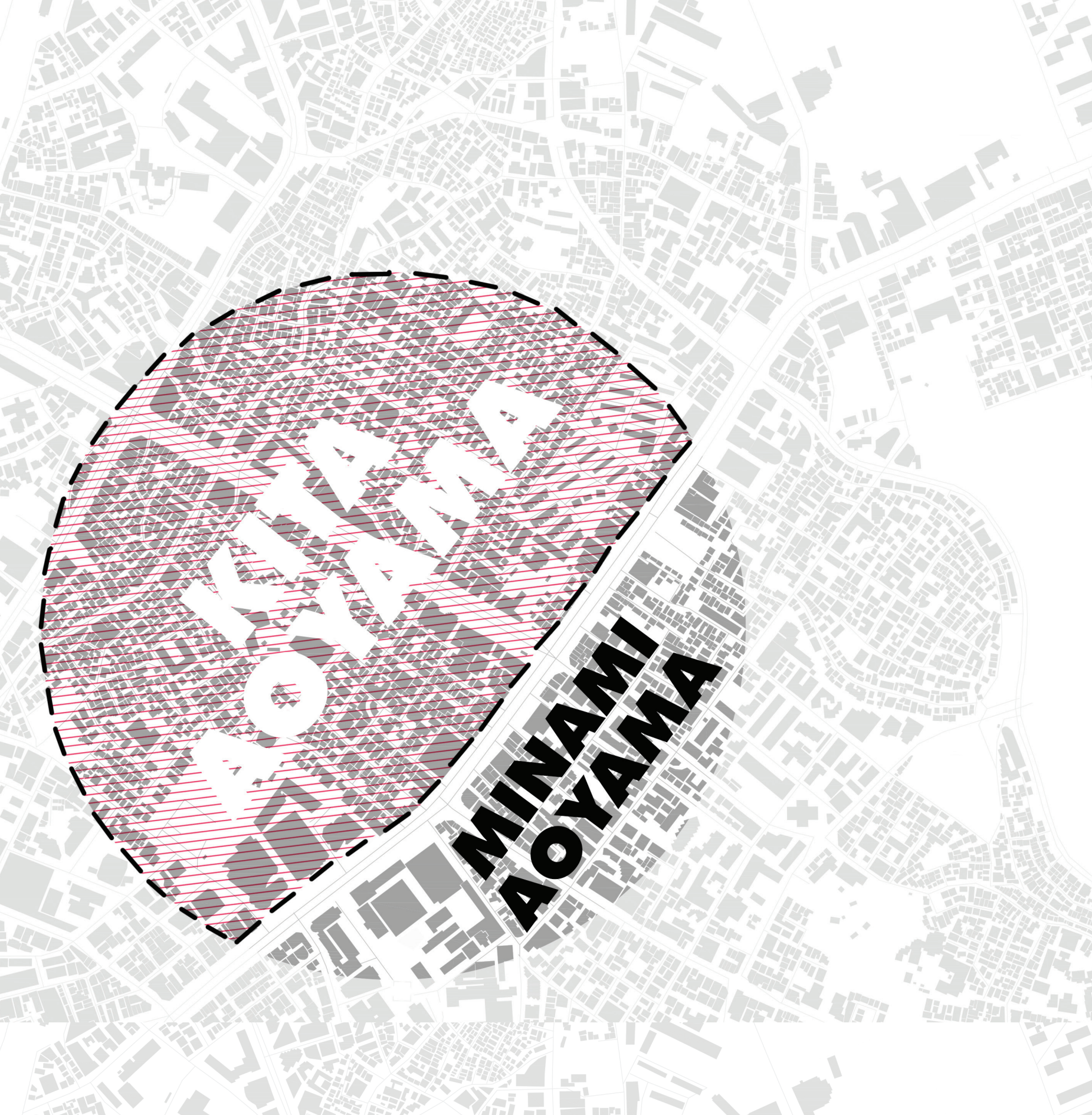
AOYAMA

青山

THE ZOOM-OUT: URBAN ANALYSIS

For the choose of the place where to develop my architectural project, I relied on the advice of those who had more knowledge of me about it, my co-adviser Japanese architect Kengo Kuma. After exposing my design intentions, he suggested to me the Aoyama district without hesitation, a perfect example in which find contrasts in the heights of the buildings, and apply the architectural strategy of filling the urban gaps. The area is located between Minato and Shibuya and has seen its popularity increase over the years thanks to a reconstruction and valorization project of 1964 in view of the Tokyo Olympics, where the main street Aoyama-dori, then only 22 wide meters, it was extended to the current width of 40 meters. It is an extremely young and creative neighborhood that has started in the last years to attract emerging artists, becoming a ground for creative development of hybrid lifestyle, where the layering of functions leads to living a slow life and combine work, private life and social interaction. This unconventional environment, open to innovation, motivated me to analyze deeper the area, in order to find the best low-rise building-plot in which apply my parasite-architecture.





From a morphological point of view the district is flanked on three sides by Tokyo's main hub of neon and social life - Shibuya, Shinjuku and Roppongi - and is divided into two distinct areas: Kita Aoyama to the north and Minami Aoyama to the south. The road that marks the boundary between the two is Aoyama-dori, which along with Omotesando-dori, its perpendicular, is the main street. Here the contrasting and varied skyline of Tokyo reaches one of its apexes. The two streets are flanked by buildings made by famous architects, of great size and height, which create a barrier to the buildings that develop behind them. In the same neighborhood coexist streets of 30 meters, linear, lined with skyscrapers; and streets of just two meters, twisted and convoluted, surrounded by low-rise buildings of few floors. Aoyama is a meeting point: the variety of people who stroll around is proportionate to the mix of functions and height that the buildings can offer.



03.2

INTENSILY BIG / INTENSILY SMALL

Using an approach similar to the one found in *"In Search of Urban Quality"*, the district of Aoyama is divided into layers, each of which is classified according to its intensity in bigness or in smallness (using Rem Koolhaas's approach defining XL, L, M, S, XS), allowing to make even more evident the variegated patchwork of which is composed the urban fabric of Tokyo.

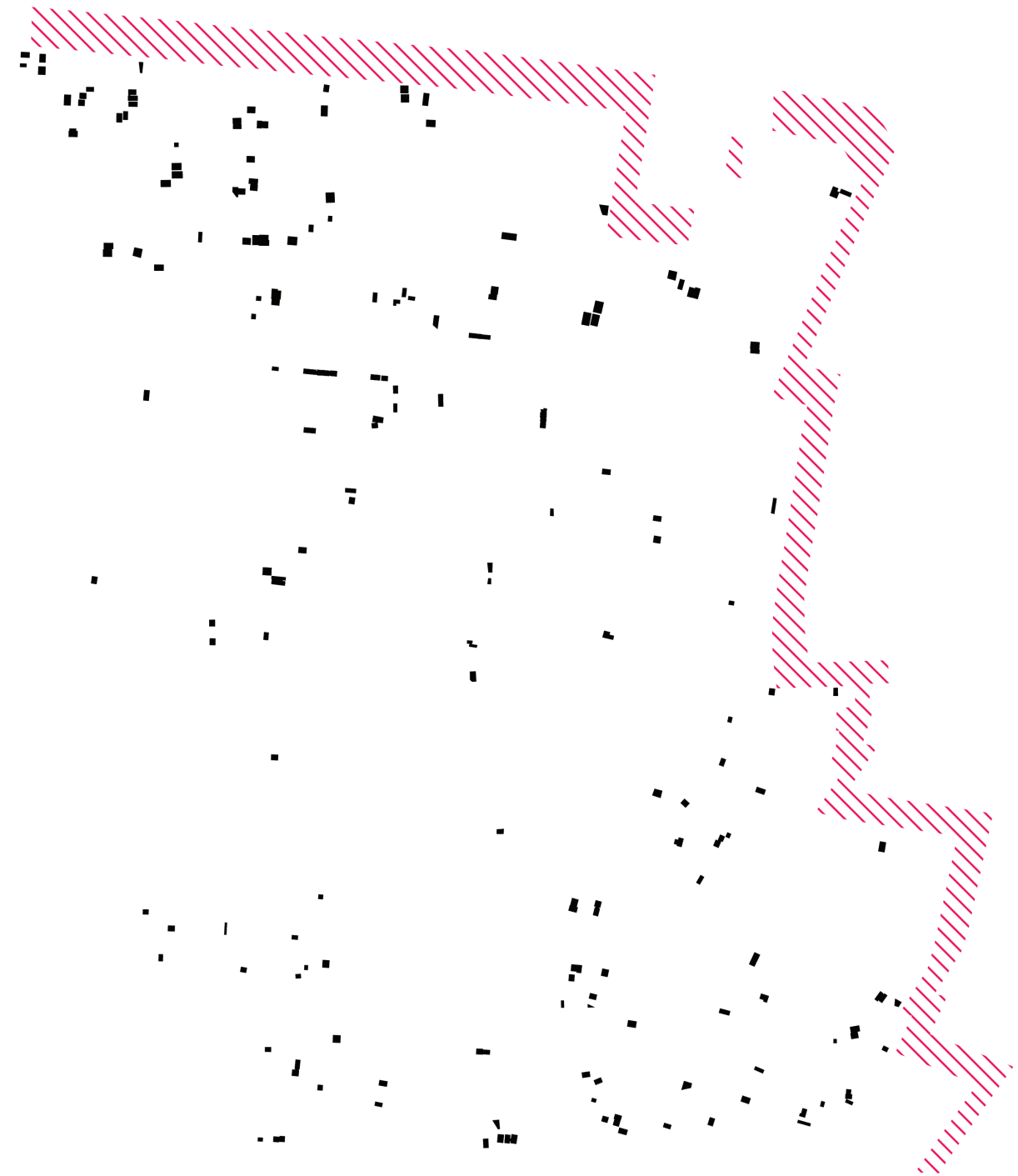
DE-LAYERING BUILDING AREA

建築エリア

INTENSILY BIG / INTENSILY SMALL

XL	701 - 29000 m ²
L	323 - 700 m ²
M	181 - 322 m ²
S	40 - 180 m ²
XS	2 - 39 m ²

Φ_N



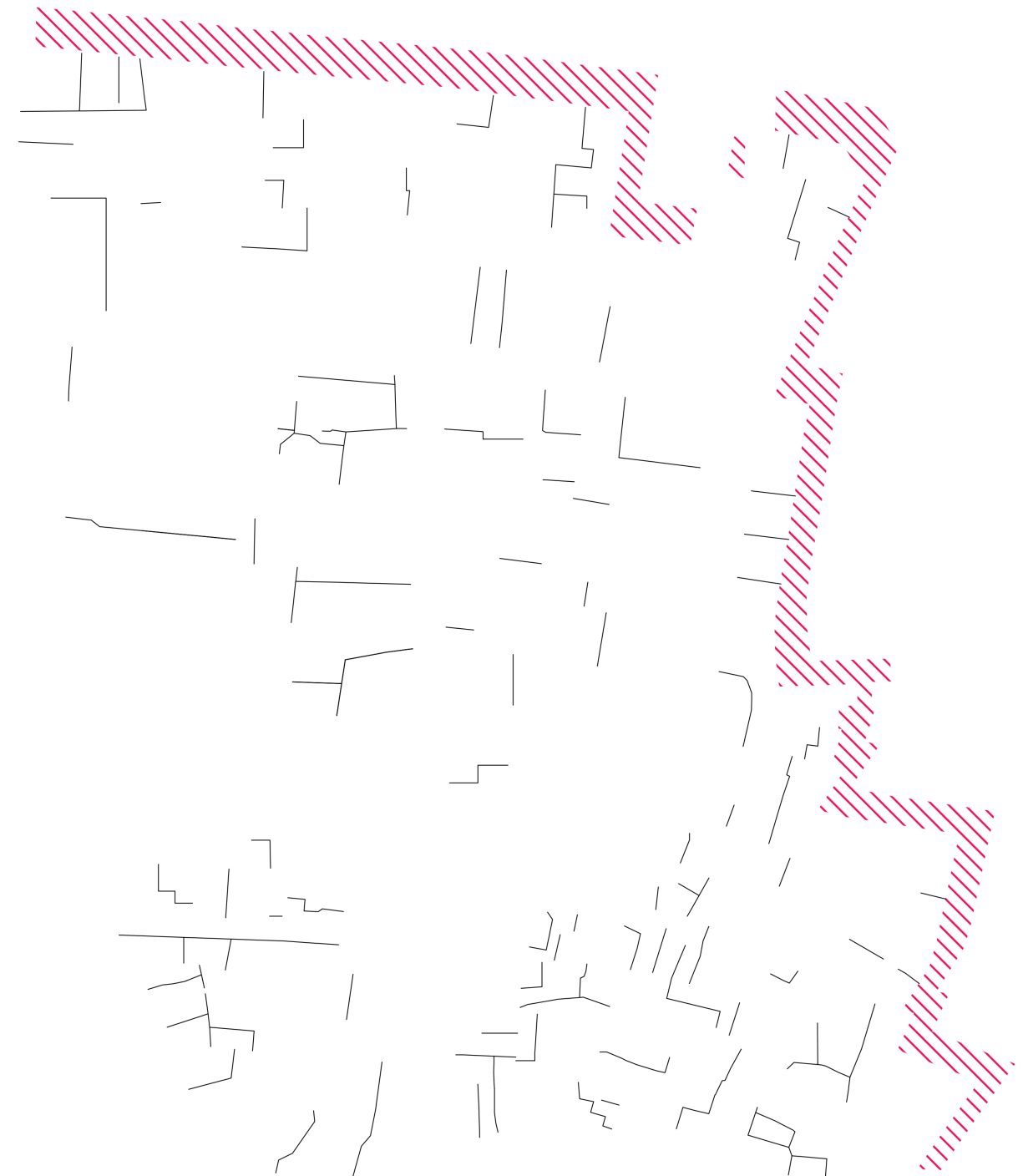
DE-LAYERING STREET DIMENSION

ストリートディメンション

INTENSILY BIG / INTENSILY SMALL

XL	16 - 35 m
L	6 - 15 m
M	3 - 5.9 m
S	1.5 - 2.9 m
XS	0.9 - 1.4 m

Φ_N

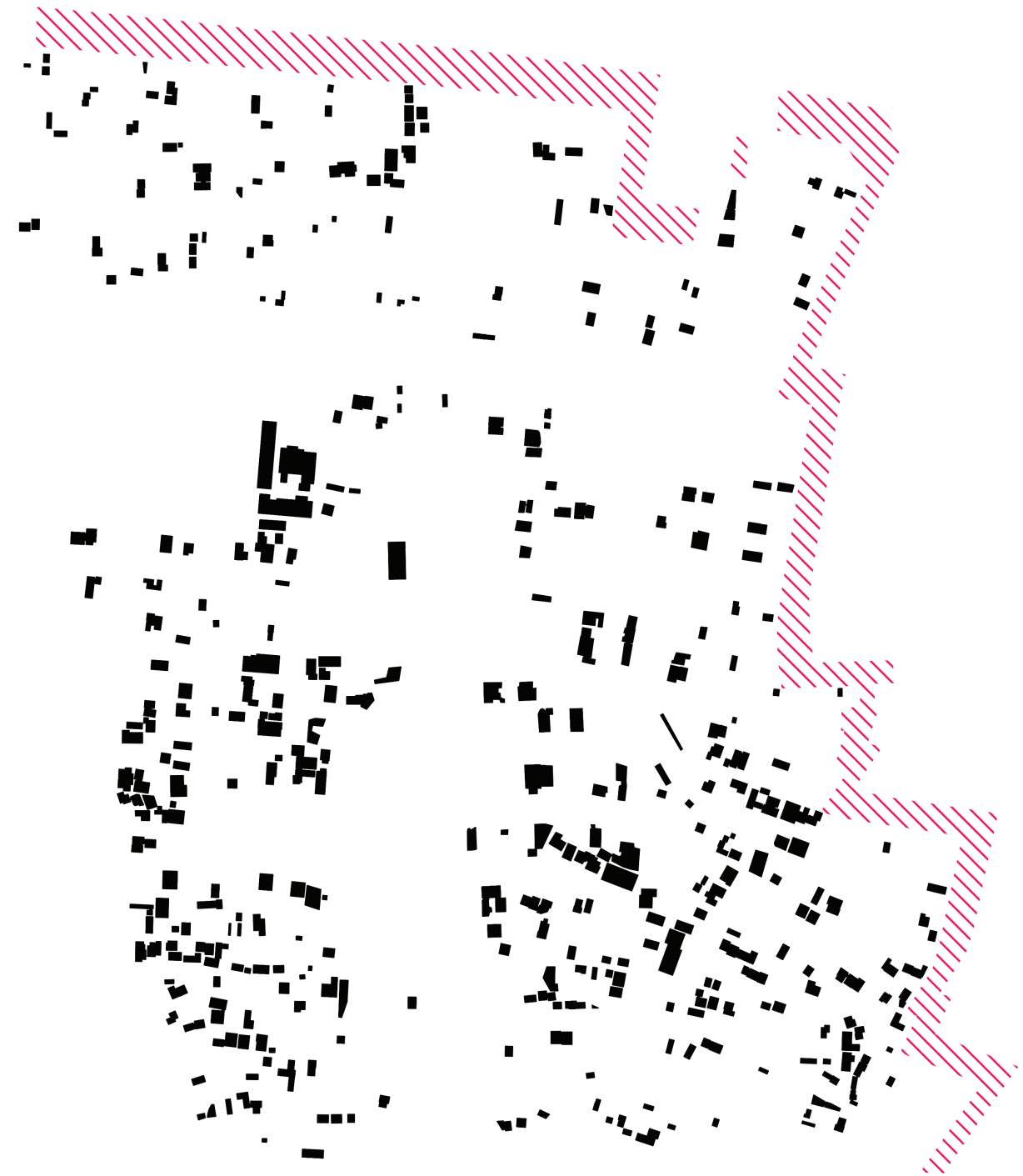


DE-LAYERING BUILDING HEIGHT

建物の高さ

INTENSILY BIG / INTENSILY SMALL

XL	13 - 25 floors
L	9 - 12 floors
M	6 - 8 floors
S	3 - 5 floors
XS	1 - 2 floors



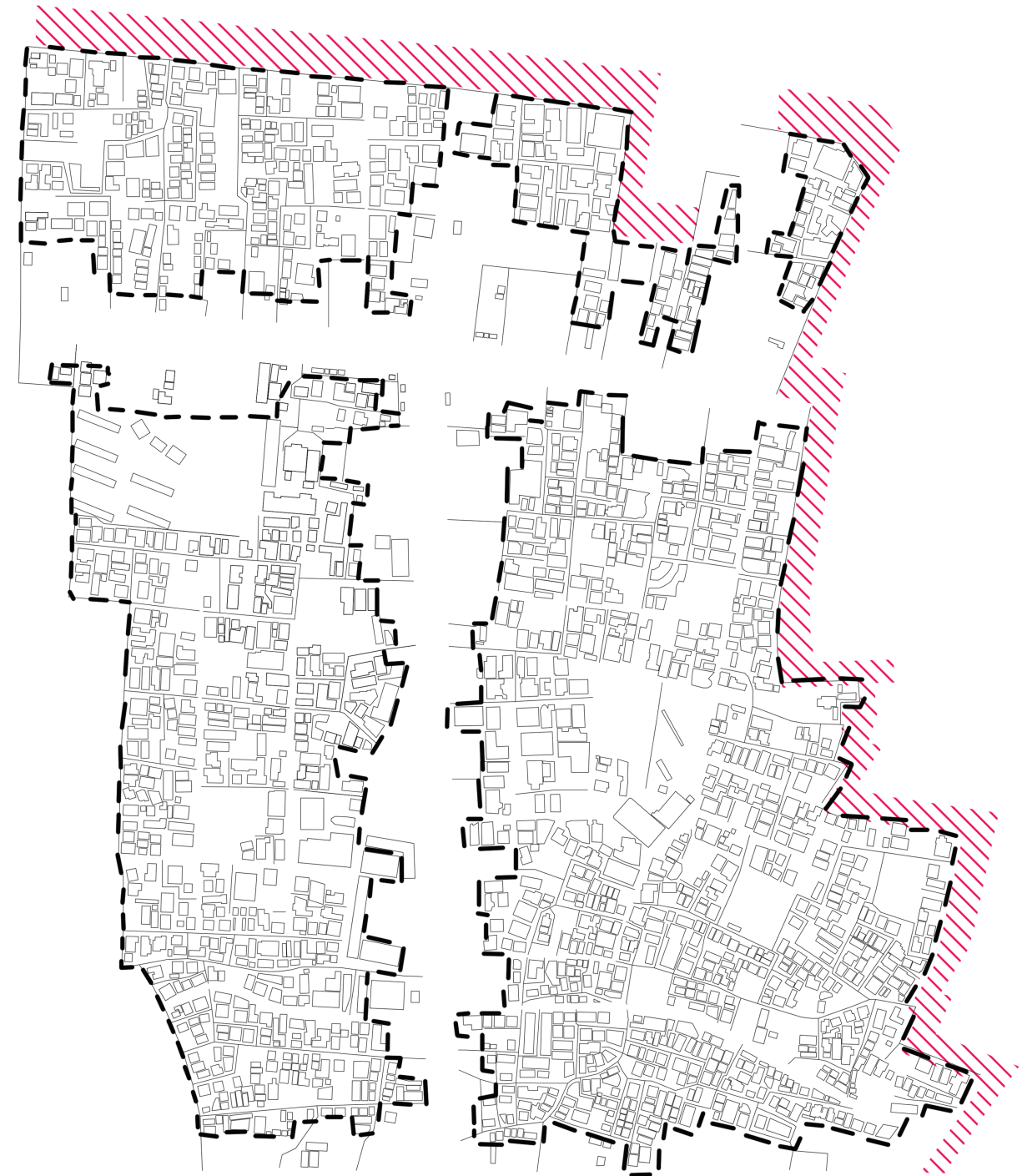
DE-LAYERING URA / OMOTE

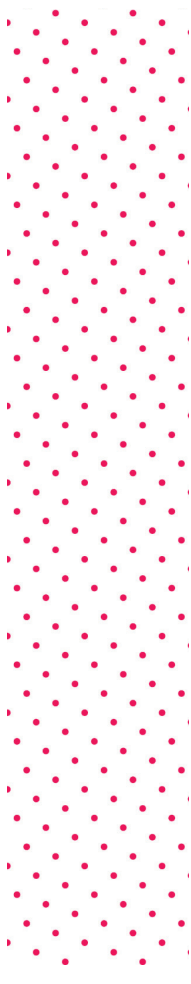
バック 前面

INTENSILY BIG / INTENSILY SMALL

The contrasting nature of Tokyo manifests itself once again in opposing what is front (Omote) from what is back (Ura). The main roads have this appellation, in addition to their size, also by the presence of big scale building, the emblem of fashion and capitalism. Such constructions are in sharp contrast with the Ura (back), that develops behind the large buildings which surround them and somehow protect their small and unique nature. "Such environments tend to be composed of small, ordinary buildings which encapsulate the sense of domesticity and nostalgia. Spatial configuration of Ura perpetuate their multi-layered privacy, ensuring that the character of oku (inner most) remains." (Radovic 2013).

Φ_N





4 THE DESIGN PROPOSAL

CHAPTER FOUR

設計提案

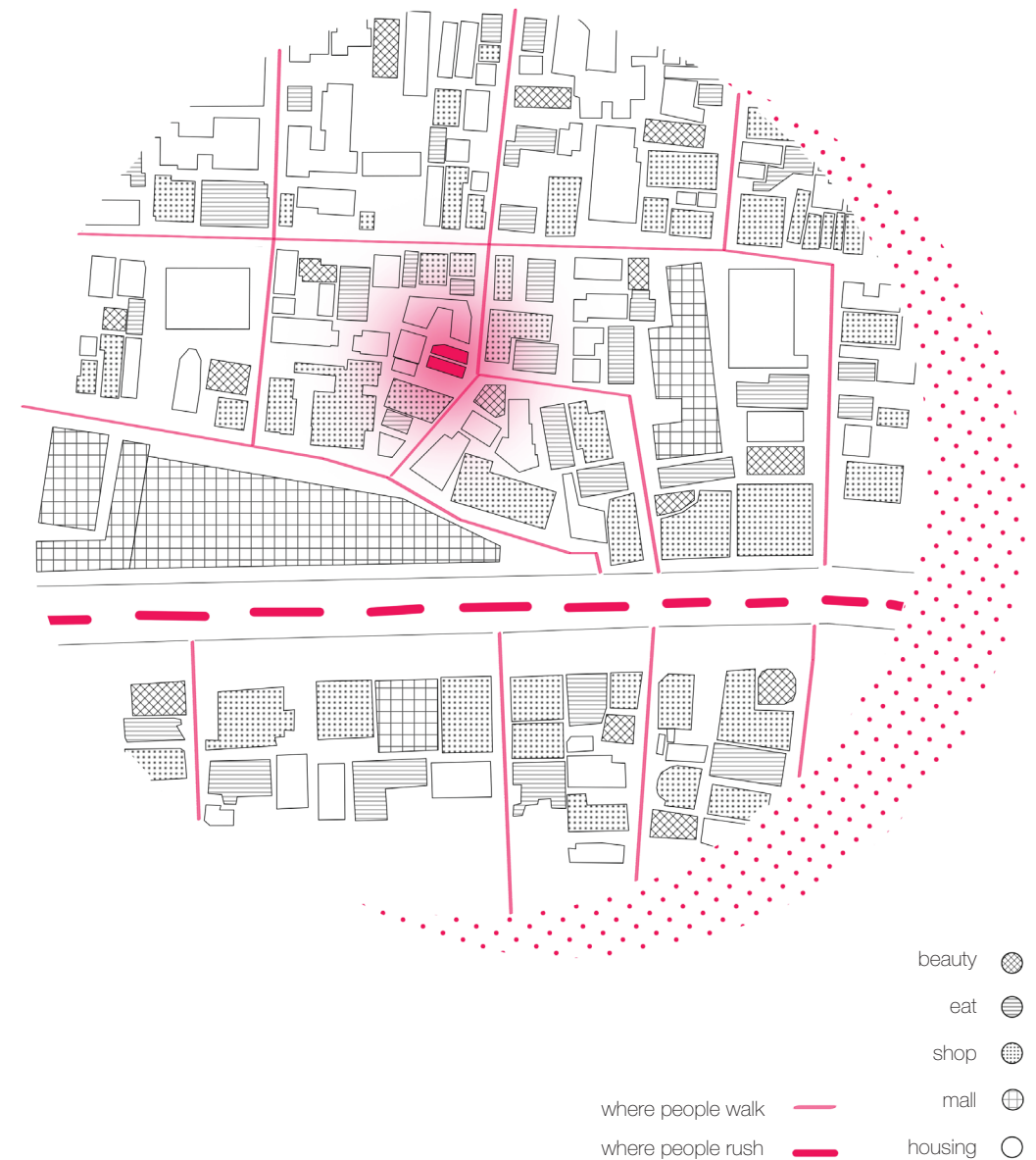
THE PROJECT SITE

プロジェクトサイト

THE DESIGN PROPOSAL

In order to find the ideal plot in which to develop my project, I walked around Aoyama on different occasion: at different time of the day, weekdays and weekend and in different weathers. What I tried to do was create my own map of Aoyama, able to meet some of the requirements set by myself. My map had some technical requests: I was looking for one or more buildings of few floors (if they had strange shapes with which to play even better), with some residual space next to where I could build the pillars of the elevation and the distribution to reach it. But my map also had subjective requests: I wandered if it was possible to create an emotional map of my own Aoyama "high-lighting my landmarks, some obvious and others hidden under layers of experience" (Darko e Boontharm, 2016).

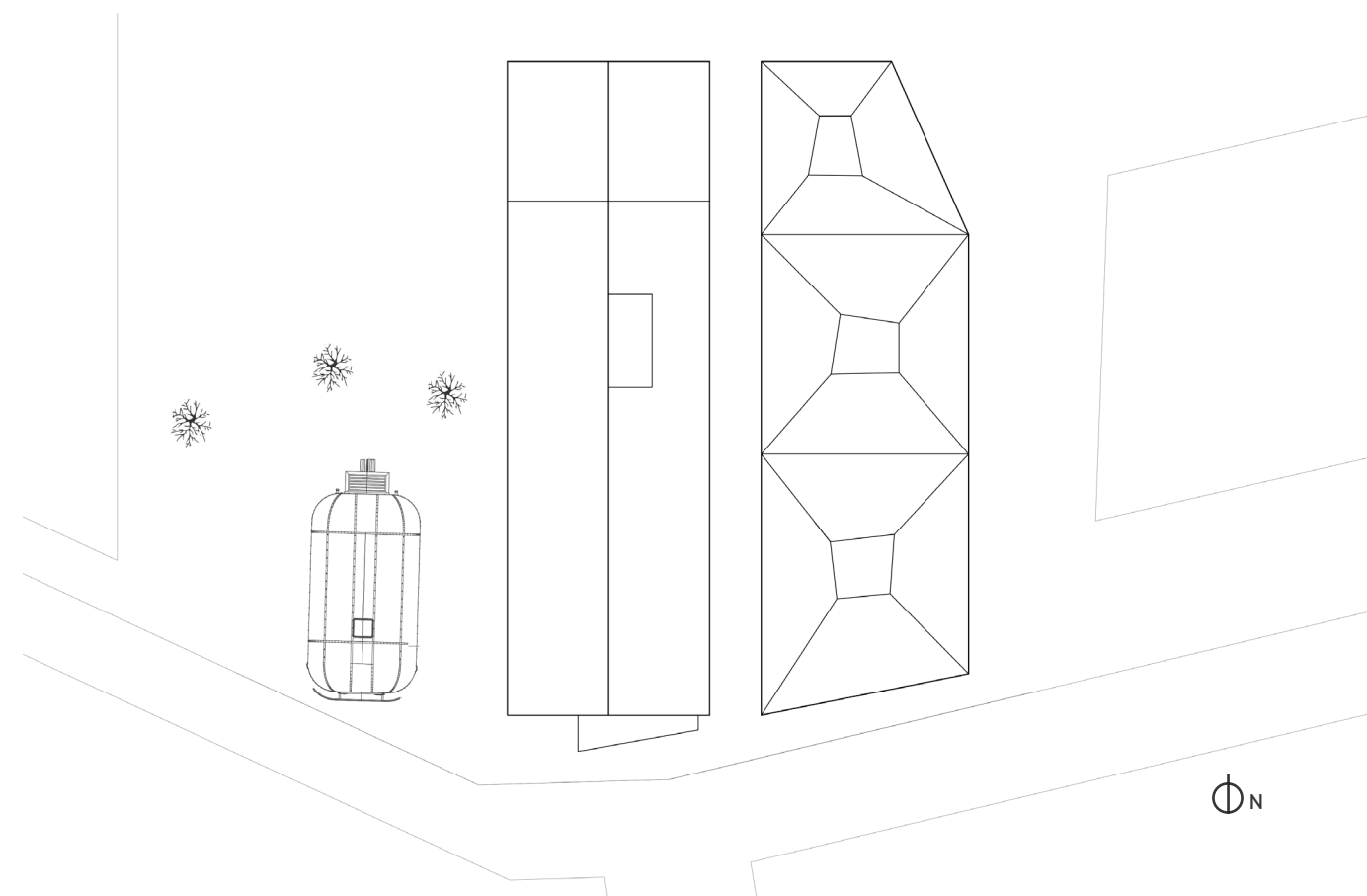
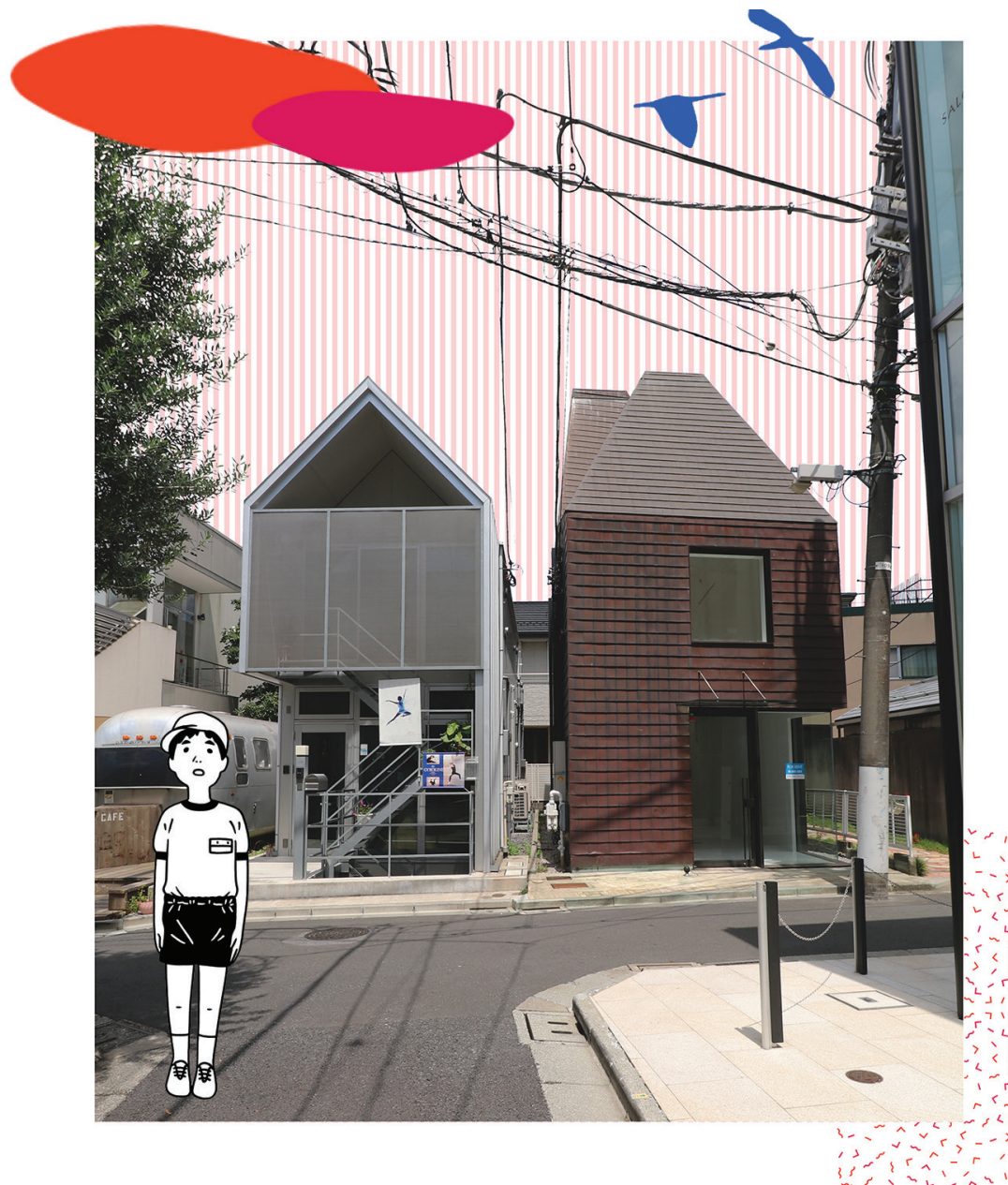
I wanted the plot to be not too far from the Omote-streets to facilitate the flow of people, but enough to have an intimate and community atmosphere. The buildings I was looking for were just a stone's throw from Omotesando Hills, positioned in a corner street that makes the plot central, but hidden by the confusion. These are two newly built buildings, two stories high, with a refined and stimulating architectural design. Next to one of the two there is a lot void of permanent buildings, in which there is a movable caravan with a coffee function, an animated and lively meeting point for the entire district. Both for the technical qualities and for the functions that enclosed, I found in these two buildings the ideal conditions on which to develop my elevation project.



THE EXISTING BUILDINGS

既存の建物

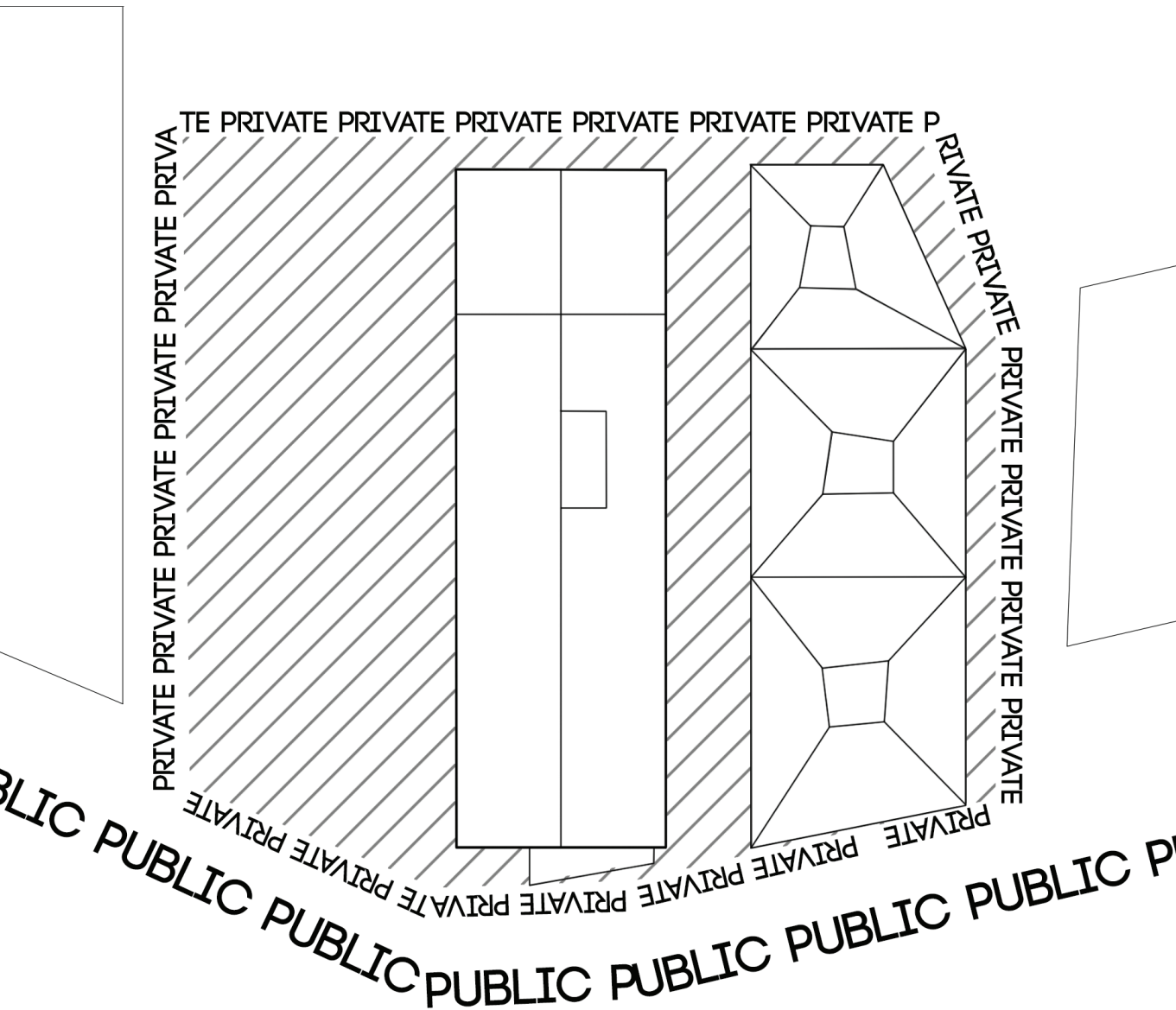
THE DESIGN PROPOSAL



THE LAND PROPERTY POLICY

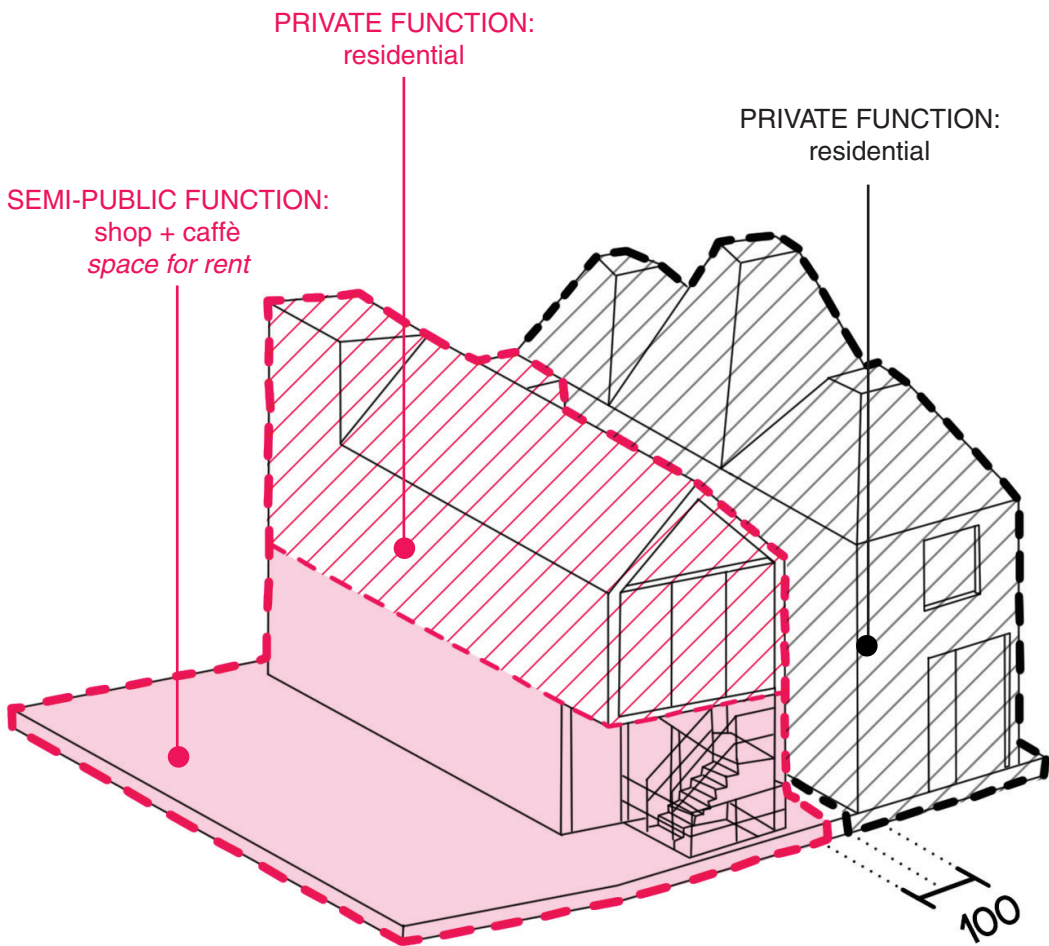
土地所有権ポリシ

THE DESIGN PROPOSAL



PRIVATE PROPERTY 1

PRIVATE PROPERTY 2



SET- BACK

Since 1968, till the current *Building Standard act of Japan*, there is a minimum side distance requirement between buildings of 100 cm. Every building must have 50 cm setback from their border line, mostly to provide ventilation and for seismic safety.

THE DECISION-MAKER

意思決定者

THE DESIGN PROPOSAL

0 PROBLEM IDENTIFICATION

lack of public space
lack of empty space in which build

look for solutions

1 AOYAMA CITY COUNCIL CONSULT WITH A DESIGNER



proposal

look for a proper place

build above the existing

2 PEOPLE SURVEY REGARDING THE SITE



survey result

A
B
C
D
E

4 THE CITY COUNCIL NEGOTIATES WITH A and B



the agreement with A is cheaper

A ✓
B ✓
C ✓
D ✗
E ✗

C rejects the proposal

meeting with the owner A, B, C

3 THE COUNCIL ANALYZES THE OPTIONS



different conditions

different areas

5 AGREEMENT WITH A



6 PROJECT DESIGN



architect + people participation

THE AGREEMENT POLICY

合意政策

THE DESIGN PROPOSAL

OPTIONS:

A WRITTEN AGREEMENT, NO PAYMENT

In a written document the two actors declare that they agree with the construction of the project, without having to pay anything.

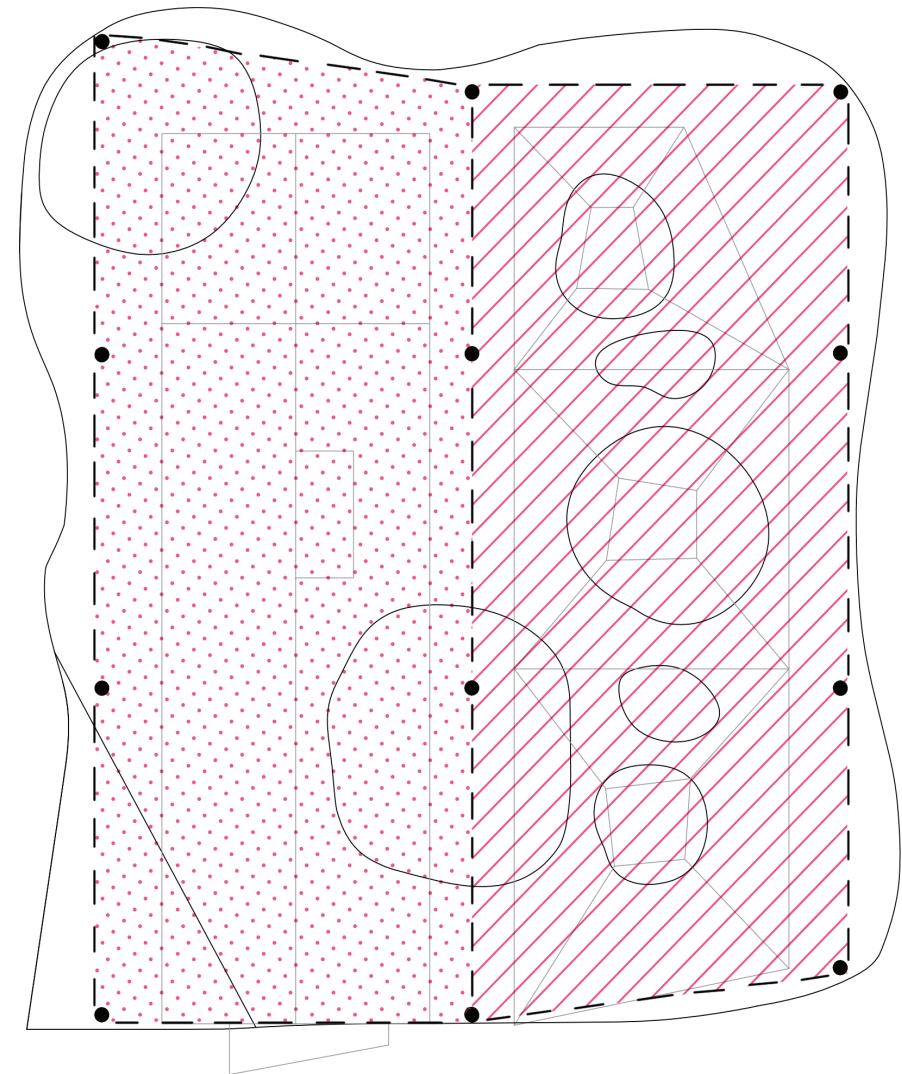
B AGREEMENT AFTER PAYMENT

In a written document the two actors declare to be in agreement with the construction of the project, only after having paid a contribution to the private owners.

C AGREEMENT WITH FACILITIES

In a written document, the two actors declare that they agree with the construction of the project, provided that the municipality gives some benefits (free facilities) to the private owners.

The pillars lean half on a property,
and half on the other





NEW RULES
FOR OVERCOMING LIMITS

THE RULES OF THE GAME

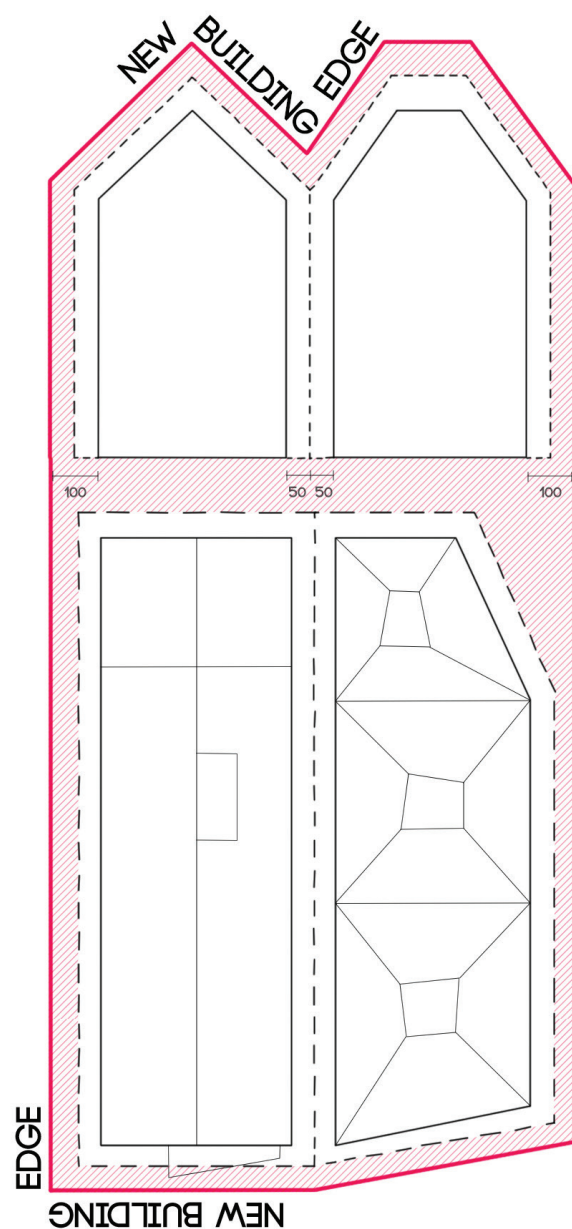
CHAPTER FOUR

テ□△のル□ル

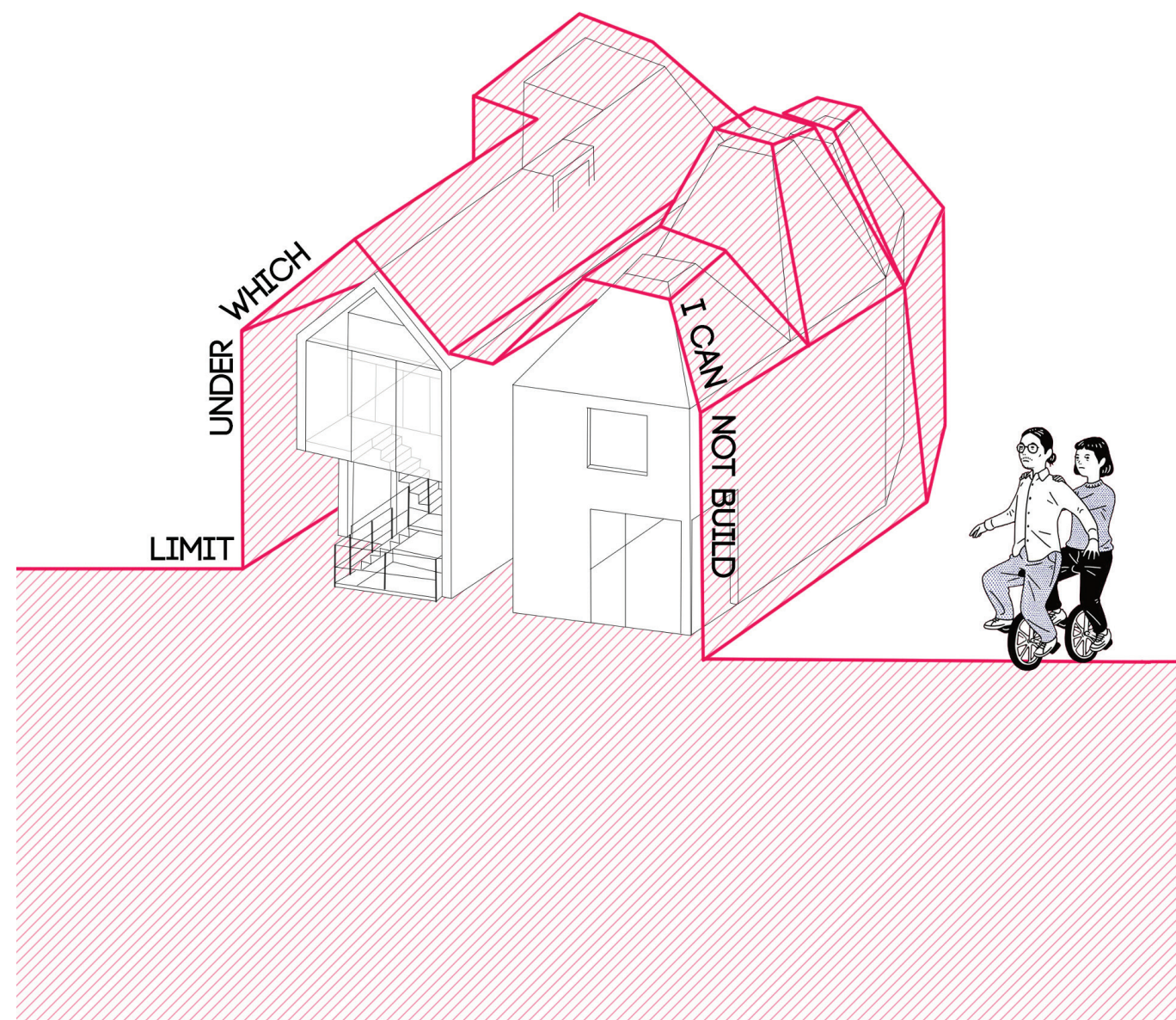
RULE 1 : THE DISTANCE

距離

NEW RULES FOR OVERCOMING LIMITS



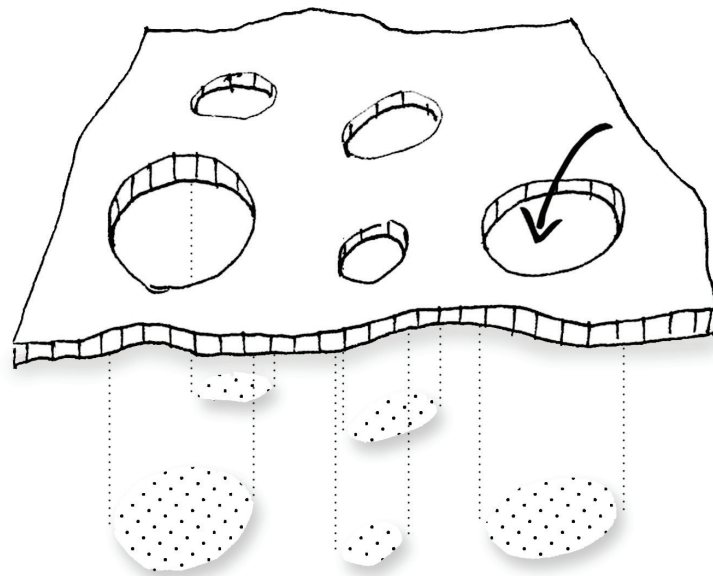
The elevation project claims to act like an acrobat, to overcome the limits imposed by the space without being hindered by the norms in force, but making them become part of the exhibition itself. So the design proposal starts from the assimilation of the distance rule, according to which there is a minimum side distance requirement between buildings of 100 cm. Every building must have 50 cm setback from their border line, mostly to provide ventilation and for seismic safety. The first step is therefore to draw an offset, both laterally and in height, an imaginary line 100 cm distant from the existing buildings, inside which it is forbidden to build. This line takes on the appearance of an envelope, which delimits the boundary between off limits-space and the new ground upon which is possible to build new settlements.



RULE 2 : THE PERMEABILITY

透過性

NEW RULES FOR OVERCOMING LIMITS



The platform that rises above the two buildings never forgets what is below, but tries to establish a dialogue with this in a system aimed at enhancing each other. In respecting the existing, the new slab becomes thin, light and permeable, making public spaces closer to private areas thanks to transparent material and holes in the floor that allow a mutual visive relationship between the parts. The slab divide the space and operate both as an independent sculpture and as an architectural element, creating a project that dematerializes in the relationships established between the existing and the new.



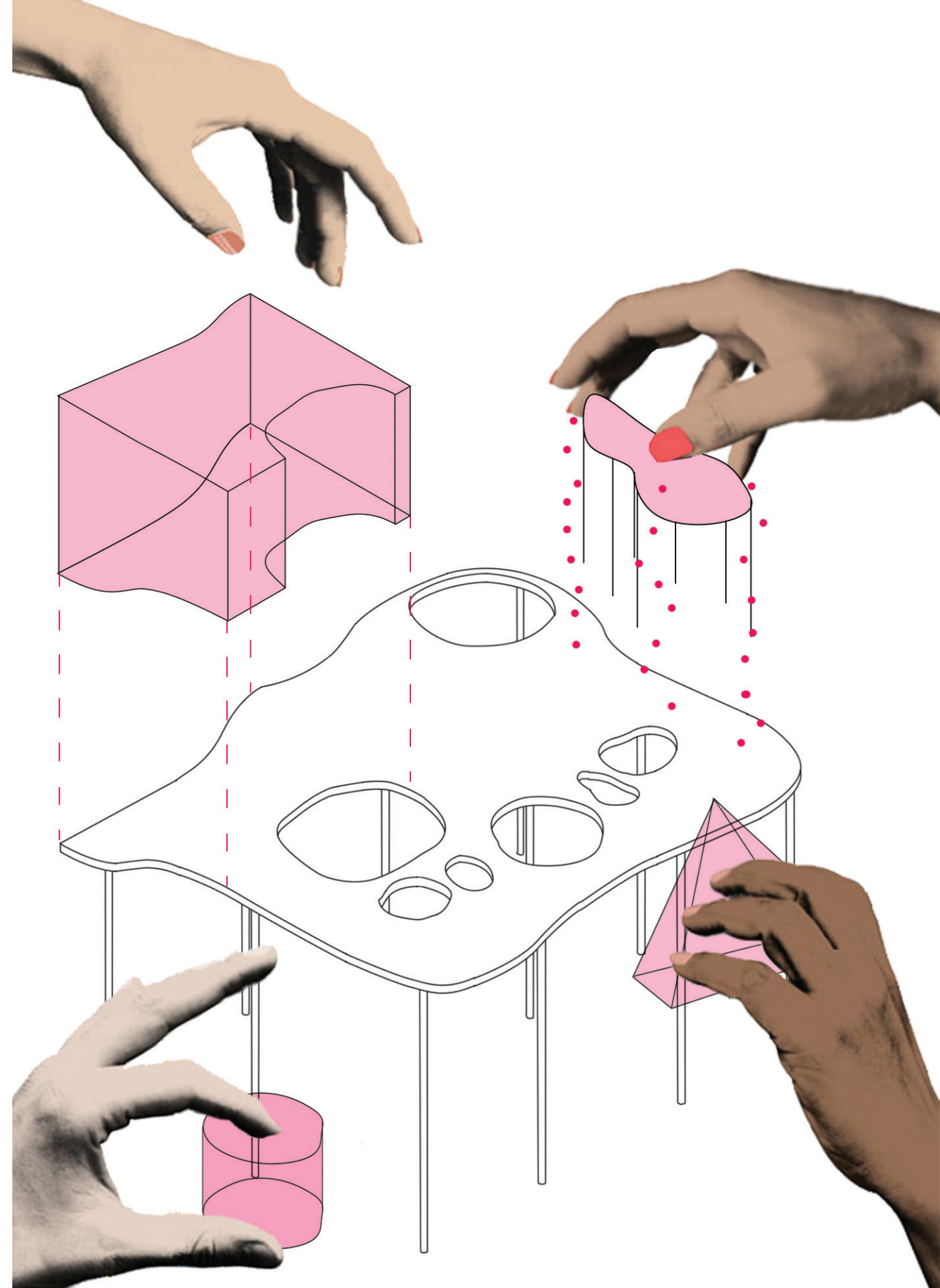
RULE 3 : FLEXIBILITY & PARTICIPATION

柔軟性と参加

NEW RULES FOR OVERCOMING LIMITS

MODULAR SYSTEM WITH DIFFERENT COMBINATIONS

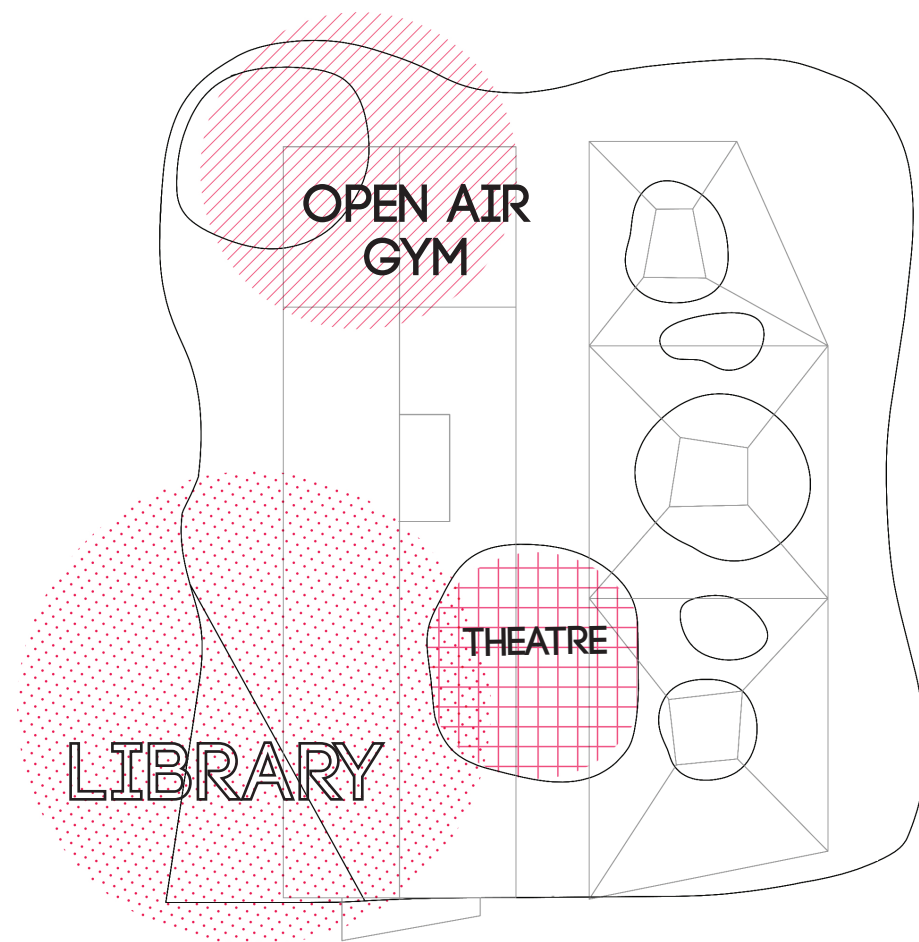
A key quality in the design proposal is the flexibility that the project can achieve. In addition to finding creative ways to optimise space, this solution is focused also on people, their individual needs and their ideas, considering the inhabitants as active codesigners of their own environment. "The project is an invitation to discuss and try out new form of life and living the city, the space is not permanent but flexible and chosen based on current need or life situations" (Mini Living). For this reason the platform is designed as an editable space, in which the installations and architectures can be removed or added depending on the needs of the people who use it, leaving open new solutions and possibilities. Below are proposed three different visions of how space can be used, but the menu from which the resident can choose is much broader, and allows different combinations.



OPTION A

柔軟性と参加

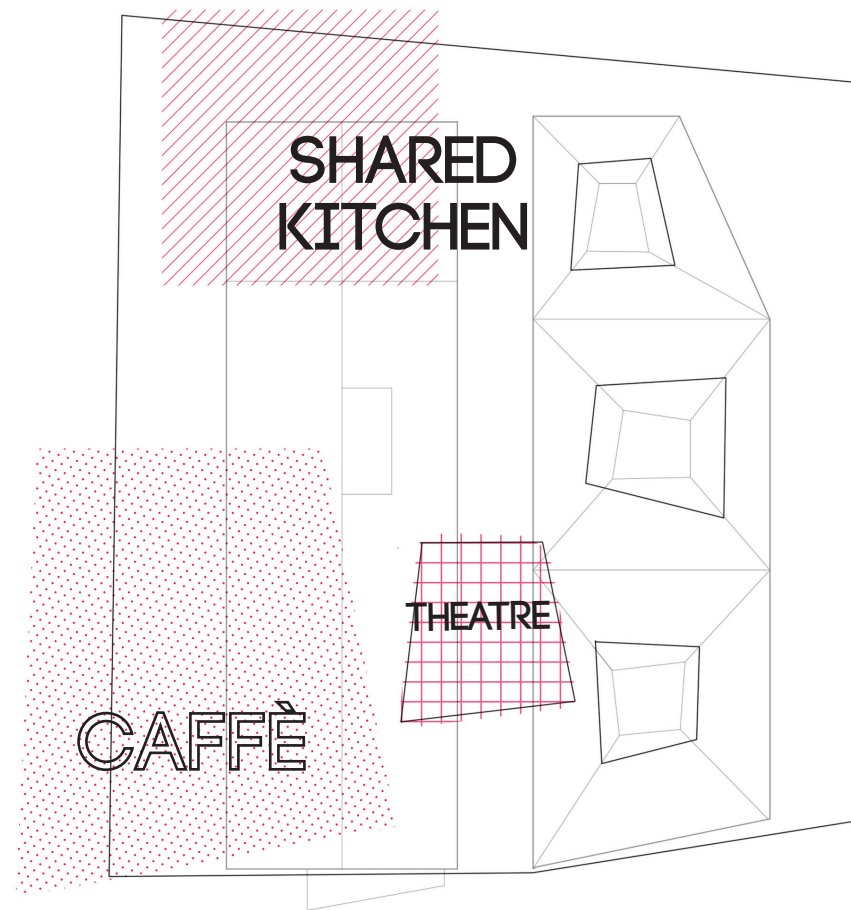
NEW RULES FOR OVERCOMING LIMITS



OPTION B

柔軟性と参加

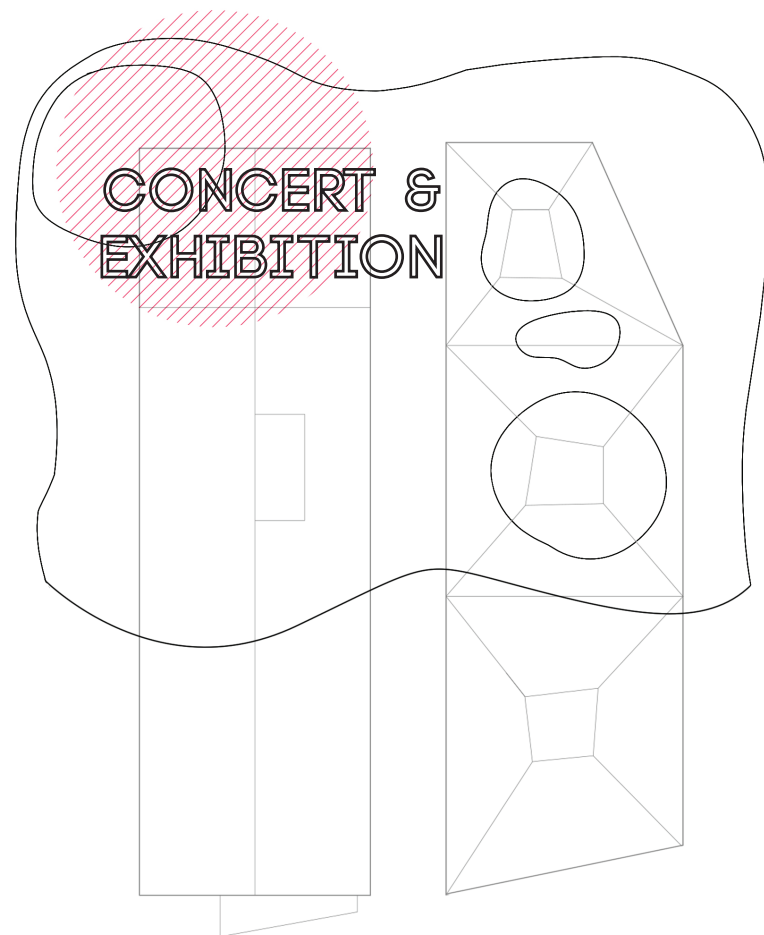
NEW RULES FOR OVERCOMING LIMITS



OPTION ©

柔軟性と参加

NEW RULES FOR OVERCOMING LIMITS





LOOKING AT
SOLUTION A

THE PROJECT

CHAPTER FOUR

プロジェクト

THE FUNCTIONAL PROGRAM

機能プログラム

LOOKING AT SOLUTION A

NEGATIVE SPACE

LEISURE
OPEN AIR

SHELL

basic geometric shape
combined together

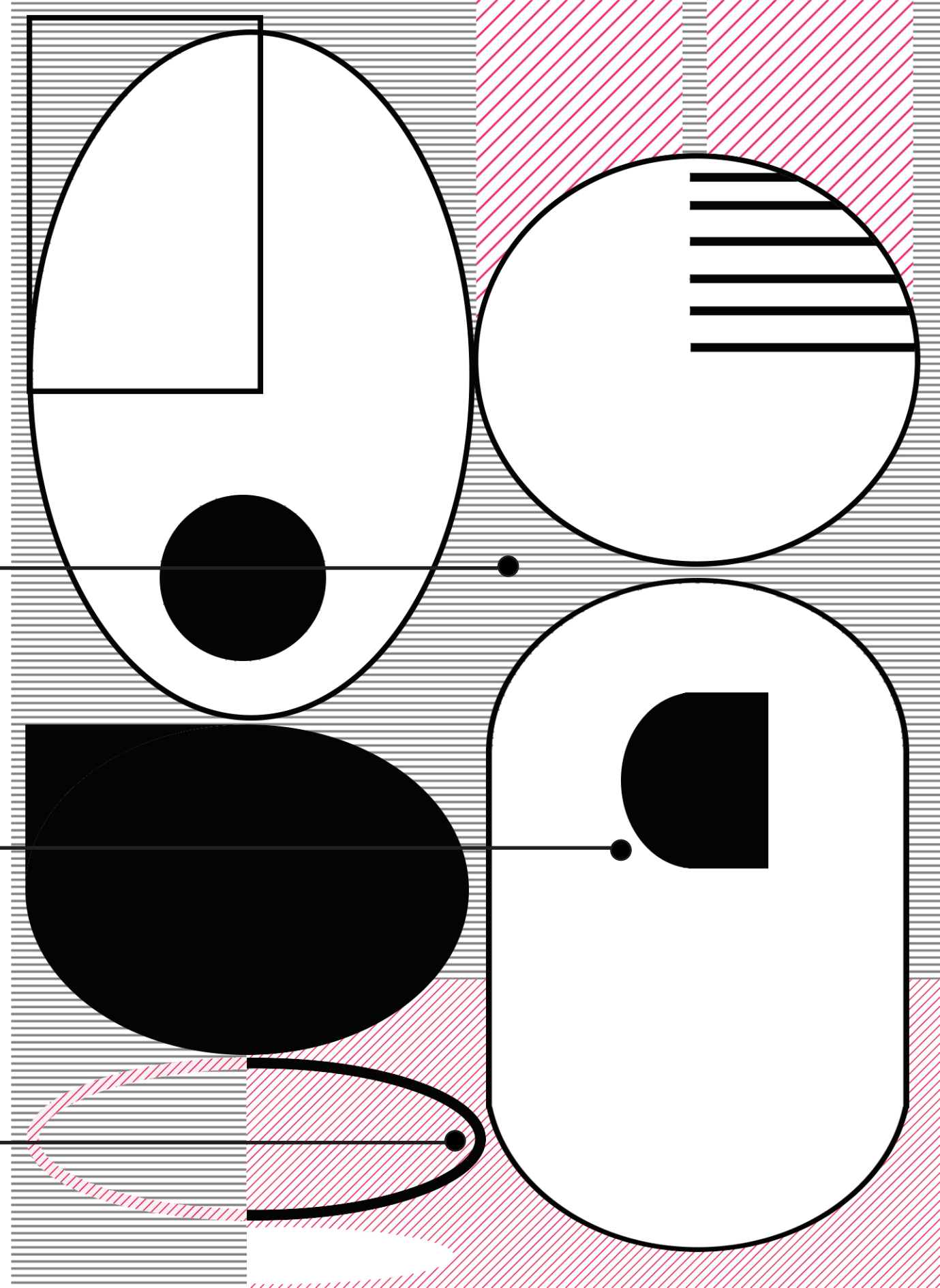
LEISURE
WORK
SHARE

BOUNDARY

textile material to increase /
decrease the level of privacy

PUBLIC SPACE

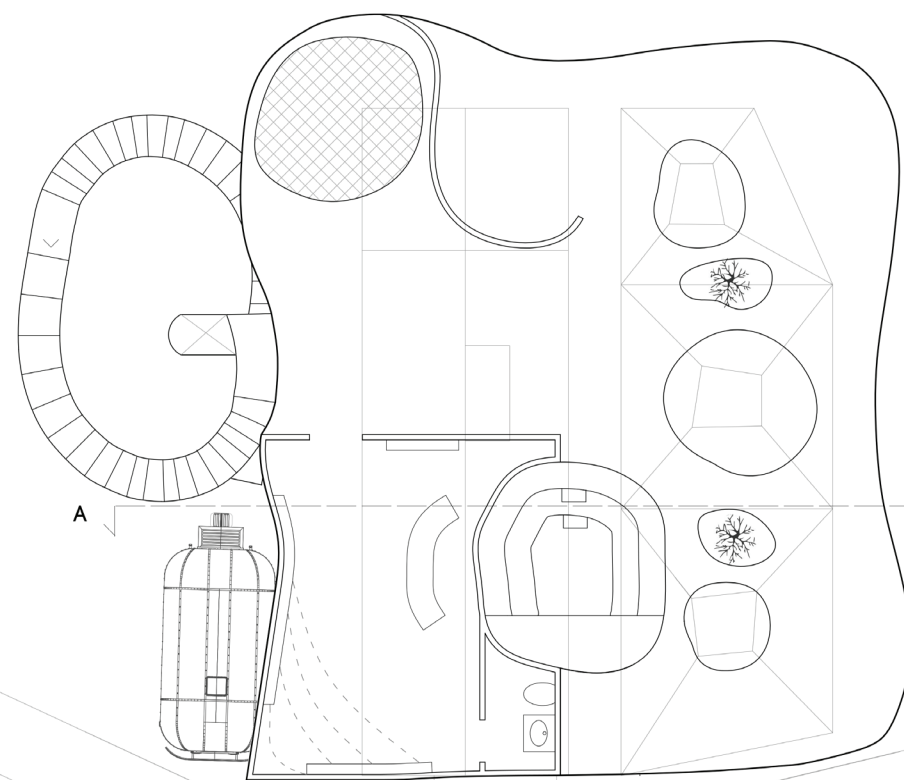
SEMI-PUBLIC SPACE



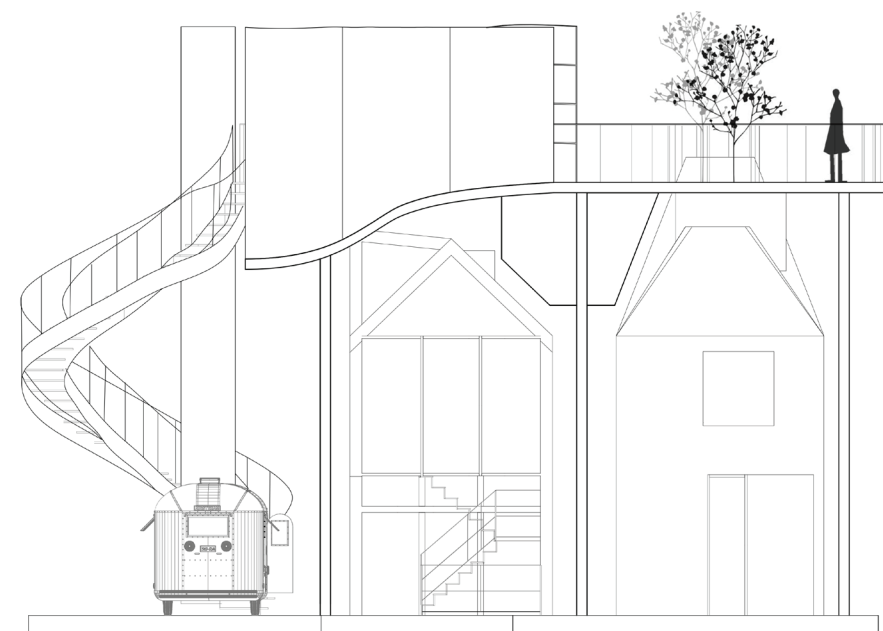
THE PROJECT

プロジェクト

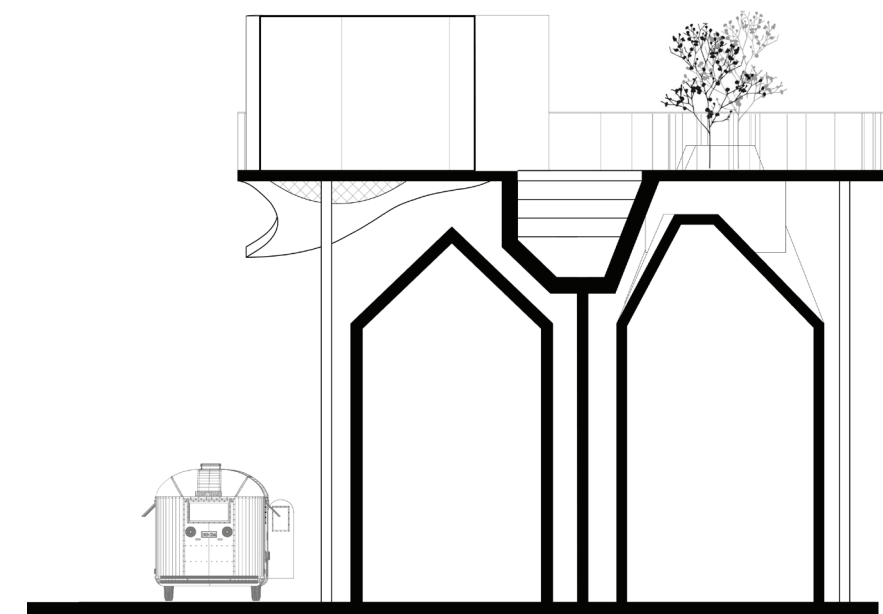
LOOKING AT SOLUTION A



Rooftop Plan, 1:200



South Facade

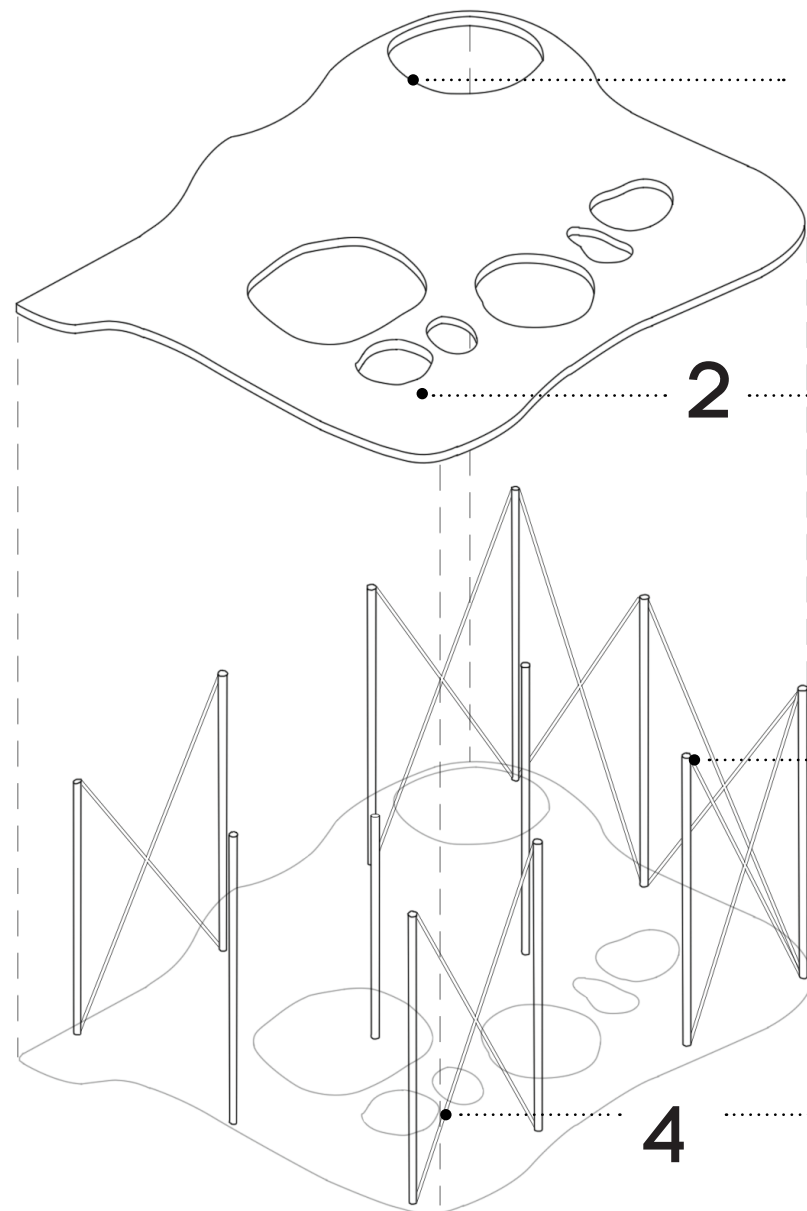


Section A-A

THE SELF-SUPPORTING STRUCTURE

自立構造

LOOKING AT SOLUTION A



THE HOLES

CONCRETE ARCH IN COMPRESSION, REINFORCED WITH METAL ARMATURES. The armatures are placed over the formwork. To create the model of the complex geometry the formwork was broken down into lot of wooden tables, each supported by an adjustable structure (Della Casa).

THE SLAB

CONCRETE REINFORCED SLAB IN FLEXURE. The concrete covering between the arches is a slab in flexure. The concrete mix must not be too compact to allow uniform distribution between the metal piles, nor could be too liquid. It's used a **thixotropic concrete**, solid upon standing and becomes more fluid under vibration (Della Casa).

THE PILLARS

CIRCULAR HOLLOW STEEL, 250 x 10 mm
The pillars are circular hollow steel pipes with a diameter of 25 cm and a thickness of 1 cm. They are reinforced with an iron cage in which 20 vertical bars are placed, and then the concrete is poured.

THE BRACINGS



PROJECT CONCLUSIONS

プロジェクトの結論

The thesis work proposes an alternative strategy to the problem of land consumption in the city of Tokyo. This new solution wants to overcome the physical limits of space, without distorting the nature of the city, developing a method for designing hyper-dense cities: using the low-rise buildings as new ground zero for the urban community growth. With a respectful approach to the existing, the project aims to rethink urban voids through a conceptual structure flexible in uses, breaking the traditional idea of building to create true urban places able to promote social inclusion. The key point of my work is not the final result, but the initial ambition. The aspiration to find alternative and sustainable solutions to the city urban growth, don't erasing what already exists, but rather starting from that to create a project capable, in addition to filling a void, to rehabilitate even a full.

BIBLIOGRAPHY

参考文献

BOOKS

Augè, Marc. *A Sense for the Other: The Timeliness and Relevance of Anthropology*. Stanford Univ Pr, 1998.

Bagnasco, Arnaldo. *Tracce di Comunità*. Bologna: Società editrice il Mulino, 1999.

Escher, Cornelia, and Megumi Komura. *Atelier Bow-Wow: A Primer*. Walther König, 2013.

Jinnai, Hidenobu. *Tokyo: a Spatial Anthropology*. University of California Press, 1995.

Jonas, Marieluise, e Heike Rahmann. *Tokyo Void: Possibilities in Absence*. ISBN, 2014.

Kajima, Momoyo, Junzo Kuroda, e Yoshiharu Tsukamoto. *Made in Tokyo*. Tokyo: Kajima Institute Publishing, 2001.

Kitayama, Koh, Yoshiharu Tsukamoto, e Ryue Nishizawa. *Tokyo Metabolizing*. Giappone: Toto, 2010.

Klanten, Robert, e Lukas Feireiss. *Build-On: Converted Architecture and Transformed Buildings*. Die Gestalten Verlag, 2009.

Koolhaas, Rem, e Hans-Ulrich Obrist. *Project Japan: Metabolism Talks*. Taschen, 2011.

Lefebvre, Henri. *The Production of Space*. Blackwell Pub, 1991.

Marini, Sara. *Architettura parassita. Strategie di riciclaggio per la città*. Quodlibet Studio, 2009.

Radovic, Darko, and Boontharm Davisi. *Small Tokyo*. Tokyo: Flick studio, 2012.

Radovic, Darko, e Davisi Boontharm. *In the Search of Urban Quality: 100 maps of Kuhonbutsyogawa Street, Jiyugaoka*. Tokyo: Flick studio, 2016.

Radovic, Darko. *Tokyo Dérive: in search of Urban Intensities*. Tokyo: Flick studio, 2013.

Sacchi, Livio, and Franco Mercuri. *Tokyo-to : architettura e città*. Milano: Skira, 2004.

Sadler, Simon. *Archigram: architecture without architecture*. Mit Pr, 2005.

Sorensen, André. *The Making of Urban Japan: Cities and Planning from Edo to the Twenty First Century*. Routledge, 2004.

FINAL THESIS

Buzzone, Josephine. *“Tokyo e l’eredità del Metabolismo. Storia e trasformazione di due edifici degli anni Settanta”* Tesi di Laurea Magistrale in Architettura Per Il Restauro E Valorizzazione Del Patrimonio, 2018.

Minero, Alberto. *“Architettura Parassita: passato presente futuro”* Tesi di Laurea Magistrale Architettura Costruzione Città, 2012.

Padron Rodriguez, Laura. *“Thinking about Machizukuri. Case studies and a proposal for Azabu-Juban, Tokyo.”* Torino, 2018.

ARTICLES

Ackerl, Hubert. *“The Cityscape of Tokyo”*. Cargo Collective Anrainer. 2009.

Bagan, Hasi, Yoshiki, Yamagata. *“Landsat analysis of urban growth: How Tokyo became the world’s largest megacity during the last 40 years.”* Remote Sensing of Environment - ELSEVIER, 2012: 13.

Della Casa, Francesco. *“SANAA Rolex Learning Center”*. L’Architecture d’aujourd’hui.

Evans, N. *“Community Planning lecture at King’s College London.”* Urban Japan. London, 2014.

Inoue, Setsu. *“A study of Japanese Concepts of Community”*, 2007.

Liotta, Salvator-John. *“Measuring the immeasurable”* Domus, 2012.

Papa, Rocco. *“Editoriale: Landscape of Urban Sprawl”* TeMA Journal of land use mobility and environment, 2012.

WEB SITES

ArchDaily, <https://www.archdaily.com/>

Designboom, <https://www.designboom.com/>

Divisare, <https://divisare.com/>

Domus, <https://www.domusweb.it/it/home.html>

Icon, <https://www.iconeye.com/>

Mini Living, https://www.mini.com/en_MS/home/living.html

Tokyo Metropolitan Government, <http://www.metro.tokyo.jp/english/index.html>

IMAGES

イメージ

[1] Shinjuku skyline by *Alfie Goodrich* / Crowded subway in Tokyo by *Jérémie Souteyrat*

[2] Textile artwork by *Mana Morimoto* / Young girls dressing traditional kimono by *Kenta Nakamura*

[3] Exterior / interior detail of Nakagin Capsule Tower by *Damjan Cvetkov / Noritaka Minami*

[4] Graphic from *Project Japan: Metabolism talks*, p. 127

[5] Tokyo Crop series by *Martina Ferrara* / Japanese sense of community by *Lu Gen*

[6] Tokyo Crop series by *Martina Ferrara*

[7] Photo by *Veronica Nickholson* / Pages taken from a Japanese grammar book

[8] Photo by *Alex Liverani* / Crossing stripes detail by *Daniel Everett*

[9] Paradoxes of people living in a big city, photo by *Michael Wolf / Shin Noguchi*