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THE CHANCE OF URBAN GULLIVER

Three-Dimensional Public Realm as Infrastructural Component of the L-Sized Structure

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A special thanks to

my family,

my tutor,

the professionals who I have crossed paths with and who have supported my endeavor,

my incredible network of friends and colleagues.

Dedicated to

Without a doubt, to my family.

Diese Dissertation gibt eine spezifische Antwort auf die Dringlichkeit des rasanten Urbanisierungsprozesses weltweit. Entsprechend dieser Voraussetzung ist das Bedürfnis nach gültigen Verdichtungsstrategien erhöht. Die Studie untersucht die Validität großflächiger innerstädtischer Ensembles als urbane Verdichtungsstrategie. Basierend auf der Intuition, dass in der zeitgenössischen Stadtlandschaft Größe noch wesentlich ist, untersucht die Arbeit ungenutzte Potenziale von großmaßstäblichen Strukturen, insbesondere mit Blick auf das europäische Stadtbild. Die strategische Herangehensweise ist durch eine fiktive Figur, Urban Gulliver, verkörpert – der Inbegriff großformatiger Ensembles, die eine Chance für eine erfolgreiche Einbettung in ihr urbanes Umfeld benötigen. Das Abwägen von Urban Gulliver erfolgt innerhalb eines theoretischen Rahmens, der von Konzepten der Offenheit, Hybridität und Unbestimmtheit geprägt ist.

Der theoretische Entwurf von Urban Gulliver und die Formulierung seiner Chance ist von einer umfangreichen Literaturrecherche, Fallstudienanalysen und Interviews mit Schlüsselexperten untermauert. Diese Quellen unterstützen die Hypothese, dass sich Urban Gulliver nur durch das systemische Netzwerk seiner öffentlichen Räume in ein bestehendes Stadtgefüge erfolgreich integrieren kann. Um die Leistung von Urban Gulliver als städtische Verdichtungsstrategie zu optimieren, thematisiert die Arbeit die Möglichkeit eines dreidimensionalen Netzwerks öffentlicher Räume, das durch neuartige Modelle und Akzeptanz von öffentlichen Rauminstanzen erweitert wird. In dieser Hinsicht zeigte die Studie des L'Illa Diagonal Ensembles in Barcelona die Potenziale von Gulliver auf. Die vergleichende Analyse von acht privat-öffentlichen Räumen in Manhattan enthüllte einen urban-administrativen Mechanismus, der sowohl öffentlichen als auch privaten Interessen am Kollisionspunkt zwischen offenen und geschlossenen Strukturen zugutekommen kann.

Urban Gulliver geht die dreidimensionalen Verbindung zwischen der horizontalen Dimension des Straßenraums und der vertikalen Dimension von Gebäudestrukturen durch die infrastrukturelle Komponente seines Netzwerks öffentlicher Räume an. Dieser Zwischenraum – die Schnittstelle – strebt danach, durch nahtlose Verbindungen, materielle Dimensionen und programmatische Aktivierung grenzlos zu sein. In der Nische zwischen den beiden disziplinären Polen, Architektur und Stadtplanung, angesiedelt, trägt die Studie durch die Verknüpfung von räumlichen und strukturellen Parametern von L-sized Strukturen mit der Thematisierung einer breiteren Akzeptanz öffentlicher Räume durch den Fokus der infrastrukturellen Komponente zum wissenschaftlichen Diskurs und, ebenfalls, zur Gestaltungspraxis bei.

Abstract

This doctoral thesis provides a specific response to the urgency posed by the rapid process of urbanization worldwide. Within this premise, the need for valid densification strategies is immense. This study investigates the validity of large-scaled inner-city ensembles as an approach for urban densification. Stemming from the intuition that in the contemporary urban landscape size still matters, the research searches for yet unexploited potentials of L-sized structures, especially focusing on the European cityscape. The strategic approach is embodied by the fictional character Urban Gulliver – the epitome of large-scaled ensembles in need of the chance to successfully embed in dense inner-city environments. The leveraging of Urban Gulliver takes place within the theoretical framework provided by the broad concepts of openness, hybridity and indeterminacy.

The theoretical outline of Urban Gulliver and the formulation of its opportunity to thrive is corroborated by an extensive literature review, analysis of case studies and interviews with key experts. These sources underpin the hypothesis that, in order to integrate in an existing urban fabric, Urban Gulliver requires the systemic acknowledgement of its public realm. In order to improve the performance of Urban Gulliver as an urban densification strategy, this thesis sheds light on the possibility of a three-dimensional network of public spaces, enhanced by novel models and acceptations of instances of public space. In this regard, the study of L'Illa Diagonal ensemble in Barcelona revealed the potential of Gulliver. Additionally, the comparative analysis of eight privately owned public spaces in Manhattan disclosed an urban mechanism that could benefit both public and private interests at the collision point between open and closed structures.

Urban Gulliver approaches the three-dimensional bond between the horizontal dimension of the street space and the vertical dimension of building structures through the infrastructural component of its network of public spaces. This in-between space – the interface – aspires to be boundary-less through seamless connections, material dimension and programmatic activation. Positioned in the niche between the two disciplinary poles of architecture and urban design, this study contributes to both scholarly discourse and design practice by associating spatial and structural parameters of L-sized structures to the formalization of a broader concept of public spaces, conceived through the lens of their infrastructural component.

I

INTRODUCTION

Motivation

The motivation for the thesis is set by my personal fascination for the big form. The starting point is a blind belief that this feature – an indecisive hybrid between the architectural and urban design scale – is one key-character of the future urbanization process. Large-scale ensembles are a recurring intervention in the urban landscape. However, their erratic proliferation, despite multiple unresolved challenges, demands a novel approach.

The disciplinary friction point between architecture and urbanism has always held my attention. Therefore, along the years, the in-between scale has contoured as my strongest field of interest. This has been also enhanced by my urbanite character – I define myself a city slicker who thrives in urban environments – and my personal background. The opportunity to work at the design of a-typological buildings that did not fit in any architectural mold stirred my curiosity to further explore the potentials of these unknown [for me] terrains. Furthermore, the experience of living in Bucharest – under the circumstance of a decades-long denial of public space and no fear for the L-size – and in Barcelona – a compact, dense environment that builds on a thorough consideration for the human scale and nurtures a rich culture of public spaces – has shaped my views. I increasingly retrofitted empirical explorations of urban public spaces with theoretical concepts, raising every time more inquiries.

The present research has amplified and strengthened my professional knowledge in the disciplinary junction between architecture and urbanism. At a turning point of the work's evolution, I found my tutor's statement inspiring: *good large-scale projects are never a product of an Excel-sheet*. Their scale implies grandeur; their greatness stems from their complexity and innovative component.

Context

Urbanization happens at an accelerated pace. The ubiquitous UN prospects advert that by 2050 66 percent of the world population will inhabit cities. Urban settlements are undeniably in urgent need of viable models to address the challenges posed by the increasing population. Additionally, the international scene of scholars, practitioners and administrations has become increasingly aware of the fact that cities can no longer emerge as finite products out of the rigid dictates of a masterplan. The impregnation of the urban setting with some artificial identity through restrictive plans has proven unsuccessful on many occasions. Furthermore, the breach between the disciplines of architecture and urbanism has widened. On one hand, divorced from architecture, urban planning has evolved towards a practice of over-determinate zoning regulations that have confined the discipline. On the other hand, architecture has gradually lost solidarity, often orienting towards a practice of self-referenced sculptures. The acute identity crisis of the city, the strategic bewilderment of its future evolution and the disciplinary turning point of the practice compel the re-thinking of urban and architectural strategies.

Within this context, the focus of this research is set on L-sized structures – a conciliator between architecture and urban design –, in the grey area between the split disciplines and scales of building and city. Here we find large-scale ensembles often labeled as cities within cities, concentrating a mix of programs within a hybrid structure, with the frequent aspiration of self-sufficiency. Moreover, the thesis compels a redefinition of large-scale structures according to a set of parameters that would better respond to contemporary and future challenges.

The fascination with size has been a recurrent phenomenon in the architectural and urban debate of the last century. The peaks of the L-sized euphoria corresponded with revolutionary moments in our recent history – political, economic and social milestones – and crucial moments of industrial and scientific innovation. At the turn of the twentieth century, technological progress opened up a whole new spectrum of construction possibilities. Additionally, increasing land and real estate prices triggered higher and larger developments, within which combining and overlapping uses eventually became inevitable. The skylines of metropolises, such as New York, were rapidly changed by mixed-use high-rises, which subsequently passed on to more complex ensembles overcoming the scale and complexity of a single building. Thus, the first attempts of a built structure to function as a city mechanism had become reality, marking the era of the vertical city.

The postwar decades of the 1950s and 1960s represented another landmark moment of creative effervescence in the timeline of urban L-sized structures. Social expectations together with challenges posed by the reverberations of World War II destructions opened opportunities for new urban and architectural concepts. The aim was to conceive new urban patterns for higher density settlements; one way was addressing the three-dimensional city. Technological progress and industrialized production, infused with a utopian drive, provided a fertile ground for bold

and innovative proposals. In the following years, the focus set by professionals on large-scaled structures in Europe diminished considerably. However, isolated approaches strengthened faith in the L-size, mostly implemented as an urban instrument for the periphery.

The twenty-first century revived the trend of accommodating the city in a building structure and stretch it into the vertical realm. The search and research of these L-size models happened both on a theoretical and conceptual level – e.g. the study on vertical villages by MVRDV and The Why Factory – and in built form – ensembles, such as OMA's De Rotterdam, labeled *vertical city*.

Contemporary approaches are the obvious sequel of the narrative already initiated by past proposals of the twentieth century, equally ambitious and utopian. It is clear that the fascination for the L-sized has not only persisted, but is currently experiencing a rather volatile revival process. The validity and feasibility of such models needs to be disputed. The naivety or gestural approach of these concepts has to be questioned. In Europe, the L-sized is being implemented as an all-functioning device for the rapid regeneration of urban *terrain vagues* or as a sculptural landmark – e.g.: Calatrava's Greenwich Peninsula in London; Zaha Hadid's Brownfield site in Prague; MVRDV's Valley in Amsterdam; Arquitectonica's Mixed Use Complex in Luxembourg; BIG's Battery in Copenhagen, etc. The fact that increasingly more proposals label themselves *vertical city*, *city within city* or *hybrid building* raises the question about the deeper and comprehensive meaning that these concepts encompass.

Large-scale developments are both appealing and controversial. Their programmatic versatility and densification potential are assets that leverage such ensembles. The financial hazard and logistic complexity act as a disadvantage. Often due to exaggerated aspirations and ambitions, the L-sized is susceptible to succumb to social rejection, structural isolation and commodification. On the other hand, it can act as a robust platform that incubates innovative changes and triggers progress. On the cusp of a fourth industrial revolution and with economy models on the verge of changing to new paradigms – sharing becoming an increasingly valid model –, the fate of the L-sized as a rightful urban protagonist deserves reconsideration.

Object of Study

The object of study is the large-scale inner-city structure, identified as a re-emerging trend. Several episodes of the twentieth century's architectural discourse have tried to grasp the essence of this a-typological urban actor under different aspects, often disregarding its needs for implementation. The unresolved challenges, in addition to the ongoing fascination for this urban feature, legitimize the introduction of a new character: Urban Gulliver.

Urban Gulliver is explored as a densification strategy and outlined in its ideal characteristics in the search for the key to its successful implementation. Urban Gulliver is a fictional character that stands for the archetypical urban L-sized ensemble, aspiring to overcome its perils while unfolding its full potential. Gulliver apprehends the L-size trend but looks beyond the labels, in order to uncover driving forces behind it, understand the implications and identify the poignant issues. This composite form of urban design and architecture is envisioned as versatile, complex, urbanistically challenging and architecturally overwhelming. It should be able to negotiate with both city and users on a multitude of levels and upgrade a built ensemble to an urban character ¬– a piece of condensed urban fabric.

Gulliver is defined by its *dimension* – it overcomes the size of a single plot –, *built density* – it works in the high-density range –, *location within the city fabric* – inner city placement fusing with pre-existing structures and flows –, *the uses* – a mix of different functions with a strong public character –, *infrastructure connection* – it absorbs part of the infrastructural facilities of its surroundings –, and, most importantly, its *configuration of public spaces.*

Unlike Koolhaas' Bigness definition – a built structure doesn't need the city because it has the ability to build its microcosm within a poker-faced envelope – the ideal Urban Gulliver should not be autarchic: it has to connect with the city and grow out of it, concentrate urbanity and represent an intensification node of urban life. Its gravitational force is a main asset that Gulliver needs to avail. It needs its surroundings and links to them. Stripped from architectural constraints, it should freely claim its own scale and dimension as a neutral platform on a metropolitan scale. Urban Gulliver lives and breathes through the power of motion flows. Since it is a concentration of the city itself, it comprises all urban components, thus also incorporating the street infrastructure. Moreover, this urban element should provide the chance for a unifying, coherent attitude towards marking a common ground, opposed to the endeavor to build freestanding sculptural icons. I argue that Gulliver needs to be granted the great freedom [and simultaneous responsibility] of being regarded as a piece of urban fabric, a three-dimensional urban structure. These ideal traits of Urban Gulliver will be reflected against a set of conceptual requirements and ascertained with the help of a possible avatar.

Within the broad normative framework set by the New Urban Agenda – the outcome of the UN-Habitat III conference – and in the context of the identity crisis of both cities and the planning discipline, Urban Gulliver is one element that is believed to hold the DNA to become

a veritable city in a building, an intensification point of the city fabric in the form of a three-dimensional urban structure. The first part of this thesis outlines this new urban protagonist by distilling the main characteristics of its past and current epitomes. Fumihiko Maki's call for a three-dimensional urban structure, the subsequent megastructure movement, Rem Koolhaas' Bigness manifesto, Kenneth Frampton's megaform, or Steven Holl's introduction of hybrids, all represent instances of the large-scale that help derive the ideal features of Urban Gulliver.

Scope of Research

This thesis will look more closely into the aspects and parameters that create and define the character of the city and affect the large-scaled structure. Regarded from an urban perspective, density is considered a defining feature of the urban environment whose qualities need to be explored. In the progress of urbanization, density is a paramount aspect with which L-sized structures successfully negotiate by offering myriad structural approaches to accommodate high-density patterns. Significant background was offered by studies on the measurement of density and literature on the compactness of the urban form.

Urban Gulliver is a fictional character whose ideal requirements are outlined beyond a design recipe and therefore difficult to compare against existing structures. Planning Urban Gulliver under the auspice of openness has been rendered as a future-oriented strategy for urban densification. The discussion on the aspects of openness builds on the contributions of authors, such as Umberto Eco, N.J. Habraken or Richard Sennett. Further assets are the understanding and employment of the advantages of hybridity, as well as speculating with aspects of indeterminacy. Steven Holl's disclosure of the hybrid structure and Rem Koolhaas' fixation on mixed-use high-rises revealed the unexpected potential of hybridization. A more recent study conducted by the A+T research group is intensely discussed in order to extract the quintessence of the hybrid character of an L-sized structure. When approaching the different facets of indeterminacy, one of the main references is provided by the *oeuvre* of Cedric Price. These requirements start to enable a better understanding of this unprecedented character. However, the interest to find a built structure that would comply to a majority of Urban Gulliver's characteristics and requirements is undeniable.

In order to enable a tangible comparison, the search for an Urban Gulliver avatar has led to the L'Illa Diagonal project. Empirical observation strengthened my belief that the built large-scale ensemble in Barcelona can ascertain the feasibility of the new character. Rafael Moneo and Manuel de Solà-Morales' built ensemble is decoded in order to extract the specifics of its successful urban integration.

The findings from the L'Illa example are extrapolated towards formulating the chance of Urban Gulliver. In Gulliver's open system framework, public spaces – interpreted through their infrastructural component – serve as the necessary joint between the two scales. Within

the complexity and magnitude of Gulliver, public space is considered the key component. It works as the indispensable implementation asset and binding element between a new intervention and its surroundings. The analysis also established the link to Manuel de Solà-Morales' theoretical work that has embedded the second part of the research in relation to the public space debate from the 1990s on.

The need to define public space alternatives stems from the pessimistic discourse on the loss of public space [Sorkin, 1992; Augé, 1992]. Looking at the specific literature, it becomes clear that the requiem is also accompanied by a narrative of rediscovery of public space [De Solà-Morales, 1992, 1996, 1997, 2008, 2010; Hajer and Reijndorp, 2002; Harteveld, 2014; Carmona, 2007, 2008, 2010, 2015; etc.] which triggered an enhancement of the term. For the present scope, the processes of interiorization, privatization, and commodification – criticized for threatening the traditional public sphere – are considered the areas of reinvention of public space, opening up new fields of investigation at the junction between open space and building structure. Thus, the research scrutinized the possibilities to achieve capillarity of the public space – a desirable quality enforced by the users' flows, sustained by public programs and supported by the physical structure of the host-buildings.

This thesis casts a new light on the approach of large-scaled inner-city structures through Urban Gulliver. The research identifies that, so far, public space has mainly been a remnant or a compromise, but not a precondition of L-sized structures. When considered part of the large structure, the public venue has been mainly reduced to connectors, passages, corridors or elevated streets. The infrastructural component [Aureli] of public space has been insufficiently exploited.

This research focuses on the European cityscape. The phenomenon of large-scale interventions in the periphery is not part of this inquiry. European city centers – despite varied structures and historical background – usually build on a common denominator of density and mix of uses, leading to a specific image of urban life, activities and liveliness. In comparison to Asian or American metropolises, the European city is characterized by its own density factors – population and building –, scale, quality of open space and lifestyle. However, the research looks at New York's Manhattan as a paradigmatic case of high-density urban agglomeration to learn from. In this regard, the study of eight selected cases of interior POPS [privately owned public spaces] discloses important mechanisms of conciliating the horizontal public realm and the vertical building's structure [Kayden, Whyte].

The research completed in order to evaluate the potential benefits of Urban Gulliver represents the comprehensive version of several years of study, materialized in three peer-reviewed and published papers that cover specific parts of the overall topic. Therefore, segments of those previous publications have fueled the present structure of this thesis, being partly introduced as text paragraphs.

Research Questions

This thesis relies on the premise that L-sized structures can exert great impact on their immediate urban surroundings and act as a vehicle for densification if their implementation strategy is [re]considered. However, drawing from the experience of previous examples, their prospects need to be leveraged.

Following this main conviction, this study scrutinizes Urban Gulliver's potential of addressing both urban and architectural contemporary challenges regarding publicness, urbanity and density. First inquiries that lead to the main research question are:

- What are the requirements of this inherently urban protagonist?

- To what extent can it epitomize inner-city life and be used as a strategy for urban densification?

- What are the adequate planning strategies for creating the necessary synapses with the surrounding urban fabric?

The study builds on the hypothesis that **the chance of Urban Gulliver to integrate in an existing urban fabric lies in the systemic consideration of the public realm. That requires a three-dimensional network of public spaces, enhanced by novel models and acceptations of instances of public space.** Building on the hypothesis, the research revolves around the main research question:

- To what extent and under what circumstances does the active consideration of public space improve the performance of Urban Gulliver as an urban densification strategy?

The public sphere is one of the most affected components of the urban structure by the rapid densification process. The composite form of open space and built structure represents a new connotation of public space. The research questions if and how public space can be elevated from the two-dimensional ground floor into the third dimension. Intuition led to the thought that such an achievement could offer solutions to the densifying, agglomerated cities that lack qualitative [traditional] public space. The attention is focused on the collision point between open public space – marking the horizontal dimension – and structure of buildings – comprising the vertical dimension. In this joint, Urban Gulliver relies on its capillarity and capacity of absorbing urban flows. Public space – once the residual void between buildings – absorbed by built structures, requires formal definition and its own morphological vocabulary. Several collateral inquiries develop out of the main research question:

- How can public space be re-defined beyond its traditional acceptance?

- Under what circumstances can the exterior public realm penetrate built structures and, subsequently, what mutations does it experience? What spatial structure emerges when building and open space collide? Which realm contaminates the other one, and how? What syntax is being used?

- The main issues concern the collision of a built, vertical structure with the horizontal layout of the open public space network. *How can public space be re-defined in the third dimension and what are the defining design elements that make it recognizable as such?*

Academic Contribution

Within the academic field, the research is positioned in the niche between two disciplinary poles – architecture and urban design. The contribution to scholarly debate spans between the realms of architectural and urban theory. Within this field of research, the approach invariably oscillates between influences from both the spheres of architecture and urban planning, and is influenced by specific topics of social geography, philosophy and public administration particularities.

The primary aim of this research is to react in the form of a strategic outline to the imperativeness posed by the accelerated urbanization process, under the auspices of densification. The study identified the need for a sharper delineation of the potential as well as the challenges that can be extracted from this disciplinary *terrain vague*. This study contributes to the debate on large-scaled structures embedded in the urban environment through the introduction of a fictional character, Urban Gulliver. It represents an ideal strategic approach that responds to real challenges and proposes a framework for viable implementation. Furthermore, this thesis broadens the discourse on novel acceptations of public spaces, following the controversial debate of loss and decay of public life in recent years. The relevant contribution comes in the form of the acknowledgement of the infrastructural component and its depiction through elements of the public realm. Furthermore, the approach outlined in this thesis aspires to indirectly convey applicability to the design practice by constructing a strategic blueprint.

Methodological Approach

Literature Review

The largest part of the research is based on literature review. The consulted sources are comprised of academic literature on specific topics from the fields of architecture, urban design, social geography and philosophy. Both established theories of key authors as well as timely contributions from journal papers and articles have been studied.

The literature review legitimizes the acknowledgements reached through strong theoretical underpinning from different angles, corresponding to different fields of knowledge. The delineation of the concept and formalization of the L-sized relies strongly on architectural theories. The characteristics of openness and facets of public space are outlined within the fields of sociology and urban design. The understanding of density and mechanism of POPS was embedded in public administration and urban theories. All findings inform the comprehensive discourse that gradually defines the Urban Gulliver strategy.

Case Studies

This thesis detours the classical approach of choosing and analyzing a set of case studies to prove a hypothesis. However, the ascertainment of specific affirmations requires the examination of specific built examples. The project of L'Illa Diagonal is introduced as an avatar of Urban Gulliver, with avatar referring to the possible embodiment of a concept. It serves to verify the viability of the formulated requirements and to extract further information on the implementation strategy. It is not the ultimate validation of Urban Gulliver, but the initial trigger. The avatar role implied the need for an in-depth understanding of the L'Illa project. This was achieved through on-site observations, meetings with the building's management representative, visits to the Manuel de Solà-Morales archive in Barcelona, plan analysis, literature review and an interview.

A similar approach was adopted for the eight studied POPS. Their selection relied on predefined requirements. The comparative analysis was enabled through extensive research of literature sources and administrative documents, empirical data and plan analysis, and was underpinned by an interview.

Interviews

As previously mentioned, the two critical case studies were also selected through knowledge gained in two interviews with key professionals. Lluís Tobella Farran extensively reviewed the L'Illa project during the interview conducted in July 2017. He was the lead architect of the urban project and the supervisor of the main building's planning and execution on Manuel de Solà-Morales' team. Claudia Herasme and Stella Kim were interviewed in April 2017 regarding the approach of New York's Department of City Planning towards POPS. Their key position within the Department enabled great insight into the complex mechanism of incentive zoning.

Structure

This thesis is structured in five chapters. In addition to the *Introduction* and *Conclusion*, the three main chapters elaborate on the core topics as follows:

Chapter 2 *OUTLINE OF A NOVEL URBAN APPROACH*
Cities are in need of viable models to address the challenges posed by the accelerated urbanization process worldwide. Future urban evolution requires strategic and disciplinary re-thinking. Past strategies have navigated between urban planning and design that has largely evolved towards a practice of over-determinate zoning regulations, and architecture, which has increasingly become a practice of self-referenced sculptures. The breach between the disciplines has and continues to widen.

The chapter embeds the urbanization process in a normative framework – the UN-Habitat III conference [2016] and its outcome, the New Urban Agenda – and theoretical groundwork. The Quito Papers [2016] formulated the theoretical vision for an open city and its implications on planning. Furthermore, recent contemporary debates on the crisis and possible future of planning reveal a special interest in three-dimensional urbanism. A closer look at the in-between scale – threshold between building and city scale – identifies the fascination with the re-emerging trend of L-sized structures. As size is primarily mediated through built density, understanding the measurement and implications of the concept of density is imperative.

This research also looks back at previous instances of L-sized structures throughout the twentieth century. Their erratic proliferation in metropolitan environments worldwide justifies a deeper investigation of the phenomenon. Building on all findings, the chapter ends with the introduction of Urban Gulliver, defined as the epitome of the future-oriented urban L-sized structure. It opens the debate regarding the syntactic definition of the newly introduced character.

Chapter 3 *LEVERAGING URBAN GULLIVER*
Drawing from previous examples, this thesis formulates a set of requirements for Urban Gulliver. Sennett has notoriously argued in favor of an open urban system, advocating porosity, complexity and incompleteness. Openness, the first requirement, marks the strategic approach for Gulliver. Within the framework of openness, this study expands on the features of architectural hybridization, differentiates between mixed-use and hybrid structures and, eventually, emphasizes one crucial aspect: indeterminacy. These requirements mainly reflect and influence the public sphere of Urban Gulliver. Beyond the obvious potentials of Urban Gulliver to respond to high density requirements, this chapter identifies two main perils for its implementation: insularity and commodification.

In order to verify their validity, Urban Gulliver's enounced traits and requirements are contrasted with the specifics of the L'Illa Diagonal project. Expanding on this study, the last part

of the chapter elaborates on the hypothesis: Urban Gulliver's chance to successfully integrate in an existing urban fabric lies primarily in its system of public spaces. This acknowledgement translates to a three-dimensional network of alternative [to the traditional] models of public spaces.

Chapter 4 *APPROACHING PUBLIC SPACE IN URBAN GULLIVER*

Urban Gulliver needs to catalyze urbanity. The quest for urbanity is approached through programmatic variety and is mediated through public space. The provision of public space increasingly escapes the auspices of the public sector and becomes a valuable trade asset for the private sector. L-sized interventions, entirely or partially initiatives of private agents, provide public space as an attractive bonus. Consequently, an increasing amount of public space is homogenized, sanitized and interiorized. The discourse builds on the recent critique on the loss of the public realm, ongoing since the 1990s, and questions the limiting traditional understanding of public spaces. 1992 was the year that Augé opened the debate on non-places and Sorkin mourned the ubiquity of overly themed spaces. Concomitantly, De Solà-Morales' vision of collective spaces – highlighting the capacity of public spaces to link private areas, opening them up to the collective patrimony – initiated a more optimistic and constructive discourse, followed by several authors. The debate evolved towards alternative, timely definitions of public spaces. The infrastructural component is considered key to a successful embedding of alternative public spaces.

The permeable borders required by an open structure inevitably lead to a fusion between the open public sphere and the built structure. This implies an important shift in the perception, understanding and conception of public space. The research further looks at one model that marked an alternative view of public space and became a useful tool for private-public negotiations: privately owned public spaces. It started as a normative compromise solution in highly densified metropolises but eventually enlarged the traditional meaning and limits of the public sphere. The evolution and acceptance of POPS will be studied in the paradigmatic case of the city of Manhattan.

Based on the extracted relevant features of Manhattan's POPS, the last part of this thesis decodes the elements that make up a three-dimensional public realm. The infrastructural component of public spaces is sustained by elements of circulation that enable connectivity, materiality and size that ensure permeability and programmatic activation.

2

OUTLINE OF A NOVEL URBAN APPROACH

2|1 THE NORMATIVE, THEORETICAL AND DISCIPLINARY FRAMEWORK

The broad framework provided for this research endeavor is structured from the perspective of normative, theoretical and disciplinary issues. These will cast light on recent debates about present and future urban environments.

The normative foundation is determined by the UN-Habitat Conferences. Every twenty years, UN-Habitat organizes a global summit with the purpose of outlining strategies for the future sustainable urban development. The last UN Summit, *Habitat III*, took place in October 2016 in Quito and was a pivotal point for the urbanization development worldwide. Its outcome was the *New Urban Agenda* – the twenty-year strategy initiated by Joan Clos as part of his work at UN-Habitat – and was adopted by nearly 170 national governments. Taking previous conferences into account as well as the preparatory work for Habitat III, the work not only underlines the relevance of the last summit but, more importantly, reveals the acuteness of the current urbanization process and the poignant need for new development strategies.

The *Quito Papers* came to life as the coeval theoretical underpinning of the New Urban Agenda. The four urban researchers leading the project – Richard Sennett, Saskia Sassen, Joan Clos, Ricky Burdett – called for an open city system, as outlined by Sennett in his previous writings. While the New Urban Agenda – a twenty-two-page document that synthesizes a twenty-year strategy for the global urban future – sets the guidelines for sustainable development in a broad sense, the *Quito Papers* firstly take into account past mistakes and conclude that all twentieth century urban ideas are in crisis. They provide the intellectual framework for the ongoing processes of urbanization.[1] The emergence of this manifesto is embedded in the recent and ongoing crisis of the planning discipline.

1 Gregory Scruggs, "The Quito Papers: An intellectual counterpoint to the New Urban Agenda," http://citiscope.org/habitatIII/news/2016/10/quito-papers-intellectual-counterpoint-new-urban-agenda, accessed May 17, 2017.

2|1.1 Habitat III and the Urban Future

Two powerful forces that challenge and shape the future of our cities are population growth and the escalating process of urbanization. Urbanization has been occurring at an accelerated pace. Considering the (already ubiquitous) UN prospects, over two third of the world population will inhabit cities by 2050. As a result of these predictions, the United Nations decided to acknowledge and take a stand on the perils of this process.

The *United Nations Conference on Housing and Sustainable Urban Development* – a global summit organized every twenty years – has represented the intent to formulate a set of guidelines for the future of sustainable[2] urban development. The last conference, Habitat III, was held in 2016 in Quito, Ecuador.

Habitat III is the third conference in the series initiated by The United Nations in 1976. The initial trigger was to create awareness of the importance of sustainable development of human settlements, both rural and urban. In each of the three conferences, UN-Habitat has aimed at getting the important players – governments and political entities – committed to reacting to the increasingly intense process of urbanization worldwide. The outcome of each summit was a set of guidelines that governments worldwide were encouraged to implement and follow. The influence and implementation rate of these guidelines has been steadily increasing since inception. The result of Habitat III came in the form of the *New Urban Agenda*, the strategic outline for the next two decades marked by urbanization.

Habitat I

More than forty years ago the world first gathered around one table in order to discuss and acquire a comprehensive perspective on grievous issues that were being recognized on a global scale, in order to elaborate a common strategy as a primary framework. The first Habitat summit was convened in 1976 and took place in Vancouver. At that point, global attention was focused on the accelerating patterns of migration from rural areas to urban settlements. The rapid process of urbanization, especially witnessed in the developing world, had not yet started to be considered alarming. In the context of an accelerated increase of the global population, it was the great and fast migration flows from rural areas to cities that posed ignited the first concerns. According to UN data, the world urban population at that point accounted for 37.9 percent of the population as a whole. The main outcomes of the 1976 summit were the

2 The term "sustainable development" was defined by the World Commission on Environment and Development in 1987 as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

recognition of *shelter* and *urbanization* as topics to be addressed collectively and the creation of the United Nations Center for Human Settlements (UNCHS-Habitat).[3]

Habitat II

Istanbul hosted the second conference, Habitat II, in 1996. Twenty years after the first gathering, the world met again to reaffirm the commitments from the Vancouver conference. In that time span, the critical concerns had been confirmed, as the population inhabiting cities had risen by 7.2 percent, up to 45.1 percent. The focus of this second meeting was set specifically on urban development as the reunited world leaders recognized poignant issues that required an international strategic approach. They reached a consensus on the fact that the urbanization process could be rendered as an opportunity and acknowledged the fact that cities were becoming the engines of global growth. The summit concluded with the adoption of the *Habitat Agenda-Istanbul Declaration on Human Settlements "as a global plan of action for adequate shelter for all, with the notion of sustainable human settlements driving development in an urbanizing world."*[4] It was the first official document that defined the goals for the urban future of cities worldwide.

Since then, the impact of the Habitat Agenda has been substantial. Over one-hundred countries have since adopted constitutional rights to adequate housing.[5] The tenets of the Habitat Agenda have influenced several endeavors of the United Nations through the years (the formulation of the Millennium Development Goals in 2000, the World Summit on Sustainable Development in 2002 and the Post-2015 Development Agenda). The principles of the Habitat Agenda set the groundwork for many future-oriented decisions under the auspices of the unstoppable phenomenon of urbanization.

The United Nations General Assembly called the Habitat III Conference in order to readdress the global commitment to sustainable urbanization, focusing on its most important outcome, the New Urban Agenda – the timely evolution of the 1996 Habitat Agenda of Istanbul – and its future implementation.

Habitat III

The third United Nations Conference on Housing and Sustainable Urban Development was held from October 17 to 20, 2016 in Quito. Relying on the global awareness of the process of urbanization – a driving force of development and concomitantly uncontrolled process that

3 "http://habitat3.org/," last accessed April 27, 2017.

4 "http://habitat3.org/the-conference/about-habitat-3/," last accessed April 27, 2017.

5 Explainer, "What is Habitat III?" http://citiscope.org/habitatIII/explainer/2016/09/what-habitat-iii, last accessed April 29, 2017.

stretches beyond borders, continents and cultures –, Habitat III gathered once again a broad international community to openly debate on its challenges and opportunities.

Forty years after the first summit, the belief that the structure, form, and functionality of towns and cities needed to change according to the evolution of societies was unanimous. Clos' statements were caustic: people won't leave cities and return to the countryside! That was the endeavor of UN-Habitat I and it failed![6] The subliminal message of Habitat I was indeed to create adequate conditions for people in the countryside to prevent them from moving to the city. However, twenty years later, by the time Habitat II Istanbul had begun, the world population had increased by around 1200 million people. The countryside could not compete with cities in terms of infrastructure and job opportunities.

By 2016, the world urban population had become the majority, counting 54.5 percent, and showing a more accelerated rise in the previous twenty years at 9.4 percent growth. Starting around 2009, more people around the globe were living in urban rather than rural areas. Additionally, recent years have witnessed a historic shift in the living and working habits of communities worldwide. According to recent UN reports,[7] cities currently generate 80 percent of the global GDP while accommodating over 50 percent of the world population on 3percent of its surface area, with the wealthiest one-hundred cities generating 35 percent of global GDP.[8] However, these poignant facts reveal the downsides of urban development as well. On one hand, cities represent the driving social, economic and creative force, the incubators of future trends, the condensed form of life; on the other hand, cities cause conflicts regarding social – poverty, inequity – or environmental menaces – climate change, pollution, energy consumption, degradation. These factors increased the expectancy that Habitat III was to become a crucial landmark event, embedded in complex preparatory work.

Habitat III | Preparatory Work

The preliminary work for the third Habitat summit had been announced by events, campaigns and actions involving several actors on an international level: governments, the private sector, organizations, academia and professionals. The World Urban Forum, organized in 2014 in Medellín, Colombia, was an important milestone; it marked the start of the preparations for Habitat III that would take place in the following two years. The process building up to the Quito summit also prepared the formulation of the *New Urban Agenda* – the expected outcome document –, unveiled in the form of a zero draft in May 2016. Further political negotiations, summarized in the form of additional drafts, led to a final consensus for a new global strategy.

6 Joan Clos, then executive director of UN-Habitat, at the "Designing the Urban Age Talk," https://www.youtube.com/watch?v=rNh8R40jZJs, last accessed February 13, 2018.

7 UN-Habitat, "Streets as Public Spaces and Drivers of Urban Prosperity" and "Planning and Design for Sustainable Urban Mobility - Global Report" (2013).

8 UN Habitat, "Habitat III Issue Papers. 8 – Urban and Spatial Planning and Design."

An array of events – from highly official to unofficial – helped gather information and input that would inextricably influence the New Urban Agenda document. Three sessions of the Preparatory Committee[9] coordinated the organization process towards the Habitat III Conference. Eleven *Regional and Thematic Meetings* took place all over the world and covered the main issues on urbanization on every geographical area.[10] The ten *policy units* – international groups of experts – were formed to develop policy recommendations built on the Issue Papers for the drafting and further implementation strategy of the expected outcome document. Each of the twenty-two Issue Papers summarized one or more main research areas, identifying specific research needs related to housing and sustainable urban development.
On an informal level, intergovernmental meetings and hearings with the involved players – member states, local authorities, stakeholders – provided relevant feedback. Furthermore, the *Urban Dialogues* – a series of moderated e-discussions – enabled a platform for broad participation: from stakeholders to citizens. The discussions were organized in six thematic areas: Social Cohesion and Equity-Livable Cities, Urban Frameworks, Spatial Development, Urban Economy, Urban Ecology and Environment, Urban Housing and Basic Services.

The *Urban Thinkers Campus*[11] was an initiative of UN-Habitat's World Urban Campaign that started in 2014 and was held twenty-two times prior to Habitat III in the form of an open setting for critical exchange between all stakeholders and partners concerned with sustainable urbanization. The events engaged local and subnational authorities, academics, civil society organizations, politicians, children, business and industries, foundations and philanthropies, the media etc. in open debates. The *Urban Breakfasts*, held by the Habitat III Secretariat in various locations around the globe, were another powerful engagement tool incorporated in the preparation of Habitat III. They addressed member states and stakeholders while also connecting local urban actors. There were fifty-one Urban Breakfasts prior to the conference, and the series of events was scheduled to continue. Furthermore, specialized journalists were commissioned with the dissemination of the ongoing events in order to ensure wide media coverage and to enable broad acceptance and engagement.

The preparatory events proved the magnitude of the actual endeavor and its global dimension and outreach. The road to the Habitat III conference was paved with numerous opportunities for governments, local authorities, citizens and professionals to gather, disseminate and interchange the know-how on a global level while contributing to a collective approach. This opportunity further arose during the actual conference in Quito. The participation rate set the record for a U.N. summit. Nearly two-hundred national governments that make up the

9 PrepCom 1 in New York, USA – September 2014; PrepCom 2 in Nairobi, Kenya – April 2015 and PrepCom3 in Surabaya, Indonesia – July 2016.

10 In order to trigger the dialogue on the acute urban issues at a policy level, towards commitment and action, a total of 11 official regional and thematic high-level meetings were held throughout September 2015 to April 2016. The 11 meetings each focused either on geographical areas or specific topics. The 4 Regional Meetings were clustered as following: Latin America and the Caribbean, Europe, Africa and Asia-Pacific. The Thematic meetings approached following topics: Informal Settlements, Public Spaces, Financing Urban Development, Sustainable Energy and Cities, Intermediate Cities, Metropolitan Areas, Civic Engagement.

11 http://www.worldurbancampaign.org/about-urban-thinkers-campuses, last accessed February 2, 2017.

U.N. General Assembly were lent support by the rest of the involved parties: cities, the private sector and civil society. As Citiscope noticed, *"the conference was the first time in 20 years that the international community, led by national governments, collectively took stock of fast-changing urban trends and the ways in which these patterns are impacting on human development, environmental well-being, and civic and governance systems worldwide. [...] Habitat III was thus a U.N.-wide initiative, and that's a very key distinction."*[12] The dimension and outreach of Habitat III surpassed its two predecessors. The world's expectations were palpable throughout the conference and evident in the breadth of diversity in the audience – the strongest participation ever recorded. The responsibility of this summit had to be proportional to the relevance of its outcome.

The New Urban Agenda and Its Core Ideas

The Habitat III conference concluded with the much-expected introduction and adoption of the New Urban Agenda by the participating nations. The drafting of the document represented an exercise in synthesizing the strategies and goals that would mark the urban patterns of the twenty-first century. Unlike, for instance, the Paris Climate Agreement, the New Urban Agenda is not binding. It solely provides guidance to a broad audience: national, regional and city governments, foundations, NGOs, academics, United Nations programs, the civil society etc. in its approach to city planning, urbanization and sustainable development.[13]

The New Urban Agenda has introduced a new global standard that reformulates how to plan, manage and experience cities. The U.N. resumed their overall goals,[14] which can be categorized as follows:

1 | *socially relevant goals*: to provide basic services for all citizens; to ensure access to equal opportunities; to fully respect the rights of refugees and migrants regardless of their migration status;

2 | *environmentally relevant goals*: to promote measures for cleaner cities; to strengthen the resilience of cities and reduce the risk and consequences of calamities; to address climate change by reducing greenhouse gas emissions; to support innovative, environmentally-friendly initiatives;

3 | *planning goals*: to promote safe, accessible and green public spaces.

12 Explainer, "What is Habitat III?"

13 Explainer, "What is the New Urban Agenda?" http://citiscope.org/habitatIII/explainer/2015/06/what-new-urban-agenda, last accessed April 30, 2017.

14 United Nations, "The New Urban Agenda: Key Commitments," http://www.un.org/sustainabledevelopment/blog/2016/10/newurbanagenda/, last accessed April 15, 2017.

The short document is structured in 175 paragraphs. The influence of this new framework on the decisive agents will likely benefit each aspect of urban development planning. The adopted commitments can be interpreted as a global common denominator, remaining very broad and vague in their formulation. Nevertheless, the world's awareness about the galloping urbanizing process and the approach of such a vast and abstruse topic is a great achievement. The agenda will further focus on the planning-related aspects and goals.

Just before the Habitat III summit concluded, four urban thinkers proclaimed their manifesto in the form of the *Quito Papers*, a scholarly underpinning of the New Urban Agenda. Both documents were partly the brainchild of Habitat III head and former Barcelona mayor Joan Clos. The Quito Papers were introduced at the *Designing the Urban Age* talk by Joan Clos, Richard Sennett, Saskia Sassen and Ricky Burdett, and were officially published in 2018. They open the debate on the future evolution of cities and planning strategies. The Quito Papers – a central event of Habitat III but not part of the formal procedures – act as a complement to the New Urban Agenda.

2|1.2 The Quito Papers, the Identity Crisis of the City and of the Planning Discipline

Under the auspices of the rapid urbanization process happening worldwide, the identity crisis of cities has been under constant debate in recent years. It questions the future evolution of urban settlements and encourages the re-thinking of urban and architectural strategies. The impregnation of the cityscape with some artificial identity through imposed masterplans has proven unsuccessful.

While moderating the Designing the Urban Age talk, Ricky Burdett pointed out the importance of urban patterns and expressed his ongoing belief in good planning. In other talks disseminating the Quito Papers in which he has participated, he has iterated that planning should be the concern of, not the demonization of the private sector. Responding to this, Clos criticized the master planning practice, placing it in stark contrast to urban planning. *"Urban planning* – he said – *should be urban design: the design of the public space and the design of the buildable plots and their interrelations. Master planning is just a zoning exercise. This doesn't generate value."*[15]

15 Joan Clos, "Designing the Urban Age Talk."

The Quito Papers

The Quito Papers elaborated on the negative consequences of the Athens Charter for the European and American urban environment. Their manifesto built on the belief that the charter – called the wrong utopia – had led to a closed system whose consequences are traceable worldwide. The cleaning process of cities initiated in the 1930s has led to the ruin of the street, especially regarding its continuity and sense of cohesion. The 1933 Charter bred a closed form of cities, imprisoned in a tight bond between form and function. If the Charter of Athens focused on cities of the future, The Quito Papers begin with the idea that the future is urban – the twenty-first century is the century of cities.

The four initiators of the manifesto promoted their vision and theoretical debate in a series of public events. These talks provided the setting for the thinkers to demark their theoretic terrain. Joan Clos' statement at the *Design the Urban Age* talk in October 2016 was that the city of the future cannot be the prostitution of the functionalist city.[16] In his opinion, a good plan has the ability and the conceptual structure to be open enough to allow change. The premises nowadays differ strongly from the ones in the 1930s: economic and population shifts are marked the passing from one industrial era to the next.

The third industrial revolution in which we are currently taking part imposes new paradigms. Joan Clos' questions were sharp: *How can such places be opened up? How can the divide between inside and outside be bridged? How can design generate new growth? How can visual form invite engagement and identification? These are the pressing questions which urban design must address in the Urban Age.* Richard Sennett presented his vision of the city as open system and punctuated the features of such an urban structure: 1 | complex in a synchronous way, 2 | incomplete in form, and 3 | porous in the relationship between its various elements. Saskia Sassen resumed her contribution to the questions: *Who owns the city? How do we recapture the city?* Building on her latest studies, many cities struggle with the loss of urban space due to ghost investment schemes that obviate the essential qualities of city centers. Manhattan is such an example, having become a jungle of underused towers, dark at night.

Ricky Burdett was most concerned with the physical presence of urban structures. A major problem is posed by increasing densities and expanding urban territories, as in both cases the amount of real public space and its quality is diminishing. He points to the Nolli plan and to the need of relearning how to draw it. He believes in good planning that catalyzes the city's ability to adapt and change. That means outlining the infrastructure of a messy, incremental city and understanding density, complexity and the overlapping of functions. Unlike his co-speakers, Burdett called for the importance of providing proper planning instead of demonizing the private sector.

16 "La ciudad del futuro no puede ser la prostitución de la ciudad functional"

These thoughts were compiled in the book *The Quito Papers and the New Urban Agenda.* The publication both outlines the major challenges that twenty-first century cities are facing, and offers a set of conceptual frameworks and approaches for these specific challenges. It merges the very broad goals of the New Urban Agenda with more specific delineations for urban practice approaches. The Habitat III event and its media relevance provided the opportunity to shift the discourse on city planning. Joan Clos not only led the summit but also provided the three scholars, Sennett, Sassen and Burdett, with a loudspeaker to promote their vision. The Quito Papers manifesto questioned the status quo of urban planning practice and initiated the discussion on future development scenarios. The scholars' credo was not new. They had previously been vocal about the presented topics. However, The Quito Papers represented the opportunity to gather these distinct theses in a coherent document, providing a possible blueprint for the urban future. The authors set a special focus on the strict functionalist separation of uses and activities, an outdated tendency that is still shaping many cityscapes and dominating planning practices worldwide: *"One of the key legacies of Habitat III should be to mark a paradigm shift away from the rigidity of the technocratic, generic modernist model [...] towards a more open, malleable and incremental urbanism that recognizes the role of design and space in making cities more equitable."*[17] The conversation between J. Clos and R. Sennett in the advent of the Habitat III conference, documented in the book, revealed the main positions of the two thinkers. Clos, who declared his enthusiasm for the unpredictability of the future replied to Sennett's provocation on a different type of city planning defined by less regulation: *"The concept that urbanization is a project for which you design the beginning and the end is wrong, because cities are living organisms and the city itself needs to digest the programme of urbanization. It is not that you provide a template."*[18]

The Identity Crisis of the City

Beyond The Quito Papers, there have been other scholarly voices providing warning of the perils of the ongoing approach on urbanization and its consequences. Kenneth Frampton also underlined the fact that *"cities can no longer be realized as coherent entities according to the dictates of some masterplan."*[19] In his provisional manifesto for the *megaform*, Frampton strongly criticized the current undifferentiated urban cacophony and the trend of "*'ad-hoc' proliferation of ill-related, relatively isolated, free-standing objects, which invariably go to make up the 'non-place' agglomeration of the contemporary urban environment."*[20] His counter-strategy introduced the place-making *megaform*, which will be outlined in the following chapter.

17 Richard Sennett and Ricky Burdett, "Preface: Why The Quito Papers?" in *The Quito Paper and the New Urban Agenda*, ed. United Nations Human Settlements Program et.al. (London: Routledge, 2018), XII.

18 Richard Sennett and Joan Clos, "A Conversation" in *The Quito Paper and the New Urban Agenda*, ed. United Nations Human Settlements Program et.al. (London: Routledge, 2018), 165.

19 Kenneth Frampton. *Megaform as Urban Landscape*. (Michigan: University of Michigan, 1999), 9.

20 Ibid., 45.

Pier Vittorio Aureli's recent writings also expressed his distrust in urbanization and the belief that the architectural project holds the key for the future definition of the city. For Aureli, the notion of the city stems in the dilemma between *civitas* and *urbs*, between the possibility of encounter and conflict and the possibility of security. Nevertheless, in recent times the city has fallen victim to an uncontrolled process of urbanization. This led to architecture disobeying *"urbanization's despotic routine; rather, [architecture] is a pre-condition for urbanization, a project that reconstructs through itself the formal and the political sense of the city."*[21]

Ábalos and Herreros have also signaled the changes that have been affecting the nature of the city in the past fifty years. They bemoaned the recent destruction of the traditional idea of urban space, stating that a *"subjective/homogeneous attitude has been extended from individual buildings to the contemporary city as a whole. With building types and programs undifferentiated, the human subject as a determinant of form absent, and contiguity a relative concept, the significance of the systems of punctuation and hierarchy that formerly articulated urban space has been lost."*[22]

The identity crisis of the city in general has led to an attempt to grasp the essence that could redefine it. The emergence of labels that describe one or a compound of relevant aspects has proliferated in the discourse of recent years. These labels often reveal a desperate effort to summarize the complexity, chaos and undefined character of the urban organism through one word. Architecture culture has elaborated on a broad vocabulary – a veritable Tower of Babel – in its struggle to depict and understand contemporary urban phenomena from different points of view. Yorgos Simeoforidis contemplated on this *anxiety of the present*[23] generated by a perpetually and rapidly shifting reality. He grouped the terms according to a register: either sociological or philosophical – *edge city, telepolis, non-places* –, economical – *global city* – or geographical – *megalopolis, ecumenopolis*. Furthermore, other terms try to characterize physical mutations of the city – diffuse city, generic city, emergent city, metapolis etc. Many of these terms and brands are mere descriptive attributes.

In contrast to restrictive terms, the proposal of the visionary Cedric Price felt more all-encompassing. He proposed an alternative term for the city at the turn of the twenty-first century as an impulse to re-think the parameters that had defined and confined it. He avoided an attribute and completely replaced the designation *city*. *"I suggest the word CONCENTRATE as an appropriate twenty-first century replacement for CITY. A CONCENTRATE requires environmental conditions to facilitate the actions and aspirations of its occupants at any one time. [...] Concentrates are defined by the intensity of population within an agreed time span, rather than an area of a particular density of particular built form."*[24] This collection of terms only underlined a bewildered attitude

21 Pier Vittorio Aureli, *The Possibility of an Absolute Architecture* (Cambridge: MIT Press, 2011), 45.

22 Iñaki Ábalos, Juan Herreros and and Joan Ockman. *Tower and Office. From Modernist Theory to Contemporary Practice* (Cambridge: MIT Press, 2005), 268.

23 Yorgos Simeoforidis, "Notes for a Cultural History Between Uncertainty and The Contemporary Urban Condition," in *Mutations*, ed. Rem Koolhaas et al. (Barcelona: Actar, 2001), 415.

24 Cedric Price, "18-CONCENTRATE," in *Re:CP*, ed. Cedric Price, Hans-Ulrich Obrist et al. (Basel: Birkhäuser, 2008).

towards the urban present and future. The visions behind the labels merely defined one isolated aspect of the intricate construct of a city.

The Crisis of the Planning Discipline

These few references and stark statements – the topic can be covered on a far wider spectrum – highlight the ongoing exigency of the phenomenon. Is the stand-alone notion of the city not enough anymore? Urban settlements are indeed in need of viable models to address the challenges posed by the increasing population. Divorced form architecture, urban planning has evolved towards a practice of over-determinate zoning regulations that has confined the discipline. The guiding principle of urbanism has always been division. Through zoning, the separation of functions based on ground use, both of functions and behavior, are over-programmed. On the other hand, architecture has gradually lost solidarity, often orienting towards a practice of self-referenced sculptures. It is not just the identity crisis of cities, but also the crisis of the discipline that has been triggering concerns and critique by notorious voices from the field of architecture and urban theory.

Additionally, an increasing amount of bottom-up, self-planned and self-managed developments have undermined the credibility of the discipline. Ash Amin's notion of *telescopic urbanism* revealed one aspect of the crisis. He claimed that the city of the future is being looked at through the wrong end of the binoculars,[25] referring to top-down implementation of built structures that lack correspondence to the surrounding urban scale, texture or structure but emerge out of ownership and political patterns.

Aureli was vocally skeptical about the often-promoted idea that cities should no longer be planned and called it one of the biggest illusions cultivated by architects in the last forty years. Nevertheless, he admitted to the difficulty of city planning in the form of legible projects as a consequence of the rise of neoliberal policies in the 1980s. *"However, rather than disappearing altogether,* – he argued – *planning has transformed itself into a state driven lubricant whose ideological goal is to demonstrate the inferiority of the state in relation to the market."*[26]

Ábalos and Herreros also recognized how the recent tumultuous development of cities has forced the discipline of urban planning into a major identity crisis: *"... the methodological instrument engendered by modernism – the discipline of urbanism – is now in jeopardy. This disciplinary approach to urbanism, founded essentially on discrete systems and two-dimensional thinking and defined as a form of knowledge based on spatial atomization and the imposition of hierarchies, is today incapable of providing a response to the topological changes affecting contemporary space."*[27] The discipline has been living an outdated version of itself, incapable to mark, foresee or even respond to future

25 Ash Amin, "Telescopic Urbanism and the Poor." *City*, 17:4 (2013): 476-492, DOI: 10.1080/13604813.2013.812350.

26 Aureli, *The City as Project*, 15.

27 Ábalos, Herreros and Ockman. *Tower and Office*, 270.

development patterns. Furthermore, the twilight zone between the field of architecture and urbanism has increased this disciplinary area of uncertainty and conflict.

Already in the 1980s, a group of researchers from the Unit for Architectural Studies at Bartlett University published what has since become a highly influential text, *Space Syntax: a different Urban Perspective*. In their quest for urbanity, the researchers acknowledged that the architecture of urban space had been lost in the interregnum between architecture and planning. They attributed this failure either to the proliferation of rules and regulations in the form of zoning principles that have slowly annihilated the conscious design, or to the impossibility of reconciling urban living with motorized traffic. *"It seems exactly where architecture has made its most strenuous efforts to reinterpret urban space* – they claimed – *that the most notorious 'urban deserts' are said to be, from the 'streets-in-the-air' and 'urban rooms' of 'social modernism' to the unoccupied village greens and alleys of toy-town vernacular."*[28]

According to urban researchers Meta Berghauser Pont and Per Haupt, the relationship between architecture and planning has experienced a radical change since the 1970s. What used to be considered a hierarchical clarity – national, regional, city planning, urban design and finally, architecture – has shifted towards a new dynamic. The last decades have witnessed the shift of the discipline and the product of architecture as a consequence of planning processes towards becoming the trigger of planning processes. *"... city development has shifted away from normative master and blueprint planning to more strategic and project-based approaches. [...] This has resulted in a process of city development that mainly occurs through negotiations between private and public actors."*[29] Due to these changes, they proclaimed the need to relate development programs to spatial qualities of the urban environment. Hereby, Berghauser Pont and Haupt also mentioned the critics of such a project-based design approach, who condemn the transformation of urban development into superficial large-scale architecture. They proposed large-scale architecture projects to be linked to an urban strategy – at the scale of a city or a region – as a whole.[30]

Going a step further in this line of thought, Steven Holl contemplated the evolution of urbanism and the future of planning in the acknowledgment of the Z dimension. In his vision, the section becomes undoubtedly the prerogative of the twenty-first century metropolitan space. Holl considered all architectural works to be urban works as well, as they can deny or affirm the potential of the city. Following this argument, he called for spatial experimentation of the vertical and the diagonal in the urban context of new metropolitan density and living patterns. *"Invigorated urbanism of the twenty-first century* – Holl anticipated – *must move beyond the planimetric, and take new forms in section. This 'Z'-dimension architecture yields new experiences in space, light, and perception. Increased spatial energy directly related to a high degree of sectional*

28 Bill Hillier et al., "Space syntax, a different urban perspective," *Architects' Journal* 178 (1983): 49.

29 Meta Berghauser Pont and Per Haupt, "Space, Density and Urban Form" (PhD diss., TU Delft, 2009), 18.

30 The authors refer to Claessens & van Velzen 2006; Meijsmans 2008; Meyer 2005.

development allows for fresh dimensions of urban living. [...] As urbanists and architects we must think first of the urban sections in our cities."[31]

MVRDV have also incurred in the possibilities of three-dimensional thinking and regarded three-dimensionality as the acclaimed domain of the planners' profession. *In KM3,* MVRDV posed a set of questions regarding the future of urban development and planning that sounded both all-encompassing and superficial. They tackled all major topics, such as global space consumption, desolate peripheral zones, potentials of densities leading to productive environments, urbanity, flexibility, possible synergies etc. The naively formulated questions regarding the possibility of achieving the entire array of ideal goals – *"What urbanism will then appear? Can an urbanism be developed that enters the third dimension in a time when urbanism is still dominated by zoning – a very two-dimensional approach? Can a city be made that literally creates more public levels, enlarging the capacity of the existing city floor plate?"*[32] – were answered, through the emergence of a novel type of urbanism. Their confidence in urbanism emerged from a new perspective of three-dimensionality. The future city – a utopian *capa-city* – would be a new programmatic skin stretching globally, evolving not just horizontally but also in its thickness as well, both upwards and downwards. MVRDV acknowledged that architecture can never fully embody the urban scale, but it can be representative as part of a whole. United, architecture and urbanism could become devices for future development.

In this myriad of opinions, claims and laments, there is one text that marked an important starting point for the work. In his provocative essay from 1994, Rem Koolhaas also notoriously mourned the death of urbanism as a profession in times of a fundamental shift towards the urban condition. *"How to explain the paradox that urbanism, as a profession, has disappeared at the moment when urbanization everywhere – after decades of constant acceleration – is on its way to establishing a definitive, global 'triumph' of the urban condition?"*[33] In a world left without urbanism, architecture suddenly takes control and provides a parasitic security. Though architecture has the capacity to define, exclude and limit environments, it also exploits and exhausts the potentials that could only be generated through urbanism. Unlike Aureli, who advocated an urban future guided by the architectural project, Koolhaas announced the moment to reinvent urbanism.

"If there is to be a 'new urbanism' it will not be based on the twin fantasies of order and omnipotence; it will be the staging of uncertainty; it will no longer be concerned with the arrangement of more or less permanent objects but with the irrigation of territories with potential; it will no longer aim for stable configurations but for the creation of enabling fields that accommodate processes that refuse to be crystallized into definitive form; it will no longer be about meticulous definition, the imposition of limits, but about expanding notions, denying boundaries, not about separating and identifying

31 Steven Holl, "5-Sectional Cities," in *Urbanisms: Working with Doubt* (New York: Princeton Architectural Press, 2009), 25.

32 MVRDV, *KM3: Excursions on Capacity* (Barcelona: Actar, 2005), 270.

33 Rem Koolhaas, "What Ever Happened to Urbanism?" in *Small, Medium, Large, Extra-Large; Office for Metropolitan Architecture,* ed. Rem Koolhaas et. al (New York: Monacelli Press, 1998), 961.

entities, but about discovering unnameable hybrids; it will no longer be obsessed with the city but with the manipulation of infrastructure for endless intensifications and diversifications, shortcuts and redistributions – the reinvention of psychological space. Since the urban is now pervasive, urbanism will never again be about the new only about the 'more' and the 'modified.' It will not be about the civilized, but about underdevelopment. [...] To survive, urbanism will have to imagine a new newness. Liberated from its atavistic duties, urbanism redefined as a way of operating on the inevitable will attack architecture, invade its trenches, drive it from its bastions, undermine its certainties, explode its limits, ridicule its preoccupations with matter and substance, destroy its traditions, smoke out its practitioners."[34]

The Quito Papers relied on the conviction that the consequences of the Charter's principles are still traceable in current planning approaches. The reduction of densities has eroded the street and the public realm, *"sucking the lifeblood out of city life and deadening everyday urban experience. What has resulted* – Burdett continued – *is a pervasive and generic urban genre which indeed imposes a degree of order; but an inflexible and 'brittle' one that ultimately works against the potential of generating a sense of urbanity or cityness."*[35] The fall of modernity has left a disciplinary void that has not been filled since. Timid attempts to re-think the city, superficial tags and naively absurd schemes, have failed to offer solid counter-alternatives. Both the physical presence of cities and the concept of a city lack definition and vision. Urbanism is still, as over twenty years ago when Koolhaas was writing his text, at the point of no return. Even our [the professionals'] relationship to the practice of city-making is still profoundly ambiguous; it starts during the years of education. This work embarks on a quest for the uncertain, boundary-less, hybrid version of an urban presence placed in the disciplinary compromise zone. In his requiem for urbanism, Koolhaas forecasted an imminent collision between the urban and architectural realms. This is the scale to be further explored.

At first, this in-between scale could be identified with the realm of urban design. The term is attributed to Josep Lluís Sert, who notoriously convened an urban design conference in 1956, while being the dean of the Harvard's Graduate School of Design. He consolidated this new discipline of the in-between scale by initiating the urban design academic program at Harvard – being quickly followed by several other schools. Within this framework, Sert elaborated on a formal instrumentarium – the patio, the plinth, the pedestrian street etc. – that mediated between the scales. Hashim Sarkis' research on the influence of Sert and the evolution of the discipline provided great eloquence. Tracking down its roots, Sarkis stated that urban design *"would come to represent a middle scale between architecture and city planning, one that would better correspond to the new scale of projects of urban renewal and redevelopment at the time, reflecting the need to provide an edifying formal articulation to the civic functions and public spaces of the*

34 Ibid., 969.

35 Ricky Burdett, "Contemporary Urbanism," in *The Quito Paper and the New Urban Agenda*, ed. United Nations Human Settlements Program et.al. (London: Routledge, 2018), 141.

functional city."[36] It came to life as the synthesis between architecture and city planning, and incorporated the component of civic design that actively engaged with public spaces and facilities. The core of the discipline that Sert coined was subsequently shaped by important theorists, such as Jane Jacobs, Kevin Lynch, Colin Rowe, Aldo Rossi, Robert Venturi and Denise Scott Brown, Christopher Alexander etc. However, as Sarkis concluded, the evolution of the discipline strongly mutated in the years after its designation. Important aspects, such as the links to regional planning or urban renewal, have been substituted with smaller scale interventions, such as private mixed-use ensembles, or merged with landscape-design concepts. Beyond Sarkis' conviction that *"all of the tools needed to handle the ever-changing problems of urban development should be readily accessible from the common ground of urban design,"*[37] it can be argued that the discipline nowadays lacks clear framing.

Looking for a present-tense definition, Matthew Carmona argued that it is easier to outline what urban design does not represent. *"It is not, for example, big architecture, small-scale planning, civic beautification, urban engineering, a pattern-book subject, just visual/aesthetic in its scope, only a public sector concern, nor a narrow self-contained discipline."*[38] However, drawing on Cuthbert's writings, Carmona outlined the differences and boundaries between the three professional realms. If architecture comprises the design of individual buildings and urban planning represents the state agency that controls the production of the land, urban design is placed in between and is defined as the open system that uses individual architectural elements and ambient space as basic vocabulary with a strong focus on the public realm. Despite the imprecise delineation, urban design incontestably accommodates and addresses the in-between scale in a broad sense. Its prerogatives – creating quality urban spaces – are in line with the main inquiries previously mentioned. However, the employed tools and professional adjudication are still confusing.

In conclusion, here, in the grey area between the split disciplines and scales of architecture and urbanism, the focus of this work will be set on L-sized structures – an in-between version of architecture and city. But before that, the work will look more closely into the aspects and parameters that create and define the character of the city and affect the large-scaled structure. Regarded from an urban perspective, density is considered a defining feature of the urban environment whose qualities need to be further explored.

36 Hashim Sarkis, introduction to *Josep Lluís Sert. The Architect of Urban Design, 1953-1969*, ed. Eric Mumford, Hashim Sarkis, Neyran Turan (New Haven and London: Yale University Press, 2008), 3.

37 Ibid., 6.

38 Matthew Carmona, *Public Places - Urban Spaces; the Dimensions of Urban Design* (Oxford: Architectural Press, 2010), 4.

2|2 DENSITY. SIZE AND COMPACTNESS

The negotiation between city and building involves an intimidating scale, that of a piece of urban structure with an outstanding physical presence. This is the scale of the L-sized. The L-sized structure concentrates a city mechanism in a compact, building-like conformation. Size – regarded both in relation to the surrounding city fabric and to the human scale of its users – becomes a relevant determinant. But how can size be quantified? The bulk of these urban protagonists, their structural and formal composition, entails high density patterns. Density, this ubiquitous and unavoidable attribute of the urban environment, becomes the main decoder of the abstract notion of size. Even if not all-encompassing, it is likely the most relevant urban indicator. Therefore, this chapter will look more closely into the concept and its measurement, offering an overview of the different types of density and their implications for the physical environment. It leans on a few selected secondary sources that provide a comprehensive overview.

Density measures the degree of compactness of a substance, in this case the city. Density is an indicator that describes the relationship between a given area and the amount of a certain type of entities in that area – people, dwellings, floor space or services. The equation seems logical; the parameters seem obvious. However, the expression of density opens a complex field of knowledge that has tried to resume the quintessence of a city.

One of the first differences in the overall understanding of the topic refers to the perceived and built density. The perception of density, as will be explained further on, is a non-quantifiable, subjective matter. Several investigations, such as Amos Rapaport's, have highlighted the distinction between perceived – crowding or congestion – and built density. The latter is quantifiable and, therefore, the preferred tool for planners. Even in terms of globally used indicators, there is not one universal unit of density. Different measurement approaches mainly oscillate between a physical form of density – related to floor area – and a socially relevant form of density – related to the number of dwellings or population.

2|2.1 The Measurement and Perception of Density

When approaching the vast theoretical territory of physical density, the work has mainly leaned on four important sources: the dissertation of Berghauser Pont and Haupt entitled *Space, Density and Urban Form*,[39] the MIT *Density Atlas*,[40] the findings of the A+T research group[41] and the UN-Habitat report *Urban Patterns for a Green Economy. Leveraging Density*.[42] These sources provide a solid and exhaustive base for the overall understanding of the implications of the density indicator.

Berghauser Pont and Haupt tried to decipher the interdependency between a comprehensive measure of density and the urban form. They resumed the measurement of urban density as the method relating the built program to the urban form. The first part of their work highlighted the complexity of the topic. It revealed the myriad of possible approaches and the important aspects to consider.

Complex Measurement Factors

A first clarification concerns the differences in the use of density. It is important to distinguish between urban density used to describe a built environment – descriptive use –; and urban density used as a norm in the process of planning and designing the city – prescriptive, normative use. The latter is the planners' preferred tool and the focus of this chapter.

Regarding the definition of the measured area, an important differentiation regards the *net* density – measures either the number of inhabitants or dwelling units in a residential urban area – and *gross* [neighborhood] density – measures the number of inhabitants or dwelling units in an entire urban area, including infrastructural elements, streets, public open spaces etc. Nevertheless, the distinction between net and gross value is not enough to ensure comparable measurements of the density of an area. The precise definition of the boundary of an area is an additional determinant that can lead to radical changes of measurements and generate overall ambiguity. The Density Atlas deployed the term *scale*, referring to the extent of land being measured. It defined five levels of scale in a typical metropolitan region: the block, the neighborhood, the district, the city and region. However, its case studies focus on just two scales: block or development parcel and neighborhood. The A+T research solely focused on

39 Berghauser Pont and Haupt, "Space, Density and Urban Form."

40 Density Atlas is an investigation project at the MIT, led by Tunney Lee together with students, affiliated planners, architects and designers. http://densityatlas.org/, last accessed February 3, 2018.

41 Aurora Fernández Per, *Why Density? Debunking the Myth of the Cubic Watermelon* (Vitoria-Gasteiz: a+t research group, 2015).

42 UN Habitat, "Urban Patterns for a Green Economy. Leveraging Density," (2012), https://unhabitat.org/wp-content/uploads/2014/06/Leveraging-Density-Urban-Patterns-for-a-Green-Economy.pdf, last accessed February 14, 2018.

the measurement of density of the urban block – the intermediate scale – as they argued it represented the main field of interest for the architectural practice.
Regarding the measurement types, there are also several common approaches. UN-Habitat's report translated urban density primarily as the number of people in a given area. The measurement concerned three interrelated components: population density [pers/km^2 or m^2/pers], residential density [dwelling u/ha] and occupation density [pers/m^2 or dwelling u/pers]. Similarly, the Density Atlas measured projects based on what it considered to be the three most common measurements of density: residential density [dwelling u/acre], population density [pers/acre], and floor area ratio [FAR]. In the opinion of the A+T researchers, the dwellings/ha indicator was not relevant anymore, as *"different movements can be produced between residential uses and offices or commercial spaces. Uses can change. This should be possible and desirable."*[43] They considered Floor Area Ratio [m^2/m^2] the ideal measure parameter, as it depicts an abstract, balanced and generic density that does not depend on the uses of the space. It is therefore preferred to dwellings/ha or pers/ha indicator. Therefore, the authors underlined the conviction that density should not be affected by debates regarding uses or zoning.

Berghauser Pont and Haupt's approach was ampler. They evaluated five common measurement indicators of density and elaborated on the objective pros and cons of each:

1 | population and dwelling density [combined],
2 | land use intensity,
3 | coverage,
4 | building height,
5 | spaciousness.

Population density is fluid; it changes more rapidly than the build environment. Therefore, in the first method, dwelling density seemed to provide the more robust framework. Secondly, the land use intensity [LSI] is reflected through the commonly known Floor Space Index [FSI] – the variable that expresses the relationship between the amount of build floor area and the plan area. This index became a common standard in Europe in the second part of the twentieth century. Across the Atlantic, in New York City for instance, the floor to area ratio [FAR] is the equivalent, highly employed index. Thirdly, the coverage expresses the relationship between build and non-build land, usually represented through figure-ground analysis. Colin Rowe employed this technique in his well-known *Collage City* analysis to emphasize the differences between modern planning – the accumulation of solids floating in an endless void – and traditional planning – the voids cut through mass. Ildefons Cerdà used the restriction of coverage in his expansion plan of Barcelona, allowing a maximum of 50 percent. The public space defenders Jane Jacobs and Jan Gehl have also argued in favor of high coverage percentages as a prerequisite for an increased population density and a lively city. The coverage strongly influences the life and perception of the city on ground floor, therefore it is also called ground

43 Aurora Fernández Per, *Why Density?*, 54.

Density measure	year	use	norm
Population density			
Inhabitants per hectare	1899	Howard	< 75 inh/ha (district)
	1933	Le Corbusier	1,000 dw/ha
Dwelling density			
Dwellings per hectare	1909	Unwin	< 30 dw/ha (island)
	1934	Van Eesteren	55-110 dw/ha (fabric)
	1961	Jacobs	> 250 dw/ha (island)
Land use intensity			
Ausnutzungsziffer=FSI*100	1925	Building Ordinance Berlin	20-300 (lot)
Land Index=1/FSI	1949	Central Service for Reconstruction and Public Housing	
Floor to Area Ratio (FAR)=FSI	1961	New York Zoning Resolution	maximum FAR (lot)
Floor Space Index (FSI)	2003	Structuurplan Amsterdam	minimal FSI (fabric)
Coverage			
Coverage=GSI*100	1961	New York Zoning Resolution	maximum coverage (lot)
	1860	Cerdà	< 50% (lot)
	1925	Building Ordinance Berlin	0.10-0.60 (lot)
	1961	Jacobs	0.60-0.80 (island)
Ground Space Index (GSI)	2003	Structuurplan Amsterdam	minimal GSI (fabric)
Building height			
Building height	1961	New York Zoning Resolution	maximum height
Amount of stories	1667	Rebuilding Law London	
	1880	Baumeister	< 4
	1902	Ordinance Paris	< 7 + attic
Spaciousness			
Weitraumigkeit=OSR	1928	Hoenig	> 1.0 (lot)
Open Space (Ratio)=OSR*100	1961	New York Zoning Resolution	minimal OSR (lot)

Fig 2.01 Berghauser Pont and Haupt. Table of density measures used through history [2009]

space index [GSI]. If the measurement of 4 | building height was considered a poor and rather irrelevant indicator, 5 | spaciousness – the relationship between open space and total floor area – offered information on the quality of open space. Its equivalent is the New York City zoning resolution's open space ratio [OSR]. OSR stipulated the amount of open space that a development had to provide on a lot. This constraint led to the emergence of privately owned public spaces – POPS –, an urban instrument that will be elaborated on in a subsequent chapter.

Each measurement looks at a specific aspect of density and provides information for a particular set of needs. The parameter FAR provides information on a building's bulk and physical presence. FAR belongs to the common nomenclature of planners and developers as it ascertains the intensity of a development. When the focus is set on profitability, the quantification of dwelling units gains importance. Another argument, often defended by public entities and government agencies such as UN-Habitat, is that density relies primarily on population numbers. None of these basic measurements offer a complete picture of the broad and complex concept of density. The extensive depiction of measures has revealed the fact that none of the previously mentioned methods have proved all-encompassing nor directly translatable to the urban form. The next exploratory step focuses on the meaningful combination of measurement types.

Building on their thorough analysis, Berghauser Pont and Haupt suggested a combination of several variables. They introduced the *network density* – a specific instance of the general concept of *transition density* applied to the scale of the urban fabric – and defined it as the amount of network in an area unit. This parameter added to the whole of three interrelated elements that make up for a density measurement – intensity [FSI or FAR], compactness [GSI] and network density [N] – in a combined, novel and more sophisticated definition of density. The Density Atlas combines two indicators, FAR and Coverage, to define building density. Development scenarios with the same FAR but different coverage inevitably produce varying types of development and structural compositions.

A specific source for understanding the approach on high density was provided by the book *Designing High Density Cities…* When writing about the complex aspects of [high] density and the related measurement types, Vicky Chang[44] also mentioned additional composite indicators of built density, especially regarding measurements that comprise large areas: *density gradient* and *density profile*. The density gradient is the rate at which density oscillates in relation to the distance from the measured point of reference. This indicator showcases processes of centralization or decentralization happening over a time span. By looking at changes over time, the density gradient traces specific processes of spatial urban evolution. The density profile reflects a series of measurements that are based on one reference location point but

44 Vicky Chang, "Understanding Density and High Density," in *Designing High-Density Cities for Social and Environmental Sustainability*, ed. Edward Ng (London: Earthscan, 2010).

comprise different scales of calculation. It is an indicator of settlement structures, often used for rural environments.

The influence and potential of density can be resumed under the notion of *performances*. Such performances, as mentioned by Berghauser Pont and Haupt, refer to the ability of the built environment to deliver other qualities, such as access to daylight, parking, privacy etc. In a similar exploration, A+T defined two performance categories that influence the qualities of density: hard and soft. The hard (objective) performances refer to the insertion in the grid, orientation, accesses, parking facilities, circulations etc. The soft (subjective) performances, such as the perception of the city or the building, the urban atmosphere, flexibility, privacy, security etc., emerge from the interaction with the users and become evident in the post-occupancy period. Through the additional distinction between soft and hard performances, A+T tried to provide an analytical tool and approach related both to the perceived, qualitative and to the measured, quantitative indication of density.

The indisputable tendency of our present and future is to provide high-density environments, meaning the search for densification strategies that can ensure a high degree of living comfort. Despite rapid urbanization, there is evidence of a global pattern of declining urban densities, suggesting that urban growth is becoming less compact. In other words, people moving into cities are not necessarily accommodated within existing urban footprints. These facts were also addressed by the New Urban Agenda:

"We encourage spatial development strategies that take into account, as appropriate, the need to guide urban extension prioritizing urban renewal by planning for the provision of accessible and well-connected infrastructure and services, sustainable population densities, and compact design and integration of new neighborhoods in the urban fabric, preventing urban sprawl and marginalization."[45]

"We will promote integrated urban and territorial planning, including planned urban extensions based on the principles of equitable, efficient, and sustainable use of land and natural resources, compactness, polycentrism, appropriate density and connectivity, multiple use of space, as well as mixed social and economic uses in the built-up areas, to prevent urban sprawl, to reduce mobility challenges and needs and service delivery costs per capita, and to harness density and economies of scale and agglomeration, as appropriate."[46]

Keeping in mind that density measures the degree of compactness of a city, the expression of high density is best represented by the compact urban structure. Beyond numbers, facts, ratios and rational measurement parameters, there is another aspect of density that has not been yet elaborated.

45 UN-Habitat, Paragraph 52 of "The New Urban Agenda" (10 September 2016), http://habitat3.org/wp-content/uploads/NUA-English.pdf, last accessed March 9, 2018.

46 Ibid., Paragraph 98.

The Perception of Density

As already shown, the discussion of density is complex and controversial. Until now, research has focused on the opinions of scholars and planners; they have used density as a tool. The focus shifts now towards the experience of density from the point of view of the users.

The discussion on density needs to go beyond the urban form. Already in the 1970s, Amos Rapaport recognized that density was not a useful concept in human terms since it was mainly translated as a ratio of people per unit area. He questioned this limiting approach out of his belief that, beyond the measurement devices, there were more important aspects defining density. The author argued that density itself was a perceived experience. If the measured density was best expressed through the combination of different measurement types, the perceived density was the result of a cumulus of social and cultural factors.

Any definition remains thus incomplete without the subjective and unquantifiable factor of perceived density. According to Rapaport, there were mainly three terms that decoded the perception of density: 1 | spatial organization, 2 | interaction of people through coding rules, and 3 | the associational and symbolic meanings impregnated to certain environments. In spatial terms, the relationship among elements – height, spacing, juxtaposition – was influential. In terms of social interaction, cultural and historic backgrounds were defining. Thirdly, perceptual, associational, temporal, physical and socio-cultural aspects also strongly influenced the experience of density. These inputs represented the information received from the environment itself and appraised through subjective filters. *"Where and when various activities take place may vary for different groups. The number of settings, their spatial distribution, their temporal relationships, and the rules which prescribe how they are used and by whom lead to very different behavioral spaces and very different relative importance of the dwelling. The result is very different effective and perceived densities."*[47]

Rapaport sketched the influences of density as follows:

Physical System	Perceived System	Matched	Affective Density
(density in people per unit area organized in certain ways)	*(perceived density)*	*against norms, desired levels, etc.*	isolation O.K. crowding

Citing Rapaport, Chang defined perceived density as the individual's perception and approximation of the number of people present in a certain area, the space available and its organization. Perceived density addresses, not only the relative relationships of people within the physical space they inhabit, but also the relationship between these people in a given space.

47 Amos Rapoport, "Toward a Redefinition of Density," in *Environment and Behavior* Vol.7 No.2 (Sage Publications Inc., 1975): 147.

The notion can be further categorized in spatial density and social density. Spatial density reflects the perception of density according to the relationship between spatial elements, such as height, proximity, width etc., while social density renders the interaction between people in a certain space. High spatial density indicates lack of space; high social density depicts too many people in a given area that engage in interaction.

Perceived density has often been related to crowding or its opposite, isolation. The difference between the two concepts resides in the fact that density stands for the perception and estimate of the number of people present in a given area, the space available for them, its organization, etc. and crowding/isolation is the subjective evaluation or judgment of that perception. If density represents the number of people in an area, crowding represents the negative perception of excessive density. It is therefore a subjective experience that is very much related to social, cultural and personal factors. Crowding is thus not directly the consequence of a planner's design.

Wrongly, the term high density has often been associated with overcrowding. However, overcrowding is the result of lack of space for individuals; it does not relate to high density of people. High building density, independent of the measured ratios, does not imply overcrowding. Chang recognized that there is no specific definition of high density; the ranges vary strongly from one administration to the other. Compared to the notion of crowding, an important feature of perceived density is its neutrality; it does not imply any personal appraisal. Crowding always has a negative connotation, associated with the state of psychological stress.

The perceived density depicts the interaction between the user of a space and the surrounding environment. Therefore, despite not being mathematically measurable, it provides more information on the urban performance of an area than the indicators of physical density. From Rapaport on, various authors have talked about the effect of certain features and elements of urban morphology on the perception of density. Moreover, there are various established perceptions about dense neighborhoods: either positive (environmentally friendly, culturally rich, economically competitive), or negative (crime, pollution, income disparities). The perception of density and its evaluation, the judgment as isolation or crowding, is proportional to the expectancy of levels of interaction. Density, crowding, and isolation are all related to the need to process information. Furthermore, it is functional distance rather than physical distance which determines the density. Rapaport resumed these aspects in a very eloquent way: *"If, at the simplest level, the built environment is a matter of distances between people and people, people and objects, and objects and objects, as well as the relative permeability of the various separating boundaries, then it is a matter of effective distances and more generally density, as most aspects of urban design, must be examined in terms of relationship among elements."*[48] These acknowledgements on the subjective interpretation and effects of density will open further debate on urban qualities in Chapter 4, related to the concept of urbanity and public space.

48 Ibid., 135.

2|2.2 Densification Strategies. The Compact Form

The previously referenced UN-Habitat report, *Leveraging Density,* quickly passed from the introduction on density to the compact city, understood as the sustainable development form at which to aim. The compact structure primarily implies high built and population density. UN-Habitat's definition of a compact city referred to five very general outlines, the so-called 5 *Ds*: 1 | increased density, 2 | diversity within a fine grain of mixed uses, 3 | design of the transport infrastructure with focus on the pedestrian, 4 | destination point for people and employment opportunities and 5 | distance to transit and walkability. Further on, breaking down the scale of the city structure, the urban decisions to promote a compact form referred to: a | identifying and intensifying urban nodes, b | increasing built area and residential densities to support nodes and public transit corridors, c | enhancing the role of the street as a multi-functional urban space that accommodates a range of activities and uses, and d | promoting mixed-use development and intensification of activities. These UN guidelines have been summarized and will be further detailed due to the fact that they strongly concern and affect the L-sized structure.

a | The identification of strategic sub-nodes linked to transport and development corridors encourages a densification process through the promotion of a concentration of mixed uses and higher residential densities at these nodes. The symbiotic relationship between the transport hub and the mixed-use development – the report refers to *positive externalities*, the reciprocal support of objectives – can translate into economic opportunities. Inner city transit-orientated concepts – intermodal nodes, train or metro stations, tram or bus stops – polarize high-density mixed-use developments that generate veritable concentration points.

b | The density of the compact city must yield qualitative public spaces, as it enables interrelationships and exchange with other adjacent public and private urban fields. Thus, densification should be strategically pursued along public transport routes in order to support threshold situations, related to modal interchanges and public transit stops. When scanning the city, these densification points can be found in several urban settings. Firstly, infill developments of vacant or underutilized inner-city parcels and brownfield redevelopments should become high-density nodes. Also, the thorough consideration of specific strategic parts of the existing building stock could lead to the evaluation of the benefits of demolition of existing buildings and redevelopment at a higher density. The improvement of infrastructure and services – urban upgrading – can trigger higher density patterns. Lastly, greenfield developments are to be conceived from scratch at increased densities.

c | Regarding the scale of the street, the compact city should support multi-functional roads that can offer the prime locus for public intervention. The intersections are especially considered points of opportunities.

d | Mixed-use developments comprise both physical and socio-economic diversity. The densification strategy should also consider the integration and intensification of these diverse components. The mix can account for improved connection and security.

Other recent discussions about compaction – either in the form of theories or policies – have been mostly related to sustainability goals, resource protection or waste reduction.[49] The outlines are vague, nevertheless the environmental preoccupation has been integrated in the planning processes from the 1980s onward. Suddenly, urban planning and architectural design followed the *green and global* lemma. The compact city was considered the sustainable form of development. This claim was sustained by many scholars;[50] the equation seemed easy:

compact city =
high degree of density + mix of uses + efficient transport infrastructure + inherent diversity
= the undeniable sustainable urban form.

Indeed, it seems disturbingly elementary. Similar to the previously mentioned issue of labeling cities, here too the attempt to convey a whole set of qualities through one word is striking. According to Michael Neuman,[51] the compact city was a pleonasm. He dismantled the compact city as the one and only promise of a sustainable future. Although most of the literature on the topic had failed to provide a solid definition of the term, the compact urban structure had become a synonym of sustainability – another vast and unspecific term. Drawing on several literary sources, he then resumed the characteristics of a compact city only to realize the high degree of generality:[52]

1 | High residential and employment densities
2 | Mixture of land uses
3 | Fine grain of land uses (proximity of varied uses and small relative size of land parcels)
4 | Increased social and economic interactions
5 | Contiguous development
6 | Contained urban development, demarcated by legible limits
7 | Urban infrastructure, especially sewerage and water mains
8 | Multimodal transportation
9 | High degrees of accessibility: local/regional
10 | High degrees of street connectivity (internal/external), including sidewalks & bicycle lanes
11 | High degree of impervious surface coverage
12 | Low open-space ratio

49 Rod Bugess, "The Compact City Debate: A Global Perspective," in *Compact Cities; Sustainable Urban Forms for Developing Countries*, ed. Mike Jenks et al. (London: Spon, 2000).

50 Nicola Dempsey and Mike Jenks, "The Future of the Compact City," *Built Environment* Vol 36 No 1 (2010): 5-8.

51 Michael Neuman, "The Compact City Fallacy," *Journal of Planning Education and Research* 25, (2005): 11–26, accessed February 16, 2018, doi: 10.1177/0739456X04270466.

52 Ibid., 14.

13 | Unitary control of planning of land development, or closely coordinated control
14 | Sufficient government fiscal capacity to finance urban facilities and infrastructure

Neuman stressed the fact that compactness was usually axiomatically linked to high densities. Precisely this tendency of resuming the complex entity of the city through the sole criterion of density was detrimental to further research on the topic. Neuman's paper raised the question of whether urban form – compact or not – was the adequate planning strategy for a sustainable outcome. He defined sustainability according to four themes and contrasted them with the idea of the compact urban structure: diversity, balance, fitness and resilience. Unconvinced of the implications, he concluded that the attempt of building sustainable cities only through urban form strategies was counterproductive. *"Instead, conceiving urban form as a processual outcome of urbanization opens the door to a new and dynamic conception of urban planning that is based on a reversal of the last century's (not exclusive) focus on urban form governed by the static tools of the plan and zoning."*[53] Neuman found the key to future sustainable planning in the conception of urban settlements, compact or not, from the point of view of processes.

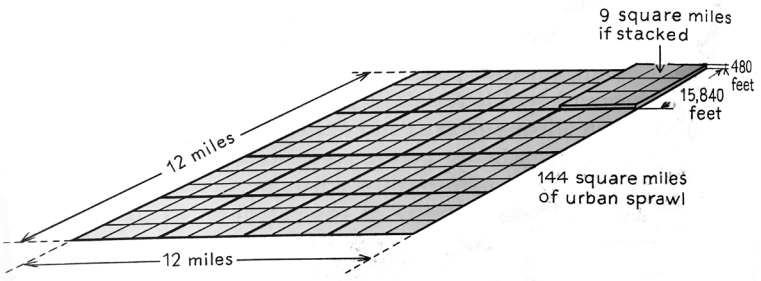
The correspondence between urban form and sustainability is indeed weak. The interpretation of the compact city through the sole lens of density is not persuasive, and the prevalence of dynamic processes over the static form is understandable. Judging by its recent employment, the *compact city* seems to have become just another all-encompassing, however empty and biased term. Nevertheless, looking back a few decades, the research found a seed of the compact city with a refreshingly different character, definitely worth mentioning.

Compact City

Recent writings and reports describe the *should* situation: the ideal attributes of the compact structure. In comparison, a few decades' prior, Dantzig and Saaty coined the term *Compact City* as a proper subject. Compact City was the name given to a new and revolutionary urban protagonist, born in 1973 out of mathematical speculations reflected on considerations on structure and efficiency. Its creators even prepared the stage for it, organizing a much more illustrative, scenographic presentation. Their book is, rather than the scientific publication expected from two erudite mathematicians, a novel. Their likable character is introduced as follows:

"*The new, Compact City we will endeavor to explore with you would be economically inexpensive to build and maintain, yet spacious* [spatial quality and comfort]*; it would have private gardens for those who want them, and public parks* [several layers of offerings in a gradient from private to public, adaptive to the users' needs]. *Only a few minutes of travel time would separate homes from schools or work* [city of short distances], *and residents would be able to choose to walk, bicycle,*

53 Ibid., 23.



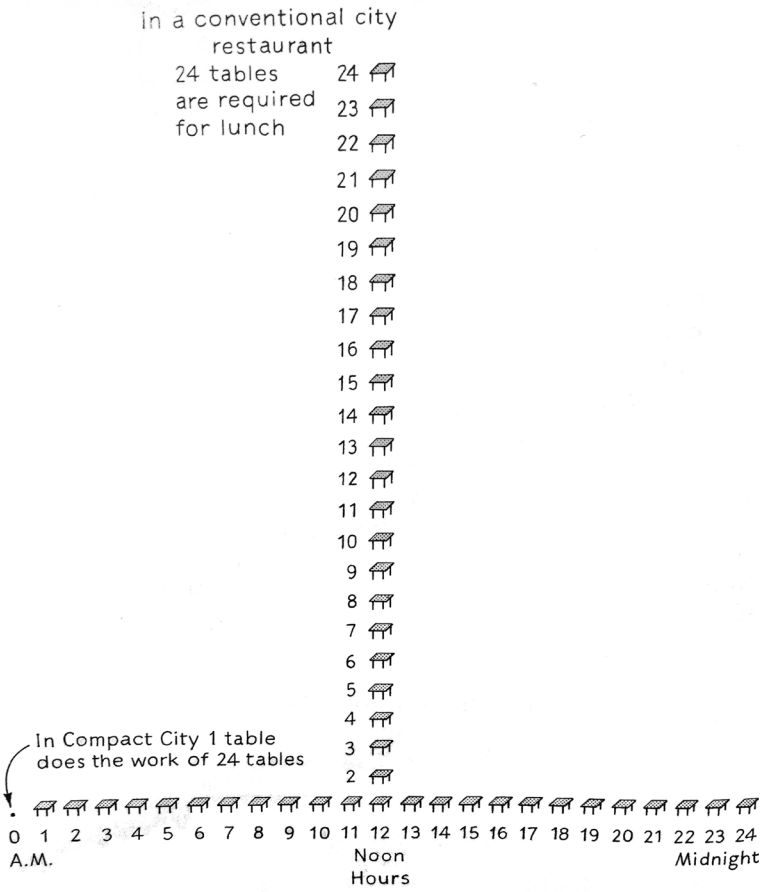


Fig 2.02 Danzig and Saaty. Compact City. A schematic representation of the space principle [1973]

Fig 2.03 Danzig and Saaty. Compact City. A schematic representation of the time principle [1973]

or ride public transit [walkable city, car-free concept]. *We will consider the advantages of having stores, restaurants, delivery service, health facilities, and all other routine services fully available, without delay, day or night, Monday or Sunday, winter or summer.* [mixed-use, high frequency of manifold programs] [...] *The amount of land needed for building Compact City would be negligible* [reduced space consumption]. *Moreover, construction could be made flexible so that it would be easy to remodel, renew, and rearrange parts of the city* [resilient and adaptive], *and thus avoid the process of urban decay that eventually result in slums. [...] Compact City would be a four-dimensional city. Thinking of time as a dimension, we believe that Compact City would be the well planned four-dimensional counterpart of our present-day predominantly two-dimensional cities, which are constantly being partially patched up to solve urban problems. [...] The difference between today's cities and what we hope will characterize future cities is that this expansion into full use of the vertical dimension today (through the technique of tearing down and rebuilding) results in cities that are many times more expensive, more inefficient and inflexible, less attractive, and less exciting than Compact City."*[54]

Compact City is a total-system, integral approach; it is a model. The authors referred to three main challenges in their approach:

1 | the structural, constructive challenge to enable a platform for flexibility, for changing and rearranging internal structures;

2 | the challenge of the political and administrative organization; and

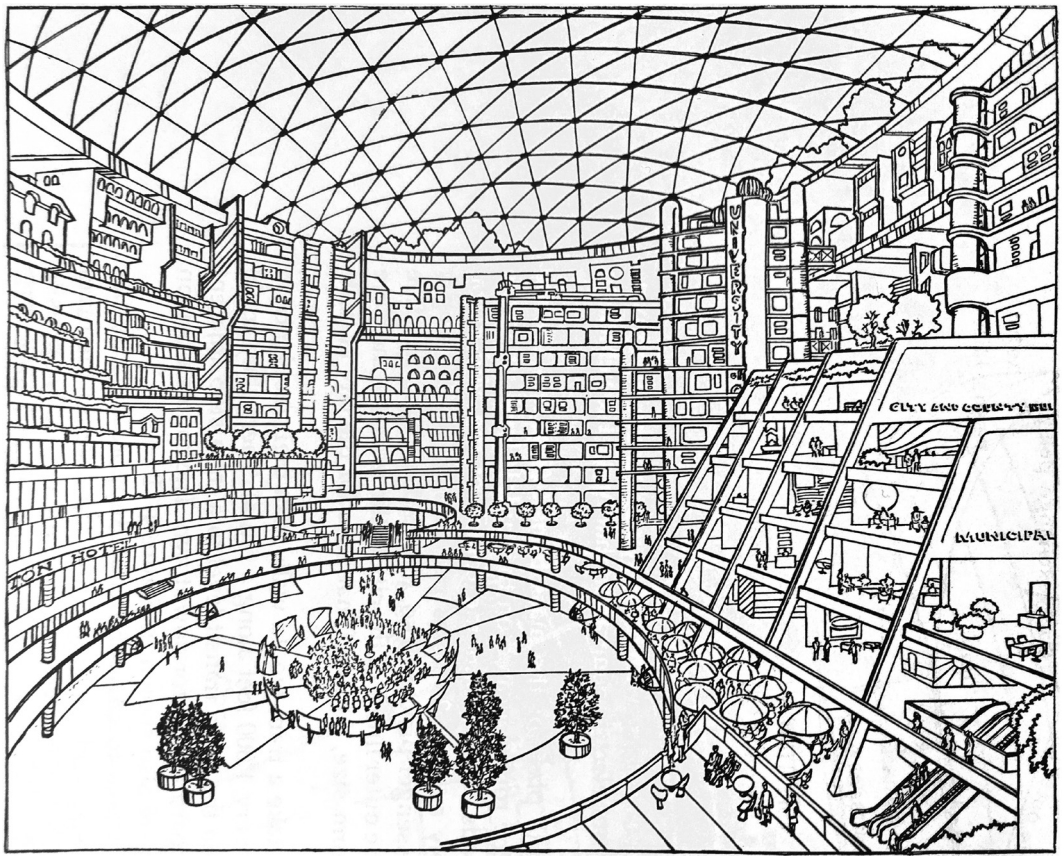
3 | the environmental challenge of conservation, preservation and self-sufficiency regarding its resources.

Two principles – space and time – guide its functionality. The principle of space comes as a reaction to sprawl and consists in stacking the city, effectively utilizing the vertical dimension. The principle of time consists in overlapping uses in a twenty-four hours cycle. According to the authors, *"in order to conserve and maximize the effective use of space and to lead a less encumbered life, man needs to free himself from the syndrome of day-night cycles by utilizing the facilities of the city more evenly throughout the twenty-four hour day."*[55]

The authors continued with the outlining of their character, defining its shape and layout up to the configuration of its housing units. They elaborated on a comprehensive proposal for the transport system. They also looked into the financing possibilities and the costs. The design of Compact City went far beyond the planning of street layouts; it had to explore three-dimensionality and the overlapping component of time. The second part of the book also looked into environmental aspects – waste management, recycling, relationship to nature,

54 George B. Dantzig and Thomas L. Saaty, *Compact City: A Plan for a Liveable Urban Environment* (San Francisco: W. H. Freeman & Co., 1973), 11-12.

55 Ibid., 32.



"The Core Exchange is a large open lobby area in the center of the Core-building at mid-level (Level 8). Mass transit trams converge from 32 radial directions to discharge their passengers at the edge of the open area and to start new runs. [...] The diameter of the Core Exchange is 250 feet. Tiered around it are theaters, hotels, restaurants, and shops. The supporting rim of a dome is at Level 14. Levels 14 to 16 would rise around the outside of the dome."[56]

56 Dantzig and Saaty, *Compact City*, 64.

Fig 2.04 Danzig and Saaty. Compact City. A cross-section view of the core exchange [1973]

energy sources etc. The third part tackled some social implications, detailed health care solutions and redefined cultural institutions in the compact form.

Despite the highly elaborated and persuasive drawings and layouts, Compact City remained a fiction character. It was not a strategy or a feature of an urban environment, but a completely novel and alien living machine. Nevertheless, the exercise of compacting an urban structure, optimizing its density in the high range, marked a milestone in the density versus compactness discussion.

2|2.3 The L-Size. Past and Present Features

The fascination for size has been identified as a recurrent phenomenon in the last century's architectural and urban debate. At the turn of the twentieth century, technological progress accompanied by increasing land and real estate prices opened up a whole new spectrum of construction possibilities. This led to the great endeavor of building higher and bigger. Metropolises such as New York rapidly changed their skyline with mixed-use high-rises, then passing on to manifold ensembles that overcame the scale and complexity of a single building. They still respectfully maintained the traditional urban guidelines – street corridor, edges, built volumes – but started to work as a composition. Thus, the first thoughts about a built structure functioning as a city materialized.

In the following decades, the flourishing trend of the blend was counteracted by the principles of modern planning. However, after the dissolution of *CIAM* [Congrès Internationaux d'Architecture Moderne] and after the metropolitan image and urban structure had been inevitably marked by the attraction for heights, the decade of the 1950s and 1960s offered another big moment. Fumihiko Maki claimed the need for *"a great structure capable of hosting all or part of the city functions"*[57] in his definition of the collective form. From a mere juxtaposition of uses, Maki called for a more complex three-dimensional linkage between related functions. The megastructure era emerged from one of his instances of the collective form – the megaform. It was the culmination of a movement that thrived on size and complexity. The driving forces behind these *dinosaurs*[58] of the recent past were urban questions, not architectural ones. In the decades to follow, large building complexes conceived as a single organism emulating city life became the promising image of the future. They incorporated infrastructure and public and private uses in a kaleidoscope of mixity and diversity. Within the same container, diverse functions had to find their way to co-exist.

57 Fumihiko Maki, *Investigations in Collective Form* (Washington University: St. Louis, June 1964).

58 as Reyner Banham referred to megastructures.

Further on, the chapter recalls paradigmatic expressions of the L-sized along the urban and architectural history of the twentieth century. The retrospective of mostly utopian projects reveals the diversity of structural principles of the L-sized: the expression of high-density and mixity through different compositions. It can be argued that beyond ratios and measurement methods, an important aspect in the negotiation of density is played by the structural principle underlying the L-sized.

A Retrospective of L-sized Approaches

As mentioned before, the L-sized structure has always oscillated between the architectural responsibility and the urban scale. Through the years it has suffered numerous interpretations, conceptualizations and formalizations. These proposals are difficult to categorize, as they do not follow any specific recipe or formula. The focus is set both from the discipline of urban design and architecture, resulting in the frequent blur of boundaries between architecture and urbanism. Many of these proposals are radical expressions of either an architectural or urban position. The focus on the L-sized structure has been set from different points of view and aspects, changing the terminology every time. From *collective forms* [Fumihiko Maki] to *megastructures*, passing on to the *megaform*[59] [Kenneth Frampton] and *hybrids* [Fenton and Holl], all these terms define aspects of the L-sized structure. Are they just changing labels for the same on-going concept? This chapter will further look at variations of L-sized approaches – focusing mainly on moments at the beginning and mid of the twentieth century – regarded from a structural point of view.[60] The work distinguishes between 1 | vertical, 2 | modular and 3 | horizontal configurations and exemplifies them through emblematic projects.

1 | Vertical configurations of the L-sized structure – often denominated *vertical cities* – can be approached both from the disciplinary perspective of urban design and from the perspective of architecture. Are there any rules in the generation of vertical cities? In search of a common denominator, it has become clear that the structures can be very diverse and the formalization more than versatile. Still, some main characteristics can be drawn out of this myriad of approaches. The concept of vertical cities is not new. The exacerbation of it can be linked to key moments in recent architectural and urban theory. Throughout the twentieth century, planners' urge and ambition to grow high has been envisioned in a wide range of proposals – reaching from utopian to dystopian – and seldom built. Nowadays, there is a recognizable revival of the trend. Iñaki Àbalos introduced the term *verticalism,* announcing that *"the conception of the space and the contemporary city in vertical terms has only just started."*[61] Is verticalism – this radical expression of urban densification – a feasible strategy in need

59 Not to be confused with the notion of *megaform* introduced by Fumihiko Maki.

60 According to Merriam Webster dictionary: Structure - the arrangement of particles or parts in a substance or body, organization of parts as dominated by the general character of the whole, the aggregate of elements of an entity in their relationships to each other

61 Iñaki Ábalos and Urtzi Grau, "VERTICALISM. The Future of the Skyscraper," in *This is Hybrid*, ed. a+t research group et al (Vitoria-Gasteiz: a+t research group, 2014).

for implementation tools, or is the vertical city just a fashionable label for contemporary mixed-use high-rises? What planning instrumentarium – architectural or urban – should be deployed? The following examples reveal two poles of approach: vertical urbanism stemming in a building – a skyscraper – or in an urban system.

Skyscrapers and their capability of performing in the most congested urban areas have ignited great inspiration for vertical cities. Their seemingly limitless potential of vertical growth marveled the architecture scene at the beginning of the twentieth century. Due to economic speculation and spatial limitations, the bulky envelope of skyscrapers started to host increasingly more diverse functions. They almost achieved the programmatic complexity of the city, concentrated in one vertical succession of levels. So, why not become a vertical city? Skyscrapers linked by bridges and reshaping the skyline represented the first utopian approaches on the vertical city of our recent history. The 1920s the euphoria of being able to build higher – due to the use of steel construction, the invention of elevators and ventilation systems – and the pressure of high land prices established the concept of the vertical city in the architectural and urban discourse of the epoch. Developing metropoles, such as New York mainly fulfilled the dream of verticality through the endeavor to build high-rises. The first vertical city analogies referred to the concentration of a multitude of programs into one vertical, highly dense structure. The public realm was still limited to the ground floor, the street level.

The skyscraper typology served as the quintessential expression of verticality. Skyscrapers are utterly urban protagonists. Rem Koolhaas' seminal *Delirious New York* [1978] sparked the international attention of scholars on the typology. The book tackled the dichotomy of how to deal with the complex and confusing conditions of the twentieth century metropolis. The skyscraper had become programmatically so complex that it eventually encapsulated the entire city. In the short time-span between the mid-1950s and the end of the 1960s, the typology mutated. This coincided with the crisis of modern planning principles. Ábalos and Herreros' *Tower and Office* is likely one of the most comprehensive studies that traced the evolution of mixed-use high-rises. According to the authors, the postwar period faced the coexistence of two distinct notions of the skyscraper: a | the homogeneous, commercial skyscraper characterized by the repetitive stacking of equal floors, and b | built developments in which the skyscraper represented a complex element based on horizontal juxtapositions or the vertical superimposition of complementary functions, which could operate as self-sufficient [vertical] cities. This line of evolution increased the importance and complexity of the section as well. The section became the key element that shuffled and articulated the mix of functions, contributing to *"an urban structure that was multicentered instead of hierarchical, and multilayered instead of compartmentalized according to function."*[62]

62 Ábalos, Herreros and Ockman, *Tower and Office*, 218.

The formal eloquence predicated by modernists was increasingly becoming the subject of a strong critique; it opened the quest for alternative structural approaches. The skyscraper – product of the vertical succession of a typical plan – was slowly contaminated by more complex, entangled principles – aggregation, juxtaposition, superposition etc. – that enabled a high complicity with the surrounding larger urban systems. As Àbalos and Herreros also pointed out, technological and typological changes in the high-rise induced topological changes, even affecting the idea of the city itself. Being able to contain a whole city in its compact structure, the skyscraper became a vehicle of decentralization. It was self-referenced and could perform independent to its context. Thus, either located in the city center or in the outskirts, the high-rise itself represented the city and the center. Nevertheless, in the dense urban context, high-rises developed an increasing interdependency between structure and infrastructure. *"In the new skyscraper three overlaid structures—public, private and mechanical—define a self-sufficient vertical organizational system that tends to break down centrality into dispersed components..."*[63] The lobbies gained urban protagonism as they attracted the public realm into the interior, linking various points of access and piercing circulation paths through the urban fabric.

The skyscraper had undoubtedly reached a great functional complexity. Nevertheless, it proved its limitations and stiffness when trying to articulate these fixed programmatic blocks through dynamic elements of transport and movement infrastructure. The vertical city addressed from the pole of the urban discipline has been mainly struggling with integrating urban flows and architecture solids within one system. Regarding the urban planner's view, the discourse runs under the auspice of vertical urbanism. Traditionally, urban structures grow horizontally, spreading in two dimensions. The three-dimensional growth is related to high density challenges and complex needs of inter-connection. It is precisely this vertical component that has been traditionally addressed by architecture, through buildings and not through the urban structure. The grand hazard of the vertical city consists in addressing the third dimension through an urban spatial structure.

Referring back to 1920s New York – this metropolitan-sized laboratory – Raymond Hood's contribution to the vertical city discourse marked an important inflection point from the architectural towards the urban repertoire. He proposed a model of large-scale development as an ensemble of linked vertical agglomerations. Other approaches on vertical cities had remained prisoners of their plot's boundaries, hence prisoners of architecture. Hood's premonition[64] foresaw a built structure that claimed several street blocks through combining vertical concentrations of uses with horizontal connections. These intuitions had already started to ripen in his 1927 *City of Towers* proposal. He questioned the arbitrary process of emergence of buildings through a mere extrusion of the plots' area. Instead, he proposed the combination of several adjacent plots in order to gain the formal and compositional freedom for a larger intervention. It was in 1929 that his thoughts gained structural entity

63 Ibid., 256.

64 as Rem Koolhaas defined it in *Delirious New York. A Retroactive Manifesto for Manhattan* (New York: Oxford University Press, 1978).

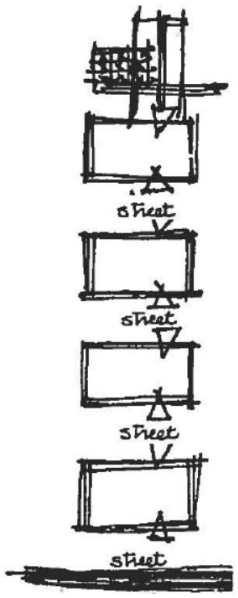
in *The City under a Single Roof* proposal. The project was based on the premise of relating communities – linked by common interests and activities within the city – and solving congestion issues through the inclusion of urban programs and infrastructure into one coherent oversized building structure. Hood's aspiration was to incorporate a multitude of functions and integrate traffic, thus creating a true urban microcosm that could host and fully cater to its users. The proposal's name, The City under a Single Roof, revealed the ambition of approaching a metropolitan scale through a structure that overcame the limitations of a single plot, mimicking the complexity and force relationships of a whole city within the efficient composition of blocks. Koolhaas noted[65] how Hood replaced all the horizontal movement on the street with vertical movement within the buildings. The movement infrastructure was solely provided for means of decongestion. The ground floor would be freed; the users' flows would be polarized by the elevator shaft leading them to the corresponding programmatic blocks. The City Under a Single Roof marked one important shift in conceiving a vertical city that broke the limiting bonds of the lot and started to gain metropolitan strength.

Contemporary to Hood, Ludwig Hilberseimer delivered a highly influential contribution through the *The High Rise City* project from 1924. Published in 1927 in *Groszstadt Architektur*[66] his abstract project for the city negotiated between two extremes: a system for the overall urban plan, and the definition of the single inhabitable cell. Hilberseimer's significant theoretical contribution was based on a gridded systemic order that relied on the array of a single typology. It spanned between the urban and the architectural scale using one vehicle – a hybrid block –, in which all civic activities, such as production, living, and commerce were superimposed in a vertical public-to-private gradient. Hilberseimer's efficient distribution of both horizontal and vertical flows irrigated the gridded structure on all levels. Even if the High Rise City's extension was marked by horizontality, its novel and very deliberate approach of the vertical dimension explained it being coined as a vertical city. The project was based on the conscious acknowledgment of the vertical infrastructure and the conception of one system that equitably relied on the X, Y, and Z axes.

The 1959 dissolution of CIAM channeled an important shift in architectural and urban thinking. The phenomena of vertical cities revived to another peak of intensity and allowed for new concepts in urban and architectural thinking. Again, one of the challenges was to address the three-dimensional city. The keyword was density; the aim was to conceive new urban patterns for higher density settlements. As more people lived in cities, the need to grow higher became obvious, but the young generation of architects – such as the members of Team 10 – denied this growth happening in the mono-functional, segregated way as modern functionalist planning had envisioned it hitherto.

65 Koolhaas, *Delirious New York*, 174.

66 Ludwig Hilberseimer, *Groszstadt Architektur; Die Großstadt, Städtebau-Wohnbauten, Kommerzielle Bauten, Hochhäuser … Großstadt Architektur; Großstadtarchitektur* (Stuttgart: Hoffmann, 1927).



"In the complex of association that is a community, social cohesion can only be achieved if ease of movement is possible, and this provides us with our second law, that height (density) should increase as the total population increases, and vice versa. In the context of a large city with high buildings, in order to keep ease of movement, we propose a multi-level city with residential 'streets-in-the-air'. These are linked together in a multi-level continuous complex, connected where necessary to work pi aces and to those ground elements that are necessary at each level of association. Our hierarchy of associations is woven into a modulated continuum representing the true complexity of human associations."[67]

67 CIAM 9, Aix-en-Provence, July 24th, 1953 in Alison Smithson, *Team 10 Primer* (Cambridge: MIT Press, 1974), 76-78.

Fig 2.05 Peter Smithson. Street mesh in the air [1951]

The reconstruction works of London after the Second World War influenced the work of Team 10, understanding the street as a complex socio-spatial structure. Two of its members, Alison and Peter Smithson, claimed the importance of urban mobility as the key to social cohesion, since roads form the essential physical infrastructure of the community. Their proposals merged mobility infrastructure with building structure, thus experimenting with new movement patterns and linking functions through pedestrian roads. Their *streets in the sky* were means to re-establish a feeling of community using the street as the groundwork and network for a fully connected community, offering a spatial variety by emulating informal settlements. The physical space of streets was abstracted and then intimately related to the built program in a vertical multiplication of horizontal layers.

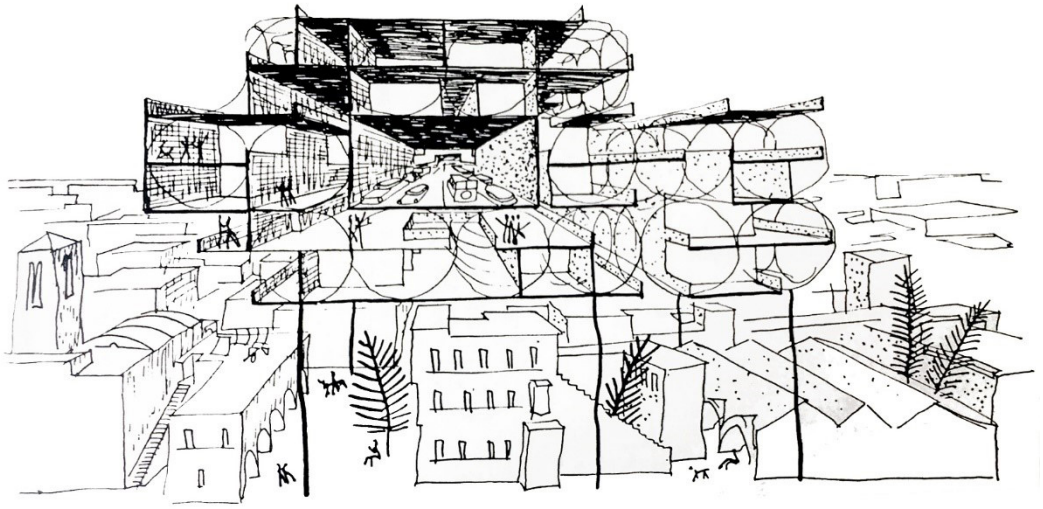
These idealistic urban projects bred a novel design methodology based primarily on vertical configurations of urban space. The section was explanatory. The 1960s brought new concepts and a further evolution of the study of vertical cities, metamorphosing into three-dimensional, modular frameworks. Consequently, a wide range of proposals arose. They ranged from highly utopian – futuristic models channeled by the encouraging technological progress of those times – to few ones anchored in reality and responding to the context.

2 | Modular configurations of the L-size were primarily products of the megastructure utopias. Megastructures seemed to hold the solutions to already identified and stated problems; they would solve conflicts between design and spontaneity, endurance and ephemerality, structure and openness. Fumihiko Maki's vision of the *collective form* anticipated the megastructure movement and set a theoretical ground for introducing large three-dimensional urban structures.

The complex megastructuralist movement spanning over twenty years – between 1955 and 1975 – was characterized by a wide array of evolution lines. Reyner Banham famously documented[68] this epoch with all its ramifications. He identified the relevance of these radical visions in their idealistic approach of the city at the design level. Again, the architectural gesture was overcome by the need of an urban-scale intervention through a three-dimensional structure capable of hosting the entire spectrum of city functions. In order to coin the term, Banham referred to Ralph Wilcoxon's definition: *"not only a structure of great size, but... also a structure which is frequently: 1 constructed of modular units;*
2 capable of great or even 'unlimited' extension;
3 a structural framework into which smaller structural units (for example, rooms, houses, or small buildings of other sorts) can be built – or even 'plugged-in' or 'clipped-on' after having been prefabricated elsewhere;
4 a structural framework expected to have a useful life much longer than that of the smaller units which it might support."[69]

68 Reyner Banham, *Megastructure: Urban Futures of the Recent Past*, (London: Thames and Hudson, 1976).

69 Ralph Wilcoxon, *Council 01 Planning Librarians Exchange Bibliography* (Monticello, 111.), 66. 1968. 2.



"Perspective section of a business centre straddling an old quarter (technique of superposition). The core of the construction (neutral axis) is used as a high-speed thoroughfare. The structures, four to six levels in height, are situated 12 meters above ground level, spanning the existing buildings on pylons set at 20 to 24 metre intervals. The four-lane, 12 metre wide express road on the inside of the structure serves as a connection between quarters; it is surrounded by public and commercial a [sic] spaces (terraces, sports facilities, promenades, boutiques, offices, etc.) Access to the superstructure is provided by mechanical as well as traditional means (elevators, escalators, stairs) from the level of the old quarter end the underlying parking spaces. The pylons are positioned in such a way, that demolition of existing buildings can be avoided as much as possible. The steel framework is three-dimensional, combining compression rings and tension rods. The structure requires no more than 45 kg of steel per m2 of usable surface. It is hyperstatic to the 27th degree and highly resistant to seismic activity."[70]

70 Yona Friedman, "In the Air. Interview with Yona Friedman – 28 October, 2001" in *Exit Utopia. Architectural Provocations 1956-76*, Martin van Schaik and Otakar Máčel, (Munich: Prestel, 2005), 34.

Fig 2.06 **Yona Friedman. Perspective of the Ville Spatiale Project for Medina [1959]**

These four points best resume the modular thinking that defined the underlying structural principle of megastructures. Beyond a few build examples, the most solid contribution came from utopian projects. The 1950s and 1960s delivered the godfathers of utopian urbanism, counting Constant Nieuwenhuys, the Archigram Group and Yona Friedman. Guided by an idealistic need to formalize space for a new society, their proposals implied the creation of new structures, lifted from the ground floor, with new compositional patterns generating alternative urban behaviors.

Within the definition of megastructures, the body of work engendered by what Banham called Urban Spatialists was highly prolific and strongly conceptual. *Urbanisme spatiale* – a concept originating in the French megastructuralist school – elaborated on introducing a third, vertical dimension to the planner's usual plane surface through the superposition of a three-dimensional grid that liberated the plan from the ground. The myriad approaches polarize both architectural and urban positions. Yona Friedman eloquently differentiated between *architecture mobile* – structures that enabled users to accommodate changes regarding mainly the plan and equipment of the dwelling unit – and *urbanisme mobile* – an urban frame(work) that enabled the shifting and re-grouping of dwellings. Mobility referred to flexibility and inter-changeability but not to the act of physical movement. This sense of mobility had to be facilitated by a solid framework – a three-dimensional space-frame infrastructure, whose usable spaces were occupied by programmatic infills. *Infrastructure Spatial* was the three-dimensional grid, raised on pilotis above ground level. This spatial infrastructure would host the functions in a gradient of uses, placing the heavyweight industry and circulation on the lower floors. The pilotis distributing the vertical circulation and the services. In 1958 Friedman founded GEAM [*Groupe d'Études d'Architecture Mobile*], a group of like-minded architects reflecting on the notion of mobility in architecture. In 1960, the group published their *L'Architecture mobile* manifesto. As a reaction to the inertia of modern urbanism, they proposed a set of principles to introduce adaptive components to city dwelling. This would be enabled through the provision of large spatial structures with urban character that would rely on changeable elements at different scales.[71]

Ville Spatiale, Friedman's most representative project, speculated in overlapping an existent structure with a new urban pattern that theoretically condensed the city and freed the street level for public use, diminishing the impact of the built mass on ground floor. It was translatable to a new city level, layered above the existing city, and was envisioned as a flexible, orthogonal, grid-like structure. The grid was supposed to accept different uses and changeable plug-in features, creating a new level for urban living connected to the ground only by punctual pillars.

Friedman had set the groundwork for Ville Spatiale through ten principles he defined for spatial urbanism. He envisioned the city of the future as being supplied by air conditioning, therefore interior spaces could become part of urban life. This shifted the priorities of the

71 Christoph Düesberg, *Megastrukturen: Architekturutopien zwischen 1955 und 1975* (Berlin: DOM publishers, 2013), 128.

structural composition. His three-dimensional urbanism technique allowed for grouping singular neighborhoods both in horizontal as in vertical. The frameworks were expandable according to the will of the inhabitants. The written principles were supplemented by a series of sketches. There, he expressed how mixture of rules and irregularity was the main concept defining Ville Spatiale. The project had no underlying grammar, the only rule was to respect the daylight. Friedman envisioned his spatial city as an overlay, an additional layer on top of existing urban structures: two distinct organisms that would have to find a way to coexist. The section was the main representative feature. When asked by Martin van Schaik about the effect of the superimposed structure in *Paris Spatiale* on the city underneath, Yona Friedman explained his strategy as a reaction to the brutal transformations the city was undergoing: *"the system in Paris at the time was that they were demolishing whole neighbourhoods, making a wasteland, and then building. [...] I believe in changes taking their time, not the 'tabula rasa'."*[72] Friedman opted for leaving the city as it was in the first step, building a superposed structure, in order to enable a natural, gradual evolution of the original neighborhoods.

The Ville Spatiale model, placed above existent cities, offered the promise of limitless adaptivity within the modular coherence of a superposed structure – a responsive environment full of modifiable elements that bent to the will and unpredictability of its inhabitants. Following similar modular principles, two other representative contributions are notable: Archigram's *Plug-in City* and Constant Nieuwenhuys' *New Babylon*. The common denominator between all three projects was set by the ideas of detachment from ground level and the development of a lifted, independent structure over an existing one, the freedom of configuration of the new environment and its adaptation to the needs of the inhabitants. Emerged out of pessimism towards the practice of urbanism, these projects answered with megastructures devoted to continuous circulation with blurred boundaries, nevertheless unified through a continuous architecture. The aesthetic of incompleteness was most probably influenced by the building boom that followed the reconstruction of Europe after the second world war. The image of London was specifically influential: office blocks supported by cranes and nude service cores – prior to the addition of floor slabs and façades – were rising above the city in multiple locations, piercing the sky.

The Metabolists' influence on Archigram was evident; Plug-in City promoted long term structures to support short term components. The lifetime of the various components of this ideal city was predetermined; if the primary structure was to endure forty years, its plugged-in subcomponents had a shorter life-span. When comparing the proposals, Simon Sadler noted that Plug-in City was less conjectural. Friedman's structure was mainly expressed through ideogram sketches of various permutations, and Nieuwenhuys was even uninterested in detailing. Instead, the strength of Plug-in City lied in the attention to structural details, based on Mecanoo-like principles.

72 Yona Friedman, "In the Air. Interview with Yona Friedman – 28 October, 2001" in *Exit Utopia. Architectural Provocations 1956-76*, Martin van Schaik and Otakar Máčel, (Munich: Prestel, 2005), 34.

The different principles of each project render most obvious in their representation. New Babylon has been widely detailed in plan whereas Plug-in City and Ville Spatiale are mainly represented in section. For Peter Cook from Archigram, the horizontal extension was not that important as for Nieuwenhuys, who was interested in generating a new topography, a new surface, a second skin for the earth. New Babylon was spreading horizontally[73] whereas the other two projects were developing vertically. New Babylon was composed out of sectors, linked by fluid space. The orthogonal rigor was intrinsic to each sector; their composition was a network marked by inflection points. Banham described the structure as aggressively diagonal and partly tensional.[74] Plug-in City was composed of small spatial units interchangeably limited. New Babylon aspired to an internal flexibility, whereas Plug-in City had the flexibility of the interchangeable kit of parts.

New Babylon was essentially an exercise in the generation of social space, a chimera. It was a representation of utopian non-commodity socialism. It manifested a new society, underlined by the design of an elevated multi-story structure. Plug-in City was an organizational system, responding to the challenges of the capitalist future, projecting an image of systematic gaiety. "*The Plug-in effect was one of intensive cell-like privatization,* – Sadler argued – *whereas New Babylon was of vast public forums.*"[75]

A specific branch of megastructuralists were the Metabolists. Their interpretation of the city as a process channeled daring visions that approached verticality under new circumstances. The group of Japanese architects first introduced its approach and manifesto – *Metabolism 1960: A Proposal for a New Urbanism* – at the World Design Conference 1960 in Tokyo and remained active during the following ten years. Their structural vision stemmed from the perception of the city as an organism. In analogy to a tree, their credo was built on the balance between permanent structural elements – the trunk – and ephemeral ones – the leaves. According to Kenzo Tange[76] the individual buildings would be part of the robust, enduring structure, and could therefore die and grow again. The temporary elements were to be renewed or replaced according to current needs. Proposals, such as Tange's *Tower Shaped City* or Arata Isozaki's *Clusters in the Air,* offered alternative models for highly dense and rapidly growing urban cores.

Nevertheless, from the moment of creative effervescence of the 1950s and 1960s and after a body of work of highly utopian visions, the focus set by professionals on three-dimensional modular urban structures diminished considerably in the following years. One of the isolated approaches came from Ricardo Bofill and his multidisciplinary team of *Taller de Arquitectura* in Spain. They continued working on formalization possibilities for the city in space and even

73 The 1950s and the work of Team 10 had already provided sufficient experimentation with horizontal structural spreading.

74 Banham, *Megastructure*, 59.

75 Simon Sadler, "New Babylon versus Plug-in City," in *Exit Utopia. Architectural Provocations 1956-76*, Martin van Schaik and Otakar Máčel, (Munich: Prestel, 2005), 62.

76 Banham, *Megastructure*, 46.

"While discriminating between a megaform and megastructure may border on the pedantic, one may readily discern the difference when one compares the L'Illa Block in Barcelona of 1992 to the Centre Pompidou realized in Paris some twenty years earlier. Whereas the former impacts the city at an anthrogeographic scale, the latter puts a rhetorical emphasis on the structure itself, in a similar way as such eminent nineteenth-century works as the Eiffel Tower. [...] Where a megaform tends toward being a unifying gesture at a large scale, a megastructure is primarily a structural invention that however much it may transform the topography and contribute to the sense of place, is still primarily a free-standing object. [...] today we are barely able to desire, let alone to achieve, interventions at such a breath-taking scale."[77]

77 Kenneth Frampton, "The Megaform and the Helix." in *Urbanisms. Working with Doubt*. Steven Holl. (New York: Princeton Architectural Press, 2009), 272.

Fig 2.07 Manuel de Solà-Morales and Rafel Moneo. L'Illa Diagonal ensemble, Barcelona [1993]

built some of these experimental designs. His published studies[78] reverberated in built projects such as Walden 7 or La Manzanera. Their main theoretical investigations were also anchored in the 1960s, when Bofill was experimenting with geometrical variations of the same cubic unit. He then generated complex three-dimensional structures by stacking and displacing these cells.

3 | Horizontal configurations of the L-sized will be further exemplified through *mat-buildings* and *megaform*. Unlike the previous examples of modular configurations, neither of these two horizontal configurations expressed a vision; they emerged through a retroactive process of tracing back and learning from existing built examples.

In September 1974, Alison Smithson published an article that set the theoretical bases for certain types of architecture that had already been championed by the rest of the Team 10 members. This new typology emerged out of *"a new and shuffled order, based on interconnection, close-knit patterns of association, and possibilities for growth, diminution, and change."*[79] Mat-buildings were thus a category of low-rise, high-density structures, built after principles enounced in the Team 10 Primer. The Freie Universität, built by Candilis, Josic and Woods in Berlin, served as the epitome from which the mat-building principles were derived. The formal definition was disregarded entirely, undermined by an autocratic internal logic and rigor. This order was a direct product of overlaying patterns of use. The structure would emerge through a process of meshing that avoided any formal pre-determinacy. This order stemmed out of a continuous system frame. The subordinate parts adopted the identity from the paramount system. Beyond the three dimensions of space, this system also considered the time dimension. Mat-building would comply with Smithson's bold and idealistic assumptions that space was total and society was universal. The approach could span between individual buildings and entire city systems; it could host a limitless amount of functions. Due to the strong intrinsic order, the systemic logic and the lack of formal aspirations, the mat-structures could spread organically.

At the end of the twentieth century, Kenneth Frampton identified the vices and shortcomings of the emerging megalopolis model: an urban extension defined by placelessness, deprived of any significant landmarks. He counteracted the uncontrolled spread of this *nonplace urban realm*[80] by calling a new urban typology that would recreate civic microcosms, injected with identity. Frampton introduced the *megaform* as a topographic, horizontal thrust, characterized by the place-creating stamina of its intrinsic program. He outlined the properties of the megaform based on built examples, such as Henri Ciriani's *pièce urbaine* Noissy I or Barre à Marne in France, Morales and Moneo's L'Illa in Barcelona, Moneo's Atocha Station in Madrid, Holl's Linked Hybrid in Beijing, Hodgkinson's Brunswick Center in London or Erickson's

78 Ricardo Bofill, *Towards a Formalization of the City in Space* (Barcelona: Editorial Blume, 1968).

79 Alison Smithson, "How to recognize and read mat-building: Mainstream architecture as it has developed towards the mat-building," *Architectural Design 9* (1974): 573-590.

80 A term coined by Melvin Webber, introduced in the article "The Urban Place and the Nonplace Urban Realm," *Explorations into Urban Structure*, ed Webber et al., Pennsylvania (1964), referring to the city-altering impacts of telecommunications, constructing communities without propinquity.

Robson Square in Vancouver. In the author's opinion, these reference projects *"tend to blur in different ways the conventional differentiation between architecture and landscape."*[81] The megaform was introduced as an urban feature that could establish the link between what was already considered to be the stable, solid structure of historical city centers and the vast, disorderly extension of the megalopolis. Within this vastness, the aim was to trigger a topographic transformation through the introduction of a form-giving horizontal feature. Despite its urban scale, Frampton rendered the megaform rather as a hybrid between building and landscape architecture.

In order to delimit the megaform from previous instances of the L-size, the author clearly synthetized its characteristics in five points. The first distinction was the fact that it was a horizontally oriented structure. In order to differentiate it from the modular configuration of megastructures, Frampton deepened the definition with the second statement: the megaform must not be articulated into a series of structural and mechanical subsets. While it could include a megastructure, the other way around would be impossible. Thirdly, it exercised a strong influence on the existing urban landscape due to its topographic character. Furthermore, the megaform did not present itself as a freestanding object, but as an implant in the continuous fabric. Lastly, the megaform performed as a catalyst for the densification of the urban structure.

Unlike most of the previous examples, which formulated visions for new urban realities, the megaform relied on and derived its features from existing, built examples. It also tackled the disciplinary breach through the merging of architecture and landscape. Frampton's contribution is relevant for the formulation of a novel approach through the introduction of a new urban character.

Though these approaches have often resulted in being partly utopian and too ambitious, the interest in the L-size has not vanished. A few years prior to the introduction of the megaform, Rem Koolhaas evoked the potential and risks of over-sized structures, negotiating between building and city, in his highly influential *Bigness, or the problem of Large*[82] manifesto. Introducing the *L*-chapter of the *S,M,L,XL* book, the text placed the L-size on the billboard of the architectural and urban practice once more. Bigness represented architecture pushed to its limit – *what is the maximum architecture can do?* It was still part of the architectural repertoire and was addressed through an architectural register. Also, Bigness acknowledged and signaled the crisis of architecture. It emerged precisely at the collision point between architecture and urbanism; it opposed – probably not in a conciliatory way – the two scales and disciplines. Due to these dichotomies, Bigness detached of its context and could perform anywhere. Closely tied to randomness, Bigness was threatened by extinction. Koolhaas recognized that this form of city dwelling required its own manifesto, since the absence of a theory of it had become

81 Frampton, *Megaform*, 10.

82 Rem Koolhaas, Bruce Mau, Jennifer Sigler, Hans Werlemann, and Office for Metropolitan Architecture London. *Small, Medium, Large, Extra-Large; Office for Metropolitan Architecture. S, M, L, XL*, (New York: Monacelli Press, 1998).

architecture's most debilitating weakness. Therefore, the author enounced five points for the theory of Bigness:

1 | bigness steps in when a building surpasses a certain critical mass;

2 | the architectural instrumentarium – composition rules, scale, proportion, details – render useless confronted with the large size;

3 | the interior becomes detached from the exterior. The façade stops mediating as a transparent, honest skin between two realms;

4 | the impact of Bigness is ensured by its size alone and transcends any esthetic or moral values;

5 | Bigness ceases to underlie an urban tissue, it detaches from its context.

Koolhaas recalled previous instances of Bigness, such as the megastructures, in a condemning tone. They were highly utopian, critical and apparently bold proposals that failed to land, confront or claim their rightful place. In the face of their failure, the author mentioned two lines of evolution that followed: dismantlement and disappearance. The dismantlement of Bigness implied the decomposition into a system of unique parts and orderly compositions. This approach unlearned, according to Koolhaas, the lessons from the beginning of the twentieth century of *"programmatic hybridizations / proximities / frictions / overlaps / superpositions that are possible in Bigness."*[83] Turning to the future, the disappearance of architecture in alternative virtual worlds seemed a latent threat.

Koolhaas' overall tone seemed deeply pessimistic and filled with deception. Despite that, Bigness also sketched a promising future. It entailed unpredictability, freedom, and anonymity [of authorship]. *"The artificiality and complexity of Bigness release functions from its defensive armor* – the author indicated – *to allow a kind of liquefaction; programmatic elements react with each other to create new events – Bigness returns to a model of programmatic alchemy."*[84] Koolhaas was confident that Bigness could trigger and accommodate the complexity patterns of future urban development; he considered it a blueprint for perpetual intensity.

Most of the previously mentioned approaches of L-size have outlined characteristics through principles, descriptions, structural or technical specifications. Bigness, on the other hand, is rendered as a state and anchored in the no-man's-land between the disciplines of architecture and urbanism. It was summoned to confront: *"Bigness no longer needs the city: it competes with*

83 Koolhaas, "Bigness and the Problem of Large," (1993) in *Small, Medium, Large, Extra-Large; Office for Metropolitan Architecture*, ed. Rem Koolhaas et. al (New York: Monacelli Press, 1998), 507.

84 Ibid., 512.

the city; it represents the city; it preempts the city; or better still, it is the city."[85] In a provocative way, Koolhaas granted Bigness the benefit of indifference towards its surroundings. The state of Bigness relied solely on size, and, therefore, on its critical mass that would exert sufficient gravitational force in order to sustain its independency. Size alone was equated with freedom. Nevertheless, this is signaled here as Bigness' biggest threat. Moreover, none of the previously mentioned instances of L-size has consistently acknowledged its insertion strategy or the consideration of public space. Most examples, absorbed by their intrinsic order or the genesis of new future-oriented realities, were outlined as isolated samples, unaware of their effect on the context. Still, they all aspire to be urban characters, meaning that they eventually have to negotiate with an existing urban substance. It is crucial that this happens in a timely manner.

Maurice Harteveld dedicated part of his wide research on the reciprocity of large building and public space. He mainly documented this mutual influence in the form of public interiors. The article *Bigness Is All in the Mind*[86] specifically looked at the unequivocal responsibility large-scale urban ensembles have for their immediate surroundings. Harteveld proved that large structures cannot remain detached from the rest of the city. As the interiors of large-scale ensembles become part of the network of the public realm, they alter the network of public space by increasing it. The other way around, the network of public spaces in dense metropolis often penetrates building lobbies, opening them to the public and, therefore, affecting the large host-buildings as well. The unavoidable fate of the urban L-size is to apprehend the negotiation with the urban fabric, and more importantly, with the public space. In this regard the retrospective look on the L-size revealed this flaw. The poignant question becomes: how does the L-size perform nowadays?

L-sized Structures Nowadays

The contemporary architectural scene is witnessing a renewed impetus for the L-size. High density is the ubiquitous goal to achieve. Urban land is still providing unused areas of significant size. Additionally, old structures that had become obsolete need to be re-integrated in the urban circuit. What lessons have been learned from the attempts of predecessors?

The portfolio of contemporary L-projects is wide: MVRDV's Innovation Port in Hamburg or the Valley in Amsterdam, GRAFT and Kleihues+Kleihues' mixed-use ensemble or the redesign of the Kudamm-Karree in Berlin, Calatrava's Greenwich Pensinsula development in London, Weinfeld's Heumarkt project in Vienna, OMA's De Rotterdam project etc. are just a few of the new large-scale mixed-use endeavors around Europe. Furthermore, large industrial sites, such as The Battersea in London or the Entrepôt Macdonald in Paris, have been the subject of huge investments and complex development. Another trend of the L-size includes the upgrading

85 Koolhaas, Bigness, 515.

86 Maurice Harteveld, "Bigness is All in the Mind. Bigness Viewed in Terms of Public Space." *Urban Formation and Collective Spaces,* OASE 71 (2006): 114–133.

of transport hubs – train, metro, intermodal stations etc. – in city centers. Vienna's complex revival of its stations or Les Halles development in Paris represent the breadth of these projects. Compact new satellite cities, such as BIG's Europa City next to Paris, also underscore the constant preoccupation with the L-size. These promising projections of a future in an L-scale environment prioritize friendly, welcoming, bright spaces filled with users. Representations of common areas, open public spaces and the right amount of green are de rigueur. Unlike their predecessors, most of these projects do not stem from a strong ideology and have moved away from a superordinate structural strictness. Instead, a softer attitude of integration and apparent bending to social needs steps to the foreground.

The European landscape is not even the most relevant. Asian cities and their enormous capacity and need for growth have become the notorious playground and experimentation field of today's urban and architectural follies. The challenges of our immediate future go beyond a blend of functions – the same already known recipe. The accelerating rhythms of change, due to the rapid reshaping of economic, productive or social contexts framed by the fourth industrial revolution, require adequate architectural and urban responses. In this regard, the World Economic Forum – the International Organization for Public-Private Cooperation committed to improving the state of the world – recently displayed a list of mega-projects that promise to transform metropolises worldwide.[87]

Within the myriad approaches, the trend of the vertical city seems to have regained special importance. Judging by the approaches, their naivety or gesture can be questioned. Perhaps in comparison to past proposals of the twentieth century, which are equally ambitious and conceptual, contemporary approaches are the obvious sequel to the narrative. Still, the fact that increasingly more projects labelled themselves *vertical city* raises the question about the deeper meaning that this concept encompassed. In some cases, the projects acquire the label as part of a marketing strategy. That seemed to be case of OMA's De Rotterdam project. Koolhaas explicitly deviated the attention from the label in an interview, stating: *"So I see it less as an isolated city in itself, a vertical city if you will, than as a contribution to a genuinely urban condition on that island."*[88]

Beyond isolated projects and labels, the twenty-first century also triggered a theoretical debate in the search and research of vertical city models. Previous instances of vertical cities could be categorized either as homogeneous repeatable systems – such as Hilberseimer's Hochhausstadt –, as segregated, autarchic islands or as archipelagic formations that interwove with the urban fabric through connected nodes of intensity. Recently, the repertoire has been expanded by other ways of addressing the vertical urban component. Some of them are strikingly simplistic

87 https://www.weforum.org/agenda/2017/07/these-mega-projects-will-transform-the-worlds-greatest-cities-by-2030/?utm_content=bufferfeedd&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer, last accessed 29.03.2018

88 Andrew Mackenzie, "Batik, Biennale and the Death of the Skyscraper. Interview with Rem Koolhaas" http://www.architectural-review.com/opinion/batik-biennale-and-the-death-of-the-skyscraper-interview-with-rem-koolhaas/8659068.article, accessed February 24, 2014.

and thus, rather implausible. For instance, PinkCloud's vision for Flip City that emerged out of one single gesture of flipping a perimeter of urban tissue into the vertical.

A recent study on vertical villages by MVRDV and The Why Factory explored means of developing urban communities by stretching the city into the vertical. The project initiated a vision for growing Asian cities. The new development model was The Vertical Village, *"a three-dimensional community intended to bring back personal autonomy, diversity, flexibility and neighborhood life to cities in Asia."*[89] Vertical Village reinterpreted the traditional urban village typology. The approach was to re-shuffle the main characteristics of these communities – endangered by the aggressive process of urbanization – into a new structure. The research group experimented with the stacking and layering of functions. Next they introduced new parameters for form generation. The ongoing challenge of the study represented the combination of density and individuality.

The output of the Vertical Village project was manifold. It started in 2009 as a series of research projects, design studios and workshops with students within the framework of a larger cooperation between Delft, Rotterdam, Taipei and Taichung. The following publication[90] and exhibition series in 2012 summarized the main findings. The correspondent HouseMaker© application and the VillageMaker© interactive planning software enforced the bottom-up-oriented approach of the project.

The *Vertical Village* book gathered the results of the research and expanded the debate with related opinions of several scholars. Alfredo Brillembourg and Hubert Klumpner, who had previously worked on three-dimensional urban structures for informal communities within the framework of Urban Think-Tank, argued that the much-desired social interchange usually failed to work vertically. This happened because of the loss of ground. Klumpner identified the limits of the architecture project and looked for other resources. He advocated in favor of topography – understood as *Stadtlandschaft* – that he considered to be *"still by far the most important raw material to work with. It's the DNA of the city, and one of its strongest differentiating powers."*[91] Brillembourg insisted that the vertical approach had to occur through building up and consolidating the ground plan. *"You take this ground plan and you extrude it, you cut it, you bring it down, you bring it up and you roof it."*[92] He shifted the discourse away from the overall form and set the focus on the section. There, in the section, resided the main potential of generating density. *"The point is not to build a vertical city in horizontal.* – he continued – *That is not topography. [...] Instead, it's about creating a medium-rise, very dense city that has an interesting juxtaposition of layers and densities."*[93] In a further contribution, Lieven de Cauter expressed his

89 The Why Factory, "Vertical Village" project, http://thewhyfactory.com/project/vertical-village/, last accessed March 30, 2018.

90 The Why Factory, *Vertical Village; Individual, Informal, Intense* (Rotterdam: NAi Publishers, 2012).

91 Klumpner and Brillembourg, "Interview," in *Vertical Village; Individual, Informal, Intense*, ed. The Why Factory (Rotterdam: NAi Publishers, 2012), 268.

92 Ibid., 269.

93 Ibid., 269.

disbelief and own vision: *"It should be more complex than just a tower – a sort of new skyscraper typology. So far I have never walked into a skyscraper and thought it was a city, or a neighbourhood."*[94] His personal idea of the vertical village envisioned stacking the intensity of a neighborhood into the vertical, comprising all the amenities that create the character and enliven it.

Ironically, beyond the academic output, the marketing of the Vertical Village proved to have the most impact. After numerous exhibitions and lectures worldwide, the model mutated into a series of marketing products: a furniture series by MVRDV in cooperation with the label Sixinch as well as a set of jewelry-like art objects.

Creative thinkers and experimental scholars can tackle the dilemmas of the twenty-first century urbanization process in a visionary spectrum. In contrast, *"most planning and urban design experts seem unable to conceptualize spatial models capable of adaptation and change* – Ricky Burdett argued when writing about contemporary urbanism –, *at a time that city dynamics are both volatile and uncertain."*[95] The practice of city planning and design is still imprisoned by a highly regulated and risk-averse framework and by anachronistic, uni-dimensional and rigid urban models. It has become imperative to acknowledge and start responding to the complex urban challenges of the future.

Dense L-size + ?

As Saskia Sassen pointed out, density has historically often been a synonym of urban variety.[96] However, as she has also stressed in further occasions, *"the city is a complex but incomplete system, [...] Nothing in our history has lasted as long as the city. In this sense, the city cannot only be defined based on a factor such as density. For example, a megaproject may be very dense, but it does not construct city."*[97] Large projects built from scratch have been accused of breeding sterility. Lacking the patina of natural environments,[98] they become regarded as artificial grafts that could even de-urbanize cities.[99] Sassen has repeatedly pointed out how the investment pattern regarding large corporate acquisitions mutated after 2008. Corporations have increasingly assumed the role of aediles over entire pieces of city. These investments mainly function as *storage space for capital*, and the building stock often remains underused. Such interventions trigger a loss of balance in the relationship between high density and urbanity, by censuring part of the spaces previously accessible to the public. Quantifying density through combined indicators

94 Lieven de Cauter, in *Vertical Village; Individual, Informal, Intense,* ed. The Why Factory (Rotterdam: NAi Publishers, 2012), 270.

95 Ricky Burdett, "Contemporary Urbanism," in *The Quito Paper and the New Urban Agenda*, ed. United Nations Human Settlements Program et.al. (London: Routledge, 2018), 141.

96 Sassen, Saskia, "Cities Today: A New Frontier for Major Developments," *ANNALS, AAPSS, 626* (2009): 57.

97 Sassen, Saskia, "Economy, City and Public Space" in *Quaderns#266.* (2016): 10-13.

98 Christopher Alexander, "A City is Not a Tree," *Architectural Forum* (1965).

99 Saskia Sassen, "Large-scale urban land acquisitions could de-urbanize cities and undermine public control," *The Quito Paper and the New Urban Agenda*, ed. United Nations Human Settlements Program et.al. (London: Routledge, 2018).

of built mass/size/bulk is understandable. High density is unquestionably the premise but not necessarily the generator of a city. Furthermore, density is also, or mainly, about people. Social transformations happen more rapidly than physical transformations of the built environment.

L-sized structures act on the higher range of the built density scale. However, no measurable density indicator alone can translate the impact of an L-sized complex on its immediate context and implicit urban life. What additional attributes are required in order for a large-scale proposal, at the threshold between city and building, to become a well-functioning intervention, integrated in its context and adding value to its surroundings? Out of the belief that the potential of the L-sized category – the composite of architecture and urban design, the ultimate alliance between city and building – has not yet been fully exploited, the work introduces a fictional character that stands for an idealized version of the L-sized. Its further outlining acknowledges the threats and defiance of previous L-sized instances and engages with an implementation strategy from a different angle of approximation.

2|3 THE INTRODUCTION OF A NEW CHARACTER: URBAN GULLIVER

From Fumihiko Maki's call for a great structure capable of hosting all or part of the city functions, the subsequent megastructure movement, from Rem Koolhaas' Bigness manifesto, to Kenneth Frampton's definition of the megaform, the fascination for the L-sized urban structure has not vanished. Building on recent examples and considering the need to introduce and define a contemporary character, a new model has been brought to life: *Urban Gulliver*. It is versatile, complex, urbanistically challenging and architecturally overwhelming. It negotiates with city and users on a multitude of levels. Urban Gulliver embodies the composite form of urban design and architecture. It is a comprehensive model that represents the ultimate joint between city and building. It upgrades a built ensemble to an urban character – a piece of condensed urban fabric. The persisting contemporary interest in large building ensembles ultimately allows the disciplines of architecture and urban design converge. Urban Gulliver stands for the intricate exploration of an urban structure to develop three-dimensionally. Such as John Habraken recognized, *"if you make a very big building, you really make a piece of urban design in three dimensions."*[100] Nevertheless, its implementation is defying. The unresolved challenges of past examples of large-sized implementations, in addition to the on-going fascination for this urban feature, compel this novel approach.

Different forms of large-scale structures have animated the twentieth century architectural history. But under what circumstance does a built structure become L-sized in the contemporary discourse? As Fumihiko Maki defined the characteristics of the three paradigms of collective form – compositional form, megaform and group form –, Ralph Wilcoxon detailed the features of the megastructure and Koolhaas detailed the implications of Bigness, *Urban Gulliver* also requires specification. Once labeled, the new character of the urban narrative must be described. It is outlined by following features:

100 Israel Nagore, "Entrevista a John Habraken," http://www.laciudadviva.org/blogs/?p=16941, accessed on April 12, 2014.

Fig 2.08 Thomas Morten. Illustration for Swift'sGulliver's Travels, pictorial frontispiece [1865]

1 | *the dimension*:
Urban Gulliver contrasts in size with its immediate surroundings. It takes on a larger area than a single building and densifies built mass;

2 | *the location*:
Urban Gulliver is the protagonist of urbanized environments. It is inserted in inner city locations, fusing with pre-existing structures and flows;

3 | *the uses*:
Urban Gulliver hosts a mix of different functions with a strong public character. This is a key aspect in regards to the structure surpassing the functions of a building and incorporating the functions of a city;

4 | *the infrastructural component*:
Urban Gulliver absorbs part of the infrastructural facilities of its surrounding; and, most importantly;

5 | its configuration of *public spaces*:
Urban Gulliver incorporates public structures to become both an attractor, a condenser and a connector of public flows and streams.

Gulliver holds the DNA to become a veritable intensification point of the city fabric in the form of a spatial [three-dimensional] urban structure.

Why Gulliver?

The appellation of the newly introduced urban protagonist Urban Gulliver clearly makes reference to Jonathan Swift's character Lemuel Gulliver from the novel *Travels into Several Remote Nations of the World. In Four Parts. By Lemuel Gulliver, first a Surgeon, and then a Captain of Several Ships*, or, in short, *Gullivers Travels,* published in 1726. The satirist Swift shielded his sharp social critique behind the different challenges that his protagonist had to face. The main character accompanied readers on a variety of adventures along four books. His first journey was initiated by the shipwreck on the island Lilliput, inhabited by people who were far smaller than Gulliver. It is also the best-known part of the novel and the one to which this work primarily refers.

The analogy of nomenclature relies on several parallels between the fictional character and the characteristics of the ideal urban protagonist at which this research is aiming. The first and most direct correspondence is the size, especially in relation to the dissonant size difference between Lemuel Gulliver and the Lilliputians. Urban Gulliver operates on a different scale than its surroundings as well. If for Swift's character, size differences were relative – in the

first book he was over-sized compared to Lilliputians, in the second book he was under-sized compared to the giants on Brobdingnag – the urban environment is dimensioned according to one absolute reference: the human scale. Therefore, the most relatable situation for the Urban Gulliver analogy is the Lilliput adventure.

Secondly, Lemuel Gulliver was an educated person. Similarly, Urban Gulliver – being an exclusively urban character – stands for urbanity. In addition, it is a global citizen with a European passport. Educated in Europe, it knows the urban parameters and comfortable densities, life patterns or activities of its co-nationals. Moreover, neither Gulliver shies away from conflict. They address any kind of animosity in a resolutive manner and mediate between distinct approaches, attitudes and views. Similar to its fictional character, Urban Gulliver needs to apprehend the ways in which to communicate with the interlocutors in its immediate surroundings.

Thirdly, Urban Gulliver is a versatile character with a complex, evolving personality. Its implementation implicates the defiance of constant adaptation. It is eager to mature and become increasingly multi-facetted. Lemuel Gulliver's adventures symbolized the way to achieve wisdom, knowledge and maturity. Similarly, Urban Gulliver must grow with time; it must be robust enough to allow changes but simultaneously, to evolve out of them.

As his novel analog, Urban Gulliver needs to develop diplomatic skills. It can only survive by being open and receptive. Communication and the establishment of relationships must be turned into its strengths. Like the famous novel, Urban Gulliver is appealing for all segments of the public and has multiple layers of understanding.

A Possible Blueprint?

Urban Gulliver can neither be labelled as architecture nor as urban design or city planning, as it develops and imposes its own syntax. Moreover, it has the potential to become an intense stimulator of future urban development. Thus, implementation in the city fabric becomes challenging. It must create synergies with the surrounding city fabric and life. On the other hand, urban environment is more and more in need of viable forms of density. The traditional way of city-making – building plots divided by streets – is limited regarding the possibilities for density. Urban Gulliver reinterprets the notion of built density, negotiates with the perceived density and is in constant search of the ideal high-density model.

Unlike the curse of Bigness that no longer needed the city since it had itself become the city, Urban Gulliver is not autarchic. It calls for the city, grows out of the city, concentrates urbanity and represents an intensification node of urban life. It needs its surroundings and is linked to them. Stripped from many of the constraints of architecture, it can freely claim its own scale and dimensions as a neutral platform on a metropolitan scale. This urban element

provides the chance for a unifying, coherent attitude towards the generation of a common ground, opposed to the endeavor to build freestanding sculptural icons. Urban Gulliver lives and breathes through the power of motion flows. Since it is a concentration of the city itself, it comprises all urban components, thus also incorporating the street infrastructure.

Urban Gulliver evolves out of the ever-mutating and repeatedly emerging protagonists of the urban landscape of the last decades that have always confronted implementation difficulties. It poses the question: how is metropolitan architecture beyond the threshold of *critical mass* feasible nowadays?

In order to coin the present phenomenon and analyze its viability, the thesis will further synthetize its features towards formulating a set of requirements – clues leading to an implementation strategy. In this regard, the conceptual frameworks of openness, hybridity and indeterminacy will be scrutinized. Further on, the study examines Urban Gulliver's main threats, residing in its propensity towards insularity and commodification. Nevertheless, Gulliver's potential lies in its capacity to become a veritable urban intensification point, generating urbanity within a vibrant urban mesh.

3

LEVERAGING URBAN GULLIVER

3|1 URBAN GULLIVER REQUIREMENTS

"Change goes hand in hand with permanence. [...] The balance between what will change and what will remain long term is becoming increasingly important when projects become larger and larger. A housing project of several hundred uniform units cannot just stay rigid when time goes by, but must adapt to life's variety. A skyscraper in which a few thousand people work is not a building but a vertical environment the size of a classical Greek town. Nevertheless, we tend to treat it as just another big building. The large project is with us to stay, but it must become increasingly fine grained and adaptable."[101]

Urban Gulliver was first outlined through a set of generic attributes, referring to its size, location, uses, infrastructural and public character. The subsequent exploration embeds the fictional character in a conceptual framework.

The Quito Papers assertions regarding the future of urbanization initiated the debate on the open city. How do the requirements of openness affect the L-sized structure and how can Gulliver be embedded in the discourse? The examination of openness further led to the topic of hybridity – a ubiquitous term in the recent architectural vocabulary, which demands clarification. The search for Gulliver's hybrid character reveals the importance of one specific aspect: indeterminacy.

The three formulated requirements – openness, hybridity and indeterminacy – do not represent three distinct characteristics. They are formulated in a successive order because they build on each other and delineate different interlaced aspects of Urban Gulliver's complex character.

101 N. John Habraken, "Questions That Will Not Go Away: Some Remarks on Long-Term Trends in Architecture and their Impact on Architectural Education," *Open House International* Vol 31, No. 2 (2006): 15.

3|1.1 Openness[102]

Umberto Eco's *Opera aperta* set an important milestone in the theory of openness. Eco started his argument on the *open work of art* with the help of examples of musical pieces that instigated the initiative of the individual performer and thus empowered and liberated the performer to choose his/her way of playing. These were unfinished works that *"the author seems to hand [...] on to the performer more or less like the components of a construction kit."*[103] Eco defined it as *work in movement* consisting of *"unplanned or physically incomplete structural units."*[104] Whereas former considerations on openness implied the collaboration of the consumer, who could freely interpret the finite artistic product, Eco's view on openness regarded the collaboration of the creator with the addressee. Incompleteness was understood as an asset and not a flaw, as a window to a plurality of possibilities. Eco did not interpret modern art under definite, rigorous conventions, thus conveying it with a high degree of ambiguity. The value lied in the uncertainty of the spontaneous performance towards an unknown finale.

Beyond the open work of art, openness as a systemic property has been deployed in several fields of knowledge, such as social and natural sciences, computer science and also planning. The open systems theory relies on the assumption that organizational entities are highly influenced by their environment – other organizations or various economic, political, or social forces. The environment provides key resources that sustain its organization, lead to change and ensure its survival.

Openness in Planning. The Outline of an Open System

Twentieth century architecture and urban planning have addressed the concept of openness. Open planning has been a recurrent topic of the last decades, especially from the 1950s onwards. The new sort of society that was emerging – an open society – needed a new type of environment – an open city. Team 10 understood openness in this sense as the freedom to move, both inside and outside the city.[105] Openness further resonated in N.J. Habraken's contribution to the 1960s architectural and urban discourse on open planning. His approach relied on the idea of *supports*[106] that has further evolved towards practical applications under

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102 the following paragraphs on openness have been discussed by me in previous published papers, such as Sorana Rădulescu, "The Open System of the Public Realm in the Over-sized Structure," (paper for the ETH Conference; THE FUTURE OF OPEN BUILDING; September 9-11, 2015), http://www.openbuilding2015.arch.ethz.ch, http://ecollection.library.ethz.ch/view/eth:48477.

103 Umberto Eco, *The Open Work* (Cambridge: Harvard University Press, 1989), 3.

104 Eco, *The Open Work*, 12.

105 Alison Smithson, *Team 10 Primer* (Cambridge: MIT Press, 1974), 61.

106 N. J. Habraken, *Supports: An Alternative to Mass Housing* (London: Architectural Press, 1972).

the concept of *Open Buildings*.[107] The Open Building theory and planning method distinguished between a structural framework – the support – and the infills. On one hand, the supports provided stability and endurance: a robust primary structure. On the other hand, the exchangeable infills – the secondary level of intervention with a much shorter lifespan – could easily respond to the transient requirements of the built environment. Stability was provided and, simultaneously, inevitable change was anticipated. Thus, in order to evade the closed system, the main question was: *"how do we design the built environment to support both stability – in respect to long term community interests – and change – in respect to individual preferences?"*[108]

Considering that the urban realm has always been subject to constant change, the supports theory was offering a planning solution to the impending necessity of adaptation that a built structure was undergoing in its lifecycle. Although the Open Building approach comprised all scales – from urban design to the furniture design – it strongly focused on architectural products – buildings – and more so on housing. Habraken's work catalyzed the rise of the megastructure era. Megastructuralists distinguished between construction frameworks of modular units and prefabricated, replaceable units of shorter lifecycles. Examples include Yona Friedman's [previously mentioned] manifesto for a mobile architecture, who advocated an elevated spatial framework that would permit occupants to determine the design of their own dwelling units, as well as Fumihiko Maki's coined term of *group form* based on the idea that change would occur less rapidly in some realms than in others.

In the contemporary discourse, Jesko Fezer[109] summarized three main instances of openness in planning: one approach that involved the end-user in the design and building process, a second approach that anticipated future growth through extendable structures and a third approach that accommodated changing lifestyles and patterns of use. In *Urban Catalyst*, Fezer referred to open planning as the superordinate framework that guaranteed spatial stability, cohesion of the whole, formal consistency and operability. Within the framework, further determination happened beyond the auspices of the planners. Although innovative in the architecture scene of the last decades, the principle can be long traced in city planning. The explosive growth of cities during the nineteenth century imposed the design of [orthogonal] street grids as a basic framework. Thus, the first open systems stemmed from the grid. New York's Manhattan and Barcelona's Eixample grids have set the paradigmatic groundwork for urban development. The architecture of the buildings – designed by another professional sector – then completed the urban image. The divorce of architecture and urbanism led to the imprisonment of the contemporary city in a closed system. As a reaction, recent theories plead for open cities.

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107 Denise Morado Nascimento and N. J. Habraken. "Entrevista," *Vitruvius,* year 13, no 052.04 (2012), http://www.vitruvius.com.br/revistas/read/entrevista/13.052/4542, last accessed June 30, 2015.

108 Stephen Kendall, *Notes on the History and Future of Open Building and the OB Network*, http://open-building.org/archives/Notes_on_the_History_and_Future_of_Open_Building_and_the_OB_Network.pdf, accessed January 17, 2015.

109 Jesko Fezer, "Offene Planung," *Urban Catalyst: Mit Zwischennutzung Stadt entwickeln,* ed. Philipp Oswalt et al. (Berlin: DOM publishers,2013), 165.

Regarding the urban environment, Kees Christaanse set the theme of openness not as a particular physical structure but firstly as a set of values.[110] His version of an open city vision epitomized a social platform that accommodated the increasing mobility patterns of its users. It offered a secure place to live while presenting a maximum of possibilities for integrating public programs. His vision was built on analytic observations and experience from a trial and error mechanism. After distilling and analyzing the tangible forces that produce urban activity, urban structures could react and function as breeding grounds. Christaanse's open city was not a finite product, but an abstract model of an open end process. He acknowledged the need of urban structures to stimulate productive coexistence, accommodate the increasing mobility patterns of contemporary society and act as an inclusive social platform.

Christiaanse's vision underscored Richard Sennett's recent interests in the open city theory. Sennett was inspired by the scientific open systems method based on the intuition that it could be applied to urbanism. He understood the difference between open and closed as in the case of an experiment: in a closed experiment there is a hypothesis that needs to be tested. The result is either true or false, and it confirms or invalidates the hypothesis. This leads to robust findings in a Boolean logic of values. In an open experiment *"you test something, you get distracted, you fail, you discover more problems..."*[111] By undergoing the first type of experiment, the researcher already posits a closed question from start; the answer can only be *yes* or *no*, the result is inert. The second type of experiment opens the door to unexpected outcomes and new interpretations.

Sennett elaborated on these thoughts for over a decade within the concept of the *Open City*. His open city argument looked at the built context and formulated the requirements that disputed the closed system. He developed Jane Jacobs' allusions on an open city system towards a spatially oriented matter. Sennett's vision tackled both the architectural and the urban realm. His considerations set the theoretical ground for the Quito Papers and thus for a vision of the future of urban development worldwide. The Quito Papers delineated a vision for cities that were *porous*, *complex*, *synchronous* and *incomplete*. Sennett's theoretical debate provided the most clues about the physical future of cities. When calling for synchronicity and porosity referring to the built environment, he suddenly challenged new urban and architectural undertakings. He set the focus on the physical interface and advocated for ambiguous edges, thus the distinction between inside and outside became blurry.

Although differently formulated, all previous enquiries show striking similarities. Compiling the principles of an open system, the present research shifts the focus from *open planning* of building and city – a design tool – to a systemic set of properties of the built environment.

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110 Tim Rieniets, Jennifer Sigler and Kees Christiaansee, *Open City: Designing Coexistence. Catalogue Architecture Biennale Rotterdam* (Amsterdam: Sun Architecture, 2009).

111 Richard Sennett at the "LSE Events | The Quito Papers: Towards the Open City" (London, 2017), https://www.youtube.com/watch?v=VgjBkYh1k-8, last accessed June 12, 2018.

Eco's modern open work relied on *deliberate and systematic* ambiguity, the incompleteness of the *work in movement*, and the *controlled disorder*. These features resonated with Sennett's interpretations of the open city system. Sennett understood openness not as a design tool or a planning method but as a systemic property of the physical environment. He formulated three basic principles for an open urban system. According to the author, an open system is non-linear in time; in space, it resembles a chemical colloid rather than a compound. Complexity entails disorder. What opens a system are precisely the elements that destabilize it of predictable outcomes. In contrast to the three main attributes of a closed system – formal coherence, equilibrium and integration – the open system advocates for passage territories, incomplete forms and development narratives.

The Uncertain Urban Narrative | Synchronicity

Firstly, the uncertain urban narrative leaves space for unknown occurrences. The urban screenplay resembles a dialogical sequence concentrating on the process rather than aiming at a solution. This first premise for the open city has slightly evolved from its first description to recent statements. In his text *The Open City*,[112] Sennett mentioned the uncertain urban narrative as the way of introducing indeterminacy in planning. The urban development as an open-end discourse retrofitted the experience along the process rather than aimed at a solution. It instigated conflicts and possibilities since it was not looking for clarity but for the freedom to act and re-act to the changing circumstances. It was a constant exploration with no absolute answer. In recent talks, such as the 2017 LSE event *The Quito Papers: Towards the Open City* or the 2016 *Designing the Urban Age*, he mentioned the attribute of synchronicity, understood as a way of providing complexity and mixture. Synchronicity meant breaking the tight bond between form and function. This bond disabled spontaneous occurrences and excluded unexpected users, leading to a closed environment – a gated community. Instead, allowing for different activities to happen at once or within the same structure could open the field for reinterpretations and react against the inertia imposed by formal and functional restraints. The Greek agora acted as an epitome of synchronicity: complexity would be generated through synchronous activities, allowing many things to happen at once. Disparate but simultaneous elements could breed important new synergies.

What does synchronicity imply for the planning activity? Can it be designed? Planning for unresolved narratives of development, as Sennett argued, is almost a contradiction to planning itself; it requires an approach with the consideration of a multitude of variables. Within this point of view, Urban Gulliver – the host structure – must act as a platform, not as a finite product. It must be open to non-linear sequences and narratives. In this regard, the

112 Richard Sennett, "The Open City," (November 2006), https://lsecities.net/media/objects/articles/the-open-city/en-gb/, accessed on June 4, 2017.

Catalan architect and urban designer Manuel De Solà-Morales summerized three applicable connection techniques to instigate the emergence of synchronous activity patterns:[113]

1 | The premise: there are no pre-existent elements to connect.
The approach: create a place through relationship potential, meaning *inventing elements*.

2 | The premise: there is sufficient relationship potential.
The approach: *overlap elements* in a *condensed form*.

3 | The premise: there is a high level of diversity.
The approach: *place things in conflict* in order to produce a *heterogeneous accumulation.*

In a city, the whole is greater than the sum of parts. Sennett insisted on the need for open planning to attend to conflicts and possibilities in sequence, to consider not only problem-solving, but moreover problem-finding. *"All good narrative* – he stated – *has the property of exploring the unforeseen, of discovery; the novelist's art is to shape the process of that exploration. The urban designer's art is akin."*[114]

The Incomplete Form

The quest for informality in the urban narrative leads to, secondly, the need for the incomplete form: the built environment as a non-linear process with a certain degree of formal indeterminacy. Openness does not imply a finite product – the result of an imagined idea – but a structure that allows constant revision, growth and adaptation. The imposition of form needs to be replaced by an evolutionary generation of it.

An incomplete system holds the DNA which enables a process to begin; the end is not determined. Closure, instead, implies knowing the beginning and determining the end but remaining indifferent to the in-between.[115] In an incomplete system, the process is the key critical element. According to Clos, the example of the incremental development Iquique Housing in Chile, by Elemental, is the quintessential incomplete system adapted to built structures. In contrast to the Chilean project, contemporary design is often concerned with consuming the entire program. Flexibility – though often proclaimed – remains a chimera. Sennett referred to the shell as a metaphor for incomplete form. In this regard, he considered the warehouse typology as the most flexible form.

113 Simon Kretz and Christian Salewski, "Urbanity of Things. Relationship Potential and Wealth of Relations as Urban Resource" in *The City as Resource: Texts and Projects 2005—2014*, ed. Kees Christiaanse et al. (Zurich: Jovis, 2014), 178.

114 Richard Sennett, "The Open City," *In the Post-Urban World. Emergent Transformations of Cities and Regions in the Innovative Global Economy*, ed. Tigran Haas, Hans Westlund (London: Routledge, 2018), 104.

115 Joan Clos, at the LSE Events | The Quito Papers: Towards the Open City (London, 2017).

Yona Friedman stated in the Blueprint magazine interview that a building is not an object but a process.[116] Contriving incomplete forms is not only an approach on the urban fabric but on the building design as well. Similar to the undetermined urban narrative, the incomplete built form leaves possibilities open for future evolution. The challenge lies in dissolving the rigidity of the top-down practice, where ideal instances are translated into unalterable and, hence, unadaptable ghosts of our built environment. The aim is to achieve a balanced coexistence between top-down strategic development outlines and a bottom-up enthusiasm that animates the built city from the ground floor up. Urban and architectural design is relevant as a framework, not as a definer of a finite form. The spatial form of the big built structure is then ultimately shaped by density, congestion, flows etc.

The building as a process is not only open to functional adaptations, but also deals with different movements and rhythms within its static framework. Consciously merging infrastructure with living habitat can help avoid the imprisonment of functional and formal determinacy and adapt to future possible changes. When users are obliged to make sense of the incomplete expression, they do not admire a built sculpture, but instead actively get involved in re-writing the never-ending process of mutation and transformation of their built environment.

Porosity of the Built Environment

Thirdly, the distinction between the notion of border and boundary announces the importance of porosity of the built environment. As Sennett recognized, *"planners and architects have such difficulties designing the experience of passage from place to place."*[117] While boundaries mark a clear limit between two mediums, borders generate opportunities of mixture and activity. The border is understood here as an easily penetrable membrane that filters flows and enables movement from one space to another and between parts of the city. The vertical limit has to be mediated through ambiguous edges and should be enhanced towards a place of potential, development and conflict rather than of obstruction. The relevance of the border/membrane condition especially concerns the public realm. The porosity enables public space to flow freely and pass from street to interior in a sequence of different instances completing the joint between city and building. Beyond physical-architectural interventions, it becomes obvious that the consideration of public realm plays a key role in the structuring of an open city.

Cities offer very few membrane conditions; the notion of exchange is inexistent. Sennett criticized the recurrent emphasis of centers instead of edges. There is an increased importance conveyed to communal centers that fail to form a city, whereas the edges remain dead edges. If the city is considered a place of strangers, their place of exchange is at the edges – physical

116 Tim Abrahams and Yona Friedman, "Interview: Yona Friedman," *Blueprint Magazine* (2009), http://www.blueprintmagazine.co.uk/index.php/everything-else/interview-yona-friedman/, accessed November 20, 2013.

117 Richard Sennett, "The Open City" (essay presented at the conference *Urban Age. Housing and Urban Neigbourhoods*, Berlin, November 2006).

edges, or at the edges of their identity or personality. Sennett has come to consider the requisite of porosity as the most challenging of all three.

The close relationship and inter-determinacy between the public realm and built structures is maximized on the ground floor. The strict delimitation between building and street becomes subject to reinterpretation. The three-dimensional public space needs the support of built structures, so these structures have to be permeable.

Starting from Walter Benjamin, the specific literature on the porosity of the urban environment is broad. De Solà-Morales understood porosity as the permeable configuration of boundaries within what he called the *skin of the city*. The porosity of this skin, enabled through transition zones, became a determinant for urbanity. A porous design required either openings or larger transition zones that mediated visual and physical contacts and stimulate new relationships.

Steven Holl also wrote about urban porosity as the essential ingredient for the vitality of street life. *"Rather than a preoccupation with solid, independent, object-like forms, it is the experiential phenomena of spatial sequences with, around, and between which emotions are triggered."*[118] Holl recounted the writings of Walter Benjamin and Jane Jacobs, and delineated porosity as the freedom of pedestrian movement, without physical boundaries imposed by long façades or large urban constructions without entry points.

Berghauser Pont and Haupt introduced the concept *transition density* referring to the amount of borders of different entities – the intensity of transitions – in a certain area. *"In a dwelling, the walls separating different rooms constitute the borders of transition, in a building these are the façades, in a building block these transitions are the borders of the lots. At the level of the urban fabric this can be defined as the public network..."*[119] The transition density measures the porosity of an area.

When talking about *the space between*, Stephen Bates referred to *"the ambiguous spaces and thresholds between private rooms and the public realm."*[120] He enumerated a set of architectural elements that contributed to the transition between the city realm and the domestic realm: courtyards, passages, porches, lobbies, balconies etc. These elements enriched the city streets with layers of semi-public spaces and mediated between the public and private realm. They belonged both to the architectural world – the host building – and to the street they opened to. They defined the edge, contributed to the character of the city and determined the way it was experienced. They were private gifts to the public city. They were all constituents of the interface between the public and the private realm. In a similar note, Jan Gehl analyzed the

118 Steven Holl, "4-Urban Porosity," *Urbanisms; Working with Doubt* (New York, NY: Princeton Arch. Pr., 2009), 22.

119 Meta Berghauser Pont and Per Haupt, "Space, Density and Urban Form" (PhD diss., TU Delft, 2009), 88.

120 Stephen Bates, "The Space Between," *Ground Floor Interface*, ed. Wüstenrot Stiftung (Berlin: Jovis, 2014), 179.

importance of creating *soft edges*, focusing primarily on elements such as frontyards, forecourts or porches at the interface between the domestic and public spheres.[121]

Openness and Urban Gulliver

In his analysis of the work of the famous Manuel de Solà-Morales, Hans Ibelings argued that, *"building in the city, building the city, calls for a delicate balance between urban fabric and building, between common substance and special objects, between rule and exception."*[122] This balance, on a large scale, can be provided through an open system approach. Strategic planning for openness does not restrict; it stirs, encourages and opens possibilities. It is the necessary framework for a large-scaled structure, such as Urban Gulliver.

Openness is multi-, inter- and trans-disciplinary. It reaches beyond one discipline, profession or single decision-taker. It is a holistic concept that unifies otherwise disparate interventions and offers common ground to both top-down and bottom-up approaches. In this context, the open structure is no longer an isolated, autarchic element with an intrinsic model of development, but the product of a collective and active part of the city-network.

Openness involves hybridization. In the open structure, hybridization encourages changing constellations and rejects typological specification. The combination and chemistry of its components, ever-changing in time, is the key to the successful generation of urban life. Beyond the mere mix of uses, the successful marriage of public and private becomes essential. The hybrid structure is not an inserted form but a result of urban processes. Its unresolved narrative stirs curiosity, interest and involvement of the user. This is a positive outcome for its urban presence. Users are converted from distant spectators to actively involved actors of the city's scene.

Openness contemplates the time component. Time based planning is future-oriented and leaves space for unexpected occurrences. The open structure is understood as a process. Thus, it is versatile and evades the rigidity of the over-planned city. In its enduring effort to adapt to unpredictable growth and change, the open structure embodies an open-end narrative. It does not offer a polished, photogenic image of a finite product but displays its dynamically changing personality. Openness, in time, evokes indeterminacy.

121 Jan Gehl, "'Soft Edges' in Residential Streets," *Scandinavian Housing and Planning Research*,3:2(2007),89-102, DOI: 10.1080/02815738608730092.

122 Hans Ibelings, "Urbanity," *A Matter of Things: Manuel De Solà-Morales*, ed. Manuel de Solà-Morales et al. (Rotterdam: NAI Publ., 2008), 12.

3|1.2 Hybridity

The mixed-use type is a highly demanded protagonist of the contemporary cityscape. Office and commerce, sometimes supplemented with housing, is a frequent programmatic composite. The mixed-use structure is exclusively an urban protagonist. As Steven Holl already identified in the 1980s, cities have acted as *"fertilizer for the growth of architecture from the homogeneous to the heterogeneous in regard to use."*[123] After acknowledging the devastating aftereffects of the functional separation of uses on urban areas, two main factors have triggered the reemergence of the mixed-use type: [the need for] increasing densities and the evolving building techniques – especially relevant regarding high-rise developments.

The Need for the Mix

The need for mixture poses the question on how to accommodate diverse requirements into a coherent, unitary structure. This is primarily expressed in the form of a blend of uses. A balanced encounter of different functions is usually the prerequisite for attracting a variety of users. The different uses need to coexist on a functional and typological level. Beyond the *function cocktail*, the large scale mix is further expressed on several levels. The L-sized structure often depends on a mix of investment models and relies on a mix of property and ownership types – combination of public and private. Consequently, private joint ventures become increasingly intricate and therefore less and less transparent. Furthermore, during the lifespan of such an ensemble, the operation and management of the different program requires a complex apparatus. The infrastructural component gains importance and has to be thoroughly integrated.

Looking back on this phenomenon, the glorious rise of the mixed-use can be traced to around the turn of the twentieth century, especially in rapidly developing metropolises, such as New York. It was a direct response to the changes and pressures imposed by metropolitan environments: the rising land prices and the technological advances in construction – structural steel, the elevator, the telephone, electrical wiring, central heating and ventilating systems – favored real-estate speculation. Once buildings clearly became investments – construction went beyond the private interest and use and became a vehicle of speculation – the housing of a variety of uses in the biggest envelope possible defined the architectural outcome. The constraints imposed by the city grid catapulted the developments into the height.[124] The most condensed expression of the mixed-use type is often linked to verticality; this is where combining uses becomes more challenging. Vertical developments allow for more complex

123 Steven Holl, introduction to *Hybrid Buildings*, ed. Joseph Fenton (New York: Princeton Architectural Press, 1985), 3.

124 the case of Manhattan is paradigmatic, the average grid dimension being 80 x 274 m.

combinations enabling more sophisticated permutations of uses. Nevertheless, it is precisely in the section where the difficulty of linking different programmatic entities rises.

Mixed-use Epitomes

As previously mentioned, New York counts as the incubator of the mixed-use type. The metropolis offers an impressive catalog of functional fusions. Two paradigmatic projects, which are often written about, stand for the blending fever of the era: Grand Central Terminal and Athletic Downtown Club.

In *Tower and Office. From Modernist Theory to Contemporary Practice*[125] – an exhaustive analysis of the history of the mixed-use skyscraper – Ábalos and Herreros also highlighted the influence and the effect of Grand Central Terminal on shaping the architectural discourse in the years following its construction. Grand Central Terminal is the emblematic project that incorporated juxtaposed functions – station, retail, office high-rise, hotel etc. – and managed complex, layered traffic patterns. Due to its size and complexity, the Grand Central development was, according to Ábalos and Herreros technically and commercially unprecedented. The complex mix of infrastructure and adjacent functions acquired an impressive scale and a gravitational presence in the city. This grand intervention of W. J. Wilgus (1903-1913) is an exemplary exercise in planning a large-scaled metropolitan structure. The management of an amalgam of juxtaposed functions, sustained and linked by traffic flows, coined the Terminal as a breakthrough project. A century later, the Grand Central keeps its landmark status in Manhattan's Midtown: it concentrates the pulse of the city and manages an impressive array of programs.

The Downtown Athletic Club is the second emblematic structure that architecture theorists have been especially fond of. Whereas the Grand Central Terminal expanded beyond the confinement of one block – thereby absorbing additional land and uses – and blended a variety of juxtaposed uses linked by a fluid ground floor, the Downtown Athletic Club narrated the diversity of the metropolis in a vertical succession of programmatic levels. The building, dissected by Rem Koolhaas in *Delirious New York*, was made out of a sports club on the lower twelve floors and a hotel with private rooms on the upper twenty floors, mediated by several floors for social interaction, comprising restaurants, lounge, dance floor etc. In the author's words, it represented the *apotheosis of the Skyscraper*. Diverse uses fill thirty-eight horizontal platforms stacked in vertical sequence. Each floor, a microcosm that allowed for its own scenario, *"a fragment of the larger spectacle of the Metropolis."*[126] The transition from one independent floor to another was mediated by the elevator. The extensive analysis of

125 Iñaki Ábalos, Juan Herreros and Joan Ockman, *Tower and Office; from Modernist Theory to Contemporary Practice. Técnica y Arquitectura En La Ciudad Contemporánea, 1950 - 1990* (Cambridge, Mass. [u.a.]: MIT-Press, 2003).

126 Rem Koolhaas, *Delirious New York; a Retroactive Manifesto for Manhattan* (Rotterdam: 010 Publishers, 1994), 157.

Fig 3.01 Grand Central Terminal main hall. Travelers, commuters, tourists, wedding photo-shoot, Apple store [2017]

Downtown Athletic Club in *Delirious New York* marked a glorious beginning of Koolhaas' *plaidoirie* for the mixed use.

Rem Koolhaas and Steven Holl were two fervent supporters of the mixed-use cause of the 1970s and 1980s. Holl's disclosure of the hybrid structure and Koolhaas' fixation on mixed-use high-rises – both focusing mainly on the American landscape – revealed a new interest in the architecture community, fueled by an unexpected potential. Ábalos and Herreros revealed in their writings on the mixed-use skyscraper how Kollhaas' and Holl's contribution to the topic represented a turning point that opened the way *"to look anew at the phenomena emerging as a result of contemporary modes of capitalist production, which altered the concepts of both urbanism and public space."*[127]

The mixed-use type caters to urban needs, nevertheless it does not perform like a whole, unitary element. Nowadays, the mixed-use structure has become predictable; it is almost like the required ingredient in every recipe. But are there any rules to the mixing game? An incursion in a playful Surrealist approach, the *Cadavre Exquis* game, offers insight through interesting analogies.

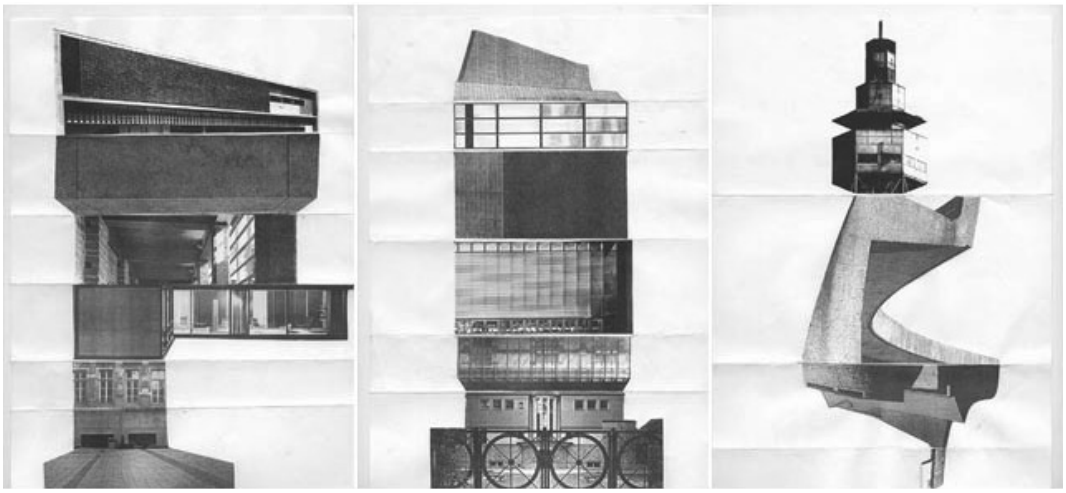
Cadavre exquis

The *Cadavre Exquis* game was invented in 1925 by the surrealists Yves Tanguy, Jacques Prévert, André Breton and Marcel Duchamp. The name was derived from a phrase that resulted from the game: *Le cadavre exquis boira le vin nouveau* [The exquisite corpse will drink the new wine]. Each player added his contribution to the sequence either by following a rule or by only seeing the end of what the previous person has contributed.

With a constant air of playfulness in the foreground, the *Cadavre exquis* can be considered a method for the unpredictable assemblage of a collection of words or images with no previous link to an unexpected discourse that contains a multitude of new meanings. The artistic exploitation of chance instantly opened space for multiple, diverse possibilities. The game catalyzed the emergence of unexpected outcomes, both through words in surprising sentences and texts, as well as through drawings. Hence, its application in architecture was compelling. When referring to the design of the Plan Voisin of Paris, Koolhaas drew a parallel to the Cadavre Exquis technique, applied to an urban structure, which seemed to release *"a poetic hybrid [...] from the subconscious."*[128] He deliberately employed the method of the exquisite corpse in several of his proposals at the end of the 1970s, i.e. the competition for the expansion of the Parliament headquarters in The Hague. OMA's proposal built on the complexity resulting from the successive historical agglomeration that formed the pre-existent building.

127 Ábalos, Herreros and Ockman. *Tower and Office*,248.

128 Koolhaas, *Delirious New York*, 259.



"In the surrealist game, gameplay and collage were fundamental practices that involved spontaneity, group spirit, freedom, creative stimulation, sharing, exchange, slip of meaning. All the elements that we always strive to get into our work."[129]

129 Descriptive text of the Cadavre Exquis collection from Gruppo A12, http://www.gruppoa12.org , last accessed December 17, 2017.

Fig 3.02 **Gruppo A12. Sample from the Cadavre exquis installation, "In the name of the father," Turin [2005]**

The project comprised a composition of three buildings with three different functions, to be developed by three different architects.[130] More recently, Herzog and de Meuron constructed the analogy to the Cadavre Exquis technique in the design process of the Caixa Forum – a cultural establishment as a vertical succession of spaces, each with their own distinct character.

Beyond graphic explorations with reference to architecture, such as the collages of *Gruppo A12*, the relevance of the Cadavre Exquis technique relied on its intrinsic rule. The game rule can be extrapolated to the rule of architectural composition: the syntax, which ensures a harmonious arrangement of parts. Once the syntax is established, the robust groundwork for a structural composition, the mixing game can start!

From Mixed-use to Hybrids

The mixed-use is the expression of density because it is a concentration of programs. However, it is exempt from the links between the comprised uses. A mixed-use building has independently functioning parts, but often fails to exploit the synergies these parts could create and to offer the opportunity and the common framework for the encounter of these diverse parts. Beyond the rules and the value of each element of the composition, the chemistry between parts is essential. The unexpected outcome – a greater whole, the new meaning – reaches far beyond the possibilities of the *ordinary* mixed-use. To holistically address the challenges of urban environments, a more complex vision is needed. This complexity can be approached by hybrid structures.

This study has already tackled the fact that the L-sized – a complex urban artifact – is an ever-returning phenomenon. Its recent proliferation can be mainly attributed to hybrid buildings. Hybrids resume the ability of a built structure to concentrate a wide range of uses and to adapt to different possible scenarios. The notion of *hybrids* is often associated with several tags put on large-scale urban interventions, such as superblock, megablock, super-building, city in the city, urban island, megastructure, vertical city, etc. It is a term that has found great acceptance and use in recent architectural and urban discourse. The purpose of this chapter is to look beyond the tag, to analyze and extract the key features of hybrids from the existing literature and to outline, from existing examples, their architectural and urban potential.

Joseph Fenton, a collaborator of Steven Holl, introduced the term *hybrid* to the architecture vocabulary and coined it in his 1985 pamphlet.[131] In the foreword, Steven Holl – the co-founder, along with William Stout, of the seminal publication *Pamphlet Architecture* – already postulated his interest for the phenomenon of hybridization and its relevance for architecture. According to Holl, the concentration of several social activities in an architectural envelope *"distend and*

130 Roberto Gargiani, *Rem Koolhaas / OMA; the Construction of Merveilles* (Lausanne: EPFL Pr., 2008), 78.

131 Jospeh Fenton, *Hybrid Buildings* (New York: Princeton Architectural Press, 1985).

warp a pure building type." [Freed from the modernist heritage] *"what pressures specific to the twentieth century does the combination of program impose on architectural form?"*[132] He argued that this contamination of form and mutation of type was essential in order to counteract the desolated, activity-less, dormant cityscape inherited after decades of functionalist planning. Holl used the foreword to mark the territory of his discourse: the focus was clearly set on the urban building and the concentration of activities. There was to be a clear distinction between the term Hybrid and the Mixed-use designation *"frequently used to describe the sprawling megastructures of the middle of this century."*[133] Each example of the collection was unique in regard to structure, form and implementation.

The biological term *hybrid* refers to the result of spontaneous cross-breeding. It stands for something heterogeneous in origin or composition. The term is derived from the Latin *hybrida*, meaning an *"offspring of a tame sow and wild boar, child of a freeman and slave, etc."*[134] This term has been incorporated in architectural vocabulary. The purpose of hybridization is not just to generate a new [mixed] breed but, according to Kenneth Kaplan, to achieve an outcome *"with a greater hardiness and capacity for growth than either of the parents."*[135] Citing the work of biologists Kölreuter and Mendel, he further pointed out that successful hybrids could, on one hand, perform and adapt better to the environment – hybrid vigor –, or become victims of sterility. Aiming at vigor, the result of such a genetic intervention was thus an exacerbation of the original sample; a new and unexpected outcome every time. Even if the genetic procedure withheld risks, the possibility of the positive, improved outcome was exhilarating. When referring to Fenton's collection of hybrid buildings, Kaplan regarded the same process as valid in architecture. Each resultant sample, *"no matter which of its formal, functional or urbanistic elements might predominate, ascends to a richer, more elemental wholeness, invigorated by a poetic union of its minor parts."*[136]

Fenton understood hybridization as a surprising and unconventional combination of uses and labeled it as a predominantly American phenomenon. His pamphlet showcased a collection of buildings crossbred mainly in regard to their inherent uses. This notion has been further developed in recent times, moving towards a more encompassing definition.

Hybrids in Architecture

Fenton's pamphlet marked the re-discovery of a hibernating architectural protagonist. An architectural outcome that was blooming in the years of economic growth at the turn of the

132 Steven Holl, introduction to *Hybrid Buildings*, 3.

133 Ibid, 3.

134 According to Oxford Dictionaries.

135 Kenneth L. Kaplan, "Heterotic Architecture," in *Hybrid Buildings* ed. Joseph Fenton (New York: Princeton Architectural Press, 1985), 4.

136 Ibid, 4.

twentieth century, especially in North America, had come to a premature death due to the great depression, followed by the CIAM dominated era. Hybrid buildings were a product of speculation, thus unfeasible in times of economic crises. Their programmatic and formal idiosyncrasy was incompatible with the rigid specifications of the Athens' Charter. In a time of functional purity and formal consistency, the non-typological was a transgression. Indeed, each new combination of programs could result in a particular, unique structure and envelope. The freedom of composition was unlimited: *"the functions which comprise the program of a hybrid building may be expressed or repressed. These functions may be stacked vertically, grafted horizontally, or [...] internally engulfed within the exterior membrane of the building."*[137] As opposed to the formal predestination marked by the functional content that modern planning had imposed, the hybrid shocked through its non-typological character. This allowed for richness in architectural expression.

In his intent to categorize this anti-typology, Fenton distinguished between three types of hybrid structures according to their composition rules and form: *Fabric*, *Graft* and *Monolith* Hybrids. The fabric hybrids mainly obeyed the urban plot- and gridlines. Their programmatic compound was subordinated to the overall appearance, a resultant of the urban fabric. Graft hybrids came into being through the juxtaposition of [traditional] building types. The challenge was to weld the parts to an intelligible whole. Monolith hybrids relentlessly approached the monumental scale in *"an encyclopedia of metropolitan life within a single building block."*[138]

The collection of examples Fenton used in order to build his case on hybrids was rather retrospective. He mainly leaned on built or just planned projects at the turn of the twentieth century. He argued that this gathered evidence represented a barometer that recorded the evolution of society. In a forward-looking concluding note, Fenton stated that each instance of the hybrid approach *"reflects a willingness to confront the present, and to extend the exploration into the future."* [He invited readers to regard the hybrid rhetoric as a] *"successful practitioner's tool for dealing with the intricacies of the Twentieth Century city."*[139]

Fenton's pamphlet brought the mixing of uses back to the billboard of architectural creation. It also unveiled Steven Holl's deep interest in this anti-typology, an interest he has pursued along his career. Since then, the hybrid evolved and delimited itself from the mixed-use in the sense that its main purpose was to create a greater building through the mixing of functions. Holl seems to have held a monopoly on the term. He has remained faithful to the label in various projects: the *Hybrid Building* [1985-1988, Florida], the *Manifold Hybrid* [1994, Amsterdam], the *Linked Hybrid* [2003-2009, Beijing], the *Highline Hybrid Tower* [2004, New York] or the *Sail Hybrid* [2005, Knokke-Heist]. The Hybrid Building combined retail, office and residential uses, aiming at an intensification of an urban condition.[140] The Linked Hybrid

137 Fenton, *Hybrid Buildings*, 7.

138 Ibid., 8.

139 Ibid., 41.

140 Steven Holl, *Anchoring* (New York:Princeton Architectural Press, 1989), 81.

in Beijing – an experiment in urban porosity[141] – linked eight towers through bridges of public functions,[142] providing a second level of public encounter – a celebration of coexistence and diversity, a melting-pot.

The term has since evolved and stands now for a more complex maturation of the mixed-use. Hybrids include the mixed-use gene but comprise more *facets* and stand for a more elaborated presence in the cityscape. As Koolhaas foresaw in the 1995 influential text *What Ever Happened to Urbanism?*, the urban future is in part about discovering unnamable hybrids. OMA's study from 1996 of a mixed-use ensemble in Bangkok resulted in the Hyperbuilding. Although it can be read as yet another instance in a long row of *vertical cities,* the description of the concept anticipated the hybrid definition at which this work aims. The building, promoted by the Hyper Building Research Committee Office of the Japanese government was approached as a re-interpretation of the skyscraper. OMA described the project as follows: "*The Hyperbuilding can be read as the integration of several buildings into a larger whole. The different elements support each other in every sense: architecturally, they form an integrated complex; technically, issues of stability, access, circulation and servicing are organised collectively; urbanistically, the entire building becomes an urban quarter of a new kind.*"[143]

Koolhaas identified the need to treat the project as a *metaphor of the city*,[144] not just so it could provide the plurality of uses inherent in the urban environment, but in order to generate the necessary links between the programmatic capsules. This is a key component of a hybrid and a clear demarcation from the mixed-use development. Since its definition, the architectural hybrid has mainly struggled to introduce and define the links between its programmatic parts.

The A+T architecture publishers and research group picked up the hybrid at the beginning of the twenty-first century. They captured the phenomenon in a moment of urban and architectural fervency, frenetic development and struggle to find and define urban identities. The findings from the three magazine editions from 2008 and 2009 were summarized in 2014 in the book *This Is Hybrid*. It seemed to be the grand moment of the definition of the Hybrid as a rightful member of the urban *hall of fame*. Unfortunately, the subtitle *An analysis of Mixed-use Buildings* uncovered the still ambiguous position. The A+T work positioned a meanwhile ubiquitous architectural tendency in mainstream discourse. It grounded the hybrid phenomenon in a thorough historical survey.

Despite confusion, the study underlined the acknowledgement that the presence of several functions – usually subordinate to one primary function – does not automatically convert a building into a hybrid. If Fenton's *zoological* evidence marked the rediscovery of the hybrid

141 Steven Holl, "Urban Porosity," in *Urbanisms; Working with Doubt* (New York, NY: Princeton Arch. Pr., 2009), 22.

142 Holl, *Anchoring*, 41.

143 OMA, "Hyperbuilding," http://oma.eu/projects/hyperbuilding, accessed November 22, 2017.

144 Rem Koolhaas, "Hyperbuilding Bangkok," *El Croquis No 131-132. Delirio y Más - Delirious and More; OMA Rem Koolhaas; 1996 – 2006*, ed. Rem Koolhaas, Fernando Márquez Cecilia, and OMA (Madrid: El Croquis ed., 2006), 66.

protagonist, Martin Musiatowicz's anthological approach of the topic of the hybrid shed light on its recent evolution. In the first magazine, *Hybrids I – High-rise Mixed-use Buildings*, Musiatowicz delivered a new and highly questionable categorization of the hybrid in accordance to its recent evolution. Nevertheless, Mustianowicz recognized an important aspect in the evolution of the hybrid building – he always referred to buildings –, namely its constant renegotiation of public space in relation to the city. Also, he stressed the relevance of the hybrid character, used as a tool for regenerating city cores in decay, where the office and commercial uses have alienated the structures from their surroundings and created a sterile, unfriendly environment. He referred to an intensification-effect that occurs when combining uses – from individual spaces up to the urban scale. Mustianowicz's ambition was to find a common denominator through the myriad of gathered examples. Instead, he revealed the impossibility of an always-valid recipe for a typologically recognizable outcome.

The third magazine of the Hybrids-series compared the hybrid's complex personality to its antagonist, the social condenser. When distinguishing between them, Aurora Fernández Per stressed that hybrid buildings *"include the gene of mixed-use development in its code. This gene is necessary in order to adapt to the signs of the times."*[145]

The 2014 *This is Hybrid* book reiterated the hybrid and summarized the previously published theoretical groundwork. The preface, belonging to Steven Holl, attempted to convey more credibility and validity to the discourse. These timid efforts to coin an all-encompassing term only showed how often it has been employed as a mere label. The term demands a more solid underpinning.

Hybrid Features

The following inquiry on the main features of a hybrid structure relies on a synthesis of the combined chatacteristics of previous instances, as well as on a future-oriented reflection on the ideal assets. In the preface of the A+T *This is Hybrid* book, Steven Holl shortly outlined potentials of the Hybrid under the following seven points: 1 | twenty-first century cities as incubators; 2 | public space formation; 3 | programmatic juxtapositions; 4 | living/working/recreating and cultural social condensers; 5 | dynamics of section; 6 | super green architecture; and 7 | freedom of new concepts. Considering Holl's long-term interest in the ever-evolving non-typology, this superficial outline renders disappointing.

There is no predetermined model or recipe; hybrid structures evolve uniquely each time, growing out of their immediate environment and adapting to imminent changes. They are *"cosmopolitan buildings, placed in fragmented forms that do not correspond, in volumes based on*

145 Aurora Fernández Per, "Social Condenser," in *This is Hybrid; an Analysis of Mixed-use Buildings,* ed. Aurora Fernández Per and Steven Holl (Vitoria-Gasteiz: a+t ediciones, 2014), 47.

remnants of previous mixed typologies [...] They produce a new being with a unifying personality."[146] Instead of looking for one absolute answer for the *What is a Hybrid?* question, this study will question the effects of the hybridization process on urban and architectural products. It will also sharpen the outline of hybrid features regarding L-sized structures.

Hybrid is not a subject, but an adjective for a built structure; both architects and urban designers can claim it. Hybrid structures differ from other multiple function buildings by their scale. In recent years, during the last revival, they successfully overcame the building-status and proved to perform best when L-sized.

L-sized hybrid structures are placed in a grey zone between the disciplines of architecture and urban design. Their insertion parameters and over-all appearance relate rather to the surrounding urban fabric than to plot lines. They are not intended as a sculptural statement but as a concentration of urban fabric. L-sized hybrid structures are not buildings; they are urban characters relying on a critical mass.

Hybridization – an exclusively urban phenomenon – stands for the diverse possibilities of combining uses in a built complex with an intimate relationship to the city grid. It is an outcome of multiple initiators that enhance its processual component. The process – triggered entirely by speculative interests – faces a wide array of conditioners – physical, social, economic. Hybridization is rather a strategic statement than a solution. It goes far beyond the spatial coexistence of a multitude of uses. Hybrid structures not only blend different users but also different developers and investment parties, management types and property situations. Fundamentally, the process of hybridization does not deliver a final solution, rather it provides a framework that meets current needs and can adapt to unknown future needs.

Hybrid structures are pedigree-less. They cannot be labeled as a disciplinary prototype. Firstly, they come into being through a consensus of interests of several – private and often public – parties. The mix of uses is part of their DNA. The more diverse the functions, the more surprising and dynamic the synergies between them. The great opportunity of hybrid structures resides in the fact that they are devoid of an ideology, thus free for new experiences. The fact that they do not bear the burden of a theoretical [pre]definition enables great versatility.

The extroverted personality of an L-sized hybrid structure is intimately related to its public functions. The compound of uses and the proximity between them ensures high density – of people, activities and square meters. Even if it can accommodate residential uses, the public program is a pre-requisite. It is for this reason that the consideration of public space becomes imperative. Not just an as additional use to the long programmatic list, but as the fundamental mediator between all other functions. This underlines the sociable character of the hybrid structure, oriented to its surroundings and to the city, defining the urban heart-beat.

146 Javier Mozas, "This Is Hybrid," in *This is Hybrid; an Analysis of Mixed-use Buildings*, ed. Aurora Fernández Per and Steven Holl (Vitoria-Gasteiz: a+t ediciones, 2014), 38.

The most condensed and challenging form that an L-sized hybrid structure can adopt is the skyscraper – a diminutive representation of the city. The skyscraper's facile urban insertion, the comprehensive program and an uninterrupted activity can rewrite the notions of urban centrality. Technological advances, especially concerning the system of vertical transportation, have freed the way to three-dimensional communication. The mix of mechanical means enabled a city-like distribution of flows. When writing about the evolution of mixed-use skyscrapers, Ábalos and Herreros pointed out that *"a triple spatial structure—public, private and mechanical—was now necessary, and its complexity offered the key to resolving its topological organization."*[147] This led to a *de-compression* of the vertical mixed-use towards a hybrid form of the skyscraper. The authors acknowledged that the notion of public space also began to mutate, interiorize and be absorbed by the mechanisms of the three-dimensional, self-sufficient stratified skyscraper.

The compact structure and the freedom to evolve vertically set a special focus on the dynamics of the section, which clearly outweigh the planimetric. Thereby, according to Holl, the hybrid structure synthesizes one of the great challenges of the twenty-first century regarding metropolitan density regarding *"the further affirmation of the diagonal and the vertical in new spatial experience."*[148] Steven Holl has long advocated for the importance of the section. *"Instead of the nineteenth-century flatfooted figure-ground space* – he argued –, *twenty-first-century metropolitan space is more active in section. We rise and fall in elevators and escalators while our points of view open and close in amazing sequences."*[149]

The consulted sources promoted hybridization as the promise and salvation of the twenty-first century. This thesis will question, extract and further elaborate on the relevant strengths. One hundred years after its first moment of glory, what potential does hybridity hold for the future of Urban Gulliver?

Hybridity and Urban Gulliver | Strengths and Potentials

As a synthesis of an urban fragment, Urban Gulliver has to experience different formalizations. However, either vertical or horizontal, it should always strive for compactness. Furthermore, the openness requirements compel it to formulate and accommodate public space.

Holl recognized that *"these new hybrid types can shape public space. Urban porosity is a key intention for large hybrid buildings with the aim of pedestrian oriented urban places."*[150] Indeed, hybrid structures have a public responsibility and obligation to provide and foster public space. When referring to the famous Midtown Manhattan trio of mixed-use skyscrapers – IBM Headquarters, Trump

147 Ábalos, Herreros and Ockman. *Tower and Office*,240.

148 Steven Holl, introduction to *This is Hybrid; an Analysis of Mixed-use Buildings,* ed. Aurora Fernández Per and Steven Holl (Vitoria-Gasteiz: a+t ediciones, 2014),9.

149 Steven Holl. "5-Sectional Cities," in *Urbanisms; Working with Doubt* (New York, NY: Princeton Arch. Pr., 2009), 25.

150 Holl, introduction to *This is Hybrid*, 9.

Tower and AT&T Headquarters [to be discussed in a subsequent chapter from the perspective of POPS]–, Ábalos and Herreros underlined the fact that the buildings are permeated by an intricate network of pedestrian paths that, due to a lack of coordinated planning, fail to act like a coherent public space. This pointed out the difference between a mixed-use skyscraper and a vertical hybrid structure regarding their urban behavior.

Public space is supported and sustained by the juxtaposed program mix. The possibility of mix and diversity is always tempting. Mixing uses has become inherent to urban development. The mere adding and juxtaposing of uses leads to a catalogue of services. The chemistry that can appear between the functions is essential. A hybrid structure can achieve the complexity of a city regarding users, usage and program. The important condition for its success is the chemistry that arises between the uses. As Fenton argued, it is about combination and interaction of the programmatic parts. Disparate programs could even increase the economic benefit.

Hybridization of uses means the constant quest for new synergies. Additionally, infrastructure is assimilated as the binding element, enabling both the necessary links inside the structure while also creating synapses to the surrounding urban environment. The Fun Palace – Cedric Price's timeless project – is also an epitome of a hybrid structure, starting from the architect's approach. Price's statement perfectly resumes the potential residing in the programmatic complexity: *"Although most of the listed activities and amenities offered are already available to an urban, or at least metropolitan, public their inter-accessibility achieved by juxtaposition not only enhances freedom of choice, but also creates new activities, at present without name, which result from this concentrated fluidity."*[151]

Similar to Urban Gulliver's aspirations, the hybrid structure is not a finite product, but an incubator with the potential of constant improvement. It stands for an open-ended process of renegotiation and adaptation to changes. Hybridization is a tool capable of generating and injecting urbanity into otherwise lifeless urban tissues. Thus, it becomes a promise for the generation of urban life, dynamics and activity. The multitude of possible functions has to anticipate and adapt to urban needs. Not all mixtures work, but if the components are adaptive, the mix can always comply with present needs. Hybridization of the L-sized structure is to be understood as a synthesis of a city fragment. Thus it is a complex organism, able to anticipate urban processes and mutations and react to them. L-sized hybrids need to be resilient in time. Over-determinacy is counterproductive, and leveraging indeterminacy is imperative.

151 Cedric Price, David Alford, and Architectural Association London, *Cedric Price; [Publ. to Coincide with an Exhibition at the Architectural Association from 7 - 27 June 1984]* (London: Architectural Ass., 1984), 56.

3|1.3 Indeterminacy

The term *indeterminacy* refers to vagueness – the state of not being precisely determined or fixed –, to something not known in advance or not leading to a definite result and to the possibility of having an infinite number of solutions. This study will further elaborate on different facets of indeterminacy related to the built environment.

Indeterminacy is an attribute that has seldom been applied to architecture or urban planning. Planners navigate between known, experienced and learned situations and an unknown future, looking for a balance between determining and relinquishing. Nevertheless, our recent urban history has displayed an interest in escaping the prison of the over-programmed, the stiff and the inflexible on different levels. This is also the challenge that the open system for building and city faces. As previously recognized, the non-typology of L-sized urban hybrids has become a recurrent theme in the architecture scene of the last decades. The process of hybridization presents future potential for Urban Gulliver, understood as the structure, which is capable of housing different programs, promoting the interaction of various urban uses and connecting private and public activities. Un-programmed situations are precisely the key to a hybrid future. Indeterminacy is rendered here as a major quality of hybridity. Thus, this passage explores possible implications and effects of indeterminacy on large-scaled structures by untangling its different instances in theoretical debates.

Architecture has traditionally been a fervent resistant of indeterminacy. The discipline has been imprisoned by restrictions regarding either proportion and form, functionality and use, or the legislative framework. Urban planning has also been suffering from over-determination through zoning regulations, strict specifications and formal impositions. The planning and construction of our built environment has no space left for unknown occurrences and ambiguity. Competition entries already sell a finite image in the concept phase. The [resulting] building structures are enduring, fixed elements that shape our urban landscape for generations to come. What margin of ambiguity do they allow? It is therefore clear that injecting indeterminacy in the architectural and urban discipline [from planning, execution to the entire lifespan of a structure] must come as a reaction to mainstream processes. The reaction to over-determined planning has developed as a tug-of-war and has impelled an interesting balance between imposed intervention and free space; between the fixed and the changeable. So, by what means can indeterminacy in planning be achieved?

At the start of the twenty-first century, Simeoforidis Yorgos engaged with the topic starting with a retrospective look. His text *Outlines for A Genealogy of Uncertainty*[152] looked back on historical moments in architecture and urbanism that have dealt with this aspect. For Yorgos, the attribute of uncertainty was susceptible to both changes in the spatial, ekistic,

152 Yorgos Simeoforidis, "Notes for a Cultural History Between Uncertainty and The Contemporary Urban Condition," in *Mutations*, ed. Rem Koolhaas et.al. (Barcelona: Actar, 2001), 414-423.

demographic, economic and social conditions that have affected urban projects, as well as to changes in the way the practice and discipline of urbanism was perceived and applied. He also pointed out the undoubtedly important shift that occurred in the 1950s as a critique to the rationalist architecture of the interwar period. The notorious contributions of Team 10 introduced the component of uncertainty in their new set of planning tools, including the possibility of change and growth as an influential parameter. Their fascination with movement and communication contemplated the dynamic forces that reacted against functional predeterminacy and formal inertia. Simultaneously, the attribute of uncertainty was also being introduced in other artistic fields beyond architecture and urbanism. John Cage's music compositions famously incorporated *"gaps of uncertainty in which the individual can participate."*[153]

Indeterminacy as Utopia

In the twentieth century, indeterminacy in the urban environment was notoriously introduced through the Situationist trend of avoiding anticipated movement. The International Situationist movement reacted against the established mechanisms of rational planning that created the modern city. In search for unpredictable situations, the theory of *dérive* as an experimentation of the urban environment without a previously established route was dedicated to urban explorers in search of an authentic experience. The implications for the built environment can be traced in Constant Nieuwenhuys' *New Babylon* project. Through a similar approach, he based his new city concept on the intrinsic nomadic character of humans – the act of walking –, often repressed in contemporary urban behavior. *"The clean, zonal, hierarchical separation of rationalist urban planning* – Simon Sadler wrote – *gave way to Situationist 'unitary urbanism' in New Babylon [...]. Urban experience would consequently be more indeterminate, physically and mentally. The city would now be less an object of vision – a 'spectacle', to adopt Situationist terminology – than a plaything, a toy, a puzzle."*[154] New Babylon introduced a completely different approach to city planning opposed to the traditional pursuit of the fixed and ideal architectural object and form. The project – an elevated framework stretching horizontally – would only come to live through the active involvement of its users.

Subsequently, Yona Friedman argued in favor of indeterminate urban planning, based on the principles of superposing and multi-layering.[155] The visionary architect parted from the acknowledgement that his contemporary society was subject to a wide array of transformations. The concluding development outcomes for the city were two extreme scenarios: either conceiving cities for isolated individuals or cities dedicated to public life with a high concentration of collective amenities. As urban planning methods hitherto left no place for

153 Cedric Price, Hans Ulrich Obrist, and Arata Isozaki, *Re: CP,* (Basel: Birkhäuser, 2003), 13.

154 Simon Sadler, "New Babylon versus Plugin City," *Exit Utopia. Architectural Provocations 1956-76*, ed. Martin van Schaik and Otakar Máčel (Munich: Prestel, 2005), 60.

155 Yona Friedman, "Programme for Mobile City Planning: An Update," *Exit Utopia. Architectural Provocations 1956-76*, ed. Martin van Schaik and Otakar Máčel (Munich: Prestel, 2005), 13-17.

free choice between dispersion and concentration, the compromise between the two opposing directions would lie in what Friedman defined as indeterminate planning. Indeterminate planning could be achieved through, firstly, the convertibility of the forms and use of constructions – temporary, reusable constructions –, and, secondly, through the convertibility of the system of land ownership – of space instead of surface – and infrastructural networking – roadways, power supply, sewerage etc. The common denominator was adaptability and the possibility of removal and reuse. Under the premise of concentration, indeterminate planning would translate into a multilevel system: a superstructure [previously mentioned in Chapter 2]. This could be achieved through the superposition of an additional structure on top of existing urban settlements. The multi-layering technique was enabled by a system of spatial quarters: three-dimensional frameworks where the void provided usable space. This robust superposed framework allowed for a free rearrangement of individual choices and interchangeable spaces with a shorter life-span. Additional to this construction system was a novel concept of ownership of a *limited space* or volume, in contrast to the ownership of a surface without definition of vertical boundaries. Friedman summed up the main requirements for indeterminate city planning as follows:

1 | total climate control;

2 | three-dimensional superimposed structures within which the empty spaces were freely usable; and

3 | a ground level that remained reserved for essential production [agriculture, industry and heavy transport].

"The difference between Constant and me – Friedman wrote – *was that I started out with the idea that people do things their own way – I set no rules. It is not play in the same sense as with Constant... [...] the message is necessarily incomplete. A person completes it according to his own imagination."*[156] Yona Friedman saw the city as a responsive environment full of modifiable elements that bended to the will and unpredictability of its inhabitants. A facet of indeterminacy was understood as incompleteness.

Urban utopias were strong provocations that highlighted poignant issues. Although numerous 1960s utopians have worked with aspects of indeterminacy, Nieuwenhuys' and Friedman's emblematic work was considered archetypal. Both projects were highly detailed and proposed radical shifts that finally only underlined their utter lack of feasibility. They can be read as fiction. They have proven their limits, being hardly implementable, but have opened up a new spectrum of theoretical possibilities. What greater challenge than to make the solid output of planning changeable, mobile, adaptive? Since then, the fascination for the changeable and

156 Yona Friedman, "In the Air. Interview with Yona Friedman – 28 October, 2001" *Exit Utopia. Architectural Provocations 1956-76*, ed. Martin van Schaik and Otakar Máčel (Munich: Prestel, 2005), 31.

adaptable has evolved and mutated. The involvement of the users has also continued to be the subject of constant negotiation.

Indeterminacy as Anonymity

The aspect of indeterminacy understood as anonymity mainly refers to the planner's lack of authorship and authority. Authorship is harder to elude in architecture than in urban planning and design. The avidity for creating recognizable sculptures – signature architecture – has gradually increased. Up to what point can the planner's involvement be minimized and the planning process suppressed?

N.J. Habraken's supports and infills concept[157] was coeval to the buoyant utopian approaches previously mentioned. What later became the *Open Building* approach ceded part of the responsibility of the design process to the users. For Habraken, the shaping of the communal was essential, while the particular was set free.[158] By introducing the dimension of time, he suddenly freed supports – primary structure – from infills. Habraken's guiding principle has been the consideration of change as the essence of the built environment. The acknowledgment of the inherent changeable character of architecture placed part of the decision-making on the users. Looking back on his theoretical body of work, Habraken concluded that his approach liberated the architect from the floor plan: *"if you eliminate the floor plan you actually radically reverse the process. [...] The idea that a building is a multiplication of a floor plan is, of course, absurd!"*[159] By distinguishing between levels of intervention, the planning process was reduced to the setting of a framework – a context in which the next *interveners* could continue working. Thus, the authorship of a sole creator would drastically dilute.

Also fueled by the utopian ebullience, Reyner Banham, Paul Barker, Peter Hall and Cedric Price published in 1969 the article *Non-Plan: An Experiment in Freedom*.[160] The seminal text instantly coined the term *non-plan* as *"an effort to discredit the role of centralized planning and design in shaping the urban environment."*[161] The authors' claim was not entirely novel. Architects Alison and Peter Smithson had already articulated the *as found* aesthetic a few years prior, advocating for the re-discovery and interpretation of ordinary, everyday conditions. These discoveries had already built the groundwork for a methodology of non-design. The main aim

157 N. John Habraken, *Supports: An Alternative to Mass Housing* (London/New York: The Architectural Press/Praeger, 1972); originally published as *De dragers en de mensen: het einde van de massawoningbouw* (Amsterdam: Scheltema and Holkema, 1961).

158 Klaske Havik, Véronique Patteeuw and Hans Teerds, "Editorial," *Productive Uncertainty / Indeterminacy in Spatial Design, Planning and Management, OASE Journal 85*,(2011): 3-7.

159 Hans Teerds, J. Habraken and K. Havik, "Define and Let Go. An interview with John Habraken," *Productive Uncertainty. Indeterminacy in Spatial Design, Planning and Management, OASE Journal 85*, (2011): 10.

160 Reyner Banham; Paul Barker, Peter Hall and Cedric Price. "Non-plan: An Experiment in Freedom," *New Society* No 338 (March 20, 1969).

161 Anthony Fontenot, "Notes Toward a History of Non-Planning," *Places Journal*, January 2015, accessed November 27, 2017, https://doi.org/10.22269/150112.

– both for the New Society thinkers, as for the British architect duo representing the credo of Team 10 – was to alleviate the rigid, over-determined planning process. It was a reaction to a period in which state planning exercised strong authority. The four *non-plan* advocates admired the spontaneity of the North American vernacular and, therefore, proposed to introduce experimental unplanned *free zones* of spontaneity and vitality in the United Kingdom as well. The keyword *freedom* gave the text a compelling, optimistic note. It set, again, an impulse for participatory planning, a tendency that has been gaining increasing amounts of followers and has turned to a main-stream phenomenon in recent years. Non-plan did not only empower communities in search of improvisation, it also drew them away from the rigid institution that [urban] planning had become. In addition, it implied the need to elude a definite authority – resulting from disbelief in the plan and loss of confidence in the planners – and a deliberate relinquishment of control. The authors condemned the inability of the planning process – considered an aristocratic or oligarchic method – to create quality urban spaces.

In his broad experimentation with indeterminacy, which will be discussed further on, Cedric Price also argued in favor of deliberately reducing the control of the planner. His body of theoretical work stood for a constant negotiation of the architect's role and authority. In changing the planners' role, he cast a new light on their responsibility. They would solely have to provide structures stripped of any ideological burden, previously imprinted meaning or determined spaces.

At the end of the twentieth century the non-plan rhetoric was still unfolding. In 2000, Jonathan Hughes and Simon Sadler published a selection of texts grasping the *non-plan* debate up to the contemporary context. The book started off with the question*: "Should architecture obey, deny or subvert the logic of the plan?"*[162] The dichotomy whether to think of buildings as completed artefacts or perpetual works-in-progress, as real estate or as tools, was ongoing. Koolhaas also tackled the abandonment of authorship in relation to the large scale. His *Bigness* manifesto grasped the scale of L-sized architectural forms, the ones that surpassed the possibilities of a single architect's mastermind. Every architectural intervention that transcended the vernacular was undoubtedly related to the architect's persona – the creator. Yet, starting from the L-scale, *"bigness is impersonal [...] – a realignment with neutrality."*[163] In a complementary line of thought, Pier Vittorio Aureli also recognized how *"authorless architecture is not simply the effect of scale and quantity, it is also the prerequisite for an architecture that is finite in its envelope yet that allows maximum flexibility and indeterminacy in its interior."*[164]

The dawn of the twenty-first century cradled non-plan approaches in the attempt to engage people – the users – in the planning and construction process, actively shaping their cityscape.

162 Jonathan Hughes and Simon Sadler, *Non-Plan. Essays on Freedom Participation and Change in Modern Architecture and Urbanism* (Abingdon: Routledge, 2000).

163 Rem Koolhaas, "Bigness: the Problem of Large," in *Small, Medium, Large, Extra-Large; Office for Metropolitan Architecture.* ed. Rem Koolhaas et.al. (New York: Monacelli Press, 1995), 513-514.

164 Pier Vittorio Aureli, *The Possibility of an Absolute Architecture* (Cambridge, Mass. [u.a.]: MIT Press, 2011), 218.

Changing the authority from one *privileged* group of planners and other decision takers to a community of future users – a change from a top-down to a bottom up approach – was an extremely wide and highly debated field, that is not the subject of the present chapter.

Indeterminacy as Formal Uncertainty

Indeterminacy and *uncertainty* linguistically count as synonyms. Nevertheless, the subtle differences between the terms are the ones that further define the approach of this passage. The definition of *uncertain* refers to something not known beyond doubt, without certain knowledge, not constant or not certain to occur. It strongly implies the factor of fate. This slightly different nuance has diverse effects on the architectural discourse and output.

In this regard, Cedric Price's lifework has set a milestone. Therefore, his work and approach will be further regarded under the aspect of formal uncertainty. Tanja Herdt resumed her extensive research on Price's body of work as a ceaseless pursuit for an evolving, ever-changing architecture for self-organization, colonized by the liberal forces of the free market values and offered to the responsible, educated and enlightened user.[165] Cedric Price found John Cage's creations inspirational because they provided the long-yearned freedom of choice. His designs had become the framework that addressed and responded to constant uncertain circumstances. The most notorious, although unbuilt project, Fun Palace, is the epitome of Price's understanding of the role of uncertainty in architecture. Fun Palace was the structure that, according to Arata Isozaki, *"was to be non-formalistic, abundantly porous, unenclosed and non-permanent. It need not conform to any set programme, the expectation being that ideas from actual use could be incorporated later on: a fully interchangeable plastic model assembly kit of a building."*[166] The uncertainty of the grand leisure-oriented structure lied precisely in its ephemeral character and lack of formal definition: no envelope, changeable floors and spatial configurations. Price's project offered a significant response to the concept of adaptive living environment. It addressed similar topics to Friedman's and Nieuwenhuys' urban utopias at an architectural scale. Also, Fun Palace would have been a feasible project. Price reduced the architectural intervention to a symbolic scaffold for the movable programmatic clusters, a *"short-life conglomerate of disparate, free-choice, free-time, voluntary activities."*[167] This flexible structure enabled users to mold their environment in response to their personal needs, consider it a setting of change and impermanence. Such an intervention, implemented in the urban fabric, could catalyze the flows and variables of the city regarding the ever-changing urban dynamics. The filiform framework supported the dynamic unfolding of public activities both horizontally and vertically: a three-dimensional scaffold for public space. The built mass and its impact were reduced to a minimum; the effect on the public realm could be remarkable. Fun Palace represented, on one hand, a tribute

165 Tanja Herdt, *Die Stadt und die Architektur des Wandels: Die radikalen Projekte des Cedric Price* (Zurich: Park Books, 2017).

166 Arata Isozaki, "Erasing Architecture into the System," in *Re: CP,* ed. Cedric Price et.al. (Basel: Birkhäuser, 2003), 34.

167 Stanley Mathews, "Cedric Price - From 'Brain Drain' to the 'Knowledge Economy'," http://www.audacity.org/SM-26-11-07-01.htm.,accessed February 24, 2014.

to the culture of the ephemeral, and, on the other hand, a unique vision of endurance and future-oriented adaptivity. This robust but minimized structure offered sufficient support for the dynamic deployment of other, less fixed building components. It was an explicit reaction against the inertia and stiffness with which the built environment has always been associated. This machine-like approach of a building has strongly influenced architects Richard Rogers, Renzo Piano and Gianfranco Franchini in the design of Centre Pompidou. The concept models of the notorious museum revealed the core intentions of the designers: the disavowal of formal resolutions came in the form of the dilution of the façade – a clear definition of the exterior skin has been avoided in the first designs – and the moveable floor platforms for a constant spatial reconfiguration.

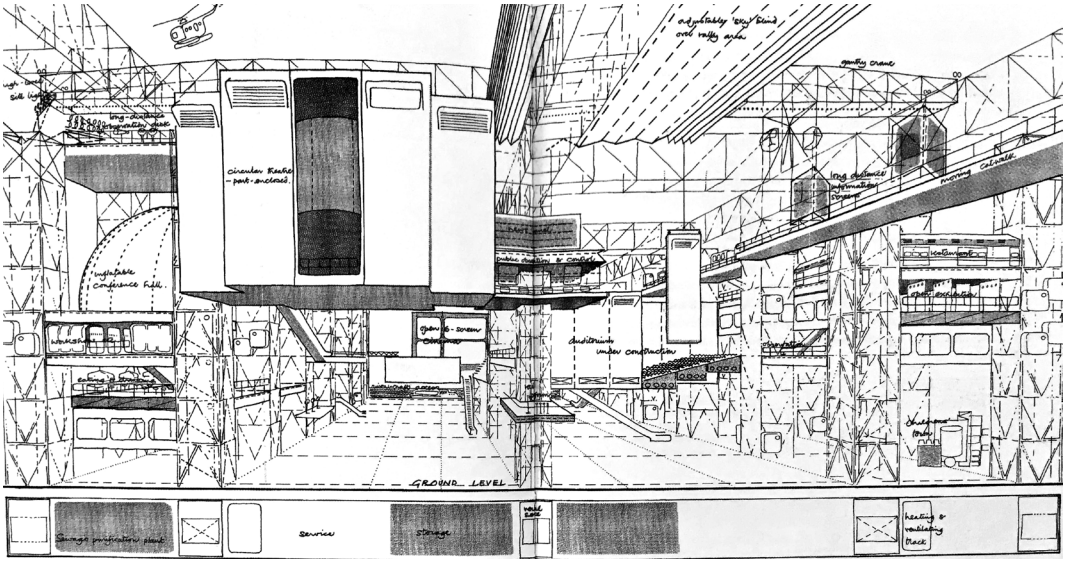
Habraken has also been vocal about the necessity of adaptable built environments. *"In our tradition* – he wrote –*, time is the enemy and must be held at bay. Good architecture, we instinctively believe, is the stone in the midst of running water. The common environment, however, is the running water and change by way of adaptation over time is essential for its continued existence."*[168] Beyond the changeability of built components, another aspect of formal ambiguity refers to genericness. Price had always been judgmental of the inertia caused by the tenure of the existing building stock. He called for new patterns and opportunities that could address the perils of fixed forms and functions. This radical standpoint highlighted the very poignant fact that structures become outdated, due primarily to their design, and secondly to people's possibility to adapt. Price criticized the increasing tendency to prolong the life of a structure way beyond any possible usefulness, leading to its ultimate obsolescence. Especially in today's society, the patterns of how we live, socialize and work change more rapidly than building structures can. When writing about Fun Palace, Isozaki claimed that Price had erased architecture into the system, aiming towards non-design – as opposed to contemporary colleagues, such as the members of the Archigram Group, Venturi or Hollein. An architecture erased into the system implied having no particularly distinctive quality or application. It pointed at a generic character – a frequent reaction to formal or programmatic [over]specification. Isozaki recognized Price's *"preference for dismantling architecture and making it disappear into unconventional systems relevant to social demands."*[169] Isozaki's remark was not aimed at the previously mentioned non-plan approach, but at the dissolution of the object character of a building. Stanley Mathews also recognized Price's vision of *"architecture as a field of elements rather than as a singular, monumental object-building."*[170] Thus, he opened the way for other architects – such as Rem Koolhaas or Bernard Tschumi in their proposals for La Villette Park – to question the *object-building* status. Mathews concluded: *"Price confronted and exploited the creative possibilities of uncertainty, and maintained his faith that the best of all possible architectural futures is not some generalized condition dictated by the architect, but whatever future individuals choose to define for themselves."*[171]

168 Habraken, "Questions That Will Not Go Away," 15.

169 Price, *Re:CP,* 45.

170 Stanley Mathews, *From Agit-Prop to Free Space: The Architecture of Cedric Price* (London: Black Dog Publishing, 2007), 232.

171 Ibid., 252.



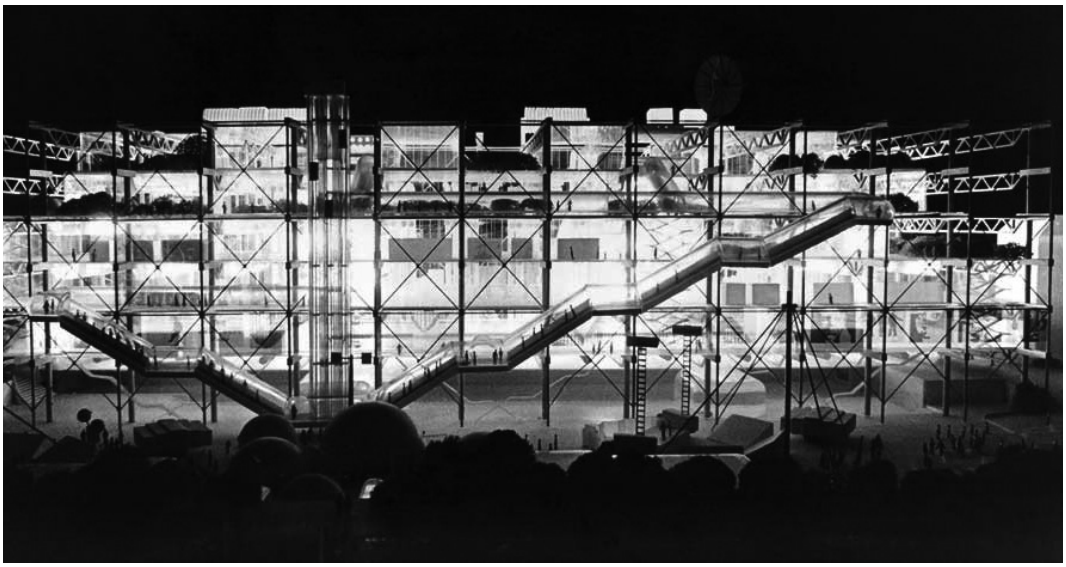


Fig 3.03 Cedric Price. Perspective Drawing of the Fun Palace Project [1964]

Fig 3.04 Renzo Piano and Richard Roger. Model of the competition entry for Centre Pompidou [1971]

Regarding genericness, Ludwig Hilbersheimer's 1924 *Hochhausstadt* had already set a theoretical milestone in urban and architectural inquiries. The project integrated urban functions in generic vertical structures. It represented an exercise in holistically addressing the programmatic diversity of the city. Thus, the *potpourri* of urban uses – a complex programmatic mix entangled with layers of infrastructure – was assembled under the logic and auspice of a gridded system, which could be perpetually extended. Aureli rooted the *Hochhausstadt* project in the rhetoric of the 1920s capitalist metropolis, when the mobility of the working class was a crucial topic. *"For Hilberseimer,* – he wrote – *mobility was more than a functional problem: it also embodied the radical process of social and cultural uprooting that created anonymous and generic space. Consequently, the architecture of the Hochhausstadt was a generic form made by the endless repetition of the same elements."*[172] Hilberseimer's aim was to break down the city to a diagrammatic organization scheme. The architecture of the solitary, of iconic sculptures, would dilute.

Rem Koolhaas also notoriously referred to the [urban] generic as what is left after identity is stripped. Urban identity was understood as an imprisoning, limiting attribute. The stronger it is, *"the more it resists expansion, interpretation, renewal, contradiction."*[173] Identity dooms to over-determinacy. In this regard, Archizoom's generic hybrid *No-Stop City* [1969] represented the ultimate expression of built neutrality. The provocative project questioned up to what point architecture held the defining force? The incomplete form and its endless extension stripped and liberated the built structure from architectural content. Similar to Price's *oeuvre*, No-Stop city also ceased to represent the system, but became the system itself, *"programmed and isotropic, and within it the various functions [...] contained homogeneously, without contradictions."*[174]

More recently and on a similar note, the Spanish artist, designer and stage designer Eduardo Arroyo introduced the *El Croquis No 118* publication with a collection of thoughts on uncertainty. He criticized the architects' *"sensible vanities that only camouflage our inability to be precise in the face of an increasing lack of chance and our fear of the improbable."*[175] Arroyo's artistic background conveyed the freedom to accept that there is never one single solution to a given problem. He also argued that the planner's responsibility for the future consisted precisely in providing space for the unexpected. Thus he compelled planners to see their projects as fields of possibilities and allow their choices and interventions to only be partially represented in the final output. Planning for uncertainty meant providing the framework for a wide range of possible uses and for different patterns of appropriation: planning that would permit the building to adapt to future changes. It meant acknowledging the responsibility that planning was for the distant future.

172 Aureli. *Possibility of an Absolute Architecture*, 215.

173 Rem Koolhaas, "Generic City," in *Small, Medium, Large, Extra-Large; Office for Metropolitan Architecture,* ed. Rem Koolhaas et al. (New York: Monacelli Press, 1998), 1248.

174 Andrea Branzi, "No-Stop City, Residential Parking, Climatic Universal System," *Domus* 496, (1971).

175 Eduardo Arroyo, "Principles of Uncertainty," in *No.Mad; Principios De Incertidumbre; Principles of Uncertainty. Cero.9, Ábalos & Herreros,* ed. Eduardo Arroyo and Cristina Díaz Moreno(Madrid: El croquis ed., 2003),118.

Indeterminacy as Functional Ambiguity

Functional ambiguity introduces the variable of [freedom of] choice within a given framework. It is probably the most sustainable approach of architectural and urban indeterminacy, since it liberates scenarios of future development. *Ambiguity* refers to uncertainty based on indistinctness. Therefore, the architectural application of the term might be associated with a one-size-fits-all approach: finding the common denominator within a neutral shell that allows for any possible combination and permutation of program. If the built environment is reduced to neutral containers, what remains then of the planner's involvement and responsibility?

It was Price again who called for the embrace of the unpredictable regarding not only the formal definition but future uses as well. Mathews understood Price's omnipresent endeavor to inject indeterminacy into architecture as a means of negotiating the uncertain social and economic situation in Britain's post-war era. He proposed an architectural analogue of the transformations of the British society and capacitated it with formal indeterminacy – expendability and change – and programmatic flexibility. With Fun Palace, the architect proved anew to be ahead of his time by introducing the notion of temporary programs that could emerge and vanish along with the needs of the users. There, he underlined how uncommitted free-space – usually a one-time canvas for a new piece of architecture – should become a resource repeatedly fertilized by the introduction of built structures. Price once articulated this thought with the help of a poignant analogy: *"The individual eater's choice of particular parts of a meal placed before him, the speed at which he eats, the amount he eats and the change in his choice of particular items during eating are in no way controlled by the size of the plate or its position on the table. However, to enable these gastronomic choices to take place both the plate and the stability of the table are required."*[176] The topic of functional ambiguity reveals the importance of the framework – in this case, the table. In order to enable dynamic processes of change, a stable framework becomes a prerequisite. Such a robust structure is not merely a neutral, unintentional shell; it can come in different formalizations, on which this thesis will elaborate in the following paragraphs.

Price's seminal work has paved the way for famous successors, such as Rem Koolhaas. OMA's proposal for Parc de la Villette recapitulated Koolhaas' thoughts on functional ambiguity as a method that combined architectural specificity with programmatic indeterminacy. The aim of the project was to devise *"a framework capable of absorbing an endless series of further meanings, extensions, or intentions, without entailing compromises, redundancies, or contradictions."*[177] OMA conceived the park as a dematerialized building and reduced its design to pure program. The programmatic density would unfold within an invisible framework generated through a *tapestry* of parallel programmatic stripes covering the entire area, *"a genealogical descendent*

176 Cedric Price, "Free Space and Its Operational Matrix," in *Cedric Price; [Publ. to Coincide with an Exhibition at the Architectural Association from 7 - 27 June 1984]*, ed. Cedric Price, et. al. (London: Architectural Ass., 1984), 90.

177 Rem Koolhaas, "Congestion Without Matter," in *Small, Medium, Large, Extra-Large; Office for Metropolitan Architecture,*ed. Rem Koolhaas et. al (New York: Monacelli Press, 1998), 934.

of the grid of Manhattan, the Floor concept developed by Hood and the surfaces of Archizoom and Superstudio."[178] The surface would then be activated through a series of leisure attractions to be experienced by the user in a Situationist *dérive*. Beyond working with the indeterminacy variable, the competition entry set a landmark through the approach of the framework – an ethereal construct held together by programmatic and human density.

In his theoretical debate, Koolhaas has explored several instances of indeterminacy and formalizations of the implicit framework. The typical plan – a concept derived from Koolhaas' Manhattan experiences – stood for such an interpretation of indeterminacy. Typical Plan [the author capitalized the term] was equated to *zero-degree architecture*, entirely deprived of uniqueness or specificity. It is feasible, not utopian; it is neutral, not anonymous. Moreover *"Typical Plan implies repetition [...] and indeterminacy: to be typical, it must be sufficiently undefined."*[179] This lack of predefinition provided space for a multitude of possible uses: in Koolhaas' Manhattan, it was primarily office and business; in Francesco Marullo's investigation – an extensive research on the typical plan and its application for factory architecture –, it was production. The typical plan benefitted uses related to mass production, as it reduced labor force to a generic entity.

In terms of framework, Typical Plan was an identity-less surface, a neutral background, capable of housing productive processes. Koolhaas exemplified it with a set of floor plans from existing Manhattan high-rises. He thus translated an abstract scheme into traceable architectural references. In contrast, Marullo considered the typical plan an abstract, flexible and reproducible scheme based on the pragmatic composition of its elements: a homogeneous envelope, a technical core and punctual supports. The scheme was thus anchored in these pre-established elements, the arrangement of which provided the framework. He also recognized that the original scheme – a cautious support enhancing maximum performance – gradually moved away from its productive imperatives towards *"more open regimes of indeterminacy and neutrality, [...] a sort of continuous 'tempered environment' suitable for any generic human activity."*[180] Activities, such as business, production or even shopping, were prone to invade and colonize the typical plan in a variety of subsequent scenarios. Koolhaas considered impartiality to be its strongest and all-encompassing architectural statement. His Typical Plan, unlike other architecture approaches, made no choices about the future, but kept it open.

178 Gargiani, *The Construction of Merveilles*, 102.

179 Rem Koolhaas, "The Typical Plan," in *Small, Medium, Large, Extra-Large; Office for Metropolitan Architecture,* ed. Rem Koolhaas et al. (New York: Monacelli Press, 1998), 342.

180 Francesco Marullo, "Architecture and revolution. The typical plan as index of generic," *City as a Project*, ed. Pier Vittorio Aureli (Berlin: Ruby Press, 2016), 258.

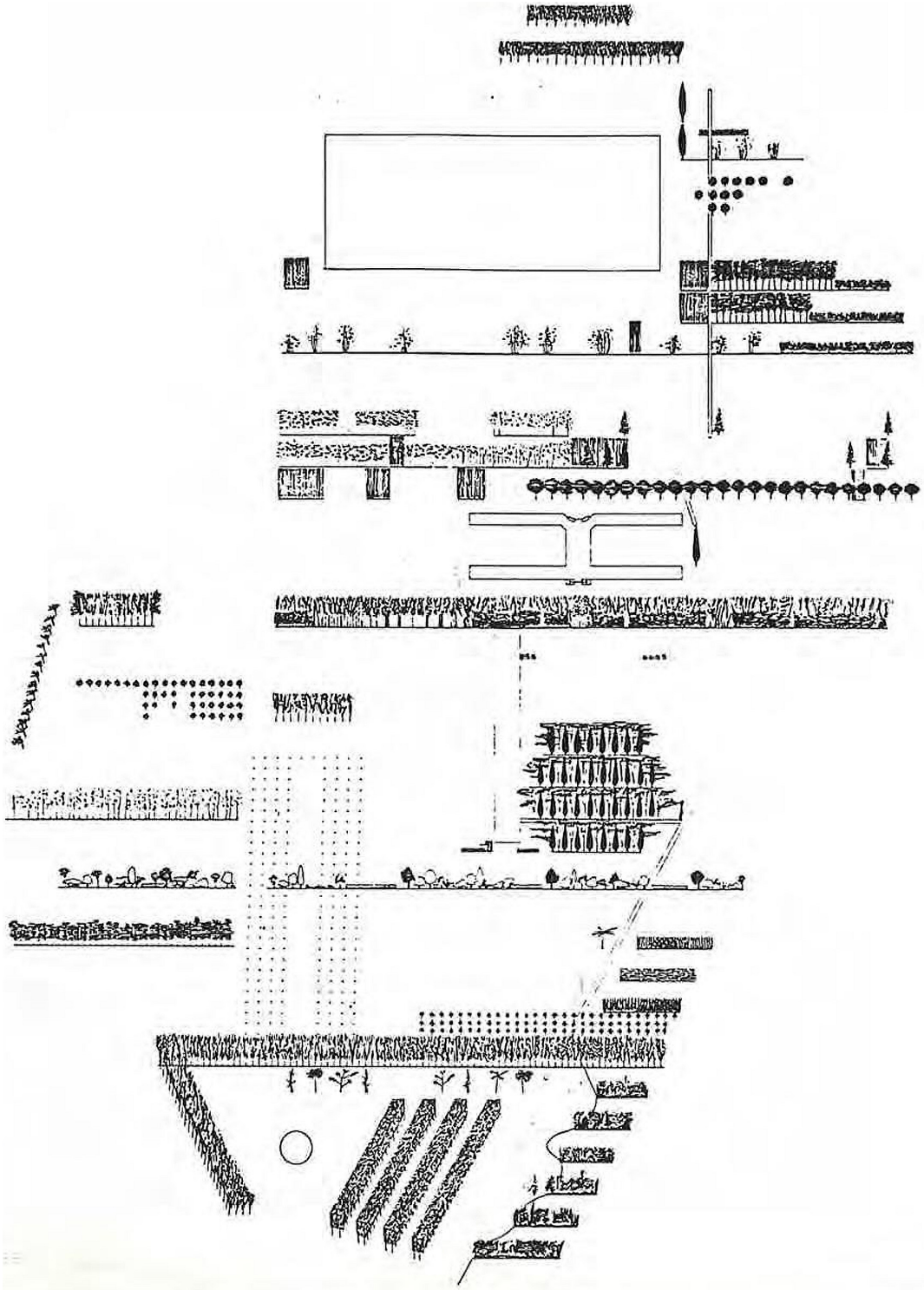


Fig 3.05 OMA. Proposal drawing for La Villette park [1982]

Another type of framework for functional ambiguity can be explored in the work of Lacaton and Vassal. In the attempt to physically articulate the setting for indeterminacy the architects have repeatedly speculated on the interplay between the permanence of a built structure and its constantly changing inhabitation patterns. Their investigations have revolved around the idea of surplus space.[181] Surplus stems from economical pragmatism. It is the reserve space, the safeguard for a future programmatic addendum. The surplus remains architecturally undetermined and its appropriation depends on the initiative of future users. Nevertheless, the potential lies in its location, adjacent to parts of the given program, anticipating future synergies. It has a privileged condition due to the fact that it surpasses the brief. The surplus space is provided within a robust physical framework.

The Nantes School of Architecture, an epitome of Lacaton and Vassal's overall approach, was conceived as a composite of two separately articulated constructive systems: a concrete shelter – the permanent framework – and lightweight metallic infills, housing the given program. Within the concrete framework, the surplus space was offered in the form of large, empty spaces distributed throughout the building. A strategy of the architects was to elude the planner's autocracy and reduce their role to that of translators. The shape of the building was a direct transcription of urban determinants – maximum footprint and volume allowed by the master plan. Tom Vandeputte argued that the project embodied the idea of a radical dismissal of the architect's traditional tasks with regards to formal composition: *"if architecture should frame an inhabitation that is left largely undetermined, the practice of Lacaton & Vassal can be read as a radical attempt to allow this frame to be determined by a process in which the architect assumes a merely facilitating role."*[182] Notwithstanding, the responsibility and creative decision of the architects shifted to the provision of contingent space and the rigor of keeping it programmatically ambiguous.

After a life-long quest for indeterminacy and open-end architecture, Price recognized in 1997 [in the presentation draft of the Magnets exhibition] that architecture had to be impregnated by doubt, delight and change because, *"like medicine* [architecture] *must move from the curative to the preventive. Architecture should have little to do with problem solving – rather it should create desirable conditions and opportunities hitherto thought impossible."*[183] Price's ideas are far from outdated and continue to reverberate in contemporary, bold architectural approaches. Alejandro Aravena recently claimed that the challenge of architecture resides precisely in moving from the specificity of the problem to the *unspecificity* of the question.[184] Functional ambiguity translates to open-end narratives. It is applicable to both the architecture and the urban scale.

181 Frédéric Druot, Anne Lacaton, and Jean-Philippe Vassal, *Plus+; Large-Scale Housing Developments, an Exceptional Case (Barcelona: Gili, 2007).*

182 Tom Vandeputte, "Economy and Excess. Three Recent Projects by Lacaton and Vassal," *Productive Uncertainty / Indeterminacy in Spatial Design, Planning and Management*, OASE No 85(2011): 101–110.

183 Cedric Price, "Generator," *Cedric Price; [Publ. to Coincide with an Exhibition at the Architectural Association from 7 - 27 June 1984]*, ed. Cedric Price, et. al. (London: Architectural Ass., 1984), 92.

184 Alejandro Aravena, "Interview," *AOA No 31* (2015): 79.

Fig 3.06 Lacaton and Vassal. Interior view of the Nantes school of architecture [2009]

The uncertainty of the future, the probability of functional transformations and emergence of unexpected scenarios of use calls for open approaches, embracing doubt from the first concept. Holl has been a notorious defender of openness and doubt with the aim of ideally breeding many types of urbanisms and breaking the disciplinary corset. Present day architectural and urban approaches must consider dynamic systems instead of stable ones, engage with changing programs, unforeseen scenarios and interdisciplinary methods. *"Suspending disbelief and adopting a global understanding* – Holl argued – *is today an a priori condition, a new fundamental for creative work in science, urbanism, and architecture. Working with doubt becomes an open position for concentrated intellectual work."*[185]

Indeterminacy and Urban Gulliver

Simeoforidis concluded his essay forecasting that *"complexity and uncertainty are unavoidable terms, which must be accounted for in any hypothesis about the future of cities."*[186] The author anticipated the uncertain challenge of present times in the modernized non-places and the abandoned hyper places. Conversely, some scholars are fervent opponents to the consideration of indeterminacy. Aureli, for instance, claimed his commitment to formal and material responsibility, sustained by his understanding of the city as a political artifact. He called for *"a departure from the laissez-faire rhetoric of flexibility, indeterminacy, programming, branding, hybridity, and immateriality that has paralyzed the recent discussion on the city."*[187]

Nevertheless, this study argues that for an L-sized structure, such as Urban Gulliver, it is imperative to be adaptive in time, to change, to mutate, to grow old and to reinvent itself. Successive generations have to appropriate it. Urban Gulliver impels planning not as problem-solving but as an opening to fields of possibilities. In this regard, indeterminacy becomes a necessary attribute; working with aspects of indeterminacy means leveraging Urban Gulliver.

185 Holl, "Working with Doubt," 13.

186 Simeoforidis, "Notes for a Cultural History," 420.

187 Pier Vittorio Aureli. *City as a Project* (Berlin: Ruby Press, 2016), 10-11.

3|2 IMPLEMENTATION CHALLENGES

Large interventions are widely disputed. As previously mentioned, many of the L-size proposals have remained utopian and were generated as a critique or reaction to an undesirable situation. In the previous chapter, the retrospective inventory of unbuilt proposals brought insight into the structural principles that configure such ambitious approaches. They can be categorized and analyzed by their urban parameters and features. The common denominator of these myriad approaches was their visionary component. However, when looking at built examples, their acceptance in the cityscape has represented an ongoing challenge.

On one hand, the built environment thrives for density, variety, flexibility and adaptivity. Functions have to change rapidly and acclimate to the ever-changing market situations; mono-functional interventions are doomed unless capable of reinventing themselves; the built environment – characterized by inertia – has to keep up with the speed of contemporary progress.

On the other hand, contemporary architecture and real estate market have feared the L-sized due to financial risks and logistic complexity as well as the frequent failure of such interventions in the past. Social failure consisted in the impossibility of appropriation, a recurrent consequence when designing a piece of city from scratch – e.g. the case of Cumbernauld new town center in Scotland, one of the few megastructures to come to fruition. The structural incompatibility with surrounding urban contexts lead to enclave-like grafts. It is notable that the goal of the majority of these approaches was self-sufficiency. Stirred mainly by speculative forces, the economic failure has resided in substantial and risky investment needs. Self-sufficiency – an ambitious slogan – is a threat intimately related to undesired conditions: insularity, isolation and exclusion. Similar to a failed implant, the urban tissue has often rejected the *alien intruder*. Moreover, such complex interventions have usually been empowered by a utopian drive. While interesting on a theoretical level, the utopian projects that set many landmarks along the architectural and urban discourse of the twentieth century have frequently proved inadequate

for implementation. The Megastructure or the Metabolist movements are exemplary in this regard.

This chapter refers to two aspects, identified as main challenges that can affect Urban Gulliver. The commodification of urban [public] spaces is seen as a critical threat that needs to be dissected. The escalating process of privatization of urban ground has triggered significant changes in recent years in the perception of public spaces and their relationship to built structures. Furthermore, this project investigates the insular condition of the L-sized in order to distillate its main characteristics and question its reasons for failure. To what extent does the insular condition sustain itself? How can the necessary synapses with the surrounding urban fabric emerge? Insularity is akin to the claim of self-sufficiency.

3|2.1 Insularity and Self-sufficiency

"The fundamental problem of recent urban design is that, no matter how it is disguised, it follows an enclave philosophy which promotes the design of enclosed, inward-looking clusters of houses. [...] We are now sure that, however designed, no architectural philosophy of enclaves can solve the problem of re-creating urbanity."[188]

When approaching urban insularity, this thesis focuses the debate on large multifunctional structures that negotiate between city and building scale – recurring protagonists of the contemporary discourse and cityscape. Oversized and programmatically complex, compact and dense, these structures have embodied several instances throughout the twentieth century, e.g. megastructures, megaforms [Frampton], vertical cities, superblocks, pièce urbaine [Ciriani], hybrids [Fenton, Holl] etc. The potential of these large structures lies in their capacity to become veritable intensification points, generating urbanity within a vibrant urban mesh. Nevertheless, the urban islands' claim to self-sufficiency and refuge-like character have hindered their insertion in existing city tissues and challenged their acceptance. How can the insular condition be overcome? What are adequate architectural means – spatial and typological – for injecting the necessary vital sap into an otherwise isolated structure?

The Perils of Self-Sufficiency

The relationship to the existing city structure is undeniably a prerequisite for a successful insertion. Nevertheless, regarding large structures, this acknowledgement has never been that obvious, and the goal is difficult to achieve. The mid-twentieth century utopians have

188 Bill Hillier et al., "Space syntax, a different urban perspective," *Architects' Journal 178* (1983): 49.

submitted a body of work that emanated a blind belief in the mere power and potential of size. From context-less oasis, to segregated islands within an existing urban structure or archipelagos, the range of proposals was wide. Yona Friedman and Constant Nieuwenhuys proposed elevated structures with minimal connection to ground floor level. Hans Hollein landed an aircraft-carrier in the desert and planted the seed for an unprecedented urban settlement: a ready-made city. Paul Maymont's sunken city under the Seine was another proposal of an introverted, self-contained urban intent. The brief for Archigram's Plug-in City only emphasized its wide intrinsic possibilities: "*Within the big structure, almost anything can happen.*"[189]

All these proposals convincingly stand for themselves and aim at creating new worlds and reinventing patterns of life, in the form of confined microcosms. They offer an opportunity to escape from an unfulfilling urban reality.[190] This reality is the promise of a better future that does not build on but breaks ties to the past. Most of the utopian proposals work as machines which function under the expectations of performance. The highest level of performance is achieved when the machine becomes self-sufficient: a *perpetuum mobile* without any need of external influences or energy supply. Despite all the intents of researchers, this type of device has always remained an idealistic impossibility, as it defies the laws of thermodynamics. Compared to a mechanical perpetuum mobile, the urban self-sufficient, autonomous machine is far more demanding. Its inner mechanism is refined; the inner world it promises is enchanting. However, the more autonomous it becomes, the more *autistic* its performance in the cityscape. It denies communication to the exterior and becomes a machine with its own way of functioning, triggering dangerous consequences. The claim to self-sufficiency and refuge-like character have hindered the insertion of previous L-sized structures in existing city tissues and challenged their acceptance.

Self-sufficiency is mainly fueled by the programmatic variety that caters to a wide array of everyday needs of the community. When self-sufficiency is an architectural intention, it reverberates in the structural configuration and leads to an insular condition. Even Fenton, when categorizing the North American hybrid types, referred to the city within a city structure – the hybrid building at its largest scale. "*A single structure on a single urban block* – he wrote – *could become the life nucleus and sole support of the people within. At their highest goals these structures purified the city by reducing urban congestion, increasing efficiency, and improving human life. Through the humane application of the machine ethic, the city within a city could provide a high standard of living to all levels of society.*"[191] He further described these buildings as introspective and non-expressive. When achieving a certain scale and programmatic complexity, their magnetism was inverted and their charisma became a more private, interior matter.

189 Peter Cook, "Within the Big Structure," *Archigram Magazine* No 5 (1964): 11.

190 Here, the complexity of the postwar context needs to be thoroughly considered.

191 Fenton, *Hybrid Buildings*, 33.

Ábalos and Herreros also highlighted the perils of self-sufficiency with the help of New York's Citigroup Center [former Citicorp building] especially regarding its responsibility towards its surroundings. The Citigroup Center pushed the limits of the mixed-use in an urban context on a conventional site. Even when the context was Midtown Manhattan, the city's two-dimensional layout contradicted the vertical, autonomous layout of the Citigroup skyscraper. According to the authors, *"this incompatibility points to the mixed-use skyscraper as a vehicle for decentralization, multiplying centrality rather than correcting imbalances. Thus, the mixed-use skyscraper is particularly well suited to contemporary real estate development strategies. Because it is self-sufficient, it can be adapted for locations that are detached from the business center..."*[192] They illustrated a poignant issue: that of the superfluous context. The city in the city is, as the box-in-the-box system, an encapsulation of a different reality, rarely propitious for its immediate context.

Interpretations of the City in the City

When talking about the urban archipelago, Aureli became an indisputable source. The first chapter of his book *The Possibility of an Absolute Architecture* entitled *Towards the Archipelago* represents a complex debate on what the author considered to be the counter-project for the city: the archipelago. The archipelago gathered a group of islands – architectural products – and became the systemic underpinning of the city. Within this line of thought, the island became the counter-form and opened the possibility for an absolute architecture. There was a difference of nuances in the terms *island* and *enclave*. For Aureli, the island condition implied a state of isolation. The enclave was an indication of being different, a distinct unit in a foreign territory. The island was defined by a versatile relationship between inside – the land – and outside – the sea. In contrast, the enclave had a restricted relationship to its surroundings and depended on it.

Aureli metaphorically described New York's Central Park as a void that *"nullifies the most evident attribute of the metropolis – its density – to dialectically reinforce its opposite: urban congestion."*[193] He interpreted this stark contrast between the void and the extremely dense pattern of Manhattan by opposing the visions of two *monstres sacrés*: Oswald Mathias Ungers and Rem Koolhaas. They both expressed their seminal views on the urban archipelago condition. The former fancied the idea of the superblock as a building type, and extrapolated it to the idea of the city as a composition of *Grossformen*. Unlike Ungers, who claimed that different parts of the city form a unity precisely through their opposing character, Koolhaas interpreted the archipelago model considering the unifying Manhattan grid as the sea, each plot representing an island. The more different the values celebrated by each island, the more united and total the grid, or sea, that surrounded them. Ungers praised a more static composition held together

192 Ábalos, Herreros and Ockman, *Tower and Office*, 243.

193 Aureli, *The Possibility of an Absolute Architecture*, 24.

by the tension between forms – architectural objects within the city. Koolhaas almost entirely exonerated architecture from its urban responsibility within the order of the grid and the confinement of the island – the block. Each block – a field in the extensive grid – allowed for an infinity of variations, without affecting the general principle. If for Ungers the starting point of the city was the architectural formation of the island, Koolhaas denied architecture its significance, pushing it towards the notorious formal *lobotomy*, as the functioning of the island was ultimately dictated by the rigor of the grid and the elevator.

For Aureli, "*the architecture of the archipelago must be an absolute architecture, an architecture that is defined by and makes clear the presence of limits which define the city.*"[194] The city within the city approach offered thus the possibility of considering architectural form as the point of entry toward the project of the city – a field of delimited forms. It enabled the absoluteness of architecture.

In another interpretation, the city in the city represents an island of salvation in a polluted sea; the last possibility for the city to be rescued from its decline. This analogy underpins Oswald Mathias Ungers' vision. In an attempt to address the challenges of shrinking postwar Berlin, Ungers proposed the *Berlin Green Archipelago* strategy.[195] His theory of the city as an archipelago, synthesizing the urban structure to punctual agglomerations of urban density, came as a response to the dramatic population drop in West Berlin. He formulated ten theses; the fifth thesis referred to the idea of the city in the city, based on the image of Berlin as a city-archipelago. "*The city as a whole* – Ungers argued – *is formed by the federation of all these urban entities with different structures, developed in a deliberately antithetic manner.*"[196]

The conversion of West Berlin to a composition of islands would occur in successive steps: the identification of *identity-spaces* – districts with strong, recognizable features –, followed by the completion of the encountered fragments to coherent architectural entities. Ungers' manifest, opposed to contemporary planning theories, did not envision the city as a whole. It enforced the personality and structure of individual islands – that could each foster a community and thus almost function independently – in a sea of green spaces. The architectural intervention would be responsible to further develop each island's formal definition – its physiognomy – according to its identity features. It rendered as a collage of different urban entities. The seventh thesis, *Berlin as Green Archipelago*, elaborated on the second part of the urbanization strategy. All islands comprised an archipelagic system of interdependency, consisting primarily of natural elements. Antithetical to the dispersed *hard* metropolitan cores, the *soft* sea of green surrendered to the wild. It would have been complemented by infrastructural elements that seemed to disobey the formal and functional rigor of the islands. The *City in the City – Green*

194 Ibid., 45.

195 Ungers' revealing drafts have been published in "The City in the City. Berlin: A Green Archipelago" by Oswald Mathias Ungers and Rem Koolhaas with Peter Riemann, Hans Kollhoff and Arthur Ovaska. A critical edition by Florian Hertweck and Sébastien Marot. (Lars Müller, Zurich, 2013).

196 Rem Koolhaas, O.M. Ungers and Florian Hertweck, *City in the City; Berlin: A Green Archipelago; a Manifesto*, (Zürich: Lars Müller, 2013), 94.

Archipelago Theory stemmed from a severe and very particular crisis situation that Berlin was confronting: closed borders, isolation, identity crisis, unknown future, shrinking population and a general feeling of hopelessness. As also stated by Ungers, the green archipelago metaphor drew reference from the North American [sub]urbanization model of that time. An important reference for the island was the model of the Vienna superblocks – the epitome of the city in the city with great influence on Ungers' entire *oeuvre*.

The common denominator of the different visions of the city within the city was the attempt to create an urban nucleus with an architectural *toolkit*: a miniature city delineated through architecture encased within another structure, that of the *actual* city – the urbanized territory. The city within the city, analogous to island within the archipelago, lives from the polarity between the concreteness and encapsulation of the island and the vastness and fluidity of the surrounding extension. The islands are seldom regarded as intensification points of a continuous urban structure; they are rather a reactionary formulation of a different reality. Therefore, as previously mentioned, these microcosms render as powerful and perilous vehicles for decentralization.

This study has identified the following aspects of insularity: *structural singularity*, *programmatic microcosm* and *failed connections* to the surroundings. These aspects will be shortly exemplified further on with the help of London's Barbican Estate project.

The claim for self-sufficiency of islands can be explained by their definitive feature as points of urban density. Self-sufficiency comes as a reaction to something, an intent to improve something, to detach from something. Such was the case of the Barbican Estate in London that stands paradigmatically for an urban island. The word itself, *barbican,* refers to an outer defensive work; especially a tower at a gate or bridge. Even though the name Barbican stemmed from the name of one of the former commercial streets on the site, its meaning rather relates to its current condition. The Barbican Estate is one of the large-scale multilevel public projects constructed in London after the Blitz. Designed by architects Chamberlin, Powell and Bon, the Barbican stood for the city's endeavor to transform a devastated area of London after the Second World War through a large scale intervention. It represents the epitome of the insular condition: a self-sufficient ensemble – due to the mix of uses, it offers all necessary neighborhood amenities – that stands out from its surroundings – a new, contrasting order – and is indifferent to the surrounding public realm.

Insularity as Structural Singularity

In the case of the Barbican project, the impressive size called for a coherent intervention. London's municipality aimed at re-attracting inhabitants to live in the City and envisioned a new, multifunctional complex on the 15,2 ha site, devastated during the Second World War. The project's language of composition comprised a vocabulary of high-rise towers – forty-

three story high landmarks –, long and low-rise slabs – thirteen story high housing blocks – that enclose semi-private areas – the gardens and courtyards – and singular buildings that accommodate additional amenities.

The Barbican stands out from its surroundings and imposes its own structural order. The structural singularity resides in its intrinsic organizational order and formal expression. The orthogonal rigor outranks possible adjacent influences, such as street alignments. Entering the Barbican Estate implies consciously departing the street and getting introduced into a parallel, microcosmic world.

Insularity as Programmatic Microcosm

In addition to housing – distributed in twenty residential blocks of several typologies, each having an own name –, the Barbican estate accommodates cultural facilities – exhibition halls, a concert hall and theater –, educational facilities – The Guildhall School of Music and the City of London School for Girls –, a shopping mall, a church, underground parking, private gardens with diverse landscaping work. The vast array of amenities within the estate aimed at attracting the upper middle class and justifying the higher cost of the housing.

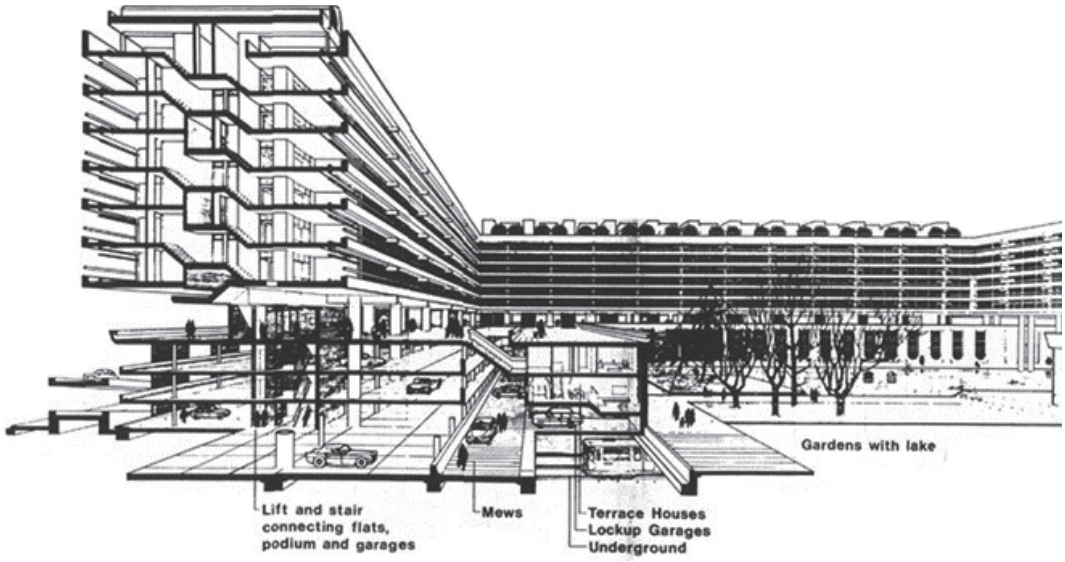
Such as often the case in large-scale ensembles revolving around one main programmatic puzzle piece – mainly housing –, the users never need to go out. So what is the ideal balance between the comfort of proximity and the disconnection from the surrounding city? Probably in reaction to the inhospitable, wounded and scarred surroundings of the postwar period, the Barbican opted for dictating its own rules and dismissed the opportunity to establish a real dialog with the city. It rather attempted to create a self-sufficient, attractive and diverse microclimate, suitable for its own inhabitants but rather irrelevant for *outsiders*.

Insularity as as Failed Connections

According to the Chairman of the Improvements and Town Planning Committee at the time, the great development's main purpose was to protect the public life and decrease the traffic congestion. Therefore, the design revolved around a network of elevated walkways linked by a podium – an elevated public level at 6,0 m above street level. Nevertheless, the public areas of the estate split into several layers, at different levels, separating functional clusters.

The first concept drafts revealed the planners' ambition to continue the podium level throughout the entire City, in form of elevated bridges and terraces for pedestrians. It was the translation of the modern paradigm of the fluid, continuous, empty space.[197] The project

197 Joachim J. Jacobs, "London Barbican. Eine Megastruktur der Moderne und ihre Außenräume," *Die Gartenkunst Vol. 24 Issue 2* (2012): 290.



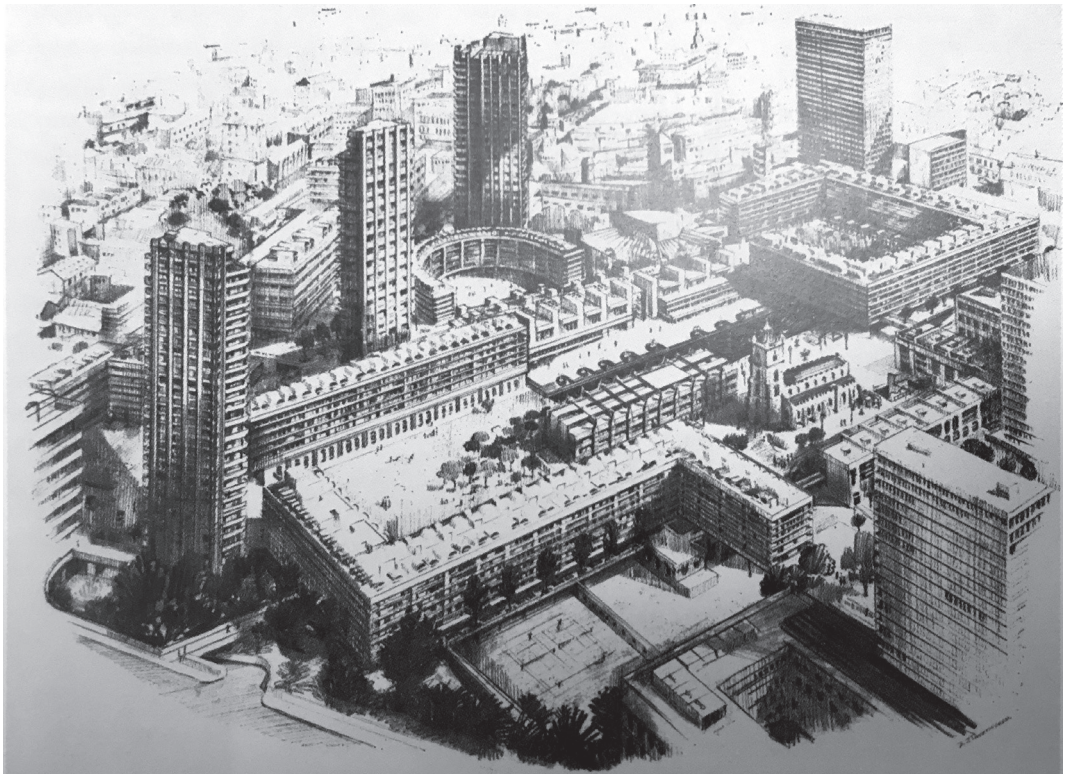


Fig 3.07 Chamberlin, Powell and Bon. Section through the eastern courtyard of the Barbican estate [1969]

Fig 3.08 Chamberlin, Powell and Bon. Aerial view drawing of the Barbican estate [1971]

represented the views of the era: indifference to the street and the focus on an animated interior environment. From the elevated walkways one can contemplate the street beneath with detachment; it is a completely different realm. Some of these so-called *Highwalks* stretch beyond the adjacent streets and connect to the opposing sidewalks through staircases in existing building structures or connect to neighboring buildings, such as the City Business Library to the south, or to transport hubs, such as Moorgate Station to the west. This elevated network provides a parallel layer of circulation that bypasses the street. The concept resembles indeed that of an enclosed citadel with controlled entry-points.

Due to its size and singularity, the Barbican undeniably exercises a gravitational force. Standing for a distinct self-sufficient universe that caters solely to its inhabitants, the ensemble is immune to the surrounding city. Learning from such examples, Urban Gulliver needs to overcome this hazard and supress the ambition to become self-sufficient and insulary. Citing Tom Weaver, the London correspondent for *L'Architecture d'Aujoud'hui,* Tom Medwell, alerted about the possible consequences of Barbican's exclusivity[198] to either turn into foreign investment or a geriatric.

3|2.2 Commodification and Commercialization

Commodification refers to turning something with an intrinsic value – such as a work of art or a service – into a commodity – an economic good. The financial meaning of the term, according to Merriam Webster dictionary, refers to a good or service becoming indistinguishable from similar products. It implies that an item has to comply with three conditions: standardized, usable upon delivery, and a price that is varied enough to justify creating a market for it. Furthermore, commodification makes an asset easier to trade and the market more liquid. If the financial meaning is easily definable, its application to architecture is complex. When does architecture become a commodity and how are the mentioned requirements translatable into an architectural vocabulary? Furthermore, which architectural spaces and structures encourage commodification?

Urban space is increasingly becoming the territory where public and private interests enter confrontation and negotiation. Commodification is hereby considered a threat to which Urban Gulliver is exposed. It can easily bias Urban Gulliver. In the article *Who Owns the City?*,[199] Saskia Sassen pointed out the fact that cities have increasingly become valuable commodities, vehicles of economic and financial speculation. This phenomenon has a strong de-urbanizing effect on cities, with countless consequences on the liveliness and effervescence of the urban

198 Tom Medwell, "Revisiting the Barbican, by Chamberlin, Powell and Bon," in *L'Architecture d'Aujoud'hui no 409* (2015): 116.

199 Saskia Sassen, "Who Owns the City?" *Quito Papers and the New Urban Agenda* (London, New York: Routledge, 2018), 48-51. Sassen has been tracing this process for several years, already signaled in her seminal book *The Global City*.

setting. The majority of a city's building stock is in private property. However, the concern Sassen signaled referred to turning these structures into storage space for capital, therefore underestimating or even avoiding their utilization. She specifically mentioned the menace posed by the proliferation of megaprojects, which, under the auspices of private interests, often substitute the fine-grain structure and amenities of the neighborhood they are implanted in – streets, little parks, public offices, shops, workshops, etc. – with a grand gesture. This change of scale and provision of square meters as a depot for capital can ruthlessly alter the balance of a district and its community.

Symptomatic in this regard is, for example, the recent development around Porta Garibaldi in Milan, where a great proportion of the newly built development has been acquired by foreign investors and kept vacant, much to the detriment of the still sterile and unappropriated piece of city. The forces behind these interventions and decisions are extensive, dominant, intricate and opaque. New large-scale urban developments are the ideal implement. Behind the headline of densification – often the only coveted goal –, the reality is different. Increasing density has actually often triggered a de-urbanizing effect, as it has not been able to reflect or instigate urbanity.

Under these circumstances, has the commodification of urban spaces and built structures become architecture's death sentence? How noxious can the commodification process be for Urban Gulliver? Is it comparable to the increasing contamination and spread of a malign virus, affecting healthy urban areas? Commodification could either produce aridity – barren architectural environments, such as in the new and highly criticized large developments – or hyper-stimulation – such as the case in thematic, consumer-oriented projects.

Within the same line of thought and triggered by the increasing competitiveness between cities in attracting investors and businesses, an entire marketing apparatus developed. This has often led to the branding of cities, neighborhoods or large-scaled ensembles according to some distinctive feature, which was being artificially enhanced and promoted. These brands – *creative city, green city, productive city,* etc. – translated the triggered area into a commodity, reduced to a label. Thus, stamped with a pre-defined identity, urban material instantly became a product for consumption. Despite it being a very contemporary trend, it can be traced throughout the last decades. Jean Baudrillard extensively debated the semiotics of advertisement and consumption, providing a solid theoretical groundwork, which will only be shortly addressed in the current chapter.

Baudrillard argued that *"consumption is the virtual totality of all objects and messages ready-constituted as a more or less coherent discourse. [...] Consumption means an activity consisting of the systematic manipulation of signs."*[200] Therefore, before becoming a commodity, an object must be reduced to a sign. It must detach from the relationships it represents, this being the

200 Jean Baudrillard, *The System of Objects* (London, New York: Verso, 1996), 200.

abstraction step that frees the object from its intrinsic set of values and resets it with other semantics. Within this theoretical construct, Baudrillard scrutinized Centre Pompidou in Paris. The harsh critique of the museum – called a monument to the games of mass simulation, a monument of cultural deterrence, hypermarket of culture – stemmed from the fact that it stood for a simulacrum, leading to a trivialization and subsequent annihilation of culture – the *Beaubourg effect*. The simulacrum of cultural values was already announced, according to the author, by the architecture. For the writer, Pompidou's relationship to culture equated to the hypermarket's relationship to the commodity.

Baudrillard's critique relied on his sophisticated theoretical construct. There is a more ordinary effect of commodification: the turning of the built stock into a product to be consumed. This takes into account the everyday consumption of urban environment through commercialization.

Commercialization

Commerce has been the key ingredient of a reliable recipe to engage users with their urban [or suburban] environment. Retail is the component that has become ubiquitous in every mix – either added to a main function or unfolded in its grandeur as the main protagonist. Retail has an intimate relationship to the city. It has been used as the generator of urban life, a pigment for other, paler programs. It is a fact, *"few activities unite us as human beings in the way shopping does. [...] By mere virtue of proportion, shopping has become inescapable."*[201] Albeit the fact that commerce activities are considered to quickly legitimize any development, there is a stigma and attitude of disregard towards this specific program. This *heathen* component of the architectural manual was recently acknowledged by the scholars' community, especially through the thorough investigation conducted by Rem Koolhaas and the team from Harvard Graduate School of Design. One pertinent contribution came from John McMorrough,[202] who wrote about the recent inverted relationship between city and shopping: Rather than shopping – an activity – to be hosted and take place in the city – a place –, it seemed that the idea of the city was being increasingly shifted within places dedicated to shopping. Retail used to be a component of the complex city organism; it has slowly turned into the prerequisite for urbanity.

This interstitial space has experienced different architectural formalizations throughout the last two centuries. The passage typology is a highly representative form of retail, compatible with the inner-city fabric. It originated in Paris, at the beginning of the nineteenth century, as an evolved version of the street. The typology was a *mutation* of the urban structure and

201 Sze Tsung Leong, "...And Then There Was Shopping," *Harvard Design School Guide to Shopping; Project on the City*, ed. Tae-Wook Cha et al. (Köln: Taschen, 2001), 130.

202 John McMorrough, "City of Shopping," *Harvard Design School Guide to Shopping; Project on the City*, ed. Tae-Wook Cha et al. (Köln: Taschen, 2001), 193-203.

Fig 3.09 Galleria shopping mall, Houston. An indoor ice-skating rink [2017]

had a symbiotic relationship to it. Passages [or arcades] acquired a connector effect of city parts, increasing the urban porosity. The galleries evolved as commercial shortcuts with a high complicity to the urban host-structure. They grew out of the street, enhanced the urban experience, mediated through retail, and enabled new connection vectors. They were not independent architectural products; they were hosted by blocks. Towards the end of the nineteenth century, the arcades evolved, expanded and became interiorized into department stores. The function received an envelope and became a freestanding building and typology.

Shopping as an activity has certainly accompanied the evolution of cities and has had a complex relationship to it. In many central locations nowadays, the streets work as a mall that opens to the city. In this sense, shopping can become an enabler of urbanity. It has upgraded from connector to polarizer of urban flows. However, there are downsides to this function as well. Its versatility and facility of deployment in any built structure have quickly turned it into an invader as well. Spaces that do not encourage or impose consumerism have become scarce. Increasingly more functions, activities and layers of use are plugged into the consumption apparatus. Shopping is the perfect alibi that safeguards any financial endeavors.

Throughout the second half of the twentieth century, urban shopping experienced a parallel development direction. Retail started to claim its formal and typological autonomy, detangled from the urban fabric, in the form of the mall. Malls emerged as a placebo solution against the disturbing chaos of derelict city cores. They were displaced to the suburban context, where they acted as a convenient polarizer. This meant the loss of the function of shopping as an urban connector.

Malls emulate the city. They create the illusion of urbanity in decontextualized situations. Therefore, they became a mechanism for the artificial generation of urbanity. Adam Caruso was one of many architects who criticized the hysteria of the creation of new markets and architectures' obedience to it. *"For architects to engage in these programmes* – he claimed – *is for architecture to become a commodified product and to be subject to the tyranny of the new."*[203]

On one hand, malls have a noxious effect on urban life, draining the streets. On the other hand, they have turned into platforms enabling encounters, providing a safe environment for a foreseeable public experience. The conduct codes are known; the risks are foreseeable and controlled. Alain Thierstein formulated his hypothesis[204] that the human need of encounter, self-manifestation and recognition can be used as an unvarying factor in the patterns of space use. This predictability is exploited by the mall typology. Especially in retail architecture – taking the example of the evolution of the North American shopping mall – it becomes evident that the requirements of the market always overshadow the architecture. Very well studied distributions – large scale supermarkets or department stores at the extremities

203 Adam Caruso, "The Tyranny of the New," (1998) *As Built. Caruso St John Architects*, (Vitoria-Gasteiz: a+t Ediciones, 2005), 25.

204 Alain Thierstein, "Die Shopping Mall. Wie organisiere ich das menschliche Bedürfnis nach Begegnung in räumlich effizienter Weise?" *World of Malls; Architekturen des Konsums*, ed. Andres Lepik et al. (Berlin: Hatje-Cantz-Verlag, 2016).

Fig 3.10 Victor Gruen. Perspective of the Fort Worth project [1956]

as anchor points, circulation routes of precise width and length, predefined amplitude of the storefronts, large parking areas, etc. – are a result of careful studies, measurements of customer-flows, buying behavior etc.

According to John McMorrough, the model of the mall has turned into an instrument for envisioning the city itself. *"Because the ability of shopping to generate public activity conveniently coincides with the rhetoric of place making found in urban revitalization efforts, the delineation of an 'urban' realm has become synonymous with the provision of spaces of shopping."*[205] Thus, *"shopping must mediate between the logic of* [spatial] *limit and the logic of* [consumerist] *excess and come to occupy the irreducible space between."*[206]

The Shopping Mall as Urban Design

Victor Gruen is the indisputable creator of shopping malls. The Austrian architect exported his background and experience to the North-American environment, where he reacted against the impersonal architecture of consumption – in the form of unexpressive containers – and aimed at re-creating the European city center from scratch.[207] For the sprawling American suburbia, he developed building complexes organized according to the model of old European urban cores, which, thanks to its mix of commercial and social functions, would contribute to a feeling of togetherness and community in the suburbs.

Sze Tsung Leong highlighted the ultimate goal of Victor Gruen's creation: the shopping mall as a new civic realm. The model of the mall came to artificially recreate a city center, hosting a variety of functions for everyday human activities. The European recipe of the mix of uses served as the model for the emergence of new neighborhoods containing all the required services. The mall translated to a meeting point for the neighborhood, a community center. According to Leong, Victor Gruen *"was, in the end, not interested in shopping. Instead, the shopping mall was a vehicle toward his real ambition: to redefine the contemporary city. For Gruen, the mall was the new city."*[208] Shopping acted as the warrant of a collective urban awareness for an unrooted society, deprived from any urban identity. Gruen imported the European nostalgic image of the vivid city center and translated it for the North American public through the catalyst of shopping. He even considered the design of the shopping center indistinguishable from overall city planning. The mall materialized as a product of urban design and landscape strategies. It was the substitute for an urban center, rewriting the civic identity of its rising community. It started as a suburban protagonist but subsequently became a remedy template

205 John McMorrough, "City of Shopping," *Harvard Design School Guide to Shopping; Project on the City*, ed. Tae-Wook Cha et al. (Köln: Taschen, 2001), 194.

206 Ibid., 200.

207 Vera Simone Bader, "Die Architektur der Shopping Mall," *World of Malls; Architekturen des Konsums*, ed. Andres Lepik et al. (Berlin: Hatje-Cantz-Verlag, 2016).

208 Sze Tsung Leong, "Gruen Urbanism," *Harvard Design School Guide to Shopping; Project on the City*, ed. Tae-Wook Cha et al. (Köln: Taschen, 2001), 381.

for the decaying urban cores in the postwar USA. The model of the mall was the resurrection chance of agonizing urban organisms.[209]

Gruen's proposal for Fort Worth downtown revitalization [1955] was applauded by Jane Jacobs. The famous activist disapproved of the revitalization projects employed in city centers throughout the USA: *"These projects will not revitalize downtown; they will deaden it. For they work at cross-purposes to the city. They banish the street. They banish its function. They banish its variety. There is one notable exception, the Gruen plan for Fort Worth."*[210] Jacobs praised the attempt to enliven the streets with variety and detail: sidewalk arcades, poster columns, flags, vending kiosks, display stands, outdoor cafes, bandstands, flower beds, and special lighting effects. Jacobs was confident that such a layout would foster diversity, spontaneity and gaiety as *"the whole point* [was] *to make the streets more surprising, more compact, more variegated, and busier than before-not less so."*[211] She harshly criticized the rest of the coeval proposals as they had all failed to grasp the quintessence of a successful urban core – the hustle and bustle of downtown – but projected instead the image of self-sufficient islands.

In 1964, Gruen published *The Heart of Our Cities: The Urban Crisis: Diagnosis and Cure*.[212] His approach was clinical; his belief in the almighty power of zoning and his endeavor towards pedestrianization defined his career. The Gruen regional mall formula was the result of a simple equation: to gather one million people residing in twenty minutes driving distance implied adding forty acres for parking to the department stores, placed at a distance of two hundred meters apart along pedestrianized open air armatures.[213] The effect of this layout was to force people out of their cars so they would spend more time shopping.

Over time, two shopping paradigms emerged: the *Gruen Transfer* and the *Jerde Transfer*. Both conditions were catalyzed by deliberate planning choices. The Gruen Transfer referred to the condition that was achieved when consumers, overwhelmed by the retail offerings, forgot their initial shopping purpose and started acquiring products not out of necessity but as a reaction to the intensive stimulation – shopping for the sake of shopping! Gruen's model introduced shopping within an abstract minimal context, dissimulated by an urban-like environment. His suburban mall model provided an alternative concept and acted as a refuge from the chaotic, unattractive city through an orderly, predictable, focused and rational planning layout. The portion of the visual spectrum usually filled by architecture was replaced by visual stimuli, such as merchandise in the storefronts, logos, price announcements etc.

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209 The great difference between Gruen's urban design approach in the American environment and similar approaches in Europe comes from the main interested parties and financial godfathers. in Europe, the Cumbernault megastructure for instance also embodied the urban structure for a promised future. However, it emerged out of the public endeavor of the city. Gruen was designing for private investors. The financial driving forces and equation of interests was therefore different.

210 Jane Jacobs, "Downtown is for People," *Fortune* Magazine, April 1958.

211 Ibid.

212 Victor Gruen, *Heart of our Cities; the Urban Crisis: Diagnosis and Cure* (New York: Simon and Schuster, 1964).

213 David Grahame Shane, *Urban Design since 1945 – A Global Perspective* (West Sussex: John Wiley and Sons, 2011).

The Jerde Transfer was named after another successful creator of mall environments, Jon Jerde. His projects aimed at subjugating consumers with a theater-like setting, throwing *"large amounts of architectural matter at the shopper."*[214] The North American architect specifically employed the programmatic attractiveness of the shopping mall as urban design intervention to resuscitate decayed city centers. In projects such as Horton Plaza in San Diego, he created dense, artificial urban cores, attracting people in, to then disclose a completely unexpected spatial experience. Similar to Gruen, he was also inspired by the diversity of European city centers. But, unlike Gruen, Jerde exacerbated the features of what he interpreted as historical European influence towards creating miniature worlds entirely warranted by the idea of consume. *"Jerde blew those pieces up* [the colonnade, the arched entry, the tripartite façade, the aedicule – imported from European vernacular forms or from the classical architecture canon]*, both in scale and into fragments, colored them with abandon, abstracted them for the sake of both cost and modernity, and turned them into markers that transformed retail environments that were made of the same chain stores into distinctive and complex places."*[215]

His main design interest was to stage a three-dimensional public space for the delight of the consumers – a celebration of the chaos of the city. His architecture and urban approach reacted against the modern city concepts and the functional separation, as he recognized the flaws in it. The Jerde Transfer acted on a physical level – not just visual, as in the case of the Gruen Transfer –, introducing visitors into a different spatial universe. Similar to a funhouse, it detoured the consumers in a dense succession of spatial experiences – contraction, expansion of spaces, curves, surprise moments, new perspectives, etc. Shopping was the bait for the insertion in a new three-dimensional realm, completed then by a wide array of entertainment offers. These ensembles, called Urban Entertainment Centers [UEC], included all necessary amenities to prevent users from leaving: shopping, theaters, clubs, leisure parks, hotels etc.

In this sense, one representative project is Jon Jerde's Langham Place in the dense Mong Kok neighborhood in Hong Kong. Completed in 2004, the complex comprises a fifty-nine story office tower and a forty-two story hotel tower that hover above a fifteen story mall. Shopping malls generally struggle with height constraints. Consumers are usually reluctant to travel many levels up and prefer to shop as close to the ground as possible. Rent prices for higher floors are justified by the benefit of nice views that restaurants can offer. Nevertheless, high density conditions, reduced dimensions of the sites and higher retail revenues encouraged the emergences of vertical mall models. These exceptions have found a breeding ground in Hong Kong.[216]

214 Daniel Herman, "Jerde Transfer," *Harvard Design School Guide to Shopping; Project on the City*, ed. Tae-Wook Cha et al. (Köln: Taschen, 2001), 403.

215 Aaron Betsky, "Beyond Buildings. Jon Jerde and Festival Architecture,"http://www.architectmagazine.com/design/jon-jerde-and-festival-architecture_o, accessed 30.01.2018.

216 Tung-Yiu Stan Lai, "The Rise of Tall Podia and Vertical Malls," in *Mall City: Hong Kong's Dreamworlds of Consumption*, ed. Stefan Al (Hawaii: University of Hawai'i Press, 2016), 53.

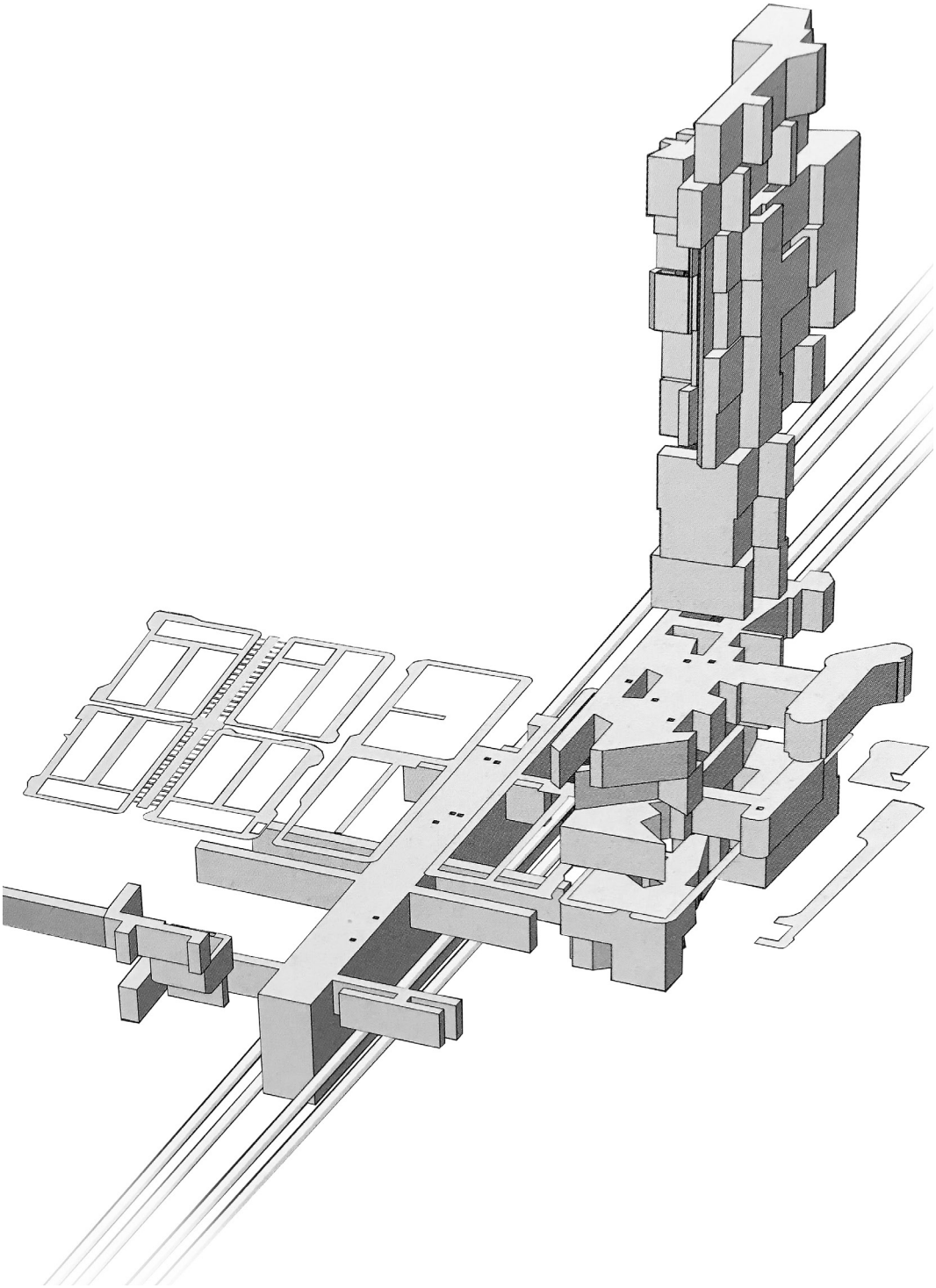


Fig 3.11 Adam Frampton. Axonometry of circulation solids with Langham Place [2012]

The Langham Place mall stretches its tentacles and anchors the structure in its position: it connects to the subway station through the basement, includes an open air street market on the ground floor and a public plaza on the fourth level. Above, a spiral of boutiques leads to a multiplex cinema and to the top-level food court.

Hong Kong | The City as a Mall

Hong Kong's urban logic seems to be *"a unique collaboration between pragmatic thinking and comprehensive masterplanning, played out in three-dimensional space."*[217] It can be analyzed in the specific evolution of its malls.

David Grahame Shane placed the origins of the Hong Kong mall in the American suburban model. This model further mutated in order to be highly reliant on public transportation and irrigated by a network of sky bridges, a typology detailed further on. During the unique and emblematic development of Hong Kong, planners *"exploited the infrastructural advantages of the public transportations system, landfill concentrations, high-density living style, and low-cost housing finances to create a unique solution of global significance."*[218] The result was a combination and recombination of tower, mall, and walkways, merging infrastructure with building in a unique understanding of large-scaled commodified compactness. A specific urban typology was born, defined by a cluster of towers – either for residential or office use – standing on the podium of a shopping mall with an integrated transport infrastructure. Hereby Stefan Al introduced the term *mall city*[219] as an alternative to the mall oriented complex [MOC]. The term highlights the centrality of the mall within the complexity of such an ensemble.

Hong Kong's mall cities resemble a mirage of a consumer paradise that deflects its users within a kaleidoscope of attractive offers. Hong Kong's concrete jungle of malls and skyscrapers has become a breeding ground for lucrative cross-fertilization. Malls are rarely found in isolation; they either attach to residential towers and transit hubs or they provide the plinth of office and hotel towers. It is a synergetic relationship. The preferred position of the mall is on the ground floor as it mediates between the transport infrastructure, the street level, and the additional functions. Mall city mediates between two structures: the big box and the high-rise. A remarkable characteristic of Hong Kong's shopping establishments is the fact that they are seamlessly integrated into the urban fabric. They form a continuum between streets, lobbies, metro exits and footbridges. Thus, pedestrians remain entangled in a shopping continuum, *uncontaminated* by the outdoor public realm. The ambiguous management scheme, oscillating between private and public interests, decides on the configuration of [privately owned] public

217 Adam Frampton, Jonathan D. Solomon and Clara Wong, *Cities Without Ground. A Hong Kong Guidebook* (Rafael: Oro Editions, 2012), 6.

218 David Grahame Shane, "A Short History of Hong Kong Malls and Towers," *Mall City: Hong Kong's Dreamworlds of Consumption,* ed. Stefan Al (University of Hawai'i Press, 2016), 48.

219 Stefan Al, *Mall City: Hong Kong's Dreamworlds of Consumption* (University of Hawai'i Press, 2016).

Fig 3.12 Exterior view of a skywalk in Downtown Houston [2017]

Fig 3.13 Interior view of a skywalk in Downtown Houston [2017]

Fig 3.14 View of an underground concourse in Downtown Houston [2017]

Fig 3.15 View of an underground concourse with commercial space in the Rockefeller Center, New York [2017]

spaces, which can suddenly be found in unexpected locations, such as on rooftops. Therefore, they only become accessible through the maze of the mall. According to Al, the free use of these privately owned public spaces [POPS] situated in front of malls is highly discouraged through uncomfortable seating opportunities or security measures. The layout of the POPS follows one main purpose: to encourage shopping.

Following his case on the mall city, Al concluded that Hong Kong has become an extreme example of the commodification of space. A more balanced relationship between consumer-dedicated spaces and the open public realm needs to be reconsidered. As Paris represented the paradigmatic consumer city of the nineteenth century, Hong Kong is the consumer capital of the twenty-first century in the form of a high-density dream world of mall cities.

The Tentacles. Skyways and Concourses as Commodified Infrastructure

Despite extensive criticism, the fact that commodified spaces are so successful in their ability to attract users is a compelling phenomenon. The consumer-oriented giants act as magnets with a great force of attraction. They have an obvious counterproductive impact on the city and on small shop structures. The death of the mall has been often proclaimed. However, this loses significance as the logic of shopping is transitioning to other forms, contaminating new territories with each new expansion. The envelope or the host become irrelevant, and shopping can nest into other structures and extend its tentacles. In this regard, a prolific synergy emerges, again, between transport infrastructure and retail.

In his extensive study on defining aspects regarding the city, William Whyte dedicated a whole chapter to the typology of concourses and skyways. The author considered them another attack on the street, leading to its denial and eradication. His harsh critique stemmed from the fact that functions belonging to the street were dispersed from the ground floor to other levels. The concourses and skyways came to preempt the functions that would otherwise animate the street. Under the imperative of decongesting the street, the pedestrian was eventually abandoning the sidewalk. The traffic was given priority, taking over the street level that should ultimately belong to the pedestrian.

Underground concourses emerged out of pure functionality: they were the connection corridors to the underground rail system. Throughout the years, they have subsequently turned into more emblematic spaces. What had emerged out of a purely functional reason transformed into a typology in itself, fostering complete environments, pigmented with retail and service facilities, gastronomy and leisure areas.

These connectors have proved to be ideal commodification victims. In the case of underground concourses, the heavy daily pedestrian flows would succumb into a confusing, maze-like spatial experience with no views out. In Whyte's opinion, these spaces work well for small

Fig 3.16 View of the underground passage in Friedrichstraße, Berlin [2017]

Fig 3.17 View of the underground passage and exit points in Friedrichstraße, Berlin [2017]

convenience items – newspapers, photocopy, pastries, bakeries shops etc. Elevated skyways usually comply to other needs: the quick and protected connection between office towers. Whyte confronted his readers with a very obvious question: *"Why go up? Unless there is a clear reason people resist. They are territorial."*[220] A characteristic of these *surrogate streets* is the fact that they work as a system and not as an accumulation of segments. They unite singular structures into an L-sized ensemble or generate a large-scale composition through an agglomeration of uses. They provide a complete network that efficiently links buildings. Unfortunately, the systemic logic that is rendered perfectly on paper is not perceivable for the pedestrian. Thus, retail facilities become one important orientation device.

Trevor Boddy defined the network of elevated and underground walkways as an *Analogue City*[221] and explained its proliferation – beyond climate-related conditionings – as the obsession with security that prevails our contemporary society. The Analogue City provides for a safe environment for a selected clientele, filtered by security systems. This additional level of controlled and safe public space automatically leads to the segregation of the public realm and thus to the loss of diversity. It works almost in analogy to the social class system, providing the (sheltered therefore privileged) space for the middle class layer. As Whyte claimed, *"when you take a street away from street level you take away what makes it work. Remove the intricate mixture of people, the pedestrian bustle, the shops, and the traffic, and what you are left with is a corridor."*[222]

Indeed, retail often embodies the fast food category of the architectural repertoire. It addresses basic senses, is appealing and instantly animates spaces. Any spatial failure or lack of consideration seems to be solved by adding shopping. Nevertheless, this work proposes the acknowledgement of the forces that shape the future of urban environments, instead of demonizing them. Urban Gulliver needs to learn how to navigate through these difficulties and challenges that could eventually work to its favor. Martin Murray's remarks on the commodified, consumer-oriented spaces prospering nowadays offers the perfect closing phrase that summarizes the turning point in which Urban Gulliver has to emerge and be leveraged: *"The proliferation of such post-public spaces as enclosed shopping malls, gated residential estates, and fortified office complexes together with the steady expansion of underground parking and shopping facilities with restricted entry, above-ground skywalks that bypass the streets, interior gardens, landscaped atriums, and other sequestered gathering places, has largely usurped the convention role (in the modernist imagination) of town squares, public parks, and downtown sidewalks as desired sites for everyday social interaction. Barriers, walls, and security perimeters are the visible signs of paranoid urbanism and the growing fortress mentality. The rapid spread of enclosed spaces signifies the expansion of postpublic space in the postliberal city."*[223]

220 William Whyte, *City: Rediscovering the Center* (New York: Doubleday, 1988), 201.

221 Trevor Boddy, "Underground and Overhead: Building the Analogous City," in *Variations on a Theme Park. The New American City and the End of Public Space*, ed. Michael Sorkin (New York: Noonday Press, 1992), 123-153.

222 Whyte, *City: Rediscovering the Center*, 202.

223 Martin J. Murray, *The Urbanism of Exception. The Dynamics of Global City Building in the Twenty-First Century* (Cambridge: Cambridge University Press, 2017), 79-80.

3|3 AN URBAN GULLIVER AVATAR?

The newly introduced character, Urban Gulliver, is a fictional one. It has been delineated with a set of characteristics that emerged on one hand out of the need to overcome the main threats and implementation challenges L-sized structures have faced, and on the other hand out of the conviction that openness, hybridity and indeterminacy are indispensable traits for the resilience and appropriation of such a structure. This thesis speculates on these features on a theoretical level, without leaning on existent examples. Therefore, several questions become highly relevant at this point: What does an epitome of Urban Gulliver look like? Does any built structure comply with the outlined requirements of Urban Gulliver? If so, can its performance be traced and ascertained?

The answer to these questions is not obvious or easy to find. Although a wide array of L-sized interventions can be mapped across the European cityscape, they seldom meet the requirements of Urban Gulliver. The quest for an epitome has led the research to one built example: L'Illa Diagonal ensemble by Rafael Moneo and Manuel de Solà-Morales in Barcelona. The following pages will dissect this large building complex according to the formulated characteristics of Urban Gulliver. After outlining the general framework, the project is firstly examined according to the previously formulated characteristics of Urban Gulliver – location, dimension, uses, infrastructural component and public space. Further on, the effect of existing threats – insularity, self-sufficiency, commercialization and privatization – will be evaluated and the requirements – openness, hybridity, indeterminacy – reflected upon.

The following analysis has been firstly constructed on an empirical basis. After personally being a user of several facets of the ensemble for several years, I was also able to examine the ensemble through a critical lens. Following a meeting with Lluís Pichel – manager of L'Illa commercial center – in July 2017, I discovered the complexity of the project beyond its public façade, and understood the commercial and management dimension of the shopping center. Apart from personal observation and on-site evaluation, several additional literature

sources have ensured a comprehensive understanding of the project. From the architects' own descriptive opinion to critical texts from different fields – architectural, urban, economic, commercial, marketing-related etc. –, the books studied and articles examined provided a pluri-disciplinary vision on the project. The archive of the Catalan Architects' Association in Barcelona represented a central source of data, providing valuable information on the evolution of the concept and the project through plans, letters, sketches, photos, drafts, etc. Another comprehensive document, which underpinned this part of the research, was the PhD thesis written by Lluís Tobella Farran – leading architect of the urban project of the entire plot and of the main building. Furthermore, the interview conducted in July 2017 provided relevant insight on the elaborated topics. The transcription and translation of the interview are attached in Chapter 6.

3|3.1 The Examination of L'Illa Diagonal

Fig Illa 01 Bird's-eye view of L'Illa Diagonal ensemble from the Diagonal Avenue [1993]

General Information

Original names	*Diagonal Block. Barcelona* or *The Superblock*
Architects	Rafael Moneo & Manuel de Solà-Morales for the - special ordination plan of the site - architectural project and construction of the main building J.M. Gómez and F. Guardiola for the school's extension project Octavio Mestre Arquitectos for the 2003 extension and renovation project
Location	Barcelona | Spain N Diagonal Avenue E Pau Romeva Street W Déu i Mata Street S Numància Street
Year	the construction started on July 4th, 1990 the main building was inaugurated on December 2nd, 1993
Clients	Sacresa [Grupo Sanahuja] and AXA Ensurance Company [previously called Winterthur Group]
Plot size	57.760 m2

Fig IIIa 02 Barcelona figure ground plan 1/20.000

General Information | Legal Framework

The large site with a foreseeable high yield had been an object of debate and negotiation since 1966. At that time, the well-known Catalan family, Sanahuja – owners of the real-estate company Indice SA – bought the plot of the San Joan de Déu hospital and adjacent smaller lots. However, the authorities rejected the initial project due to the excessive volume. Two decades of negotiation between the private and the public entities followed. The ultimate aim for both parties was to urbanize the land and increase its value through public-private dialog. The stakes were high; the conditions were debatable. By June 1986, public administration had decided on the extent of the Diagonal block development and launched the International Ideas Competition. In 1988, the parties involved reached an agreement based on several conditions for the investors: to provide a park for public and private use; to build a complex of less than 100.000 m2 floor area, including a five-star hotel; to restructure and manage the existing school area; to open the Can Roses building to the public in the form of a library; to build an underground passage across Diagonal Avenue, herein referred to as *Diagonal*; and to build a large congress center privately financed but publicly used.

The investor constellation was formed by the Winterthur Group as the majoritarian member, the Sanahuja family and their real-estate company Indice SA, which granted the terrains, the European Bank and the hotel group HUSA as a shareholder. Their initial ambition was to build Europe's largest business center on the site. However, public administration aimed at enforcing Barcelona's areas of urban centrality through the Diagonal block development, by obtaining a cluster of cultural, economic, commercial and leisure amenities for the citizens. This is how the concept for an integrative center came to life, which had to benefit investors, consumers and the citizen. The private and public interests were settled through the mechanism of cession – 15% of the land was ceased to public administration.[224] The provided public amenities were to be financed by the private entity. The legal instrument was the Special Plan, which the urban commission of the Government of Catalonia approved in 1989. It established the legal framework for the development. Of the 56.106 m2 plot area, 36.740 m2 were to be built, 7.789 m2 were dedicated to street infrastructure and the rest was public space – parks and green areas, under public or private management.[225]

224 Mar Badia, "L'Illa-Diagonal: La materialització urbanística d'un projecte comercial," *Espais* No 40 (1995): 32.

225 The total areas vary between the different literature sources. This data is considered to stem form the original urban plan, future data is extracted from Lluís Tobella Farran's PhD dissertation from 2002.

L'Illa Diagonal | An Avatar

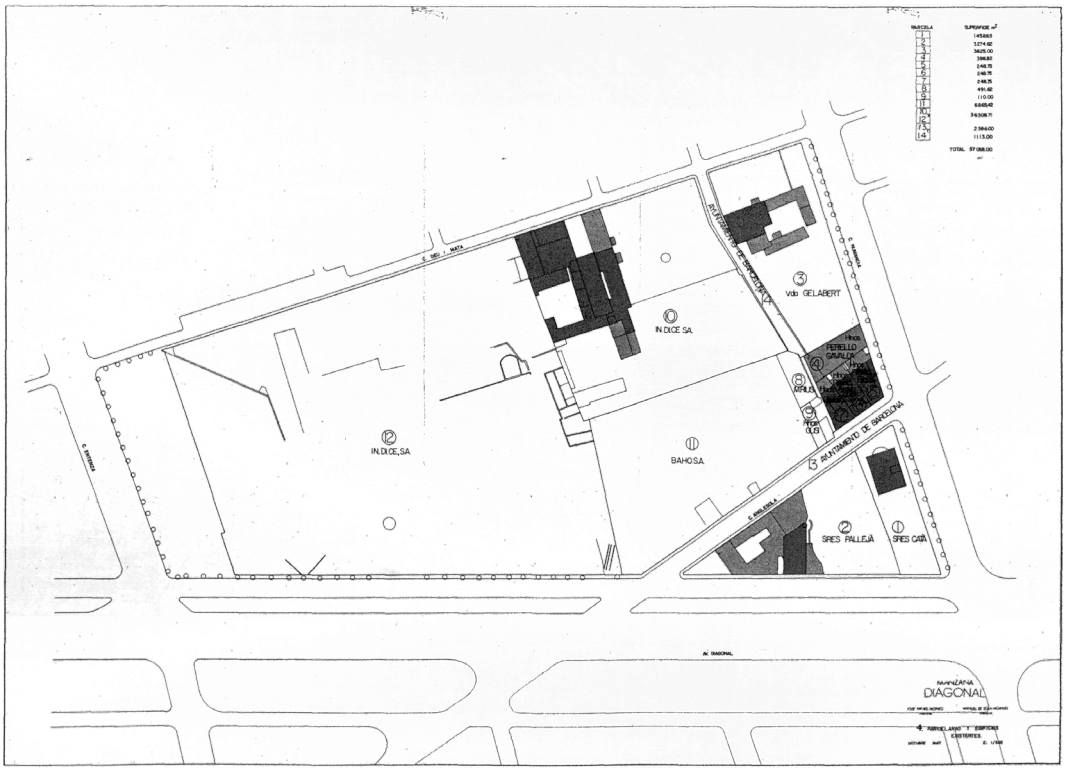


Fig Illa 03 Original parcellation plan of the Diagonal block. Original scale 1/2000 [1987]

General Information | Conceptual Framework

In his theoretical writings, Manuel de Solà-Morales coined the term *Urban Project*. He argued that the culture of metropolises has never pretended to simplify or abstract its complexity and that schematic reduction has never proved to be a successful design principle. The Urban Project is neither architecture nor planning; it approaches the in-between scale; it marks the disciplinary moment when the architect still holds the authority of defining the urban form but also the starting point of the building project. The Urban Project means designing a specific place. It does not equate to the term urban design, as coined by Sert, nor does it rely on structuralist ideology. The author disengaged with former approaches and formulated five points that define the Urban Project:[226]

1 | effect on a territorial scale, beyond the boundaries of the intervention area;

2 | complexity and interdependency of the content, multi-functionality, mix of uses, users, time rhythms and visual links;

3 | intermediate scale, buildable in a relative short time span of a few years;

4 | a responsibility to create *architecture of the city*,[227] beyond the architecture of single buildings;

5 | public component through collective uses.

226 Manuel de Solà-Morales, "La segunda historia del Proyecto Urbano," *UR5* (1997): 22.

227 Ibid., 24. De Solà-Morales underlines the difference between the terms architecture of the city and urban architecture. The latter refers to self-referenced buildings within an urban tissue, without any particular relationship to it beyond the location. The former refers to the architectural order of the physical body of the city.

L'Illa Diagonal | An Avatar

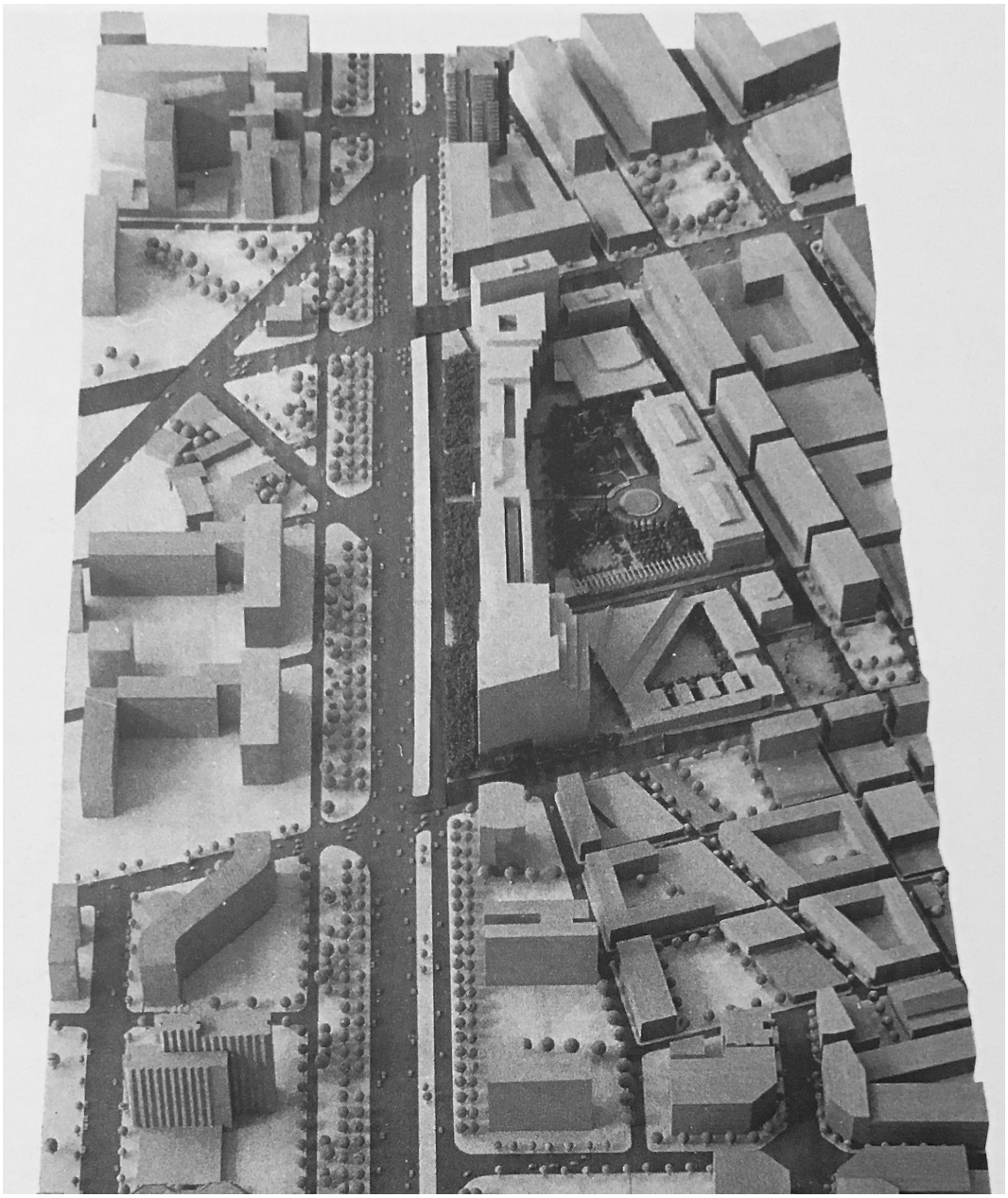


Fig Illa 04 Urban model of the L'Illa Diagonal block competition proposal [1987]

Location | The Site and Its Historical References

Until the mid-nineteenth century, L'Illa site was rural land. In Ildefons Cerdà's plan of 1860, a first contact between the newly planned Diagonal Avenue and the plot of what would later become L'Illa ensemble was proposed. This site was part of the urbanization process of the city, comprising the opening of Anglesola St., which reached to the road that connected the Sarrià neighborhood to Barcelona. In 1881 it was decided that the new headquarters of the Sant Joan de Déu Hospital would be built, which eventually opened in 1908 and remained on the site until its demolition for the construction of L'Illa ensemble. The hospital filled the current L'Illa plot almost entirely. Subsequently, the Metropolitan Plan of 1976 specified that, in order to complete the basic road system of the neighborhood, the plot should maintain the existing layout of Anglesola St. and proposed the extension of Constaça St., crossing the Diagonal and connecting with an important artery of Sarrià – one of the newer districts of Barcelona city.

The years between 1987 and 1992 were marked by the pre-Olympic phase of Barcelona's urban development strategy. In preparation for the Olympic Games of 1992, the city planning team – under the guidance of Joan Busquets – was establishing Barcelona's areas of new centrality with a focus on larger sites for development. The plan approached complex infrastructures – sports, civic and transport –, along with the opening and design of the waterfront. Within this framework, the western entrance to the city through Diagonal became a crucial area of development.

During the interview, L. Tobella – leading architect of L'Illa project – emphasized the importance of the location, considering the site to be the best place in the city. Along Diagonal, the adjacency of the plot to the most emblematic avenue of the city enhanced the connection between the newly developed university district and the already settled Eixample neighborhood. Across Diagonal, the plot represented a joint that mediated between two different urban structures. It had the responsibility of sewing together two distinct parts of the city: the neighborhood of Les Corts – a former village with a dense fabric and medium-rise buildings, the majority of which serve as housing – and Sarrià's newly developed office area. Between the different scales and fabrics, the strong urban character of the site was a crucial premise.

L'Illa Diagonal | An Avatar

Fig Illa 05 Barcelona city map [1935]

Dimension | The Project Task

L'Illa Diagonal project was initiated through an international competition, announced in May 1986. At that point, the site was the largest plot to be developed in the city. With high expectations, the competition counted on the participation of five groups of architects: Wilhelm Holzbauer, Derek Walker, Giancarlo di Carlo, Mario Botta and Manuel de Solà-Morales with Rafael Moneo. The winning proposal, presented by the De Solà Morales/Moneo team, envisioned a compact arrangement that acknowledged the importance of the plot's tangential exposure to Diagonal. Despite the fact that the plot was over three times larger than a typical Eixample block, its conceptual approach maintained the original guidelines of the Cerdà Plan from 1860. Therefore, the majority of the built mass and listed uses were concentrated along the privileged, 350 m-long front to the main artery. Thus, the façade to the Avenue would emerge as a continuous, compact block, pierced along the ground floor area by passages, vials and lobbies. The rest of the perimeter, despite being more fragmented, retraced the continuous front with a succession of smaller buildings, housing different uses. The dimension and programmatic definition were in resonance with the neighborhood's character and scale.

Following the competition, the *Special Ordination Plan of Internal Reform of L'Illa Diagonal* was drafted, and at the same time the project of the main building was initiated. The architects' overall proposal recreated a block [or *illa* – Catalan for *island*]. The rectangular block is the typical urban typology of Eixample, built on its perimeter around a central courtyard. Additionally, the concept highlighted the importance of Diagonal Avenue for the city. The entire project revolved around three main topics – the implementation, the volume and the uses.[228] The design of the main building was guided by six principles. In a letter sent by De Solà-Morales to Mr. Albert Roca,[229] project manager of the investor Winterthur, the architect detailed these six core ideas of the so-called Diagonal Project:

1 | a tribute to Diagonal:

228 Lluís Tobella Farran, "L'Illa Diagonal de Barcelona. Anàlisi de qüestions del projecte" (PhD diss., Universitat Politècnica de Catalunya, 2002).

229 Manuel De Solà-Morales, "Seis ideas sobre el proyecto Diagonal," Manuel de Solá-Morales. Illa Diagonal, Barcelona 1986-1993. Fondo M. Solá-Morales. Arxiu Històric del Col·legi d 'Arquitectes de Catalunya.

L'Illa Diagonal | An Avatar

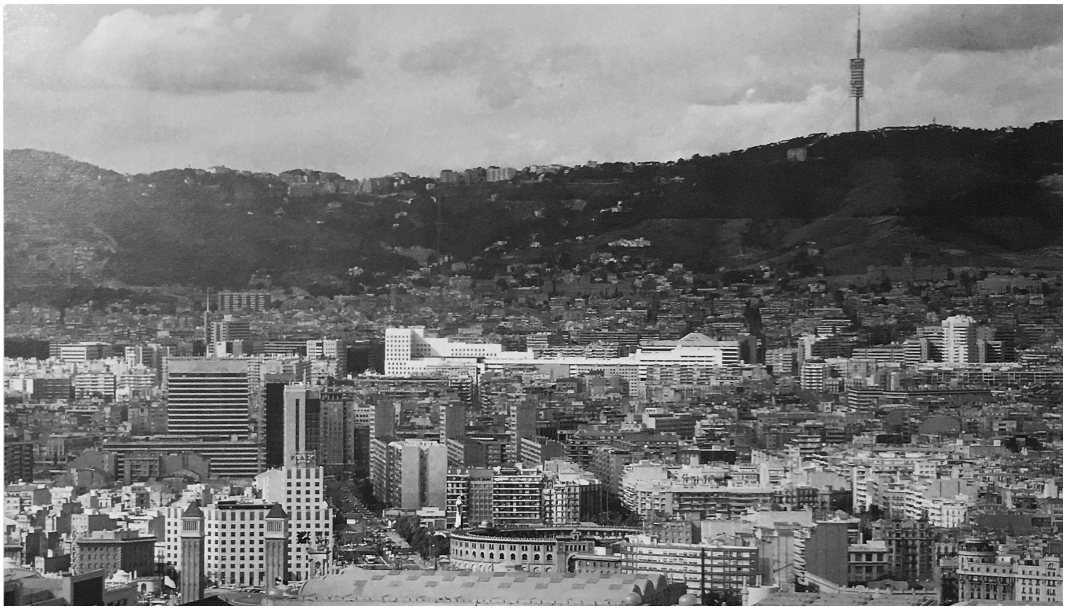


Fig Illa 06 View of L'Illa Diagonal within Barcelona's urban skyline [1993]

The avenue turns into an urban center through the presence of a large-scale element.
2 | lying skyscraper:
The main building approaches the issues of rationality and repetition of a high-rise structure and adapts them to a horizontal structure.

3 | a service park:
The Diagonal Block is intended to become the first center with integrated services – commerce, warehouses, supermarket, offices, hotel, leisure spaces, restaurants, conference facilities, green areas and parking.

4 | densest sidewalks in the city:
The Diagonal sidewalk becomes three times wider, extending in horizontal and vertical directions in order to generate and accommodate the dynamics of Barcelona's largest activities center.

5 | the rigor supplements the comfort:
Towards Diagonal, the rigorous façade faces the metropolitan scale; towards the interior park, the façade changes drastically and adapts to a more domestic scale.

6 | rationality and nuance:
Beyond the overall rationality, exceptions and nuances introduce the human scale.

To generate this unitary urban front and give continuity to Diagonal, the architects proposed a large, 334 m-long building – a horizontal skyscraper. This main building of the ensemble provides the urban-scaled façade of the highly representative boulevard. It exceeds both in length, height and depth the architectural scale. It creates the bracket that receives the urban fabric of the Les Corts neighborhood on one side, but that also boldly faces the great avenue on the other side. As stated by the architects in a press release dating from February 1, 1990,[230] the façade becomes an architectural screen at the scale of the intended urban centrality. The

230 Rafael Moneo and Manuel de Solà-Morales, press release text "La manzana Diagonal," Manuel de Solá-Morales. Illa Diagonal, Barcelona 1986-1993. Fondo M. Solá-Morales. Arxiu Històric del Col·legi d 'Arquitectes de Catalunya.

Diagonal building also concentrates most uses and distributes flows and program to the rest of the plot. Due to its dimension and position on Diagonal, it has a gravitational force that goes beyond the limits of the site. In addition, it uses the vitality of the avenue to animate its structure and absorb movement. The crucial decision to place the commercial part of the structure in alignment with the street and organize the remaining uses from this starting point was, according to the architects,[231] a pivotal point in the planning of the project. Furthermore, the emphasis on the compactness of the form and of the program, the street alignment and the capacity of the structure to host multiple, mixed uses are defining aspects that guided the entire design of the complex. L'Illa undoubtedly has a strong central-urban pedigree.

As stated in the *Regulatory Report for the Diagonal Block*,[232] the volumetric organization of the plot represents the transition between the closed block type, typical in the central area of Barcelona, and the more spacious layout north of Diagonal. Along the Avenue, the variable profile of the large main building relates to the neighboring heights. In the transversal section, the height is also varied in order to correspond to the dimensions and proportions of the adjacent structures. Following the competition concept, the rest of the ensemble is more fragmented. The grain, the height and the speed are adapted to the predominant housing program encountered on the southern part. The leitmotif is the strong contact to the ground. Each part of the ensemble is rooted and grows out of the plot.

231 Rafael Moneo, Manuel de Solà-Morales, "The Diagonal Block," *Lotus internacional 64 The Other City Planning* (1989).

232 Rafael Moneo and Manuel de Solà-Morales. "Memoria normativa. Plan de etapas. Estudio economico." Manuel de Solá-Morales. Illa Diagonal, Barcelona 1986-1993. Fondo M. Solá-Morales. Arxiu Històric del Col·legi d 'Arquitectes de Catalunya.

Uses | Programmatic Complexity

L'Illa Diagonal ensemble is currently [2018] comprised of following uses:

[1] The main building, whose main façade is aligned with Diagonal agglutinates most of the ensemble's program:

- parking
- technical, loading and storage area
- commercial area
- offices
- a business hotel

[2] Two schools and public amenities, located on Deu i Mata Street, between Numància and Constança Street:

- the public school Itaca
- the private school Santa Teresa de Lisieux
- a sports center [Pavelló Poliesportiu Municipal L'Illa]
- a library

[3] A hotel building [NH Constanza] with 308 rooms and a gastronomic ground floor located on Deu i Mata Street.

[4] A conference center with auditorium [Auditori AXA] and a nightclub [Bikini], located in the building on the corner of Deu i Mata Street with Pau Romeva Street, with access from Diagonal as well.

[5] The interior of the block encloses a public park [Jardins de Sant Joan de Dèu] on an area of 7.775 m2.

L'Illa Diagonal | An Avatar

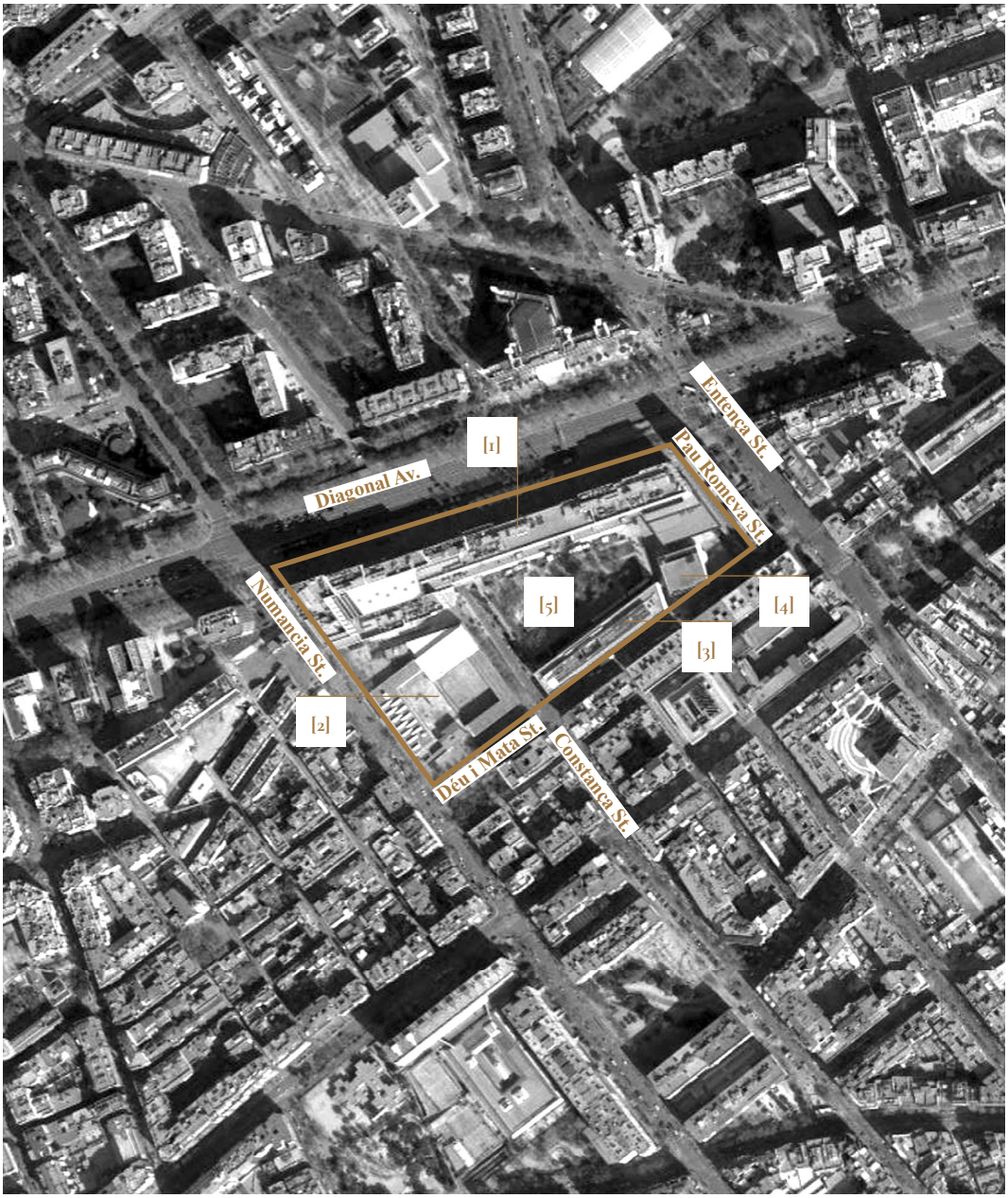


Fig Illa 07 Barcelona city map [2018]

Uses | Organization

The 334 m-long main building accommodates a mix of public uses. It takes up 11.269 m2 of built-up land, representing approx. 20% of the total site area. It has a total built area of 197.383 m2, of which 115.448 m2 are above ground.

The main building has a fluctuating height: six floors in the central area [approx. 30 m high], eight floors on the east side [approx. 40 m high] and twelve floors on the west side [approx. 60 m high] at the corner of Numància Street. The long and massive block is fragmented in seven parts. Similar to an iceberg, the upper levels are supported by six underground floors.

The uses are organized in a vertical succession of layers. The underground floors are dedicated, from the bottom up, to:

- levels -6 to -3: a four story car park with capacity for 2.400 vehicles,

- level -2: a floor dedicated to facilities, logistics and [un]loading activities, with the capacity to unload 250 vehicles at the same time,

- levels -1, 0 and +1: the commercial center. The commercial area occupies 32.321 m2, with approx. 170 shops and restaurants distributed between the three floors. On the ground floor the retail use is predominant; additionally, pedestrian accesses to the inner area and the lobbies to the upper office floors and to the business hotel are organized within this sector.

- from level +2 up: offices and a business hotel, comprising a floor area of 48.000 m2 and divided into seven vertical modules.

L'Illa Diagonal | An Avatar

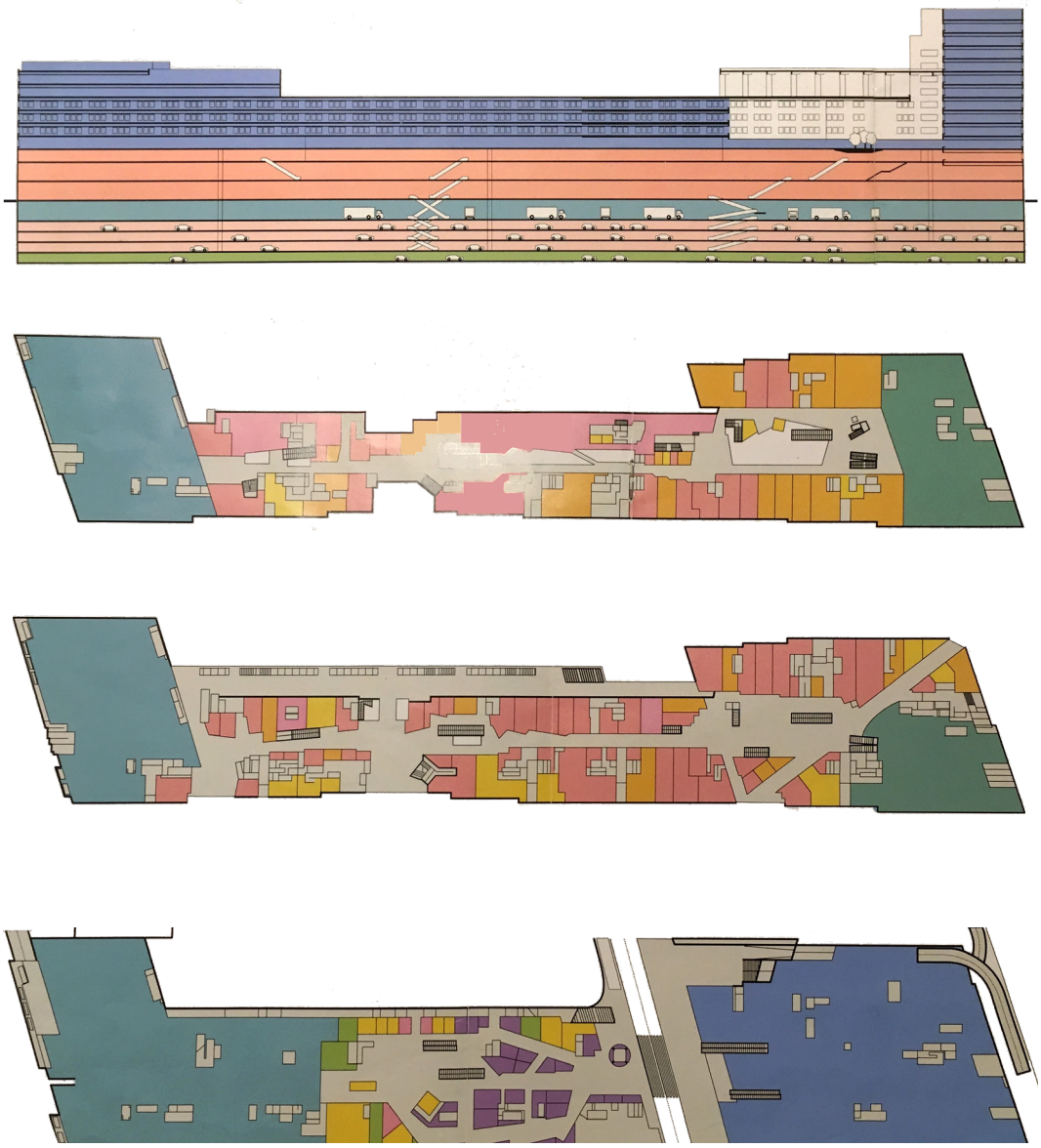


Fig Illa 08 Longitudinal section, first floor, ground floor and first underground floor of the L'Illa Diagonal commercial center [2003]

Infrastructural Component | The Anchors

The connection between the districts of Les Corts and Sarrià is enabled through a bypass: Constança Street converts into an underground tunnel that links these two neighborhoods, otherwise clearly divided by Diagonal Avenue. This corridor, which goes almost unnoticed both from Diagonal as well as from the main building of L'Illa, generates a link between two similar residential scales – low and quiet – avoiding the change of scale that would have been implied in a transition over Diagonal – large, high and agitated. The cross section reveals the anchorage of the main building in the urban infrastructure. The building extends its arteries into the existing street network and exceeds its plot limits.

Regarding the pedestrian infrastructure, L'Illa ensemble enables multiple accesses, responding to various situations and requirements. The lateral access to the main building from Numància Street is a corridor that connects this short façade with Diagonal, while maintaining the original layout of the old Anglesola Street as a gesture of continuity of the surrounding city. The other two large passages on Diagonal create a strong connection to the interior and opposite side of the plot. Simultaneously, they create a large entrance atrium for the long shopping center. The eastern passage also facilitates access to the Bikini nightclub and to the auditorium. These passages remain constantly open, and access is never restricted.

The southern side of the plot is also connected to the surrounding street infrastructure and maintains the scale of the network. One of the existing streets is continued in the form of a pedestrian ramp that leads to the park between the auditorium and the hotel buildings. The park is also accessible from Constança Street through a large ramp and staircase that help overcome the height difference. The ramp is introduced from the corner of the hotel. The building even highlights the importance of the connection, by chamfering its corner in order to facilitate the movement of pedestrians.

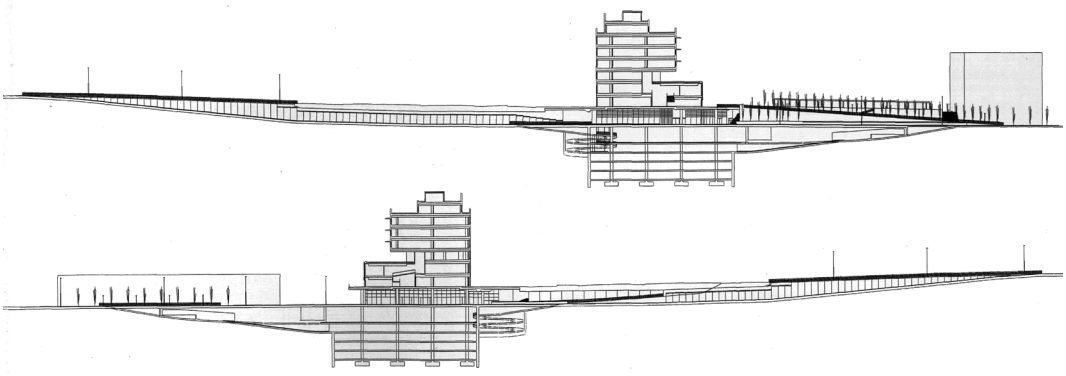


Fig Illa 09 Image of the Constança Street from the interior park level, coming from Les Corts, before passing through the main building [2017]

Fig Illa 10 Cross sections through Constança Street. Original scale 1/1000 [1989]

Public Space | Typologies and Performance

The ongoing plans to improve the city that were initiated in the 1970s have developed a strong public space vocabulary. Following this preamble, the entire L'Illa project can be read as a coherent exercise in the provision of public space. The pedestrian is given clear priority. In the competition phase, the architects declared that pedestrian movement sets the base for the entire layout. The layout grows out of the surrounding network. There are no unexpected breaks in the system. In the project phase, there were more passages planned than the ones that were eventually built.[233] This fact reveals the strong intention of porosity. Tobella compared this to a gesture of generosity. The more the ensemble opens to the city, the better it performs. Several typologies of public space are present in the project and work in tandem:

1 | the street – exterior and interior: The existing street network defines the traces of the new streets. The widened sidewalk of Diagonal has a representative character, corresponding to its importance and usability. The secondary layer of interiorized streets, which cross the commercial center, relate in their scale to the finer grain of the predominantly residential neighborhood to the south.

2 | the neighborhood park: Shielded by the ensemble and flanked on two sides by restaurants and cafes, the park is a much-needed open leisure area of the dense neighborhood.

3 | the plaza: In reference to a village square – the venue that gathers an entire community –, the atrium of the shopping mall concentrates not only commercial but also leisure activities.

These main typologies and their variations build the tool set for a complex approach focused on public needs and desires. The sequence of diverse yet welcoming and open spaces creates an overall feeling of accessibility and comfort. The users are as diverse as the formalization of public spaces. The evident public, collective character of all these areas embeds the ensemble in the urban fabric and avoids the feeling of a gated, restricted complex. The combination of these types defines three main public space instances – the park, the shopping center and the sidewalk – described in the following pages.

233 Tobella, "L'Illa Diagonal de Barcelona," 18.

L'Illa Diagonal | An Avatar

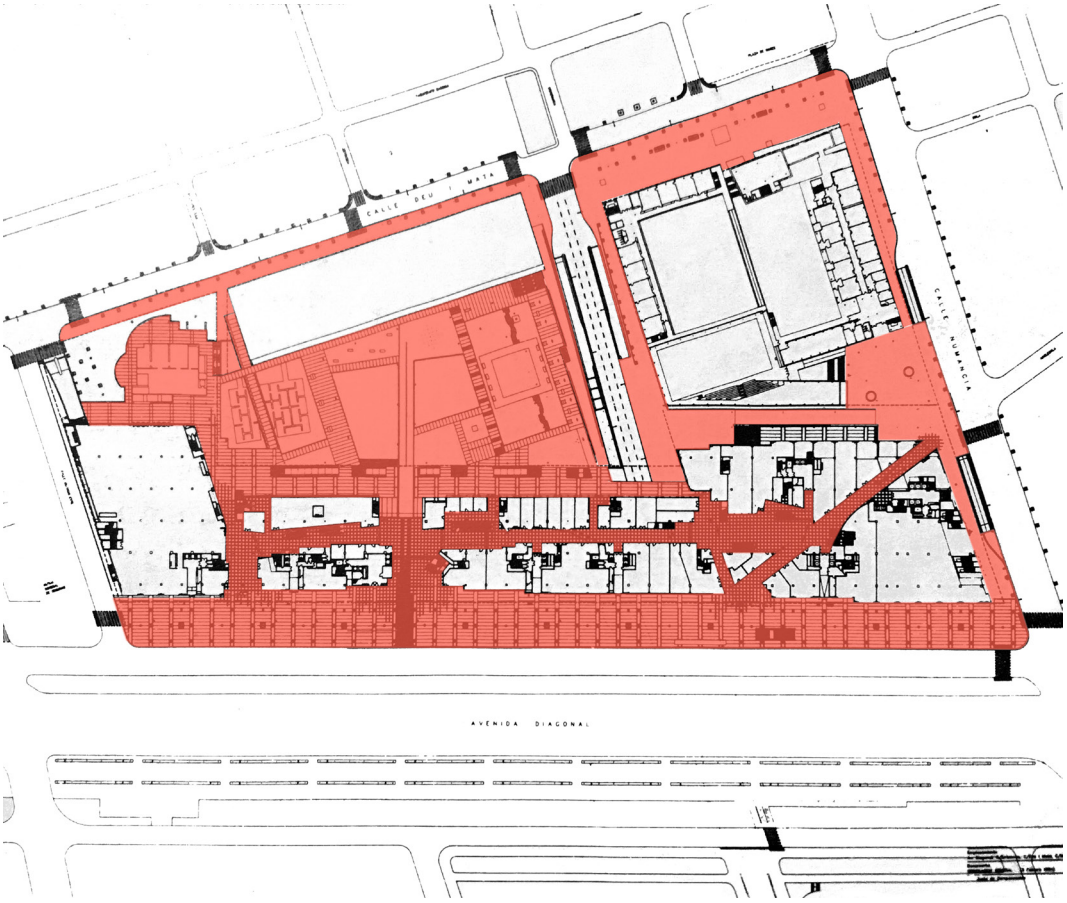


Fig Illa 11 round floor plan of the L'Illa Diagonal block. Indication of areas of public space [1990]

Public Space | The Park

The public, outdoor park covers an area of 7.775 m^2. It is publicly accessible and remains open twenty-four hours per day, seven days per week. The layout of the park was subject to many adaptations and modifications throughout the design phase. During the formulation of the Special Plan, the architects envisioned different ambiances and several activities taking place in the outdoor space: a dancing ring, a bar, an area for reunions and conferences, a shadowed area under a pergola and a dedicated area for the hotel that would be managed and organized by the hotel, but publicly accessible. Nowadays, the uses that cater to the park are mainly food service amenities – cafes, restaurants, terraces and bars. They are used by thr visitors of the shopping center, office workers, hotel guests and the inhabitants from the neighborhood. Furthermore, the park offers quiet places to sit – the shadowed pergola, benches – and a children's playground. It both fulfills the neighborhood's requirements and supplements the area of interaction of the large business and commercial center.

Its design is rather austere; it mainly distinguishes between the concrete pathways and the sunken planted areas with large trees and grass. Thus, it separates a more dynamic movement level and a more contemplative level, approx. 50 cm below.

The park is the core of the block, however, it is visible and accessible from many points. It also distributes the circulation to each part of the ensemble from the interior of the block, otherwise accessible from the perimeter. Despite the clear priority given to the pedestrian, the layout of the park has always taken vehicular access from Diagonal Avenue into account up to the back side of the NH hotel – a service access. This created a way to attract pedestrians on the large avenue into the site while allowing the program in the back to take advantage of the large avenue as well.

L'Illa Diagonal | An Avatar

Fig Illa 12 View of the interior public park of the L'Illa Diagonal block [2017]

Public Space | The Shopping Center: The Street and the Plaza

The commercial center has always been a key element of L'Illa development; it was the warrant of financial security. The strict regulations of mall distribution played an essential role, which affected the architectural outcome. However, the superordinate architectural approach enhanced the quality of the typical commercial gallery. Despite the specifics of mall-layout – anchor stores at the extremes, specific length of retail frontage etc. – L'Illa commercial center maintains a strong urban character. Firstly, it was conceived as a street with shops and a square. In the drafting phase, the stores were supposed to be accessed from Diagonal. However, the struggle with commercial management logic led to the closing of the direct accesses from the avenue, leading all visitors inside. The plaza-atrium was initially left open, covered with a light roof. In a subsequent intervention, it was closed. However, the passages remain open and accessible always – like actual streets, beyond the opening hours of the mall.

The large suspended volumes that enrich the spatial experience along the commercial gallery work as skylights. They bring natural light into the interior street. Furthermore, several glazed surfaces along the mall's first floor open views to the inner park and to Diagonal. These interventions counteract the sensation of getting disoriented and trapped between the variety of shops. On the ground floor, light and orientation is provided through the passages. The architects insisted on a strong visual connection between the ground floor and first floor. This is enabled through a system of bridges, paths and escalators that adheres to the overall spatial concept and not to the commercial logic exclusively. Along the interior street, the playful layout of the shops creates a vibrant façade.

Since the relationship to the street was fundamental, the exercise of adaptation to the existing topography was unquestionable. Along the 350 m front, Diagonal decreases approx. 2.50 m. The floor of the entire shopping center follows this slope and is inclined. The architects considered the barrier-free connection to the sidewalk more important than the inherent difficulties for the inner organization.

L'Illa Diagonal | An Avatar

Fig Illa 13 Interior view of the L'Illa Diagonal commercial center [2017]

Public Space | The Sidewalk

The dialog of the built mass to the sidewalk can be traced in different instances along the perimeter of the block. The buildings constantly negotiate their relationship to the street as the width of the sidewalks varies. The case of the main building is, again, the most representative. In an act of generosity towards the city, the successive set-backs of the long façade widen the Diagonal sidewalk by approx. 10,0 m, up to 18,0 m. Concomitantly, these volumetric alterations counteract the massivity of the large horizontal volume.

The widened Diagonal sidewalk serves as a connector between the avenue and the inner area. The building gets emptied towards Diagonal, so that the boulevard can symbolically reach the buildings behind. The passages enable visibility and an easy link to the interior façade of the hotel. The minimum height of 5,50 m and pillar-less opening underline an urban dimension related to that of the Diagonal sidewalk. Turning to Numància Street, the sidewalk only reaches 9,0 m of width. However, it gets widened to the extent that the walkway forms a small plaza to mark the access points.

Despite the generous width, the Diagonal Avenue sidewalk maintains an urban scale. Three rows of trees structure layers of different movement speeds. The openings break the length of the façade and connect to the interior street layout. The pattern and materiality of the horizontal surface enables a seamless transition from the street to the interior.

Initially, the shops of the commercial center were supposed to be accessed directly from the avenue. In the end, the strategy of a mall that aimed at people coming in, but not getting out, overwrote architectural considerations. However, the Diagonal sidewalk provides direct access to the seven circulation cores.

L'Illa Diagonal | An Avatar

Fig Illa 14 View of Diagonal Avenue and the passage to Anglesola Street [2017]

Open System

Dividing the large block into seven parts was not only an urban decision, but also a strategy to facilitate successive, separate interventions if needed. Each segment could be developed, built and managed independently, relying on its own circulation system. However, the unity of the façade was mandatory. As previously mentioned, the initial idea of the large main building was the repetition of the Eixample model – a row of separate houses. The finite element was not a paramount condition; the development could be built in several steps, allowing for unresolved or unbuilt parts.

Such a magnitude required the thorough consideration of the passage of time. Not only the resilience of materials, but also the adaptation of uses over time were contemplated. Therefore, a solid framework needed to be provided that could accommodate change. The structural rhythm provided a large-scaled frame for the free display of uses. Again, the urban layout provided the key solution: the module of the structure – 7,80 x 12,00 m – was adapted from the southern scale. The diagonal of the module represented the angle of Diagonal Avenue to the Eixample grid – the angle of the city.

L'Illa attracts a great variety of users with different relationships to the ensemble. Visitors of the hotels, of meeting and conference facilities and of the commercial center have a temporary, short-term connection to parts of the complex. The park and the sports center are used on a regular basis, and the school and the offices are used on a long-term basis.

Despite its name, L'Illa is not an autarchic urban island. According to the architects, *"the project deals with the area as a whole within its boundary, with the interior handled on such a scale as to make possible the absorption of heterogeneity without either the avenues or the perimeters of the buildings creating the impression of isolated lots."*[234] The permeability of the structure has already been discussed. The main building's commercial floors act as a deep border – the interface between two different urban conditions: Diagonal and the neighborhood park.

234 Moneo, "The Diagonal Block," 87.

L'Illa Diagonal | An Avatar

Fig Illa 15 View of a passage to the inner park from Diagonal Avenue [2017]

Hybridity

L'Illa is clearly an economic, commercial and leisure center – altogether a civic center.[235] The Superblock, or The Golden Triangle are names that reveal the complexity of the ensemble. The architects themselves underlined the importance of the variety of uses. The goal was to achieve the urban character that repeated the diversity of the city. The ensemble has a twenty-four hours/seven days a week use. Most public parts can be freely accessed at any time. Furthermore, the comprehensive program addresses all daily time-frames. L'Illa was clearly conceived as the synthesis of a city fragment exercising a broad influence – regarding both vicinity and city scale. At the formal level, in order to maintain the compactness, urban continuity and compositional unity of the main building, as well as to solve varied program needs, it was decided to agglutinate a large part of the program in an extensive block and generate a continuous, massive façade. The main building houses a mix of uses within its homogeneous structure, such as a business hotel, commercial galleries and offices. The atrium is a versatile element of the composition, which takes on and overlaps different roles: it is either the village square of the neighborhood, the showroom, the playground, the courtyard and the entrance to the offices, the shopping cluster, etc.

The complex investment model required by such a large intervention underlines another feature of L'Illa's hybrid character. Its accomplishment relied on strong public-private cooperation.

Tobella stressed the importance of the project's section. There, horizontal and vertical links can be leveraged and the relationships between programmatic parts can be improved. Despite its predominant horizontal configuration, the ensemble constantly pursues three-dimensional linkage – visible in the commercial floors, the complex adaptation to the topography, the visual links, etc. The different typologies of public space, sustained by the adjacent program to which they cater, work as a circulation system that helps irrigate the entire built mass.

235 Badia, "L'Illa-Diagonal," 28.

L'Illa Diagonal | An Avatar

Fig Illa 16 View of the atrium of the L'Illa Diagonal commercial center [2017]

Indeterminacy

The interview with Tobella revealed the fear of the theme-park analogy on several occasions. The architect underlined the need of the proposal to be as substantive as possible in order to avoid contamination with the specific amusement-park theme. The structure of the ensemble needed to become a robust groundwork that enabled a variety of uses. In the main building, the structural mesh granted the freedom for many types of functions to be housed within that system. The building's capacity even wearied the developers: it surpassed them as it offered a wide array of possibilities. The atrium represents the quintessence of the one-size-fits-all character. Its layout, dimensions and connections allow for manifold utilization.

Furthermore, the uses needed to be kept general in order to avoid becoming highly specific and restrictive. Nowadays, the uses can change within the current structure. As the technical manager of the commercial center admitted,[236] due to decreasing interest in office-space rentals during the recent economic crisis, it was contemplated to extend the commercial center to the second floor. The structure would have allowed this adaptation of use.

The juxtaposition of features of the main building easily arouses interest. On an urban scale it reads like a large, white, neutral block that forms the edge of the busy Diagonal Avenue. The order and rigor of the façade also foster L'Illa's indeterminate character. On a plastic level, it plays with the repetition of windows as a compositional element, generating rhythm and human scale. The apparently monotonous composition of the windows allows the interior to be adapted to almost any program without affecting the overall image. The dimension and array of the window module aspires to an urban scale. Its dimension comes from the city and does not disclose the function beyond it.

236 during the meeting with Lluís Pichel, technical director of the Illa commercial center, on July 4, 2017.

L'Illa Diagonal | An Avatar

Fig Illa 17 Printed picture of the structure of L'Illa's main building during the construction site [undated]

Insularity and Self-sufficiency

L'Illa ensemble has proven to overcome the previously enumerated threats of insularity regarding structural isolation, programmatic microcosm and failed connections to the surroundings. Its performance in the cityscape can be traced throughout the last two and a half decades and evaluated.

From a structural point of view, the urban project of the site pursued its own order, without mimicking the adjacent urban structures. However, the ensemble has been consistent with the urban situation to which it has given the most priority: the strong presence of Diagonal as Barcelona's main commercial and economic axis. Furthermore, it reacted to the difference between the urban realities on the two sides of Diagonal through a conciliatory strategy that enacted conformity of the built mass differently on each side. The concept made clear reference to the Cerdà-plan, which embedded the proposal in an open system. The grid sub-structure and its basic *game rules* provided the necessary framework that subsequently liberated the intervention towards a coherent site-oriented approach.

The programmatic composition does not aim at creating an isolated microcosm – a city in the city – but instead a strong urban activator. The aspiration to self-sufficiency was not a premise; indeed, L'Illa represents a complex part of the city in a compact form, but is not a miniature of a city itself. The density of uses attracts people from near and far and does not create an isolated, introverted cluster.

L'Illa's pulse is sustained by the strong circulatory system that irrigates the entire ensemble. Links to the surroundings as well as within the block create the perfect infrastructure as an enhancement of the street. The passages are smooth and pose no physical barriers or restrictions on use.

L'Illa Diagonal | An Avatar

Fig Illa 18 'I dreamed that an island was born,' Logo and slogan from a marketing campaign announcing the Golden Island [undated]

Commodification and Commercialization

For the private investor, financial revenue was paramount. For the Barcelona administration, the provision of a balanced mix of public amenities was a clear requirement and priority. Careful negotiation of the urban project and implicit uses was a key step towards avoiding the trap of instant commodification.

Both the public entity and the team of architects set focus on the urban character of the ensemble. Though the commercial center was the core of the development, the shopping concept did not take over and contaminate the ensemble's entire layout. The constant debate between the designers and the mall-consultants led to compromises on both sides. The initial proposal to open the retail spaces to Diagonal eventually succumbed to the financially-proof retail pattern of the interior corridor. The atrium, envisioned by the architects as an outdoor space, was eventually covered and partially closed, in order to better accommodate commercial activities. On the other hand, the retail concept was adapted to urban needs, and to the contemporary metropolitan lifestyle. L'Illa shopping center, through its layout, permeability and valuable connection to the additional uses of the block, managed to overcome the trivialization of a conventional mall.

L'Illa Diagonal | An Avatar

Fig Illa 19 Panoramic view of L'Illa commercial area from the Diagonal Avenue to the atrium [2017]

3|3.2 L'Illa Diagonal | Findings

The relevance of L'Illa ensemble is reflected in its recurrent referencing – it has been the model of several conceptualizations: Frampton considered it a megaform, De Solà-Morales conceived it as an Urban Project and now Urban Gulliver claims it as an avatar as well. These frameworks have tried to define the ambiguous position in the transition scale between architecture and the city. This is also Gulliver's field of action.

At the time of the competition, the large and central plot represented a void on Diagonal Avenue. The unusually large dimension of the plot enabled an unprecedented approach. Building on his deep knowledge of the entire development of the project, Tobella argued that the entire proposal was basically urban. In the interview, he underlined that the ensemble and main building were one hundred percent city; moreover, they were a consequence of the city. The formal decisions were scarce and obeyed an overall rationality. Undoubtedly, the defining reference was the city. Both the main building and the entire ensemble recognized and reacted to the scale they were working with. L'Illa passed from the scale of a single [Cerdà] block to an urban scale. Despite the large size of its site, the ensemble surpassed its own limits. Working at the scale of the city, L'Illa exercises its attracting force on a large area.

During the elaboration of the Special Plan of the Diagonal block, the relationship between architecture and urbanism was a core topic. What does the large site demand: a project or a plan? The plan needed to be revised regarding the possible outcomes. L'Illa was conceived as what De Solà-Morales defined as an Urban Project in his theoretical writings, and the team of architects started with the draft for the Urban Project in the Special Plan. The urban acknowledgements and definitions were constantly reflected with the possible outcome of the architectural form. In the following step – the design of the main building – the team of architects naturally worked within the established framework. The employed architectural repertoire still followed urban parameters: it constantly reiterated the scale of the city. However, when looking more closely at the layout of L'Illa ensemble, all scales are present and become successively readable. The initial proposal of the main building foresaw a large front of townhouses. Similar to the Eixample model, the block was defined by the accumulation of built mass. Within this overhead organization pattern with a set of geometrical restrictions related to the urban layout, each building could work independently, while remaining part of the whole.

L'Illa has largely overcome the main threats – insularity and commodification – that similar L-sized structures often face. It also proved to comply with several aspects of the outlined requirements for Urban Gulliver – openness, hybridity, indeterminacy. The ensemble has a bi-directional relationship to its surroundings. On one hand, it is penetrated by the urban network. The streets enter the site, transform into passages or alleys, and irrigate it. On the other hand, it represents a strong reference in Barcelona's urban repertoire. Its programmatic

composition addresses manifold user categories, bringing them together and mingling them. The vicinity is benefitted by the public amenities – schools, library, sport center etc. – and its interior park is a great public resource granted to the neighborhood. Despite it not being primarily residential – the program only included temporary housing – it works as a constituent of a predominantly residential district. The extensive shopping facilities – unique in such a central setting –, the offices and conference center have a wider projection and relevance, as does the Bikini discotheque, a very well-known party location in the city. The ensemble has undoubtedly found a balance between the representativeness of public uses and a domestic character. Thus, L'Illa can be considered an exemplary instance of Urban Gulliver.

After identifying L'Illa as an Urban Gulliver avatar and verifying the validity of its requirements, the work further looks at key features of the studied project in order to extract a possible implementation approach. A recurring topic was the consideration of its public character and of the network of public spaces. Learning from the example of L'Illa – considered a successful example of an urban L-sized structure –, the work further formulates the chance of Urban Gulliver for a convincing implementation within the city fabric.

The search for an Urban Gulliver avatar, found in the project of L'Illa, has highlighted the relevance of the network of public spaces in the case of an L-sized structure. In order to avoid previous shortcomings in the conception of L-size approaches, and to overcome possible threats, the work continues in the search for the key to a successful implementation. Within this framework, the chance for the endurance of Gulliver in an urban setting will be formulated.

3|4 THE CHANCE OF URBAN GULLIVER

After having outlined contemporary debates on the future of planning, this thesis will establish relevant focal points for the development of Urban Gulliver. As previously shown, similar large structures mainly driven by utopian drive have often proved unfeasible in the past. Alienating machine-like megastructures, fueled by the euphoria of limitless technological possibilities, were aimed at great inner performance in their era, but disregarded their performance in the urban fabric. As such, they marked a moment in architectural history and theory, but were never able to take the next step towards implementation. The complex endeavor of such a large project requires a feasible implementation outline. These unresolved challenges and the ongoing fascination of this urban feature call for a novel approach. The proposed implementation model yields Urban Gulliver, the conciliator between the two approached scales.

This chapter has defined openness as a prerequisite for the emergence of Urban Gulliver. The open system for both building and city is regarded here as the framework for the re-negotiation of new urban and architectural models. Openness is outlined as a systemic property that can equally address both dimensions – building and city. The open strategy regards the large-scale project as a piece of three-dimensional urban structure and exploits the potentials of the section – the vertical dimension. Opposed to the predetermination of a fixed, finite element, openness of the built environment implies constant adaptation and mutation. Urban uses change constantly, so fixed form function relations become obsolete. Openness is not just a design or planning tool; it is a strategic framework concealing city and building that can be exemplarily applied to the model of Urban Gulliver, reuniting the attributes of all scales into a common platform for experimentation.

The combination of unfinished form and functions allows for compatible hybrid uses. Hybridity is a significant intrinsic attribute of the open system. The urban habitat has been segregated by streams of traffic and functional restrictions. Hybridity counteracts this seclusion. It allows

for synchronicity and opens the way for changing narratives in time. Since planning for openness recognizes city and buildings as a process, it is essential to acknowledge the notion of time. Urban Gulliver is a full-time urban provider. The adaptation and change over time is insured by a certain degree of indeterminacy. The different facets of indeterminacy require a robust framework and enforce Urban Gulliver's resilient character. Moreover, the requisite hybrid character of Urban Gulliver attracts people. Hybridity implies a constant negotiation between private and public spheres. Furthermore, the emphasis is set on the agglutinant, the binding substance of different compositions.

Above all, Urban Gulliver's condition as an urban character relies on its network of public spaces. The consideration of public realm – the key attribute of openness – is imperative. Therefore, the chance for Urban Gulliver to integrate in an urban fabric lies in a system of public spaces. Thus, within Urban Gulliver, public space is considered the key component. It works as the indispensable implementation asset and binding element between a new intervention and its surroundings. Simultaneously, the Urban Gulliver model acknowledges the contemporary diversification of public space types and addresses this within the framework of the open system. It requires a three-dimensional network of alternative [to the traditional] models of public spaces.

Complex structures that build up the city fabric, inserted in urban cores, need to exercise a sponge-effect attracting people from the surroundings to the inside. If the void of mass implies emptiness full of potential, the void of public implies the disappearance of public space. *Non-places*[237] and place-*less* areas are not only an interruption of the urban fabric, but also sterile places regarding their social potential. In such case, Urban Gulliver can enable the step from zero-identity to pluri-identity, imperiously mediated through the public realm.

The network of public spaces constructs the backbone of any urban endeavor. Therefore, an urban structure approaching the third dimension has to be mediated through public space. The generation of public space – the spinal cord of urbanity – should be the starting point and common denominator across this multitude of possible urban design and architectural approaches on Urban Gullivers. The physical, structural definition of public space sets the framework for the unfolding of public life. Public space is then brought to life and defined by its inherent programs and users. An understanding of the intrinsic characteristics – structure, proportions, materiality, topography, attractors, permeability, link to the existing urban network, adaptivity, accessibility, flows, elements of articulation – and the effects of the external agents – users and uses – in traditional public space offer clues for the formulation of the main features of public space alternatives.

When outlining the features of the collective form, Fumihiko Maki already recognized that the most important factor was the treatment of the mediating public spaces. Any L-sized urban

237 The term "non-place" was coined by Marc Augé and will be explained in the next chapter.

structure is lifeless and doomed to extinction without the active consideration and facility of public space. Moreover, it should allow penetration by the public realm and contamination as a whole by the dynamics of the city. The public realm stirs urban life; its conscious incorporation becomes the essential prerequisite for Urban Gulliver. Hence, the porosity of the built structure is imperative. According to Sennett, *"making buildings more porous will be one of the great challenges of twenty-first century architecture; porosity would make buildings more truly urban."*[238] Truly urban is translatable to more public. Porosity enables the public realm to penetrate architecture, and buildings' interiors become part of the public network. Under the premise of infiltrating in dense urban fabrics, the role of interiors with a potential for public use increases. Their main function consists of the ability to confer urban character to both buildings and surrounding open areas and to urbanize the private; thus make it public.

Since such a complex structure palpitates due to the attracted public that flows through its *arteries*, the first step and goal is to restore life on the ground level. Furthermore, it has to be able to extrude it into the height and depth, and colonize it with public streams. It is essential to understand the complexity of the urban skin and manipulate it in order to become three-dimensional. To comply with the requirements of openness, hybridity and indeterminacy, Urban Gulliver must allow adaptations and encourage alternative uses of public spaces.

The focus on the edge condition becomes essential under the premise of ambiguous limits between parts of the city. Sennett's comparison between the notions of *boundary* and *border* is illustrative for distinguishing repellent edges to permeable mediums. Borders are areas where different mediums meet, whereas boundaries are clear delimitations where all interchange is denied. The built environment should constantly aim at creating borders – porous and penetrable membranes that do not create separation and segregation, but flow with permeability. Aureli's thoughts only underline the topic: *"If one were to summarize life in the city and life in a building in one gesture, it would have to be that of passing through borders. Every moment of our existence is a continuous movement through space defined by walls."*[239]

The subsequent section of this thesis elaborates on the following inquiries: To what extent and under what circumstances does the active consideration of public space improve the performance of the Urban Gulliver as an urban densification strategy? How can then public space be re-defined beyond its traditional acceptance?

238 Richard Sennett, "The Public Realm," https://www.richardsennett.com/site/senn/templates/general2.aspx?pageid=16&cc=gb, accessed April 19, 2016.

239 Aureli, *Possibility of an Absolute Architecture*, 46.

4

APPROACHING PUBLIC SPACE IN URBAN GULLIVER

4|1 URBANITY AND PUBLIC SPACE

Size accounts for presence and density, mixture accounts for variety and urbanity. The interdependence of scale and mix is incontestable. Large-scaled structures – similar to the city itself – yearn for variety. Urbanity is a qualitative property of the urban environment that depicts liveliness, crowding and people density. Unlike density, it cannot be quantified. This first part of the chapter will look more closely into the genesis and characteristics of urbanity. The quest for urbanity and density has found its best expression on a programmatic level, through a combination of uses. The failure of mono-functional planning has long been foreseen. Large housing ensembles, office parks, industrial clusters, over-sized shopping malls etc. have repeatedly proven their lack of compatibility with the urban landscape. The consequences of mono-functional planning are the challenges of the present and future tense. Mono-functional planning has had severe consequences on the pulse of the city. Desolate urban areas, drained of street life and activity, need to be injected with urbanity. From Jane Jacobs on, there has been no doubt that urban settlements thrive for plurality and diversity. Building structures have also demonstrated the power that lies in mixed approaches. One effective way to enable urban reinvigoration is to create a density of activities, enabled by a blend of uses.

The modern city design has undoubtedly left deep scars. Its major victim has been the understanding, evolution and formalization of public space. Starting from the 1970s, the European landscape has experienced a meaningful shift in the approach of its urban settlements. City centers were to be revived within the framework of public policies; public space was to be reclaimed and recovered. On one hand, there was a significant endeavor to retrieve the collective, civic dimension of public space in the European compact city. Miquel Martí extensively wrote about it and underpinned his research with a set of examples from Barcelona.[241] On the other hand, an extensive literature mourning the agony and death of public space was proliferating. The crisis of public space, claiming its decay and ultimate loss,

241 Miquel Martí i Casanovas, "Cap a una cultura urbana de l'espai públic: l'experiència de Barcelona (1979-2003)" (PhD diss., Universitat Politècnica de Catalunya, 2004).

has strongly persevered since the 1990s. The identification of non-places, the rapid and viral process of privatization, the implementation of security measures etc. are all processes that have alerted several scholars, converting the specific literature into a requiem for the contemporary public space. However, the debate can be led in terms of loss or new opportunity: reinvention. This chapter ultimately aims at identifying the potentials and new instances of public space that must emerge from the ashes of this grieved urban protagonist.

4|1.1 Urbanity. Mixity and Public Space

Density, albeit intricate by means of measurement, is quantifiable. Urbanity, instead, is a quality. Hans Ibelings argued that the postmodern turn of the European city triggered the rediscovery of forms of urbanity. And these forms *"rely not on the discontinuities and openness of modern planning but rather on finite and defined urban spaces and dense urban fabrics."*[242] The purpose of this present incursion on the topic of urbanity is not to trace the term down the history lane, but to sketch its architectural dimension. The concept of urbanity is understood here as inextricable from both programmatic diversity and the concept of public space. In this sense, OMA's competition entry for the La Villette park was emblematic and revolutionary, since it represented *"the pure exploitation of the metropolitan condition: density without architecture, the culture of 'invisible' congestion."*[243] The proposal was solely sustained by a blended program, not buildings, and promised great vitality and liveliness.

Urbanity implies education and culture. Thus it defines a process of civilization,[244] following a model of personal and collective emancipation – the liberation from constraints and dependencies. Jane Jacobs famously dedicated her studies to the street life of cities, whose successful unfolding mainly depended on the condition of diversity. In this sense, she synthetized four prerequisites for urbanity, which would indulge the needed vitality and diversity in the urban landscape:[245]

1 | the mix of uses, ensuring the presence of [different] people at different times of the day, approaching distinct services. Retail would be an important component of the mix;

2 | short blocks with possibilities to cross;

242 Hans Ibelings, "Middle Ground," (April 2, 2016), http://www.publicspace.org/en/post/middle-ground, last accessed February 19, 2018.

243 Rem Koolhaas and OMA, "Parc du la Villette, Concours, Paris, 1982-83. Eloge du Terrain Vague," *L'Architecture d'aujourd'hui*, no 238 (1985): 46.

244 Kerstin Dörhöfer, *Shopping Malls und neue Einkaufszentren. Urbaner Wandel in Berlin* (Berlin: Dietrich Reimer, 2008).

245 Jane Jacobs, *The Death and Life of Great American Cities* (New York: Vintage Random House, 1961), 151.

3 | a mixed composition of old and new buildings and different tenant structures, leading to a heterogeneous social structure;

4 | people and built density, concentration of people residing in the districts.

Her critique signaled the loss of diversity in newly erected, large-scale urban developments. By comparing those projects – aimed primarily at the revitalization of decayed city centers in the 1950s North-American landscape –, with historic city cores – emerged out of incremental growth and consolidated in time – Jacobs highlighted the fact that diversity relied both on an architectural and on a social dimension. The architectural dimension referred to the coexistence of various architectural types, types of public spaces and activities.

Two decades after Jacobs' famous writings, the Space Syntax group also signaled the loss of urbanity and lamented the failure of architecture and urban design to ensure the liveliness of spaces. *"Most architects today* – the writers argued – *believe that something has gone badly wrong with the design of urban space. No matter how hard they try, they do not seem able to re-create the unforced, informal liveliness that once contributed so much to the quality of urban living. The search for 'urbanity' has become a central theme in architecture..."*[246] The authors recognized that an enclave-based approach to architecture or urban design would not be able to re-create urbanity. The focus on how buildings were arranged in an urban composition – an introverted approach – would not automatically enliven spaces. Instead, they pled for considering how a space fits into a larger area, embedding it in the network of a larger scale spatial organization. Since their seminal article where they introduced their different urban perspective, the group of scholars led by Bill Hillier has actively pursued its quest for urbanity in research and practice, turning their theory into a method. The Space Syntax method mainly analyzes the spatial arrangement and articulation of places. In an urban context, the city is translated into a spatial network that reveals the syntactic dimension of the city. The continuum of public spaces and the way they relate to their immediate surroundings, offer, according to the Space Syntax method, clues to their performance, potential liveliness and acceptance.

At the Ninth Space Syntax Symposium, Douglas Vieira de Aguiar's research offered an overview on the interpretations and implication of urbanity in the recent theory of architecture. Drawing from his research, he formulated his own understanding of urbanity. It referred to a relationship of courtesy between buildings, streets and the city itself. Thus, *"urbanity would be so constituted by something that comes from the city, from the street, from the building, and is appropriated to some extent by people."*[247] He distinguished between the terms *urbanity* and *vitality*, the latter only grasping the presence of people in space, but not the relationship to the built environment.

246 Bill Hillier, Julienne Hanson, John Peponis, John Hudson, Richard Burdett, "Space Syntax, a Different Urban Perspective," *Architects' Journal 178* (1983): 48.

247 Douglas Vieira de Aguiar, "What is Urbanity About?" (Proceedings of the Ninth International Space Syntax Symposium, Seoul, 2013).

Urbanity undoubtedly stems from a pattern of meaningful relationships. There are obvious similarities to the way Rapaport defined the perception of density, relying on the proximity of uses. According to Rapaport, density had to be regarded in terms of the correspondence between elements – people, buildings, programs, etc. If physical density measures a ratio, perceived density introduces the additional layer of the use of the physical environment. In a further step, urbanity emerges if these uses enter a relationship and interact. In a more poetic way, Xavier Rubert de Ventós expressed the richness of such a relationship based on urbanity as *"a relationship that is neither stereotyped nor intimidatingly intimate, that does not remind one of differences in class or origin but that enables one to join in with the game of appearances and persona-masks that constitute the city.[...] The city from which urbanity emerged consists of a balance between different elements that is none too easy to maintain: between concentration and anonymity, between spatiality and identity, between space and time, between form and memory and between recognition and distance."*[248]

A specific characteristic of urbanity refers to *relationship wealth*. The term describes the properties of spatial concentration between different relationships of users and their physical environment. It relates to a specific focus on urbanity: *urbanity of things*. This material aspect of urbanity was a priority in Manuel de Solà-Morales' work and theory. Hans Ibelings noted[249] how De Solà-Morales' interventions unleashed the very possibility of urbanity, through the right balance between density and mixity, between building and activity. Urbanity could germinate wherever people and buildings met; the material presence of the built substance would catalyze it. For the Catalan architect and theorist, material urbanity had to be sensed, breathed, smelled and touched.

In his texts, De Solà-Morales acknowledged a variety of viewpoints from which the topic of urbanity can and has been regarded: an urbanity that exclusively applies to people, one that strictly applies to places – the theoretical realm of geographers and sociologists –, or one that refers to certain inclinations of different social groups. Nevertheless, he considered all of them *tangential urbanities*, as his focus was set on *"the urban qualities of things, of the urbanity of urban things."*[250] Material urbanity relied on what De Solà-Morales considered to be the main attributes of a city: simultaneity, temporality and plurality. Building on these attributes, urbanity translated to *articulation, complexity* and *difference*.

Kretz and Salewski built on De Solà-Morales' work and findings and extracted[251] the aspects of urbanity as a physical entity. In their debate, the two authors embedded the topic in

248 Xavier Rubert de Ventós, "Urbanisation against urbanity?" in *Ciutat real, ciutat ideal. Significat i funció a l'espai urbà modern [Real city, ideal city. Signification and function in modern space]* (Barcelona: Centre of Contemporary Culture of Barcelona, 1998).

249 Hans Ibelings, "Urbanity," in *Matter of Things; Manuel De Solà-Morales*, ed. Manuel de Solà-Morales i Rubióet al. (Rotterdam: NAI Publ., 2008), 10-14.

250 Manuel de Solà-Morales, "For a 'Material' Urbanity, (2005)" in *A Matter of Things; Manuel De Solà-Morales,* ed. Manuel de Solà-Morales i Rubióet al. (Rotterdam: NAI Publ., 2008), 147.

251 Simon Kretz and Christian Salewski, "Urbanity of Things. Relationship Potential and Wealth of Relations as Urban Resource," in *The City as Resource: Texts and Projects 2005—2014*, ed. Kees Christiaanse et al. (Zurich: Jovis, 2014), 167-180.

the theoretical realm of sociology as well. They referred to Louis Wirth's influential essay, *Urbanism as a Way of Life* [1938], where the author explained the concept of urbanity beyond the mere calculation of people; it related to their density and heterogeneity, additionally considering aspects of social organization, physical structure, and cultural background. More recent writings of renowned sociologists, such as Henri Lefebvre, Michel Foucault, Anthony Giddens or Doreen Massey, built on Wirth's ideas by highlighting the interdependence of the physical space and the activity of users. Parting from this theoretical groundwork, Kretz and Salewski described urbanity of things from the perspective of relationship wealth, "*a state in which different and conflicting perceptions and activities by different people are embedded in a diverse and manifold context of meaning.*"[252]

There are three types of interwoven relationships – between things, people, and other living beings – that make up for relationship wealth. On the opposite side of the spectrum, relationship poverty emerges in functionally-oriented spaces, where the variety and amount of interchange is reduced. The authors summarized the effects of relationship wealth as follows:

1 | the multiple use of things by different users for different purposes, resulting in an increase in resource efficiency;

2 | the gathering of completely different people and groups as the result of the offer of multiple uses. According to Hannah Arendt, this type of encounter and the shared awareness of using the same spaces and things is the essence of public life;

3 | the possible generation of rivalry and, therefore, conflict;

4 | stabilization, which leads to the rigid fixation of certain values, uses or purposes. An example of stabilization is the intervention and transformation by large-scale projects to inner city brownfield sites, sterilizing the previous relationship dynamics.

Beyond the three requirements for urbanity and relationship wealth that De Solà-Morales had already outlined – articulation, complexity and difference – Kretz and Salewski added *elasticity*, understood as usefulness in the future. Elasticity would thus introduce the time dimension and ensure the relationship potential. Urbanity is therefore not a static equation of different players with foreseeable results, but a dynamic, ongoing negotiation of relationships. It becomes architecture's duty to activate this relationship potential, to become the liaison of chance encounters.

Urbanity is a term that cannot be considered isolated from public use and public space. Several writers, such as Richard Sennett, Jane Jacobs or Hans Paul Bardt, have revealed the interdependency between urbanity and the public sphere. Urbanity of things is a constituent

252 Kretz and Salewski, "Urbanity of Things," 170.

of the public realm that is directly linked to its physical surroundings. Despite important literature on the topic, recent years have witnessed a strong shift in the narrative due to visible alterations of urban life. For instance, the Dutch author Rem Koolhaas signaled in his 1994 text *The Generic City*[241] that the public realm of cities was witnessing an evacuation process. Public life progressively unfolded in a grotesque and caricatured setting that emulated traditional urban life. Koolhaas forecasted a decoupling of urbanity from its correspondent public sphere. The street had died and its substitutes were infrastructural elements, such as lifted promenades, bridges, highways etc. The future city would evolve without a historical background, a center, and, most importantly, without public life. The chances of encounter and the feeling of otherness would happen in a different framework, that of privately owned interior spaces – hotel lobbies, amusement parks or shopping malls.

Urbanity is the goal, public space is the setting and its architecture is the catalyst. When the equation between the architecture of public space and urbanity is failing, the effects on urban life are tremendous. In this sense, a persistent discourse on the death of public spaces has accompanied the turn of the twenty-first century.

4|1.2 Positions on Public Space. A Chronological Retrospective

The global future is indisputably urban, but what is the future of urban planning? Contemporary society is already in need of new perspectives and strategies regarding the evolution of cities. As Joan Clos stated, master planning is not urban planning; it is just a zoning exercise. He believed instead in the validity of urban design, understood as the design of public space, buildable plots and their interrelation. And indeed, the last four decades have shown an increased interest in the formalization of urban public spaces both in new developments and in the regeneration projects of European urban cores.

From the 1970s onwards, the layout of public spaces has become a task of design. It was around that time when Jan Gehl – a pioneer of the rediscovery of European street life – began to recognize that "*... people and human activity are the greatest object of attention and interest. [...] Life in buildings and between buildings seems in nearly all situations to rank as more essential and more relevant than the spaces and buildings themselves.*"[242] He started his life-long dedication to the improvement of public spaces by acknowledging the importance of activities in the urban framework. Public space was equated to outdoor space – space between and framed by buildings –, where three types of activities could occur:

241 Rem Koolhaas, "The Generic City (1994)," in *Small, Medium, Large, Extra-Large; Office for Metropolitan Architecture. S, m, l, Xl. ed. Rem Koolhaas et al. (New York: Monacelli Press, 1998), 1238-1269.*

242 Jan Gehl, *Life between Buildings; using Public Space* (København: Arkitektens Forlag, 1996), 29.

1 | necessary activities, such as going to work, school etc.;

2 | optional activities, such as taking a walk, sunbathing etc.;

3 | social activities that depended on the presence of others in the public space and that occurred every time at least two people were together in the same space.

According to Gehl, the three types of activities interwoven in the public space ranged from low to high intensity. If activity between buildings was missing, lower-intensity contacts, as well as the varied transitional forms between being alone or being together would disappear. Guided by the Scandinavian proverb *people come where people are*, Gehl was interested in the forms of contact that could emerge and grow in a city's outdoor setting. Therefore, he underlined the importance of the display of attractors at street level that would influence patterns of activity. He pioneered the pledge for traffic-free zones. Nevertheless, Gehl almost kept the urban and architectural setting secondary; his main focus was set on the emergence of activities and relationships. He only opined about the importance of the built environment when comparing urban areas with multi-story buildings and extensive automobile traffic – a very generalized categorization – with areas of low-rise, closely spaced buildings, foot traffic and outdoor areas. Between these two extremes, there was no doubt which one catalyzed the emergence of public life.

Due to the increased interest of the last decades, the comprehensive notion of *public space* has been theorized from the perspectives of several disciplines, e.g. urbanism, architecture, philosophy, sociology, political science, etc. Notwithstanding, the purpose here is not to provide an all-encompassing definition of the term. The work has considered the research done by the European Archive of Urban Public Space[243] as an important guideline for the understanding and formalization of public spaces. Within this framework, one of the main contributors to the debate was Manuel de Solà-Morales. His position and those of his peers will be contrasted further on.

As previously stated, the positions on public space will be primarily framed by the debate on decay and loss. This crisis allows for re-thinking and re-formulation of relevant features of public space. Richard Sennett has predicted the dissolution of the public realm due to an increasing sense of individuality, a noxious characteristic of the contemporary society. Habermas augured a mutation of the public sphere. The next section of this chapter highlights several other landmark contributions to the literature of public space, its definition and the aspects of its decline. What are the forces that have undermined the traditional forms of public space and have triggered its loss? Instead of re-creating the conventional understanding

243 The CCCB in Barcelona holds a collection of texts on the city and urban issues that the institution has been engaged with through lectures and exhibitions since its very beginnings. Furthermore, the European Prize of Urban Public Space is organized within the framework of the CCCB's larger, permanent and multidisciplinary program on cities and public space.

of public space, this thesis embarks on the journey to discover new potentials and features of the public realm, aligned with contemporary and future evolution patterns.

The 1990s

As previously mentioned, the last decade of the twentieth century was marked by a generally acknowledged decay of public space. 1992 was the year that Sorkin released his seminal collection of writings *Variations on a Theme Park*,[244] Marc Augé opened the debate on *non-places*[245] and De Solà-Morales introduced his vision of *collective spaces*.[246]

In the introduction to his book, Sorkin scrutinized the emergence of a city without a place attached to it. The dissolution of physical spaces and the implicit veto over urbanity was being triggered by the emergence of the culture of computers, television, internet, credit cards, etc. – *"instruments of instant artificial adjacency that are rapidly eviscerating historic politics of propinquity, the very cement of the city."*[247] His critique aimed at the North-American landscape. Sorkin envisioned his a-geographical urban construct as a continuous, undifferentiated urban field that annihilated any particularities and rejected mixity – the true essence of city life. What was missing in his new city went beyond a specific layout of buildings and places; it was the connective coherence and the coagulation potential of the in-between spaces. The features of Sorkin's new city type were equivalent to the major causes of loss of public space: genericness and lack of relationships or proximity, the need for constant simulations, obsession with security, commodification.

The closing text of *Variations on a Theme Park* introduced the provocative analogy of the new city type to the well-known entertainment park *Disneyland*. Disneyland – this alpha point of hyper-reality, as Sorkin called it – was mainly the outcome of fantasies regarding transport and cleanliness. The author described it as a machinery of pleasure, where movement – either pedestrian flows on ground floor level or mechanized transport systems that conquered the heights – was ubiquitous and central. The consumption of this surrogate world of pleasure and enjoyment was enhanced by various types of mechanical movement. Baudrillard's comparison[248] between the phantasmagoria of the park interior, sustained by the general warmth and affection of the crowds, and the solitude of the parking lot, where visitors get ejected without any farewell – in contrast to the ritual and expectancy of the arrival – after consuming the diverse offers for leisure items and services, was indicative of the ultimate

244 Michael Sorkin, *Variations on a Theme Park; the New American City and the End of Public Space*. (New York: The Noonday Pr., 1992).

245 Marc Augé, *Non-Places. Introduction to an Anthropology of Supermodernity* (Editions du Seuil, 1992, and London: Verso, 1995).

246 Manuel de Solà-Morales, "Espacios Públicos / Espacios Colectivos," *La Vanguardia*, May 12, 1992.

247 Michael Sorkin, "Introduction: Variations on a Theme Park," in *Variations on a Theme Park; the New American City and the End of Public Space.* (New York: The Noonday Pr., 1992), xi.

248 Jean Baudrillard, "Simulacra and Simulations," in *Literary Theory and Anthology. Second Edition*, ed. Julie Rivkin and Michael Ryan (Oxford: Blackwell Publishing, 2004), 369.

simulacrum-character of Disneyland. The park had become a destination per se, promising an intensified experience of the present tense, sustained by an exuberance of commodities. Similar to any other world fair, Sorkin equaled Disneyland to a transnational shopping mall. More importantly, traveling to visit Disneyland meant choosing simulation over reality. And the simulation of an improved, happy and sterile reality only enforced the park's unrooted character. The park provided a simplified and sanitized experience that tried to re-create facets of the undisciplined complexity of the city. *"The urbanism of Disneyland* – Sorkin wrote – *is precisely the urbanism of universal equivalence. In this new city, the idea of distinct places is dispersed into the sea of universal placelessness as everyplace becomes destination and any destination can be anyplace."*[249]

The sharp critique of this rising new type of urban construction originated in the dangerous consequences the author had identified. It was a detour on the traditional sense of urbanity. *"Mickey stands in the same relationship to human subjectivity as Disneyland does to urbanity. Rigorously and completely manipulated, the mouse's outward appearance is affective and cute."*[250] Therefore, Sorkin's message was a call for the steady, authentic values that fueled urban life, such as physical proximity and free movement. Above all, the city had to remain the quintessential expression of a desire for collectivity. *"The privatized city of bits is a lie* – he wrote –, *simulating its connections, obliterating the power of its citizens either to act alone or to act together."*[251]

Concomitantly, on the other side of the Atlantic, Marc Augé opened an anthropological debate through the introduction of the *non-places* concept. Its definition leaned on Michel de Certeau's distinctions between the notions of *place* – a geometrical definition employed by planners – and *space* – the place that is transformed and animated through its users. Augé's understanding of the meaning of *place* was strictly anthropological. From there, he built its counterpart – the *non-place* – and situated it in the historical moment of supermodernity. According to the author, the condition of supermodernity stemmed from the three figures of excess simultaneously: oversaturation of events, spatial overabundance and the individualization of references. He claimed that this condition subjugated *"the individual consciousness to entirely new experiences and ordeals of solitude, directly linked with the appearance and proliferation of non-places."*[252]

Non-places are the spaces of transit and consumption, unrooted and stripped of any quality beyond their functional layout. Augé designated the term two different meanings: on one hand, the term described destination-spaces formed by transport, transit, commerce, or leisure activities; on the other hand, the term encompassed the relationships between the users and these spaces. As defined by the author, the archetypal non-place was the traveler's

249 Michael Sorkin, "See You in Disneyland," in *Variations on a Theme Park; the New American City and the End of Public Space.* (New York: The Noonday Pr., 1992), 217.

250 Ibid., 223.

251 Sorkin, "Introduction," xv.

252 Augé, *Non-Places*, 93.

space. But furthermore, Augé's definition of non-places of supermodernity extended to the transit spaces we temporarily inhabit when taking the highways, the consumption spaces we appropriate in malls or supermarkets, or the limbo spaces of large transport hubs and airports – sterile lounges that connect us to remote geographical destinations. Modern lifestyle has forced people to spend more time learning how to inhabit these places, while waiting for a plane, the subway or while succumbing to shopping.

Non-places do not share spatial characteristics, therefore they relate to Koolhaas' genericness and to Sorkin's undifferentiated character of urban environments. Instead, their common characteristic is the fact that they are contaminated by textual guidelines – instructions for use – that can be either informative, prohibitive or prescriptive. The translation of these texts initiates the users' relationship to the non-places. If the anthropological meaning of *place* comprised individual identities in a relationship of complicity of social and cultural references, Augé's meaning of *non-place* set the ground for a shared identity of its passenger users. It impregnated them with temporary identity, attached to a seemingly liberating anonymity. However, the user is bound by a contractual relation to the non-place: there are clear regulations on how to consume it. *"As anthropological places create the organically social, so non-places create solitary contractuality."*[253] In their article on urbanity of things, Kretz and Salewski identified Augé's non-place as relationship poor spaces, as their design was primarily geared towards optimizing [traveling] sequences. Any other forms of interaction or appropriation by the user were denied. Identity, encounter possibilities and relationship wealth were replaced by solitude and similitude. The oversaturation with stimuli cannot replace relationship poverty.

When exposing the travel experience from different North-American airports – where the trip to the fantasy world of Disney would start – Sorkin highlighted the same rituals that Augé had criticized as well: surveillance barriers, pre-defined movement patterns sustained by mechanical transport systems, voices and panels guiding the way. For Sorkin and Augé, there were similar elements that public space had lost. One critique came from the angle of the emergence of a new type of urban simulacra, the other one focused more on the lack of quality of the ubiquitous non-places. They both condemned the proliferation of such counterfeit spaces – the promise of a predictable experience, shrouded by a feeling of security and cleanness.

Compared to this bleak rendering of the present-tense urban setting, Manuel de Solà-Morales was surprising with a far more optimistic tone. In 1992, he published the newspaper article *Public Spaces/Collective Spaces*,[254] which has since had great resonance in the architectural and urban discourse and has also echoed in his work. This influential text revealed a different point of view than the one of his peers on very similar issues. For De Solà-Morales, it was not a loss, but a re-discovery of new qualities of public space. In an ever-evolving society,

253 Augé, *Non-Places*, 94.

254 Solà-Morales, de,"Espacios Públicos / Espacios Colectivos."

where relationships between the users of spaces and the built environment are constantly re-negotiated, it was only natural to acknowledge the elastic definition of the realm of the public.

In 1990, Maurice Cerasi published *The Collective Space of the City*[255] and defined the collective space of a city as the unitary system of open spaces and built structures contained by the urbanized territory. The common denominator of these spaces was the fact that they participated and influenced collective life and awareness, defined a common use for a majority of citizens and constituted the venue of collective experiences. Cerasi's definition did not delineate a physical place but only defined the attributes of it, understanding the collective spaces as part of a network where open urban areas and building interiors were linked by a common civic interest and use. The collective space of the city was not to be defined by the inclusion of its components but mainly by negation, as it was the space that had been liberated from private use. There was no formal predefinition, since its components were pre-existent. The surrounding buildings, their repellent façades or penetrable interiors, their dimensions and urban presence determined the architecture of the collective space. It could not be clustered by a predefined programmatic use or a certain typology since it was a complex and changeable combination of elements. Important aspects that determined the potential of new collective spaces were the existing public features and functions of the urban space, its structure, the provided elements for intervention and the appropriation capacity of the users.

The notion of public space is widely accepted and understood. As the Catalan architect Oriol Bohigas proclaimed, *"the protagonist of an urban project is public space, the place where the collective reality of the city is produced. The city is essentially its public space..."*[256] It implies on-going change, mutations and transformations as a dynamic component of the urban scene. By considering the collective character of public spaces, the clear distinction between building and street – architecture and urban discipline – is blurred. If Cerasi distinguished between collective and public spaces – the first concept encompassed the second one –, De Solà-Morales saw a direct correspondence and equivalent semantic between both terms. He understood the importance of public space as residing in its capacity to link private spaces, opening them up to the collective patrimony. For him, the main function of public spaces consisted in the ability to confer urban character to both buildings and surrounding open areas. The responsibility of public spaces was to urbanize the private and make it public. *"... If the public spaces are the social image of the city,* – he wrote – *and the private plots are the privilege of the individual citizen, where contemporary urbanity may perhaps appear at its highest level is in what we define as 'collective spaces', hybrid spaces that are simultaneously public and private, where the force of urbanity as a spatial mechanism to mediate social differences becomes tangible, material, and sometimes conflict-ridden."*[257]

255 Maurice Cerasi, *El espacio colectivo de la ciudad* (Barcelona: Oikos-Tau, 1990).

256 Oriol Bohigas, "La ciudad como espacio proyectado" in *La arquitectura del espacio público. Formas del pasado, formas del presente* (Triennale di Milano/Junta de Andalucía, 1999).

257 Solà-Morales, de, "For a 'Material' Urbanity," 149.

Manuel de Solà-Morales' writings represent one of the most important pillars for this investigation in defining the concepts and requirements for public spaces. De Solà-Morales' vision, advanced since his 1992 seminal text and elaborated on in further writings and in his practice, was that the main feature of public space is its urban quality, defined by a collective condition residing in its material presence. Collective spaces are not exclusively public or private, but both simultaneously, and post a broader, more timely definition for contemporary public spaces. The urban material, able *"to express civic, aesthetic, functional and social meanings, is a basic concept when it comes to defining public space."*[258] He criticized the understanding of public space as an exercise in filling and beautifying vacant land and advocated the need for material urbanity, as the *"ability of urban material to express civic, aesthetic, functional and social meanings."*[259]

Another short but sharp contribution entitled *New Public Spaces* further strengthened his position. Again, he questioned the rigid public/private distinction by revealing how public spaces were increasingly absorbing private activities and, alternatively, private spaces were opened to the public collective. In this category he included service centers, hotels, stadiums, large parking lots and shopping malls. Above all, he defined public transport as the definitive collective space. It is in those spaces where De Solà-Morales identified the real civil, architectonic, urbanistic and morphological richness of a city. Thus, the important task of modern-age designers would be to ensure that these intermediate spaces do not remain sterile, that they overcome the status of non-places. The author identified great potential in these spatial resources, and therefore, they had to become *"participating and in the end stimulating parts of the multiform urban weave."*[260] The author also regarded collective spaces as part of what he called the *urban project*. Regardless of its size or complexity, De Solà-Morales' urban project relied on relationships between users, the environment and the surrounding material objects. Its ultimate goal was to achieve the relationship wealth and potential needed to ensure urbanity.

The points of view of Augé, Sorkin and De Solà-Morales' were controversial. The latter argued that covered shopping centers, as well as other interior spaces meant for public use, were in fact new public spaces of the contemporary society. He asserted that new collective spaces could contribute to the public realm provided they were designed well and were a good fit with the existing city. Nevertheless, De Solà-Morales glossed over the programmatic isolation that large-scaled mono-functional structures, such as malls, implied. In this sense Sorkin's debate was far more incisive and Augè critique point assertive. Collective spaces, such as malls, were becoming larger and included new functions every time. They were increasingly turning into complex microcosms that eventually abandoned the necessity to connect to the surroundings. Sorkin's critique of *Disneyfication* has been increasingly adopted in many urban renewal approaches. The strategy of transforming urban areas into theme-park-like attractions

258 Manuel de Solà-Morales, "The Impossible Project of Public Space (February 14, 2013)," http://www.publicspace.org/en/text-library/eng/c006-l-impossible-projecte-de-l-espai-public, last accessed August 16, 2017.

259 Ibid.

260 Manuel de Solà-Morales, "New Public Spaces," in *Quaderns d'Arquitectura I Urbanisme 214 Forum Internacional 2*, 1996, 8-9.

was a successful magnet for tourists. Nevertheless, the writer had already warned about the perils of such a blueprint on everyday city life.

The 2000s

The last decade of the twentieth century was deeply scarred by the loss of the public space narrative. Although the main identified reasons for the decline and death of the public realm had not vanished, the start of the twenty-first century was accompanied by more optimistic and constructive attitudes.

At the beginning of the 2000s, Maarten A. Hajer and Arnold Reijndorp asked an important question: What kind of a public space was it that had come to its end? Furthermore, is the notion of the end of the public space even accurate? The authors mainly related the thesis of the decline of public space to the phenomenon of *parochialization*, meaning the appropriation of public space by or for certain groups. Their position was to question the overall idea of public space neutrality and its quality of a democratic meeting place.[261]

When analyzing Augé's theory, the authors argued that it should include an analysis of the consumption of the non-places. In their view, non-places were not residual places although they emerged and responded to purely functional requirements and seemed to be deprived of any additional quality. Hajer and Reijndorp noted how recent years had witnessed an increase in the desire to consume cultural experiences and positive events. Also, the avoidance of negative aspects and confrontations with others in daily life was recurrent. Therefore, people increasingly used space *à la carte*: they attended only those events, schools or shops that related to their identity. Group networks seldom overlapped. But *"when places become too slick, when they focus too much on the supposed desires of the consumer, they become predictable and their attraction to the critical consumer as an experience diminishes."*[262]

Hajer and Reijndorp introduced the alternative term of *new public domain. "Public domain experiences occur at the boundary between friction and freedom. On the one hand there is always the tension of a confrontation with the unfamiliar; on the other, the liberation of the experience of a different approach. [...] Our public domain experiences are in fact related to entering the parochial domains of 'others'. [...] Public domain centers around experiencing cultural mobility: for the opportunity to see*

261 An evolution of the phenomenon of parochialization is the filter bubble. René Boer and Mark Minkjan, from the research group Failed Architecture, related the bubble effect to the public sphere. They argued that spaces that are for some of the public, for some of the time, are spatial filter bubbles: mono-cultural fragments of the city devoid of urbanity. The two researchers underlined the qualities and features of enjoyable cities: they provide places for casual meeting, encourage the freedom of expression, facilitate the appropriation of spaces, mediate the encounter with otherness and liberate the citizen from its consumer status. Source: René Boer and Mark Minkjan, "The Tyranny of the Filter Bubble and the Future of Public Space," from June 3, 2016, https://www.failedarchitecture.com/the-tyranny-of-the-filter-bubble-and-the-future-of-public-space/ last accessed February 19, 2018.

262 Maarten A. Hajer and Arnold Reijndorp, *In Search of New Public Domain: Analysis and Strategy* (Rotterdam: NAi Publishers, 2002), 53.

things differently, the presentation of new perspectives, as much as the confrontation with one's own time-worn patterns."[263]

The actual creation of public domain demanded a new approach of the relationship between form and meaning, beyond familiar typologies. Imitating formal features of what are considered to be successful public spaces is not a solution. Sorkin, among others, has sharply criticized this practice too. According to the Dutch authors, the selective, à la carte consumption of places has altered the meaning and nature of traditional public space. In urban planning the relationship between form and meaning has gradually been lost. The authors agreed that the provision of public domain was a question of physical conditions, of design and layout, and not just a task of executing urban program – the case of many urban renewal approaches. They proposed three strategies for the design of public domain: *theming*, *compressing* and *connecting*. Theming and compressing referred to creating spheres, places that could become meaningful to specific groups. Additionally, the compressing strategy meant bringing elements that were meaningful for different groups close together. Connecting emphasized the importance of the way in which different places were related to one another. *"The core of successful public space thus lies not so much in the shared use of space with others, let alone in the 'meeting', but rather in the opportunities that urban proximity offers for a 'shift' of perspective: through the experience of otherness one's own casual view of reality gets some competition from other views and lifestyles."*[264]

The experience of proximities and of the otherness led to the topic of liminal spaces. Many authors, such as Richard Sennett or Sharon Zukin, had already supported liminality and understood the importance of emphasizing the transitions between different spheres. Sennett has sustained a lifelong discourse on the importance of soft borders. Hajer and Reijndorp aligned with those views and concluded that the future focus of architects should be set on the design of the transitions, the crossings, the connections and the in-between spaces. It is there where public domain experiences confrontation with otherness and changes of perspective can occur.

Hajer and Reijndorp's theoretical contribution and introduction of the public domain represented a milestone in the re-definition of the meaning of public space. Their vision complemented De Solà-Morales' discourse. Concomitantly, other important scholars were still building on the already known repertoire. Gehl's observations and findings from the 1970s onwards were all taking place within the traditional understanding of the term. He outlined the generic acceptance of public space as the following triad of features: trade, meeting and traffic. Public space played the role of the mediator between these three main activities that people exercised outside their private sphere. Ideally, in order to generate urbanity, all three had to co-exist. In the past, these activities were conducted in the same public setting. After over two decades of research, Gehl started to acknowledge and accept the mutation in the

263 Ibid., 116.

264 Ibid., 89.

public sphere. In contemporary society, the trading had been absorbed by shopping facilities, the pedestrian traffic had been suppressed by vehicles and the need for social interaction had been satisfied through virtual mediums. The understanding of public space needed to be reinvented. These evolutions were reflected in what Gehl identified as new city spaces.[265]

The traditional city, where meeting, trading and traffic activities coexisted in balance, had passed through different states: the invaded city – monofunctional, car invaded –, the abandoned city – whose public life had vanished – and the reconquered city – meaning the rediscovery of a balance between trade activities, traffic pattern and social activities. The reconquered city, traced by Gehl in the European context, was celebrated through new city spaces: successful [traditional] public space renewal projects. Barcelona represented the role model. The reemergence of public life was initiated and stirred through municipal policies. Gehl kept his focus strictly on public spaces that had been redesigned under the leadership of public administrations. He identified five types of new city spaces: 1 | the main city square; 2 | the recreational square; 3 | the promenade; 4 | the traffic square; and 5 | the monumental square. He was still looking at traditional forms.

Gehl has been one of many defenders of public space remaining a public affair. When writing for the European Prize for Urban Public Space, Ibelings insisted on the importance of municipalities in leading and controlling interventions in public space. He considered it to be their responsibility *"to protect public space from the erosive powers of privatization,* – Ibelings argued – *which were part and parcel of the pervasive political ideology of neoliberalism that led to the application of the logics of markets even in fields and disciplines where there is no real market. And despite huge technological changes that are deeply affecting everybody's understanding of public and private spheres, the hardware of the public space is still appreciated in Europe as essential to accommodating and generating a diversity of social interactions, expressions and gestures."*[266]

The successful body of work of European urban renewal projects[267] revealed a breach between the pessimistic theories and the practice of them. This became obvious in the 2007 Delft Lecture Series that gathered representative figures of the public spaces debate, such as Manuel de Solà-Morales, Léon Krier, Bernard Tschumi, Kengo Kuma and Hans Kollhoff, and provided a much-needed forum for discussion. The event confronted various positions on public space, coming from both scholars, whose views had become eloquent and poignant contributions to the theoretical debate, and practicing architects.

The leitmotif of the previous two decades' theory had been the decay or even loss and death of public space. Concomitantly, the architectural practice had found successful ways to counteract this pessimistic tendency. Practicing architects had discovered new layers of complexity and

265 Jan Gehl and Lars Gemzøe, *New City Spaces* (Copenhagen: Danish Architectural Press, 2000).

266 Ibelings, "Middle Ground."

267 A broad collection of projects can be looked up in CCCB's European Archive of Urban Public Space: http://www.publicspace.org/en/archive.

richness in the public sphere. Tom Avermaete and Hans Teerds, who documented the lecture, revealed the general conclusions:[268] the public realm approach of architectural and urban designers needed to become more versatile; it had to avoid lamenting the changes but start identifying the challenges and, eventually, the potentials.

The lecture series ignited a debate that was followed by a book publication, a collection of writings on architectural positions on public space, placed in the framework of modernity. The editors highlighted the fact that recent years had witnessed a growing distance between architecture and the public realm. Private actors, increasingly present in shaping the urban environment, had been influencing the traditional views on the public sphere. This had led to the development of a parallel [to the traditional] public sphere. In addition, they recognized the significance of the relationship between the public realm and the built environment that hosted it, since *"envisioning the public sphere by means of architectural and urban form is one of the chief aims of modern architecture."*[269]

Public Space in the New Urban Agenda

The position of the New Urban Agenda is far more conservative compared to the theoretical debates that have disclosed a variety of new views and opened new fields of investigation while acknowledging the complex mutations affecting the public sphere.

The topic of public space has accompanied the formulation of future global goals, starting from the preparatory sessions up to the final document. The *Habitat III Issue Paper – 11-Public Space*, released on May 31, 2015 in New York, started by emphasizing the ongoing international interest and attention on the broad topic of public space. Its increasing commercialization over the last three decades was identified as one of the main challenges, since this process brought along social division. Public space was rendered as the primary setting to ensure equity, avoid segregation, provide safety and security, generate economic development, etc. It was also identified as the susceptible victim of gentrification or commodification.

Beyond social and economic factors, the New York Issue Paper made reference to urban parameters that influence the performance of public space. It claimed that *"the vibrancy of public space has a direct relationship with urban density, as well as mixed-use and social-mix. Context matters."*[270] This statement, along with the graphic representation of different urban structures and their relationship to the generated outdoor space, was probably the only direct reference to the planning of public space. The paper praised policies that embarked on negotiations

268 Tom Avermaete and Hans Teerds, "Architectural Positions on the Public Sphere: The 2007 Delft Lecture Series," *Places* Journal 19.2 (2007).

269 Tom Avermaete, Klaske Havik and Hans Teerds, "Architecture, Modernity and the Public Sphere: An Everyday Triad," in *Architectural Positions: On Architecture, Modernity and the Public Sphere,* (Amsterdam: SUN Publishers, 2009), 33.

270 UN-Habitat, "Habitat III Issue Paper – 11-Public Space," http://habitat3.org/wp-content/uploads/Habitat-III-Issue-Paper-11_Public-Space-2.0.compressed.pdf, accessed March 18, 2018.

with private agents, trading economic interest for the provision of public space. Furthermore, it called for knowledge, tools and approaches for viable public spaces at the city level, identifying the key role of academia and research in this regard. Finally, it pled for a public space-led urban development, because *"when planning focuses on providing adequate supply of connected public space with a view to supporting adequate density, it is possible to move forward with infrastructure, land subdivision and development in a more efficient and sustainable way."*[271]

The key drivers for action mentioned resolutions, such as city-wide strategies that should focus on the form, function and connectivity of the city as a whole, the empowerment of local authorities to include the design of the public space network in their development plans, the review of laws and regulations to sustain the creation, revitalization, management and maintenance of public space, and the inclusion of adequate public space in planned city extensions, infills and upgrading projects. Furthermore, the concluding notes stressed the critical importance of instruments that negotiated the creation of public space from privately owned land. These resolutions were rendered rather as soft guidelines than strong directions for action. They were all-encompassing but remained on a superficial level that could not provide a strong framework, as they did not seem to be future-oriented, and only signaled general problems to be tackled.

The following *Barcelona Declaration for Habitat III* from the thematic meeting on public spaces, held in Barcelona in April 2016, was based on the previously defined terminology: *"Public spaces are all places, including streets, publicly owned or of public use, accessible and enjoyable by all for free and without a profit motive."*[272] The meeting continued to build on the acknowledgement that urban planning and public policies needed to cater to mixture and compactness of the urban environment. These were the strategic features that could counteract erosive processes, such as gentrification, sprawl or segregation, and that would inextricably affect the public space. Urban public space was identified as the most vulnerable setting for these erosions but also as the starting point from which these aggressive processes could be reverted. Four fundamental dimensions for public space were formulated:

1 | *Agora* [its social and political dimension], encompassing concepts such as freedom, gender equality, equity, diversity of expression, transparency, etc.;

2 | *Mobility*, comprising concepts of walkability, cycling and public transport with the aim of improving health, equity, climate change, energetic waste, urban sprawl and spatial segregation issues;

3 | *Economy*, meaning the democratization of economic activities;

271 Ibid., 6.

272 Definition of public spaces from *the Habitat III Issue Paper 11-Public Space* and the report of *Policy Unit 6*, entitled "Urban Spatial Strategies: Land Market and Segregation," http://habitat3.org/wp-content/uploads/Panel-on-Urban-Spatial-Strategies-Land-market-and-segregation.pdf, accessed March 18, 2018.

4 | *Housing*, referring to the simultaneous right to adequate, affordable housing and to a diverse neighborhood.

The preparatory work regarding the specific topic of public spaces was synthetized in the formulation of the New Urban Agenda. One of the general aims formulated in the final document regarding public space referred to the vision of cities that were *"participatory, promote civic engagement, engender a sense of belonging and ownership among all their inhabitants, prioritize safe, inclusive, accessible, green, and quality public spaces, friendly for families, enhance social and intergenerational interactions, cultural expressions, and political participation, as appropriate, and foster social cohesion, inclusion, and safety in peaceful and pluralistic societies, where the needs of all inhabitants are met, recognizing the specific needs of those in vulnerable situations."*[273] [paragraph 13[B]]. The generic commitments of the New Urban Agenda regarding public spaces – as a constituent part of the urban setting, alongside buildings and infrastructure – referred to the fact that they needed to be accessible [paragraph 36], regarded as an integral part of the renewal and upgrading projects of neighborhoods [paragraph 97] and a setting for safe and secure encounter between generations and cultures [paragraph 99].

The safe, inclusive, accessible, green, and quality public spaces the New Urban Agenda aspired to create – a repetitive terminology – depicted a romanticized and highly idealized understanding of the concept. It would be difficult to imagine a more generic and all-encompassing ascription of the term. Four paragraphs – 37, 53, 67 and 100 – specifically mention commitments for the provision of quality public spaces. The declared aims underscored the multifunctional, inclusionary, healthy, walkable, safe character of the spaces, rendering them as platforms for economic and cultural exchange, as follows:

37. We commit to promote safe, inclusive, accessible, green, and quality public spaces, including streets, sidewalks, and cycling lanes, squares, waterfront areas, gardens, and parks that are multi-functional areas for social interaction and inclusion, human health and well-being, economic exchange, and cultural expression and dialogue among a wide diversity of people and cultures, and which are designed and managed to ensure human development, to build peaceful, inclusive, and participatory societies, as well as to promote living together, connectivity, and social inclusion.

53. We commit to promote safe, inclusive, accessible, green, and quality public spaces as drivers of social and economic development, sustainably leveraging their potential to generate increased social and economic value, including property value, and to facilitate business, public and private investments, and livelihood opportunities for all.

67. We commit to promote the creation and maintenance of well-connected and well-distributed networks of open, multi-purpose, safe, inclusive, accessible, green, and quality public spaces to improve the resilience of cities to disasters and climate change, reducing flood and drought risks and heat

273 UN-Habitat, "The New Urban Agenda," http://habitat3.org/wp-content/uploads/NUA-English.pdf, last accessed March 9, 2018.

waves, improving food security and nutrition, physical and mental health, household and ambient air quality, reducing noise, and promoting attractive and livable cities and human settlements and urban landscapes, prioritizing the conservation of endemic species.

100. We will support the provision of well-designed networks of safe, inclusive for all inhabitants, accessible, green, and quality public spaces and streets, free from crime and violence, including sexual harassment and gender-based violence, considering the human-scale and measures that allow for the best possible commercial use of street-level floors, fostering local markets and commerce, both formal and informal, as well as not-for-profit community initiatives, bringing people into the public spaces, promoting walkability and cycling towards improving health and well-being.

Documents, such as the New Urban Agenda, have a global projection and need to apply to the manifold specific situations worldwide, spanning from developing to developed countries. Therefore, the statements, goals and formulations are kept generic, providing no more than a subtle framework. These documents conform to a political agenda, not to planners. Also, the statements and goals refer to the city scale. They do not zoom in beyond that level to look at more specific situations on the district or neighborhood scale. That is not the purpose of these endeavors. However, the way the topic of public space was oriented revealed the overall acknowledgement of the importance of the topic. The new Urban Agenda infused the future of public spaces with hope and responsibility and outlined overall goals.

4|1.3 Mutations and the Reinvention of Contemporary Public Space

When talking about the Quito Papers,[274] Joan Clos argued that the market was not a good urban planner. The private owner or investor did not understand the benefits of the provision of public space. While Sennett emphasized the importance of design and a set of basic principles that can lead to a successful layout, Clos insisted on the importance of public property and management.[275]

Manuel de Solà-Morales' built work and discourse continuously questioned two major aspects of the traditional definition of public space: *Must public space be publicly owned?* and *Must public space be freely accessible to everyone?* The closer we look at current times mutations, the more De Solà-Morales' arguments become obvious and the traditional views obsolete. As an increasing amount of public life is nested within new frameworks – spatial or virtual –, contemporary

274 film presented at the "LSE Event | The Quito Papers: towards the open city" (February 2017), https://www.youtube.com/watch?v=VgjBkYh1k-8, accessed April 7, 2017.

275 Richard Sennett and Joan Clos, "A Conversation," in *Quito Papers and the New Urban Agenda*, ed. Richard. Sennett et al. (London New York: Routledge, 2018), 156.

public space calls for re-categorization and re-definition. It should surpass the bleak narrative of the last decades. Its re-invention needs to be celebrated.

This thesis further reveals new facets of public space and highlights three phenomena considered influential within this framework: interiorization, privatization and commercialization. They are in close interdependence with the challenges by which Urban Gulliver is affected, mentioned in Chapter 3. The interiorization of the public realm is related to the peril of insularity, which L-sized structures often face. Privatization and commercialization of public space are a byproduct of the vehement commodification process that affects large-scale ensembles.

Beyond the Decay of Public Space. New Facets

In his 2010 paper on contemporary public space,[276] Matthew Carmona summarized the theory of the decline of the public realm, intensely documented in recent years, starting from the 1990s, on both sides of the Atlantic. He distinguished between critiques of over-management of public spaces, leading to commodification and homogenization of space or under-management, leading to physical decay and lack of security. However, the over-simplification of two extremes – either over- or under-management – obviated important nuances in the heterogeneous structure of the users, which interpreted the spaces they inhabit differently. This topic was also widely discussed in his previous book, *Public Space. The Management Dimension*.[277] In a further extensive paper from 2015,[278] Carmona categorized contemporary public space according to the varied critique points encountered in the specific literature on aspects related to the loss or decay of public space:

1 | *neglected space*,[279] referring to both a physical disregard as well as a relinquishment against the market forces;

2 | *invaded space*,[280] surrendered to the needs of the car;

276 Matthew Carmona, "Contemporary Public Space: Critique and Classification, Part One: Critique," *Journal of Urban Design*, Vol. 15. No. 1 (February 2010): 123–148.

277 Matthew Carmona, Claudio de Magalhães, and Leo Hammond. *Public Space; the Management Dimension*. (London: Routledge, 2008).

278 Matthew Carmona, "Re-theorising Contemporary Public Space: A New Narrative and A New Normative," *Journal of Urban Design*, Vol. 8, No. 4 (2015): 373–405.

279 Carmona referred to Chatterton and Hollands 2002; Loukaitou-Sideris 1996; Roberts and Turner 2005; Trancik 1986; Tibbalds 2001; Worpole and Knox 2007; Worpole 1999.

280 In this regard, Carmona mentioned literature sources from Buchanan 1988; Duany, Plater-Zyberk, and Speck 2000; Ford 2000; Garreau 1991; Gehl and Gemzoe 2000; Graham and Marvin 2001; Lefebvre 1991; Llewelyn-Davies 2000.

3 | *exclusionary space*,[281] dominated by the fear of *the other*, leading to physical and psychological barriers;

4 | *consumption space*,[282] referring to the relentless commodification process of public space;

5 | *privatized space*,[283] leading to social exclusion and restricting possibilities for political debate;

6 | *segregated space*,[284] provided for specific, often affluent groups, out of the desire for security and exclusivity;

7 | *insular space,*[285] a retreat from and replacement of public space with other realms – domestic or virtual;

8 | *invented space*,[286] synonym to placeless, formula-driven entertainment space;

9 | *scary space*,[287] whose design and management was dominated by fear of crime;

10 | *homogenized space*,[288] victim of the forces of globalization and over-regulation.

All ten points referred to specific components that triggered the decay of the public sphere. Carmona classified these aspects, underpinned by solid references from renowned scholars and theorists, in order to finally question their validity nowadays. His mixed-method research on fourteen squares in London led to the conclusion that contemporary public space had a complex and contradictory character, never being straightforwardly either open and public or closed and private. Regardless of the ownership of the studied spaces, users primarily valued clean, vibrant, secure environments. Furthermore, the author deduced that the largely criticized homogenization, privatization, securitization, commodification, sanitization or exclusivity of public spaces was illusory in the case of a globalized metropolis, such as London. *"London* – he claimed – *is first a city in which public space in all its forms has increasingly become*

281 This category was theorized by Engwicht 1999; Gehl 1996; Whyte 1980, 1988; Hall and Imrie 1999; Imrie and Hall 2001; Johns 2001; Lofland 1998; Lang 1994; Malone 2002.

282 Here the author mentioned Boyer 1994; Carmona et al. 2003; Hajer and Reijndorp 2001; Mattson 1999; Sorkin 1992.

283 Carmona relied on contributions from Boyer 1993; Ellin 1999; Kohn 2004; Low and Smith 2005; Loukaitou-Sideris and Banerjee 1998; Mandanipour 2003; Minton 2006; Nemeth and Schmidt 2011.

284 Carmona referred to Boddy 1992; Blakely and Snyder 1997; Bentley 1999; Low and Smith 2005; Miethe, 1995; Oc and Tiesdell 1997; Sennett 1977; Webster 2001.

285 According to Aurigi 2005; Banerjee 2001; Castells 1996; Ellin 1996; Graham and Marvin 1999; Mitchell 1995; Oldenburg, 1999; Sassen 1994.

286 Building on references from the following authors Crang 1998; New Economics Foundation 2004; Sircus 2001; Wilson 1995; Yang 2006; Zukin 1995.

287 According to following authors, Atkinson 2003; Davies 1992; Ellickson 1996; Fyfe 1998; Jacobs 1961; Kilian 1998; Kohn 2004; Lynch and Carr 1991; Mitchell 1995; Murphy 2001; Minton 2009; Welsh and Farrington 2002.

288 Building on literature sources by Beck 1992; Boyer 1994; Bentley 1999; CABE 2007; Carmona 2001; Fainstein 2001; Goldsteen and Elliott 1994; Light and Smith 1998; Sennett 1990.

the crucible in which the public life of the city is played out"[289] and was very likely to continue happening in the case of future large-scale interventions.

In an optimistic tone, Carmona proposed a new narrative that was not based on loss and decline but on renewal, celebrating the return of a public space paradigm. This new narrative came as a refreshing alternative to the assiduous search for an idealized public space blueprint. It parted from the premise that users were diverse and that their expectations from public spaces would be very diverse as well. Even if, according to the author, there would never be a one-size-fits-all universal model of public space, he extracted new normative principles out of his research. Thus, drawing on the initially outlined points of critique, the set of characteristics of public spaces in a global city had to be: *evolving* [sometimes neglected], *balanced* [positively invaded], *diverse* [not intentionally exclusionary], *delineated* [not segregated], *social* [sometimes insular], *free* [public or privatized], *engaging* [embracing consumption], *meaningful* [often invented], *comfortable* [confronting scary spaces] and *robust* [resisting homogenization]. Carmona's thoroughly documented article provided a positive groundwork for the European cityscape.

Carmona's interest and deep understanding of the disciplinary realm of urban design and the implicit design of public spaces can be traced throughout his entire research work. In his book *Public Spaces – Urban Spaces*, he specifically inquired the notion of public space and its valences.[290] The normative term – as seen in the formulation of the New Urban Agenda or in the definition adopted by the UK government, mainly encompassing all urban spaces with free access – relied on a rather limiting and simplistic definition. Therefore, Carmona stressed the difference in connotation with other two terms, used in order to enhance the meaning of public space: *public life* and *public realm*. The author referred to Tridib Banerjee's introduced term *public life*, which equaled the social space of the city and emerged in formal or informal types. The *public realm* – a far more employed term, often confused with public space – comprised all settings of formal and informal public life that were used by and accessible to the public. It comprehended, beyond external, also internal public spaces – e.g. public institutions – and semi- or quasi-public spaces – e.g. shops, restaurants, campuses etc. Another variation in terminology is the notion of *public sphere*. Whereas public realm has a territorial component that refered to a delineated area, making the distinction between public and private realm clear, the public sphere rather represented the area of influence of the public.[291] The type of ownership did not affect the public sphere a priori. Within this broader terminology, new aspects of public space could be discussed.

In their investigation of urban plinths, Kassenberg and Laven highlighted the differences between public space and public realm. *"Urbanites* – the authors wrote – *experience their cities in what we call the 'public realm'. It has a broader meaning than just 'public space'; it includes façades*

289 Carmona, "Re-theorising Contemporary Public Space," 396.

290 Matthew Carmona. *Public Places - Urban Spaces; the Dimensions of Urban Design*. (Oxford: Architectural Press, 2010), 4.

291 a term introduced by J. Habermas and translated from the German term *Öffentlichkeit*.

of buildings and everything that can be seen at eye level."[292] They introduced another category – *the city at eye-level realm* – that comprised ground-floor interiors of buildings as well. Their contribution was one in many that consistently pointed to the potential of interiors with public relevance.

Interiorized Public Space[293]

Urban settlements have found a relevant driving force in the revival of their inner city areas. The advantage of it, as Sassen underlined, is the fact that *"the usual urban form for centrality has been density, specifically the dense downtown."*[294] Density of people is an important catalyst for urbanity, liveliness and productivity. On the other hand, built density [measured as number of dwellings/m² or FAR] does not create city. It posits a new range of challenges when discussing the urban future, especially regarding the public realm. In this regard, the concept of *interior urbanism* has been contoured in previous years, getting increased attention in the planners' and researchers' community. Both researchers and influential practicing architects have been increasingly fervent about the imperativeness of a new branch of urbanism, conquering the interior. The statements underline the assumption that interior urbanism acts primarily through the formalization of [interior] public spaces.

Charles Rice's recent book is one of the latest addition to the literature on the topic. It primarily celebrated John Portman's atriums *"encompassing the city's exteriority within architecture's spatial and organizational repertoire."*[295] Rice spanned the field of action and debate of interior urbanism, within which he questioned the architectural agency in contemporary urban transformations. Several more representative protagonists of the contemporary architecture scene – both theorists and practicing designers – have already invoked the practice of interior urbanism, especially regarding the public space. Kjetil Trædal Thorsen's [Snøhetta] statement *The Next Great Public Spaces Will Be Indoors* is poignant: *"in the layered systems of our cities of the future, – he stated – we will need to focus on the public spaces that are found inside buildings – and make them accessible."*[296]

Monu magazine dedicated its twenty-first issue to the topic of interior urbanism, shedding light on it from different perspectives. The issue tackled the urban dimension of interior spaces, concentrating on their public component. Bernd Upmeyer, Monu's editor-in-chief, recognized

292 Hans Karssenberg, Jeroen Laven, Meredith Glaser and Mattijs van 't Hoff, *The City at Eye Level. Lessons for Street Plinths. Second and Extended Version*, (Delft: Eburon Academic Publishers, 2016), 15.

293 some of the following paragraphs on public space have been discussed by me in the published paper:
Sorana Rădulescu, "Interior Public Spaces. Addressing the Inside-Outside Interface." *Marginalia. Limits within the Urban Realm*, Vol 5 (2017): 99-114.

294 Saskia Sassen, "Cities Today: A New Frontier for Major Developments," in *ANNALS, AAPSS,* 626 (2009): 57.

295 Charles Rice, *Interior Urbanism. Architecture. John Portman and Downtown America*, (London: Bloomsbury, 2016), 4.

296 Kjetil Trædal Thorsen, "Opinion: The Next Great Public Spaces Will Be Indoors," *Metropolis* (October 14, 2016), http://www.metropolismag.com/interiors/opinion-the-next-great-public-spaces-will-be-indoors/, accessed May 4, 2017.

the acuteness of the topic as an already present phenomenon: *"While our world is progressively becoming more urban everywhere, a process is on its way that seems to penetrate increasingly every part of our life and does not appear to stop at the thresholds of our buildings, but influences interior spaces, in particular public interior spaces, as much as everything else."*[297]

The recent research of Maurice Harteveld has been highly consistent in the quest to legitimize interior public spaces. His plea aimed at bringing the practice of *interior* public space design in the disciplinary realm of urbanism. *"In the contemporary city,* – he argued – *we meet in public atria and shop in malls; we move along covered walkways and go from street to street by taking shortcuts through the buildings of a city block. Despite the respected theories, the amount and proportion of public space within urban buildings has steadily increased. It adds to the larger network interlinking interiors and exteriors."*[298] In his work, he constructed his line of argumentation with the help of what he considered paradigmatic types of interior spaces with public character: the arcade, the bazaar, the mall, the subway and the skyway. Harteveld navigated the broad literature on public spaces and showcased the variety of alternative concepts that had emerged out of the need to comprehend the interiorized public realm. Terms *like semi-public, collective, in-between, privately-owned public spaces, other spaces, generic* or *third space* all revolved around the struggle to determine and authorize the existence of an indoor network of the public realm.

Interiorization refers to opening up interiors and including them in the public realm. They are an addition to the existing network in a city. They face several provocations: structural belonging and compatibility issues to the host building, users' awareness and perception and the interference with private ownership patterns. What strategy would enable the outdoor public sphere to penetrate the indoor? Recalling Sennett's attributes – informality, synchronicity and porosity –, do interior public spaces hold a DNA of the open city? This thesis will look more closely into the topic of interiorized public spaces further on, when discussing the Manhattan paradigm in Chapter 4 | 3 and the specific case of privately owned public spaces. In this regard, the following discussion on the privatization of public space outlines another aspect of the phenomenon and points out the challenges.

Privatized Public Space

Definitions of public and private are constantly shifting. Lately, they have shifted under the weight of the increasing importance of the privately-owned realm. Space, especially urban space, is a valuable resource. As seen in Chapter 3 | 2, the increasing tendency of the last decades towards privatization has inevitably led to its commodification. Within the framework of neoliberal urban governance, the clear distinction between public and private has long been blurred. According to Martin Murray, *"the triumph of urban entrepreneurialism has meant that*

297 Bernd Upmeyer, *MONU. Magazine on Urbanism* No 21, Interior Urbanism (2014).

298 Maurice Harteveld, *Interior Public Space. On the Mazes in the Network of an Urbanist* (Delft: Delft University of Technology, 2014), 101.

the conjoined logics of commodification and privatization have figured prominently as the main driving forces behind the spatial restructuring of urban landscapes."[299] Furthermore, city builders consider public space to be a valuable commercial commodity, and the private sector imposes its priorities and provides a public space facsimile. The frequent result is a sanitized, safe version of public space that has been largely criticized in the last decades.

The consequences of the privatization process on public spaces have been largely discussed by scholars such as M.C. Boyer, M. Kohn, J. Nemeth i.a. In 2004, Margaret Kohn interpreted the progressive blurring of boundaries between private and public spheres as the hybridization of space and also called for a more flexible definition of public space.[300] These contributions mainly address the North-American [specifically U.S.] context.

Despite the fact that most specific literature on the privatization of urban space refers to North American or Asian settings, the European phenomenon has already settled in as well. In the European landscape, increasingly large parts of important cities, such as Hamburg, Istanbul, Vienna or London, are located on private property. They are managed, run and controlled by private companies. With video surveillance around the clock, these spaces become prohibitive in several ways: the restrictions can refer to skateboarding, eating, photographing or, of course, organizing any type of protest. The privatized areas spread almost unperceivably. Only timid physical barriers – for example bollards – prove the fact that pedestrians have passed from a public to a private open area. Then, it is rather the presence of security guards and surveillance devices that marks the authority and the rules of space-consumption.

What has caused this phenomenon? The dominance of neo-liberal economics and the radicalization of the architect figure as an author and creator set the focus away from the concept of public space and moved it toward the quasi-public space within private developments. The public sector's neglect and lack of resources to provide and manage quality urban spaces has opened the door to negotiation. Additionally, a failing administrative framework and the lack of a strategic development vision for a city have triggered new models of public-private collaboration.

The evolution and consequences of the privatization of the public realm in the European context can be framed with the example of London. London's public spaces and streets have not always been public. Up to the beginning of the nineteenth century they were under strong control and inaccessible for the London population. The democratization of public space is being gradually lost again. The public sector has become increasingly poor and therefore lacks the needed resources to acquire the necessary investments. In order to provide sufficient quality of the urban spaces it turns to the private investor – a prolific negotiation. Even London's City Hall building is circled by 280.000 m2 of private area. For the private agent

299 Martin J. Murray, *The Urbanism of Exception; the Dynamics of Global City Building in the Twenty-First Century* (Cambridge: Cambridge University Press, 2017), 76.

300 Margaret Kohn, *Brave New Neighborhoods: The Privatization of Public Space* (London: Routledge, 2004), 8.

– the investor –, improving the open areas around its building translates into an immediate benefit: increased revenues through rentals, as the area has been upgraded. On the other hand, the city's responsibility remains in the guarantee that these spaces stay open and accessible. Nevertheless, this also happens under the control and auspices of the private sector. According to the city's authorities, this insures a very high quality of public space paid and managed by private entities. But up to what point can architecture and urban design leverage the forces of the private sector and the drastic privatization process?

One formalization of such public-private agreements is the Business Improvement District [BID]. BID-investors consider the affected city parts as a product, a commodity. Their investment, as any good investment, is first and foremost profit oriented. They also deploy a secure recipe for profit: sanitize and secure the area and instill a shopping-mall-like character. A small part of the revenue returns to the private administration. For example, London's BID St. John pays 1 percent of their yearly revenue to London's City Council in return for control over the layout and security measures of its public spaces.[301] BIDs are an expression of an entrepreneurial urban policy, whose unstoppable propagation is proof of the shifting forces.

Privatization reduces, restricts and diminishes the public ground. Despite maintaining an apparent accessibility, it superposes a layer of restrictions that transform the space. It is an almost invisible shift and not easy to perceive in everyday life. Ironically, public spaces have become the vehicle of the privatization process of the city. At first glance, urban privatized areas are seductive: clean, safe, well-designed, apparently welcoming and civilized. In exchange, the users have to accept the compromise of re-writing their behavior. Despite the worrying speed of the process and its foreseeable extension across the entire European cityscape, Carmona revealed an important quality to safeguard. Either public or private, urban spaces need to be free. The management apparatus behind each square meter is irrelevant for the pedestrian on street level; what matters most is how publicness is ensured. Free spaces in Carmona's vision are open, unrestricted and free of charge.

Commercialized Public Space

Despite the discussed process of privatization, the provision of public spaces is still a city's main responsibility. Alessandro Aurigi and Stephen Graham addressed the crisis of the urban public space documented by scholars since the 1990s. The essence of public space, defined throughout the renaissance and modern times, referred to the network of streets, plazas and squares that enabled human interaction and political freedom of speech, beyond the control of state or private agents. Nevertheless, when urban cores become theme-oriented and commodified for consumption and enclosed malls displace the public life to the suburbia, the performance of urban space in European cities becomes questionable. Aurigi and Graham also placed the

301 for more information: https://www.london.gov.uk/what-we-do/business-and-economy/supporting-business/map-londons-business-improvement-districts-bids.

focus of their discourse on the crisis of the urban public realm in strong interdependence to the process of commodification. *"Contemporary western cities* – they argue – *face the dilemma of space that is, after all, their main resource. The developments driven by the ethos of city marketing and privatisation tend inevitably to transform places into commodities. And this conflict of interests between the city as a place, and the city as a commodity, does not simply generate external 'theme parks' that try to pretend to be towns. It has indeed some major effects over the bits of the town that used to belong to the community, and that increasingly are used to produce money and to promote the image of the city to external consumers."*[302]

They recognized two parallel phenomena as the roots of this decay: the rising sense of fear – public space loses its safety and its civic character in a process of fortification – and the increasing commodification and disguising of urban spaces into mall-like consumption areas. Referring to Franco Bianchini's term of *private public space*, Aurigi and Graham described such spaces as trouble-free, clean places that appeared to be public but were instead geared towards the selling or promoting of commercial goods. These replica spaces often related to the L-sized structure and could bias Urban Gulliver. Large interventions – where, on most occasions, the private investor is the centerpiece of the scheme – need to cater to public needs and provide the necessary spaces. Under the auspices of the investor's interests and logic, commodification and commercialization of spaces for the public were practically unavoidable and often encompassed what should be public space.

Shopping-oriented spaces offer rapid and easy satisfaction at a user level. The comfort factor is found in the use, not in the spatial experience of the environment. Retail-framed spaces are legitimized by their inherent program. The immediate access to entertainment, leisure, retail and restaurant facilities suppresses the need for spatial quality. As cities promote themselves as commodities and compete for attractiveness, they adapt features of the shopping malls for the conception of their public spaces. Marketing needs, not social considerations, stir the development of such pseudo-public spaces.

Commercialized spaces affect both the enclosed and exterior public realm. The main issue is related to the shift of the actors; the role of the pedestrian is suddenly to become a consumer. A consequence is the standardization of products. When examining the architectural forms it has affected – primarily shopping malls, and large infrastructure buildings, such as transport hubs, trains stations, airports, skyways and subways – there seems to be total abandonment to the *virus* of retail. Shopping becomes the token of consumption spaces and the driver of commodification. It easily turns spaces and programs into products to be consumed, up to the point that it nullifies them. The main trigger is the shopping activity; the container becomes almost obsolete. The sensorial quest for understanding and grasping a spatial context is suppressed by an invasion of stimuli. However, it is again a question of *how*, and not *if*. Just by looking at the ground-floor urban life in a city like Barcelona, where sidewalks are

302 Alessandro Aurigi and Stephen Graham, "Virtual Cities, Social Polarisation and the Crisis in Urban Public Space," *Journal of Urban Technology*, Vol 4, No 1 (1997): 19-52.

consistently enhanced with consumer-oriented uses, such as restaurants, cafes, stores, etc., it becomes clear that commercialization needs to happen in a balanced amount and not necessarily be demonized. If it does not become the sole condition for the success of a public area, then it can unfold its benefits as well.

Carmona's in-depth research and analysis of the mutations of the public realm represented a key source of this chapter. His body of work revealed an optimistic tone. Based on the opinions of his peers, the decay and loss of public space revealed a retrospective, nostalgic view. Instead, new narratives of the reinvention and new reading of the main characteristics and role of public spaces in the contemporary society are needed. Both scholars and practitioners have been in tune with this positive approach, which sets the premise for the approach of Urban Gulliver.

Regarding Urban Gulliver, what questions are important? The main issues concern the collision of a built, vertical structure with the horizontal layout of the open public space network. So, under what circumstances can the exterior public realm penetrate built structures and, subsequently, how does it change? Therefore, another question can be added to De Solà-Morales' two questions presented in the opening of this sub-chapter: Does public space need to be exclusively associated with horizontality?

4|2 FROM 2D TO 3D. THE CAPILLARITY OF PUBLIC SPACE

"Public spaces will be just that when they construct the combined system of urban space and not merely a closed work. When they are defining elements of a model of the city without perimeters, rather than zero elevation architecture. When they become the representation of mobility, coexistence and conflict rather than stylized, neatly resolved landscape."[303]

The public realm is one of the most affected components of the urban structure by the rapid densification process. Among the new acceptations of public space was the composite form of open space and built structure. The seed for this research endeavor was planted by questioning if and how public space can be elevated from the two-dimensional ground floor into the third dimension. Intuition led to the thought that such an achievement can offer solutions to the densifying, agglomerated cities that lack qualitative [traditional] public space. What spatial structure emerges when building and open space collide? Which realm contaminates the other one, and how? What syntax is being used? When public space – once the residual void between buildings – is absorbed by built structures, it requires formal definition and its own morphological vocabulary.

Unlike their representation on conventional maps, cities can and do evolve in all three dimensions. The third one is disregarded especially when planning the network of public spaces that usually spread horizontally only. An urban structure is defined by its active matrix of public spaces. The city as a three-dimensional plot has to evolve around its strong backbone of public space. However, existing urban spatial structures mostly lean on a two-dimensional network of public spaces. This net spreads through the city mainly on street-level. The focus is set here on the intersection point between architecture and urban structure, in the way buildings land on the ground and create the street. As Kassenberg and Laven recognized, the ground floor may only represent 10 percent of a building, however it determines 90 percent

303 Solà-Morales, de, "For a 'Material' Urbanity," 149.

of the contribution to the experience and perception of the urban environment.[304] Therefore, public space in the vertical city needs to grow from the existing two-dimensional city network and create new vectors. The street level is where the matrix of the public realm is activated and vibrant. That is the level from which it can develop into the vertical and permit the urban spatial structure to evolve into the third dimension. It needs to grow – rise or lower – from street level and determine the architecture. Once again, the distinction between architecture and urbanism blurs. This capillarity of the public space is thus a desirable quality enforced by the users' flows, sustained by public programs and supported by the physical structure.

How does capillarity work? Capillarity, in physical terms, represents the tendency of a liquid in contact with an absorbent material to rise or fall as a result of surface tension. It is the physical ability that enables the sponge-effect. Under the premise of Urban Gulliver attracting and distributing public flows within its open, hybrid and indeterminate framework, the analogy to a sponge is highly explanatory.

However, this was not the starting point of the inquiry of this thesis. The initial interest was stirred up many years ago by the study of and subsequent visit to the Pompidou center in Paris. Pompidou notoriously illustrated how an element of a building can unexpectedly be relevant to the public and relate to the city and to the urban field in novel ways. In the case of the museum, the circulation on the building's main façade injects activity and dynamics into the public square. This turns into a stage for the spectacle that the building itself provides. Beyond the wide critique the project has been subjected to, I have remained fascinated by the unprecedented approach. Despite the fact that escalators in transparent tubes are far from performing as a quality public space, I consider them a bold declaration: it was an undeniable attempt to elevate the public realm from the ground floor into the vertical. Even if they are just an element of circulation, the escalators belong to and communicate with the square.

Since then, and especially in recent years, the idea of vertical public space has found many supporters. However, in order to look beyond the label, the formalizations need to be scrutinized. This is because, as Lieven de Cauter once recognized when talking about The Why Factory's Vertical Village project, *"there is a natural and organic way to make public space, and as soon as you leave the ground, you have the problem of not feeling as if you're in a real public space."*[305]

304 Karssenberg et al., *The City at Eye Level*, 15.

305 Lieven de Cauter, in *Vertical Village; Individual, Informal, Intense*, ed. The Why Factory (Rotterdam: NAi Publishers, 2012), 270.

4|2.1 The Status Quo of Public space 3D. Outline and Critique

Yoos and James, the authors of *Parallel Cities*, identified an increased number of proposals for elevated pedestrian spaces since the 1990s that revealed a renewed interest in multilevel urban space. They argued that the multilevel pedestrian city stemmed from the historic street. They put elevated pedestrian systems in relation to the original street level and, therefore, to the social space of the city. The authors interpreted the idea of separating pedestrians and vehicular flows as, on one hand, a pragmatic solution to the challenges posed by traffic congestion. On the other hand, the elevated pedestrian level had the potential to become an urban-scaled social condenser, linking public spaces and building structures. The pure functional, pragmatic role of the elevated street evolved in some cases towards a more complex form of three-dimensional public space that supported social mixing. The authors were convinced of the potential of complex three-dimensional structures as feasible forms for future high-density cities.

Throughout the years, elevated public spaces have found several formalizations. Within these explorations, the term *vertical public spaces* has recently become an overused catchword. Large-scale interventions, caught in the corset of high-density requirements, lean on the artifice of elevating public spaces and multiplying the [lacking] public space on ground floor.

Michael Wallraff's research and design portfolio on vertical public space offered great insight on the superficiality and formal allegiance of the topic. Building proposals, such as the Regional Vocational School in Graz, rely on the affliction of structural elements, in an attempt to convert horizontal landscape elements into vertical tapestry. As Bart Lootsma recognized[306] in the publication that followed Wallraff's exhibition *Looking Up. Vertical Public Space,*[307] the poignant issue of privatization – that is prevalent in the contemplation of vertical public space – has been disregarded entirely. Lootsma additionally questioned the public character and use of such spaces. In order for vertical public spaces to escape their own weakness, the author further insisted on the importance of interlinking and articulating the spaces not only in the vertical but simultaneously in the horizontal dimension.

Other recent project proposals, such as BIG's *TSP - The Spiral* in New York or Aedas' *Cloud on Terrace* in Shanghai, sell the same naïve idea. Offering escalating terraces or large atriums – John Portman's authority in the design of atriums is always a reliable reference – remains a symbolic elevation of social encounter areas from the ground floor. As Jaap Wiedenhoff pointed out in the *Vertical Village* publication, the starting point must be to consider the three-dimensionalization, and not just the verticalization, of spaces.[308] The restrictive grid

306 Bart Lootsma, "Beyond Pragmatism," in *Michael Wallraff - Vertikaler Öffentlicher Raum*, ed. Michael Wallraff et.al. (Nürnberg: Verl. für moderne Kunst, 2011), 165-169.

307 Michael Wallraff, *Looking Up, Vertical Public Space* (exhibition in MAK Wien Vienna, 5.10.2011 - 4.3.2012).

308 Jaap Wiedenhoff, *Vertical Village,* 290.

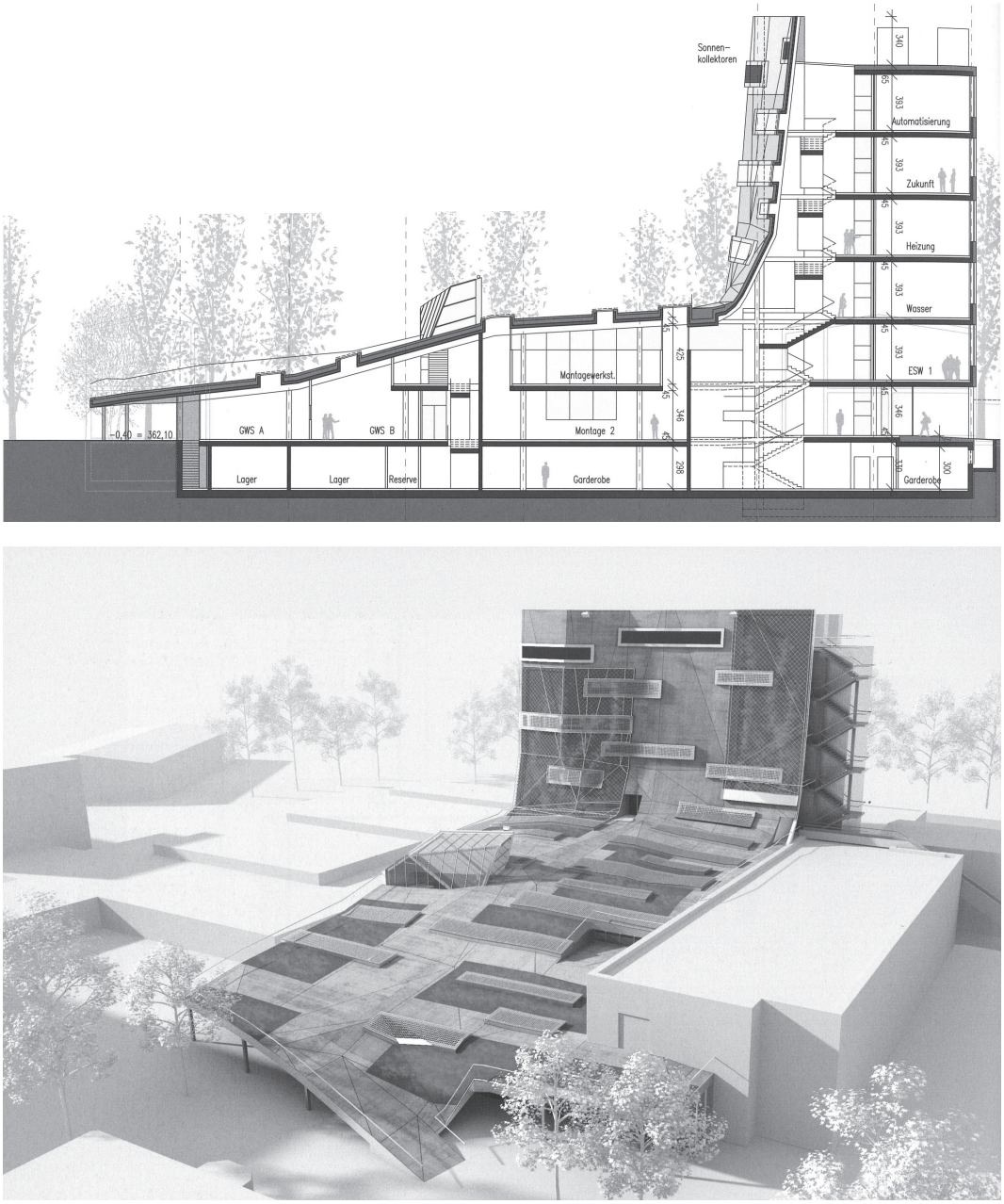


Fig 3.01 Michael Wallraff. Cross section and perspective view of the regional vocational school in Graz [2011]

intersection between the ground floor and the vertical has to go beyond the status of a mere lobby – the entrance apparatus of a tower building.

Further on, the thesis elaborates on various instances of verticality in the design of public space and distinguishes between vertical public space as:

1 | a sculptural element,

2 | embedded in a framework, and

3 | enclosed in a building structure.

Every category is interpreted with the help of examples.

The Vessel

Location	New York | Manhattan, Hudson yards, a new 11 ha development on the Upper West side, covering a huge rail yard
Designer	Heatherwick Studio
Year	ongoing
Type	- permanent
Purpose and usability	- a landmark - the public centerpiece of Hudson Yards - a structure that users can enter, climb, explore and relate to - an observation tower, it reveals a view over the neighborhood - the movement up and down the stairs should create a personal rhythm in each visitor - it can be used by climbing up the stairs or taking an elevator - vertical movement up and back down. *cul-de-sac*
Program	- no program
Relationship to the context	- the structure is placed at the crossing point of the two perpendicular directions of the open public space - the open-air structure can be accessed from the main open public space of the development - it can be accessed and seen from all parts as it is exempt. It is 46 m tall - embedded in the landscape design of the square - it touches the ground with its smallest diameter of 15 m and widens at the top to a diameter of 45 m
Elements of circulation	- almost 2.500 stairs, 154 flights and 80 landings + a curving elevator - inspiration from the ancient, repetitive stairwells of India

Vertical Public Space as a Sculpture

Fig 3.02 Heatherwick Studio. Perspective view of the Vessel, rendering [2013]

Stairs of Kriterion

Location	Rotterdam | central station
Designer	MVRDV
Year	2016
Type	- temporary - built for the cultural event 'Rotterdam celebrates the city!'
Purpose and usability	- a temporary observation deck - access to the top of the Groot Handelsgebouw - symbolizes the reconstruction works of the City of Rotterdam after the World War II destructions - vertical-diagonal movement up and back down. *cul-de-sac*
Program	- the staircase led on top of Groot Handelsgebouw where a rooftop bar and the Kriterion cinema temporarily reopened
Relationship to the context	- starts from the square preceding the central station and can be accessed from one point only - 29 m tall and 57 m long - the orientation of the scaffolding responds to the angles of the Rotterdam Central Station
Elements of circulation	- 180 steps

Vertical Public Space as a Sculpture

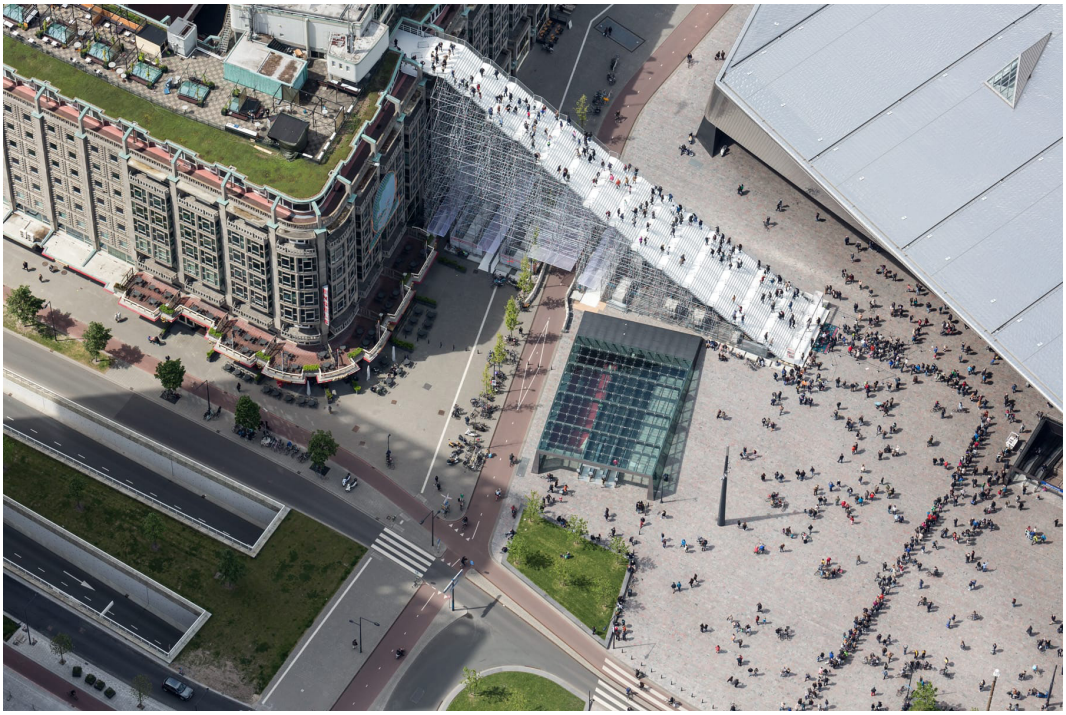


Fig 3.03 MVRDV. Birds-eye view of the stairs of Kriterion [2016]

Add on. 20 Höhenmeter

Location	Vienna | Wallensteinplatz
Designer	Peter Fattinger, Veronika Orso, Michael Rieper and students from the Vienna University of Technology, Institute of Architecture and Design
Year	2005
Type	- temporary
Purpose and usability	- initiated the discourse of appropriation of uses - various possibilities of architectural utilization in a loose and modular manner - an improvised venue for public events, such as lectures, concerts, screening, exhibitions etc. - vertical movement up and down. *cul-de-sac.*
Program	- vertically displayed *citations of familiar lifestyles and interpretation thereof* [according to the authors], creating unexpected places of encounter - spaces for lingering - leisure activities [football table, whirlpool, music room etc.] - a cafe and a canteen
Relationship to the context	- exempt structure, placed in the square, openly accessible - access from ground floor - 20 m tall
Elements of circulation	- stairs

Vertical Public Space as a Sculpture

Fig 3.04 Addon.20 höhenmeter. Exterior view [2005]

Metropol Parasol

Location	Seville | La Encarnación Square
Designer	J Mayer H Architects
Year	2011
Type	- permanent
Purpose and usability	- a redevelopment project for the square, through the creation of a landmark - vertical movement up, followed by a parcours, followed by vertical movement back down
Program	- an archaeological museum, a farmers market, an elevated plaza, bars and restaurants underneath and inside the parasols, a panorama terrace on the top floor
Relationship to the context	- the elevated terrace of the urban-sized parasol gathers users from several points of the plaza through wide stairways, ramps and escalators - it replicates the open public space of the square on a higher level - the panorama platform enables a view over the city, creating visual links to Seville's landmarks
Elements of circulation	- stairs, elevators, escalators, pathways, ramps - the upper viewing platform at about 26 m height is only accessible through vertical connection points, by elevator or stairs

Vertical Public Space in a Framework

Fig 3.05 J Mayer H Architects. Entrance at square level to the Metropol Parasol [2012]

MFO-Park

Location	Zurich | Oerlikon neighborhood
Designer	Burckhardtpartner / Raderschall
Year	2002 [phase 1], 2007 [phase II]
Type	- permanent
Purpose and usability	- called a *park-house* - several levels of loggias, cantilevered lookouts and sun-deck platforms are accessible for the park visitors
Program	- can host open-air screenings, theater representations, concerts - playground and botanical garden
Relationship to the context	- an isolated, rectangular structure, the volume of the park framework emulates the volume of the Oerlikon factory. - completely open on one side and permeable between the V-shaped structural elements.
Elements of circulation	- the 17 m high steel scaffolding is accessible up to the deck through stairs, which are placed within the three-dimensional scaffold of the rectangular structure.

Vertical Public Space in Framework

Fig 3.06 Burckhardtpartner / Raderschall. Interior view of the MFO-Park [2010]

Humanidade2012

Location	Rio de Janeiro | Forte de Copacabana
Designer	Carla Juaçaba + Bia Lessa
Year	2012
Type	- temporary
Purpose and usability	- conceived for the international meeting Rio+20 - a suspended promenade on a privileged location, confronting the visitors with the magnitude of the surrounding natural elements
Program	- auditorium, meeting rooms, exhibitions spaces, information spaces
Relationship to the context	- the authors thought of freeing the ground floor from any type of enclosed rooms or exhibition spaces - an isolated structure
Elements of circulation	- ramps, stairs, platforms, elevator - the system of ramps elevates the visitors and leads them through the different spaces up to the with a roof-deck plaza, at a height of 20 m.

Fig 3.07 Carla Juaçaba. Interior view of the Humanidade2012 pavilion [2012]

Kulturhuset

Location	Stockholm | Hötorget area of the Norrmalm neighborhood
Designer	Peter Celsing
Year	1974
Type	- permanent
Purpose and usability	- a center for a newly built neighborhood, whose functions are oriented towards the façade and displayed to the city through floor-to-ceiling windows - a dense mix of cultural uses and activities is constantly irrigated by a variety of users from Stockholm's central area
Program	- city library, day-care center, exhibition spaces, cinema, theater, conference rooms, restaurant, café, shops, plaza
Relationship to the context	- the plaza preceding the building connects to Stockholm's most important node of transport infrastructure. Additionally, it provides a pedestrian island that mediates between two city levels - the main building's long, entirely glazed façade establishes a dialogue with the urban surrounding, both by revealing its inner activities and by enabling broad views from the upper floors
Elements of circulation	- escalators, elevator, stairs, ramp

Vertical Public Space in a Building

Fig 3.08 Peter Celsing. Exterior view of the Kulturhuset building and plaza [undated]

Norwegian National Opera and Ballet

Location	Oslo | waterfront
Designer	Snøhetta
Year	2008
Type	- permanent
Purpose and usability	- the building is an opera house. Its rooftop is approached as a public platform that renders both as a panorama deck and a connection slope to the water - freely accessible for everyone
Program	- besides providing entrance to the opera house, the roof-topography does not have any additional program
Relationship to the context	- relationship to the sea through the wide, inclined surface that enters the water - relationship to the city, harbor and water through the elevated roof platform that becomes an observation deck for panoramic views - the physical link to the immediate surroundings of the city is punctual, resolved through a narrow bridge
Elements of circulation	- inclined roof-surface as topography

Vertical Public Space in a Building

Fig 3.09 Snøhetta. View from the roof of the Oslo Opera House [2015]

Toni Areal

Location	Zurich
Designer	EM2N
Year	2013
Type	- permanent
Purpose and usability	- the dairy factory was reformed to host the Zurich Academy of Arts and departments of the Zurich University of Applied Sciences - the new facility is intended to create an impulse and upgrade a derelict neighborhood - the academic center is structured like a city, connected by an interior public square, interior streets and exterior ramps
Program	- university facilities, apartments, culture and event spaces
Relationship to the context	- the new concentration of uses is meant to act as an attractor and establish a connection to the urban context - the building is well connected in itself, however remains rather detached from the surroundings due to the insular character of the plot, placed between wide streets.
Elements of circulation	- car and delivery ramps, stairways, elevators, large halls - the existing exterior ramp system was turned into a vertical pedestrian street

Vertical Public Space in a Building

Fig 3.10 EM2N. Elevation of Toni-Areal to Förrlibuckstrasse, existing ramp system [undated]

The presented projects showed a range of approaches on vertical public space and the relevance of specific components. The gradient from the strong sculptural character of proposals, such as the Vessel, to the pragmatic considerations of public spaces in tight relationship to built structures revealed a wide array of formalizations. The sculptural elements mainly provided a vertical way up and back down, causing a cul-de-sac situation. De attraction was either a spectacular view, or an interesting display of uses along the way or on top. The public parcours embedded within a framework allowed for a three-dimensional experience of the space and for a wider array of uses. The vertical public space within buildings showed a complex relationship to the built mass. In the case of Kulturhuset, the public space was interiorized but displayed through a highly transparent façade. The Oslo opera house worked with a folded surface, layered on top of the enclosed space. In these examples, the public space evolved from the outside, being drawn up and manipulated in different ways. The complicated layout of the Toni Areal regained interior public space on many levels through the urban display of the uses. However, the relationship to the street is week. The three instances of public space nested in building structures showed the versatility of possible architectural solutions and the complexity of the necessary three-dimensional linkage.

A Short Theoretical Incursion

The most notorious debater and explorer of the introduction of public space in buildings has been Rem Koolhaas. His theoretical body of work accompanied OMA's various phases of architectural conception. OMA's projects have repeatedly surveyed design strategies for the encounter of the public realm with the building realm. According to Àbalos and Herreros, *"the double act of taking back public space as a privileged site of creative and political action and using decontextualized forms of representation—the détournement—are strategies above all indebted to the Situationist International."*[309] It was Koolhaas' critical-cynical approach that attempted to counteract contemporary commercial and speculative attitudes towards architecture.

Koolhaas' creative struggle and theoretical groundwork regarding the three-dimensionalization of the public realm will be showcased here with the help of two projects: the unbuilt proposal for Deux Bibliothèques Jussieu and The Dutch embassy in Berlin.

In the 1992 competition entry for the two libraries at Jussieu, Koolhaas' team configured the building as a vertical succession of surfaces. Their approach relied on the topic of stratification of floors, molded into a continuous ascension – a *trajectory*.[310] The recurring notion of the trajectory was examined closely by Roberto Gargiani, who wrote: *"Thus the trajectory is conceived, like that of the Deux Bibliothèques Jussieu, as a twisting boulevard with wider segments,*

309 Iñaki Ábalos, Juan Herreros and Joan Ockman. *Tower and Office; from Modernist Theory to Contemporary Practice. Técnica y Arquitectura En La Ciudad Contemporánea, 1950 - 1990* (Cambridge, Mass. : MIT-Press, 2003), 254.

310 Koolhaas referred to the topic of the so-called trajectory in: Koolhaas, Rem, Paloma Poveda Cabanes, and OMA - Office for Metropolitan Architecture. *OMA Rem Koolhaas; 1987 - 1998* (Madrid: Croquis Ed., 1998).

squares, blind alleys, crossing the body of the building, confirming the 'metropolitan' character of OMA's architecture."[311] This vertical unfolding of programmatic areas and spatial elements – the content of the library – represented the last part of the walk through the streets of Paris. The visitors of the library were supposed to maintain their *flaneur*-like character, as if they had not exited the public realm of the street. Therefore, these continuous platforms were configured as streets, mimicking the character of the Parisian urban realm. The building itself was the last part – or the intensification point – of a much wider setting, comprising the whole city. In order to enhance the urban character of the designed spaces, the architect worked with urban elements such as plazas, parks, coffee shops, that he introduced in the structure of the library.

The seamless passing through different experiences and the continuous pliable surface is a recurring topic in OMA's portfolio. One built example is the Educatorium in Utrecht. Nevertheless, the theoretical background, the consistency of the concept and the strong public character achieved in the proposal for the two libraries allows for a better understanding of the principle.

Another design strategy can be extracted from the Netherlands Embassy in Berlin, inaugurated in 2003. The building emerged as a generic volume [another term coined by Koolhaas] – the solid –, where perforations – the void – started to mold the trajectory. Here, according to Gargiani, the trajectory represented the fundamental organ of the volume. The architects conceived it as a spatial element in itself. Here, the trajectory is a continuous walkway up to the roof. The prohibitive nature of the building, an embassy, prevented this continuous ramp from growing out from the street level and functioning as a rightful extension of the public realm. However, it is the exploration of the possibilities of a trajectory that is relevant at this point: the manipulation of interior spaces in strong relationship to the walkway and the folding and elevating of the route, always bordered by program. The trajectory not only connects the interiors of the building but also establishes relationships to the surroundings by generating visual contacts with landmarks of Berlin and by allowing its geometry to break out of the generic volume. This continuous route ending on a rooftop terrace is a succession of steps, stairs, corridors, landings and ramps. The precision of the trajectory is counteracted by the genericness of the adjacent program.

The trajectory was the baseline that both projects shared. It represented the infrastructural component that oversaw the entire design process. The formalization of it obeyed two different design principles: either the continuous pliable surface or the excavation of the solid. The Netherlands Embassy revealed the complex relationship between mass and void, further exemplified through an incursion on the Nolli map.

311 Roberto Gargiani, *OMA. The Construction of Merveilles* (Lausanne: EPFL Pr., 2008), 265.

4|2.2 Imagining a 3D Nolli Map[312]

Nolli's map of Rome is becoming once again the reference point. The Nolli plan captured the porosity of a complex, multilayered city. It created an open system by seamlessly enhancing the primary network of open public spaces with the interiors of public buildings, within the same systemic logic.

In his book *Interior Public Spaces*, Harteveld argued that the Nolli map – re-discovered by Robert Venturi and Denise Scott-Brown in the 1960s – disclosed public interiors as constituents of the public realm. It showed that the network went beyond the open-air realm of streets, plazas and parks and also extended to areas hosted or enclosed within buildings. This brought us back to the consideration of the interior public realm and to a disciplinary edge situation. Harteveld signaled this possible polemic in his broad research on interior public spaces and tried to clarify the urban design versus the architectural design role. He recognized that the contemporary western cityscape already offered numerous examples of interiors as active and rightful constituents of urban life and urban structure. Everyday life in the city most often implied that such indoor public spaces could not even be avoided.

Pier Vittorio Aureli elaborated on the significance of Nolli's Nuova Pianta di Roma [1748] in the third chapter of his book, *The Possibility of an Absolute Architecture*. Giambattista Nolli's map of Rome depicted, beyond the major monuments, also atria, stairs, and courtyards of the rest of the buildings. Furthermore, open spaces were carefully detailed and elements, such as fences, fountains, obelisks and steps found their correspondence on the map. Nolli employed the figure-ground technique that distinguished positive spaces – the solids with a physical presence in space – and the negative spaces around these figures. Aureli thoroughly investigated the map and underlined the fact that Nolli took the convention of the figure-ground technique applied for monumental buildings from Bufalini's map of Rome,[313] but he extended this convention to the entire building stock of the city.

Furthermore, Aureli also stressed that *"the figure-ground distinction that Nolli introduced has often been discussed as symbolizing the difference between public and private space, but such an interpretation is incorrect. Many of the courtyards and gardens represented as 'open spaces' were inaccessible to the public; furthermore, it is problematic to apply the notion of public space to a church nave or a cloister."*[314] The relevance of the Nolli map lies in the poignant separation between architecture and city, strongly differentiating between architectural and urban space. Unlike his predecessors,

312 a majority of the following paragraphs on the Nolli map have been discussed by me in previous published paper: Sorana Rădulescu, "Interior Public Spaces. Addressing the Inside-Outside Interface." *Marginalia. Limits within the Urban Realm,* Vol 5 (2017): 99-114.

313 Bufalini's map, *Ichnographia Urbis* of 1551, was the first work since antiquity that comprehended the city in its topographic entirety. Every street and city block were clearly delineated.
Allan Ceen, *Rome 1748: The Pianta Grande Di Roma of Giambattista Nolli in Facsimile* (New York: J.H. Aronson, 1984), IV.

314 Pier Vittorio Aureli, *The Possibility of an Absolute Architecture* (Cambridge, Mass.: MIT Press, 2011), 108.

Nolli marked the distinction between the figure of architecture [architectural form] and the ground of the city [urban mass] for the first time. From Alberti to Palladio, the equivalence of city form and architectural form – the city could be considered a large house and the house unit a small city – had been undebated. Aureli continued by explaining that the Nolli map employed this division out of urban management considerations. He distinguished between the parts of the city that were adaptable to change and reform, and parts that were more fixed. The architectural space in Nolli's map seemed inert, unable to trigger urban change. In the figure ground representation, architecture was granted the formal definition. The continuous ground of urban space was the negative of the internal composition logic of the built mass. The urban net – the adaptive and changeable realm – extended and penetrated the building mass whenever it became possible. It was a constant negotiation between black [poché] and white.

In such a mono-tone representation, can the fine separation line between the two realms be re-traced? At this point, Sennett's thoughts on porosity highlight the same issue. Referring to the built environment, he recognized that designers – both urbanists and architects – are specifically challenged by the design of the transition from one place to another.[315] How could the Nolli map representation be adapted for contemporary and even future-oriented urban circumstances?

Twenty-first Century's Nolli Map

Public use of private or interior spaces has long been a concept that widens the traditional acceptance of the term *public space*. The enhancement of the meaning of public space, including the third dimension, reclaims the need for a three-dimensional Nolli map representation. Under the premise of densifying urban fabrics, the role of the interiors with potential for publicness increases. Parting from the conviction that nowadays public interiors are able to create public spaces of similar quality as the outdoor ones, the discussion with Winny Maas on a tentative 3D Nolli map set another landmark in the discourse on interior urbanism. Maas acknowledged several ways of approaching indoor urbanism: as an acclimatizer [KM3], an isolated box [the model of the mall] or related to the broader topic of density – when density increases, the public role of the interior grows too. There is no doubt that the denser urban structures become, the greater the affect on the public realm. Thus, it becomes essential to understand the mechanisms by which the public sphere will be able to successfully penetrate the indoor world.

Maas introduced the notion of the 3D-Nolli plan: *"Nolli becomes obvious when you go, for example, to New York, where the lobbies are part of the streetscapes [...] I think that the Nolli map is not completely updated to account for the current possibilities, because it is two-dimensional. It does not talk about*

315 Richard Sennett, "The Open City," https://www.richardsennett.com/site/senn/UploadedResources/The%20Open%20City.pdf, last accessed May 14, 2017.

height and it does not say anything about the role of the façade."[316] Beyond a mere two-dimensional, black and white representation, the 3D-Nolli map would render as a spatial translation of the complexity of the built environment. Could a 3D Nolli map concept then address the requirements for the open city and overcome the breach between the realm of architecture and urbanism?

The desired porosity is achieved through thorough consideration of the vertical edge – the transition area between realms. In a contemporary interpretation of the Nolli map, grey tones are needed. Hence, the permeability of the built structure is imperative. The public realm can then penetrate architecture and building interiors can become part of the public network. As Vishaan Chakrabarti also noted, *"truly great architecture invites, uplifts and advances its city. A great building invites the public through physical or phenomenological transparency; it shows itself to the city even while veiling surprises within. A great building inspires people through its beauty and material qualities, while enhancing the coherence and contradictions of the street. A great building can reveal a city by exposing its urban structure in new and unfamiliar ways, creating a better collective understanding of its past — and future."*[317]

A 3D Nolli map consideration – just the concept, beyond any thoughts on representation techniques – is relevant for Urban Gulliver insofar as it can be deployed as a control tool. Àbalos and Herreros warned about the fact that *"public space has been usurped by mixed-use structures understood increasingly as having a strictly commercial character [...] based on intensive use of the atrium. [...] With their atriums and shopping centers, mixed-use buildings—massive islands of urbanity constructed ex novo—embody in their 'public' spatial structure a real, Orwellian version of Jeremy Bentham's panopticon space, and they give credence to Michel Foucault's anthropological observations concerning Bentham's typology."*[318] They mourned the lack of formal hierarchy that large-scale developments induce in the city. Without any formal delineation, public space has often become a casualty and is converted into an *accommodator* of the usually marginalized urban players, such as transport and commercial infrastructure. Railroad and subway stations, hubs or airports have increasingly converted into what Àbalos and Herreros call *topographically privileged places, capable of sustaining dense activities.* These nods expand to large-scale ensembles by allowing additional structures to grow out of them, exploiting the three-dimensional component. In this context, the infrastructural component that affects the public venue of L-sized structures becomes the next topic of interest.

316 Ramo, Upmeyer and Maas, "3D Nolli – Interview with Winny Maas," *MONU. Magazine on Urbanism No 21* (2014): 41.

317 Vishaan Chakrabarti, "Building Hyperdensity and Civic Delight," *Places Journal (June 2013),* https://placesjournal.org/article/building-hyperdensity-and-civic-delight/, accessed August 11, 2016.

318 Àbalos, Herreros and Ockman, *Tower and Office*, 244.

4|2.3 The Infrastructural Component of Public Spaces

When approaching a certain topic, it is always essential to define the meaning of the specific term around which an argument is constructed. *Infrastructure* is one of those ubiquitous terms that seems to comprise and accept many meanings. Depending on the discipline, the understanding of infrastructure is subject to different preconceptions. The English dictionary defines the generic term *infrastructure* as *"the underlying foundation or basic framework [as of a system or organization]."*[319] Another meaning refers to the overall system of public works of an administrative region and also to the resources – personnel, equipment, etc. – required for a certain activity.

Urban planning and urban infrastructure have always been approached in interdependence. The relevance of the infrastructural component gets blurred when approaching the scale of urban design; it is regarded as an invisible level of supply services. However, the highly complex network of urban infrastructure represents a strongly embossed presence in the cityscape. The infrastructural substrata of the metropolis – this invisible world of connections and flows –, is often interwoven and merged with the urban structure. Furthermore, infrastructure projects have substantially modified and affected their immediate topological surroundings and urban fabric. Large transport hubs become gravitational points that shape the city around them. Infrastructural urbanism, as defined by Hauck,[320] addresses the structural spaces that host supply and mobility chains. This so often underestimated in-between space is the baseline of any urban structure. Infrastructure implies movement, flows, dynamic and static rhythms, connections; it is the construct of any urban structure and, as argued in this thesis, architectural structure as well.

Here, the focus is set mainly on pedestrian flows. The dynamic act of walking is based on the intrinsic nomad character of humans,[321] often repressed in contemporary urban configurations. From the Situationists' *derive,* to Jan Gehl's lemma *vadare necesse est*, there have been many representative scholars and planners who have strongly emphasized this fact. This study on Urban Gulliver's public spaces relies on the premise that they need to be generated, showcased and experienced through the dynamic act of walking. This is the way to engage users with their immediate surroundings and reveal novel types of public spaces.

Thoughts on the Infrastructural City

The relationship between urban space and infrastructure has been a recurring topic, which interested several planners and scholars. At the beginning of the twentieth century, architects

319 According to Merriam-Webster dictionary.

320 Thomas Hauck. *Infrastructural Urbanism; Addressing the In-between* (Berlin: DOM Publ., 2011), 9.

321 For more insight, Francesco Careri. *Walkscapes–Walking as an aesthetic* practice (Barcelona: Gustavo Gili, 2002).

Fig 3.11 Buffalo Bayou in Houston – a long waterway crossing the city, accompanied by an outdoor recreation area, crossed by transport infrastructure [2017]

started to acknowledge buildings beyond their status as individual objects, and considered them parts of urban systems, defined principally by infrastructure. The visionary Antonio Sant' Elia already understood the need to plan city centers anticipating movement, mobility and change. When writing about him, Reyner Banham noted that *"far from trying to inhibit movement, Sant' Elia is basing his whole design on a recognition of the fact that in the mechanized city one must circulate or perish."*[322]

Eugène Hénard was another key figure at the beginning of the twentieth century whose vision offered a meaningful contribution to the concept of urbanism of his era. He believed in the interconnection of diverse urban programs, enhancing a continuity of the urban fabric, both in plan and section. Hénard highlighted the importance of flows – movement patterns that eventually shape the city. His plans for Paris, accompanied by complex sections, revealed one of the first intents to separate vehicle and pedestrian movements, in an attempt to address high urban density.

Corbett was probably the most notorious and influential promoter of vertical urbanism on the other side of the Atlantic. Corbett's vision of the city bared resemblance to Hénard's: a three-dimensional apparatus to manage flows. According to Yoos and James *"he fused the pragmatic imperatives of efficiency and convenience with the poetic drama of the vertiginous city."*[323] His holistic proposals embraced New York's verticality as a kinesthetic experience; the starting point being the scenographic management of the complexity of flows.

Hilberseimer's interest in abstraction – apparently fueled by his interest in modern art – translated architecture and urbanism into an equation of circulation and built mass, which he believed where the quintessential elements to work with. The High-Rise City project was an exercise in vertical congestion. The architect located the pedestrians in an intermediate level, mediating between business and office space organized underneath and the residential and commerce above. The interconnected elevated walkways would irrigate the whole neutral structure not only horizontally, but in both vertical directions. This abstraction of the city as pure infrastructure was a strategy that could ideally remove barriers between public and private ownership. Both the plan and the section were diagrammatic representations of movement flows and patterns. The architecture obeyed and was molded by movement flows.

The 1950s shifted the focus from the modernist hegemony to a user-oriented approach. The component of circulation might be the most relevant feature addressed in the intent to develop the city into the vertical. By incorporating both pedestrian and traffic infrastructure into the architecture, city and building merged. For example, Archigram's 1960s visions of the futuristic city implied pedestrian *highways* as diagonal connections through mechanical

322 Reyner Banham, "Sant' Elia," *Architectural Review* (May 1955): 295-301.

323 Jennifer Yoos, Vincent James and Andrew Blauvelt. *Parallel Cities; the Multilevel Metropolis* (Minneapolis: Walker Art Centre, 2016), 27.

Fig 3.12 Madelon Vriesendorp. The Secret Life of Buildings: Freud Unlimited, painting [1972–1976]

stairs and elevators. The Plug-in City or Walking City proposals demonstrated a new way of understanding mobility and flows within the urban form.

It was the rediscovery of the social and cultural importance of the street, the focus on the pedestrian, and the segregation of different traffic speeds that channeled the search for new patterns of movement. British architects Alison and Peter Smithson regarded the car-oriented infrastructure as the backbone of any future urban form. This was traceable in their competition entry for *Berlin Hauptstadt* 1958. Along with Team 10, the Smithsons fostered an increasing interest in connective links within phenomena of aggregation, growth, and change. As mentioned in previous chapters, the architect-duo reformulated urban concepts by introducing *streets in the sky*. Through separating vehicle traffic from that of pedestrians, the elevated streets were supposed to metamorphose from mere corridors to pedestrian infrastructures absorbed by buildings. Furthermore, *"in a critical inversion of nearly all previous urban models, Team 10 reversed the figure/ground relationship of building to street - a paradigmatic change that would facilitate a systemic understanding of skyway/subway pedestrian networks as they would soon be developing in North America. This preoccupation with the street has the tendency to objectify it's reading, especially when it was elevated or integrated into a superstructure, giving it a figural role in many of their urban proposals."*[324]

Instead of generating three-dimensional urbanism as the celebration of the complexity of urban pedestrian patterns in all three dimensions, the work of Team 10 and many of the utopians of the 1950s and 1960s actually bypassed the existing city in order to create a new horizontal layer as an alternative. Their proposals did not solve the problem of the city but transcended it. Yoos and James interpreted the idea of separating pedestrians and vehicular flows as, on one hand, a pragmatic solution to the challenges posed by urban congestions. On the other hand, the elevated pedestrian level had the potential to become an urban-scaled social condenser interconnecting public pedestrian spaces and buildings. In the following years, the intention of the elevated street as an infrastructural element that aimed solely at relieving congestion switched towards a more complex form of three-dimensional public space that supported social mixing. The London experience of the post Blitz interventions propelled the idea of the multilevel city as a pedestrianized parallel city to the worldwide market in a matter of thirty to forty years. Under direct influence, Hong Kong and Singapore became breeding grounds for similar approaches. North American cities also adopted three-dimensional urbanism relying on elevated pedestrian walkways through the skyway systems in cities, such as Minneapolis, Houston and Calgary.

The work of OMA has repeatedly exploited the infrastructural complexity and translated it to their architecture. Infrastructure has been one of the main threads prominent throughout the entire portfolio of Koolhaas' works and writings. Madelon Vriesendorp revealed in an illustrative way the hidden groundwork of an urban construct through their paintings published

324 Ibid., 78.

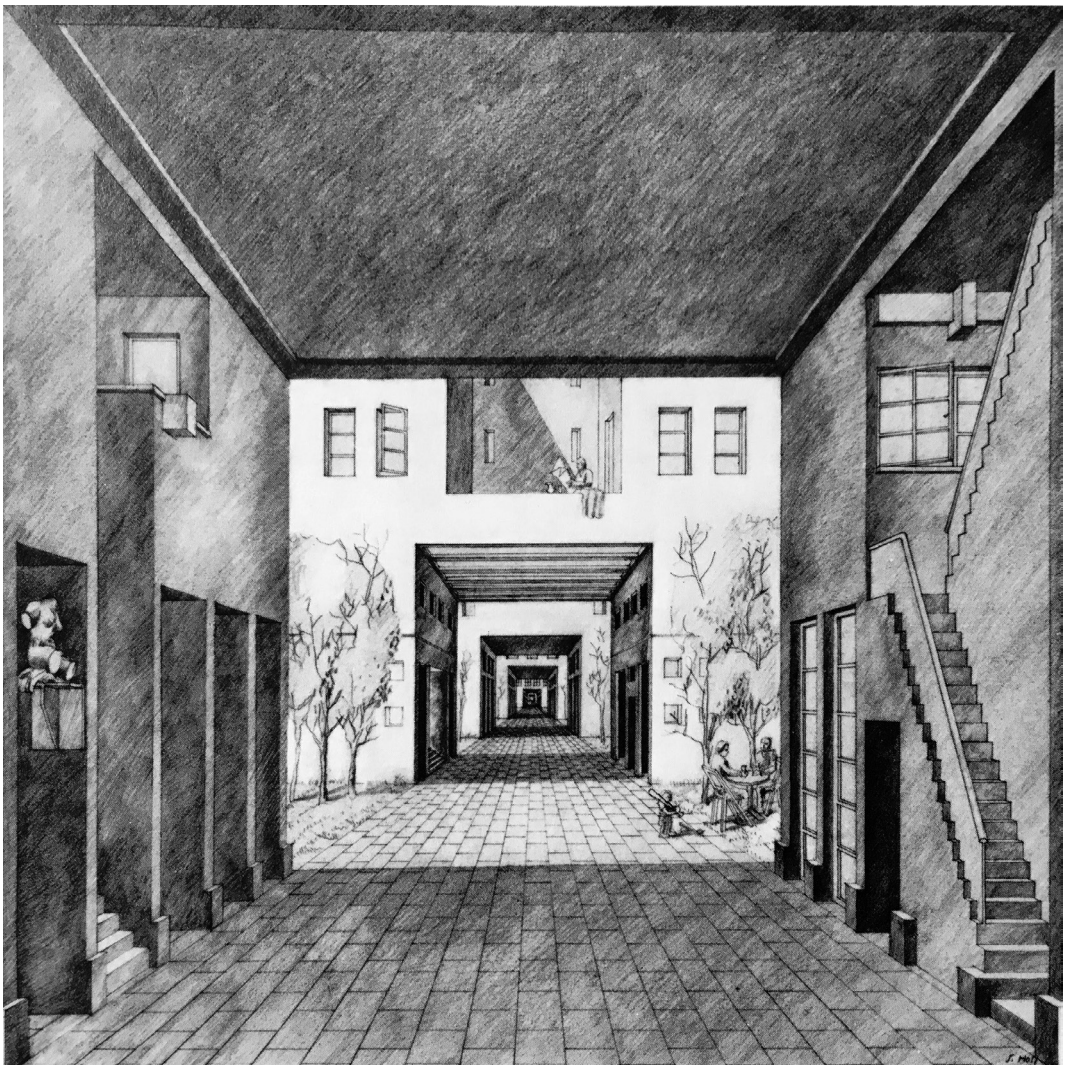


Fig 3.13 Steven Holl. Bridge of Houses. New York, sketch of the public promenade [1981]

in *Delirious New York*. Koolhaas has never shied away from openly addressing and dissecting the infrastructural component of buildings and urban structures. Since OMA's body of work is extensive, and so is the critical literature on this specific topic, the infrastructural component will simply be outlined through the use of a few examples. One of OMA's drawings from 1989 for the Lille project was called *Piranesian Space; delirious infrastructure.* Gevork Hartoonian noticed that *"this cartoon-like image, however, epitomizes the OMA's grand project, which is concerned with absorbing the urban into architecture."*[325] OMA's Piranesian character of space revealed the understanding of the infrastructural complexity – a multilevel, vertically irrigated and connected space. The Hyperbuilding proposal from 1996 was structured according to the architect *"as a metaphor of the city: towers constitute streets, horizonttal elements are parks, volumes are districts, and diagonals are boulevards."*[326] The project challenged the reinterpretation of several transportation systems: boulevards with cable cars, gondolas, train elevators and high and low speed elevators. In a vertical, self-contained urban structure, these elements represent the alternative streets, avenues, passages and alleys for vertical connections. Despite being a bold and visionary project sketch, defining the city's structure through its infrastructural component failed to grasp the essence of public space. It remained an organizational exercise.

Infrastructure and Public Space

Recent years have shown an increased interest in re-incorporating derelict and outdated transport infrastructures into the circuit of public spaces. In this sense, the recovery of Manhattan's High Line was exemplary. The success of the project and its broad public acceptance have transformed it into an urban strategy that several cities – in Sao Paulo, the proposed renewal of via Elevada Presidente João Goulart; the proposed Rail Park in Philadelphia; the plan for the elevated park in Rotterdam, etc. – have followed since. The fascination for re-purposing disabled transport infrastructure facilities has gone beyond elevated bridges into the underground as well. A counterexample of the High Line is the Lowline project for Manhattan's Lower East Side – an underground park repurposing a trolley terminal for public use.[327]

The High Line project, designed by Diller Scofidio + Renfro in collaboration with James Corner Field Operations and Piet Oudolf , has unleashed the already coined term High Line effect.[328] Far more interesting than the current success of the elevated park – whose series of negative consequences for the city, such as an increase of gentrification, will not be discussed

325 Gevork Hartoonian. *Architecture and Spectacle: A Critique* (Farnham: Ashgate, 2012), 125.

326 Rem Koolhaas et al., *El Croquis 131-2132. Delirio y Más - Delirious and More; OMA Rem Koolhaas; 1996 – 2006* (Madrid: El croquis ed., 2006), 66.

327 More information on the project here: www.thelowline.org.

328 Aaron Betsky, "The High Line Effect: Are Our New Parks Trojan Horses of Gentrification?" *Metropolis* (December 2016), http://www.metropolismag.com/cities/landscape/high-line-effect-new-parks-trojan-horses-gentrification/, accessed January 21, 2018,
Christoph Lindner and Brian Rosa. *Deconstructing the High Line; Postindustrial Urbanism and the Rise of the Elevated Park* (New Brunswick, Camden: Rutgers University Press, 2017), and many other sources.

here –, is the long-term interest and explored potential regarding this elevated rail track. Steven Holl had already explored the potential of the bridge-like structure in his proposals for *Bridge of Houses*. He envisioned a succession of buildings spanning over the railroad, connected through the continuous elevated pedestrian alley. In this proposal, the High Line would have lost its infrastructural imprint by being turned into area with clear dedication for the public, consistently framed by program. Unlike Holl's vision, the current development of the High Line – undoubtably a breakthrough project for Manhattan – is tangential to the surrounding architecture. It is a foreign body, focused on its own path, thereby creating points of tension and friction with the adjacent structures.

Considering the current project, Albert Pope's comparison is explanatory: "*Projects like the High Line in Manhattan and the boutique towers it gives rise to cannot be classified as urban innovation; rather, they are analogous to the installation of a new plasma screen in your grandparents' living room.*"[329] The High Line is the example of an exercise in increasing the value and performance of derelict sites in very dense urban environments, where every square meter counts. Despite it being a highly mediatized and renowned project making use of an infrastructural element to provide public space, this is not the type of infrastructural public space envisioned for Urban Gulliver.

When considered part of a larger structure, the public venue has been mainly reduced to connectors, passages, corridors or elevated streets. This infrastructural component of public space has been insufficiently exploited and required a new meaning: it will be regarded beyond the street infrastructure and considered as the overall network of connections. Herein, the term *infrastructure* will be referred to as outlined by Pier Vittorio Aureli when he described the difference between *oikos* – the realm of domestic cohabitation – and *urbs* – the structure supporting the extension of the oikos. "*This structure lies in the space infra, or in between them: it is infrastructure.*"[330] He understood urban infrastructure as the space of connection and integration, the backbone for the generation of the habitat as an organic entity that bypasses any political space. For Aureli, infrastructure passed from a hidden level to the visible level, claiming its rightful place and exercising its organizational force.

This thesis casts a new light on the approach of Urban Gulliver. The research has proved that, so far, public space as an infrastructural element has mainly been a remnant or a compromise, but not a precondition of the L-sized structure. The conscious consideration of a city's infrastructure implies the acknowledgment of movement patterns. But not only newly built developments could rely on the backbone of infrastructure; existing urban districts could rethink its system and set of principles as well. Paradigmatic in this sense is, once again, New York's Manhattan.

329 Albert Pope, Afterword to *Atlas of Another America,* ed. Keith Krumwiede (Zurich: Park Books, 2016), 250.

330 Aureli, *Possibility of an Absolute Architecture*, 7.

4|3 PARADIGM MANHATTAN

When density becomes overwhelming, the provision of open space becomes luxury. Thus, new attitudes are demanded. Manhattan spreads over an area of 58,86 km² and had a population density of 28.370 people/km² in 2017. The number of inhabitants, currently over 1,5 million, is rising by approximately 0,67% every year.[331] Manhattan has long been a model in conciliating the challenges of high population density within its urban structure. Its distinctive feature and organizational device is the grid. The specificity of its urban structure and its development justify a closer look.

Rafael Viñoly's eulogy to the Manhattan grid revealed the potential of its infrastructural component. *"The Manhattan grid is sort of the E=mc² of planning. [...] In this compact schema that concentrates prescriptions of scale, density, and serviceability all in one, the play between public and private interests is in an inevitable balance that transcends speculation without restricting liberty. It is the mechanism that has allowed mediocrity to coexist with greatness in a cohesive whole."*[332] The grid represents an experiment on high density and reveals its virtues. Manhattan is not a product of a predesigned vision or an urban project, but the composite outcome of the array of possibilities provided by its [infra]structural reticula. Furthermore, following the rules of the system, the role of architecture becomes irrelevant. Despite or maybe because of its uniqueness, the Manhattan grid system does not provide a prescription to be followed by other cities. Viñoly ended his reflection with the conclusion that any present confusion between planning and architecture has become obsolete.

331 https://www.citypopulation.de/php/usa-census-admin_d.php?adm2id=36061, accessed November 11, 2016.

332 Rafael Viñoly, "Reflection," in *The Greatest Grid: The Masterplan of Manhattan, 1811-2011*, ed. Hilary Ballon (New York: Columbia University Press, 2012), 101.

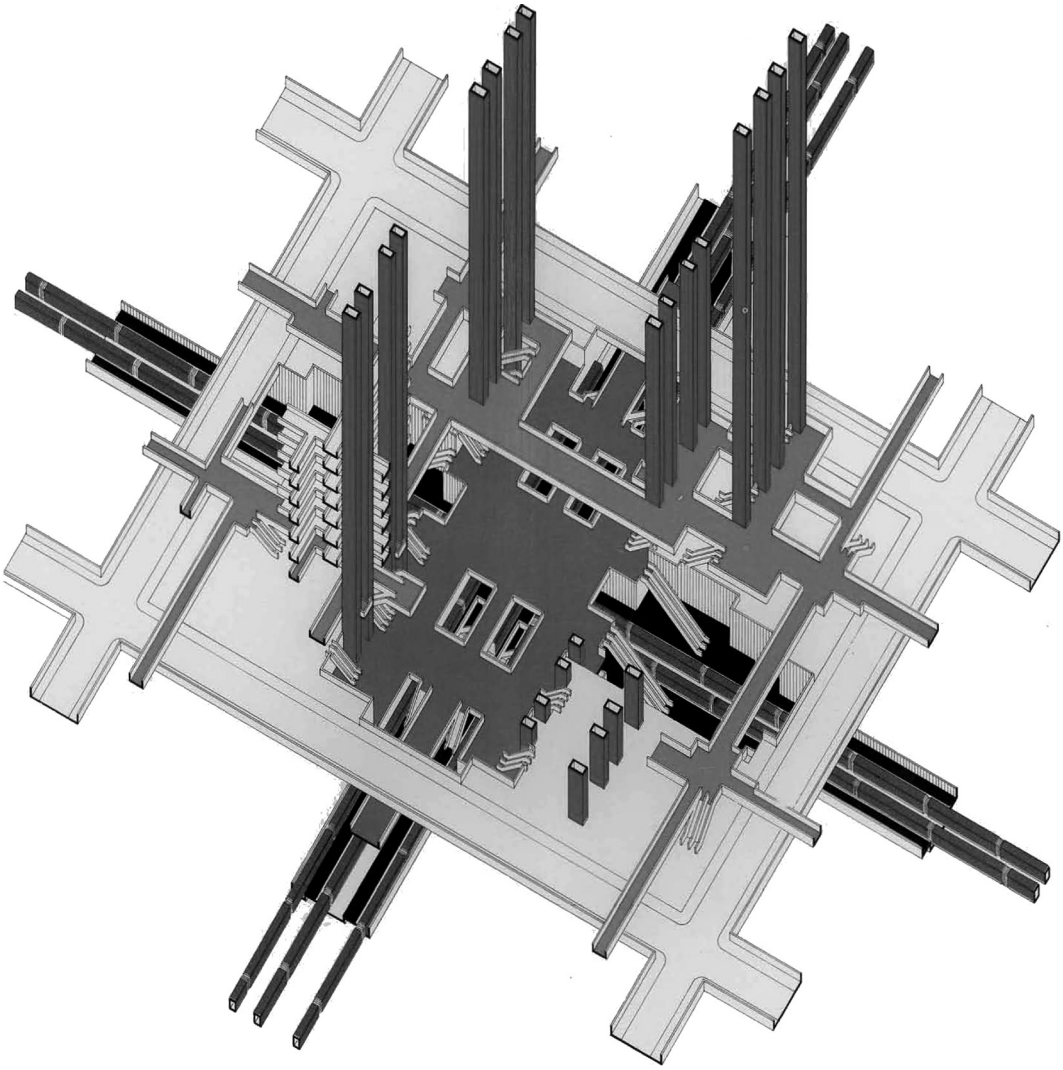


Fig 3.14 Regional Plan Association. Access Tree diagram [1969]

4|3.1 Manhattan. The Infrastructural City

A few decades after the euphoric development of the skyscraper city at the beginning of the twentieth century, the flaws and limitations of the seemingly limitless growth started to become apparent. As a reaction to the predictable form of the high-rises and the resultant inhospitable street environment, the city started to elaborate on a planning guideline. This new plan, the Second Regional Plan, had to react to the undesirable aspects and correspond to contemporary needs of the city. The first plan, *The Regional Plan of New York and Its Environs* had been published in 1929 and had focused on the creation of a complex infrastructural network that reached beyond the borders of New York City. The aim was to link the crowded city to its surroundings.

The Second Regional Plan was issued in 1969 by the Regional Plan Association, the agency in charge of the development of long-range plans aimed at the growth of the New York metropolitan area. The endeavor – materialized in a series of previous reports between 1960 to 1968 – was led by planner Stanley Tankel, who had already worked for the London County Council on the post-Blitz multilevel reconstruction and collaborated with Jane Jacobs at the Greenwich Village Study.[333] It was the time when urban design and planning still promoted automobile-based decentralization despite of its visible consequences, such as sprawl, decline of existing urban centers and environmental degradation. The Second Regional Plan was revolutionary and almost ahead of its time. Its main focus was laid on building the transit network necessary for urban centers to thrive.[334] Furthermore, it promoted a mix of housing types and income groups, mingled in a walkable, diverse urban setting. The Second Regional Plan study summarized urban design principles for high density central business districts. The findings of the case study of Midtown Manhattan should then be extrapolative to other urban cores.

"The study shows that a large and dense center does not have to be chaotic, overcrowded and dingy. It conceives of all the facilities for urban movement – the trains and subways, the sidewalks, the building lobbies and elevators – as a single system, a structure to which individual buildings are attached. It proposes to break through the 'asphalt membrane' which now divides the city into 'above ground' and 'underground,' to unify the circulation spaces functionally and visually, creating a true three-dimensional city."[335]

The premise of the study's consultants Okamoto and Williams, commissioned by Tankel, was that high densities – even higher than the density of Midtown Manhattan – could be

333 Jennifer Yoos and Vincent James, "The Multilevel Metropolis," *Places Journal* (May 2016), accessed February 7, 2018. https://doi.org/10.22269/160518.

334 Regional Plan Association, "The Regional Plans," http://www.rpa.org/regional-plans, last accessed February 7, 2018.

335 Regional Plan Association, Rai Y. Okamoto and Frank E. Williams, *Urban Design: Manhattan*, (New York: A Studio Book, The Viking Press, 1969), 5.

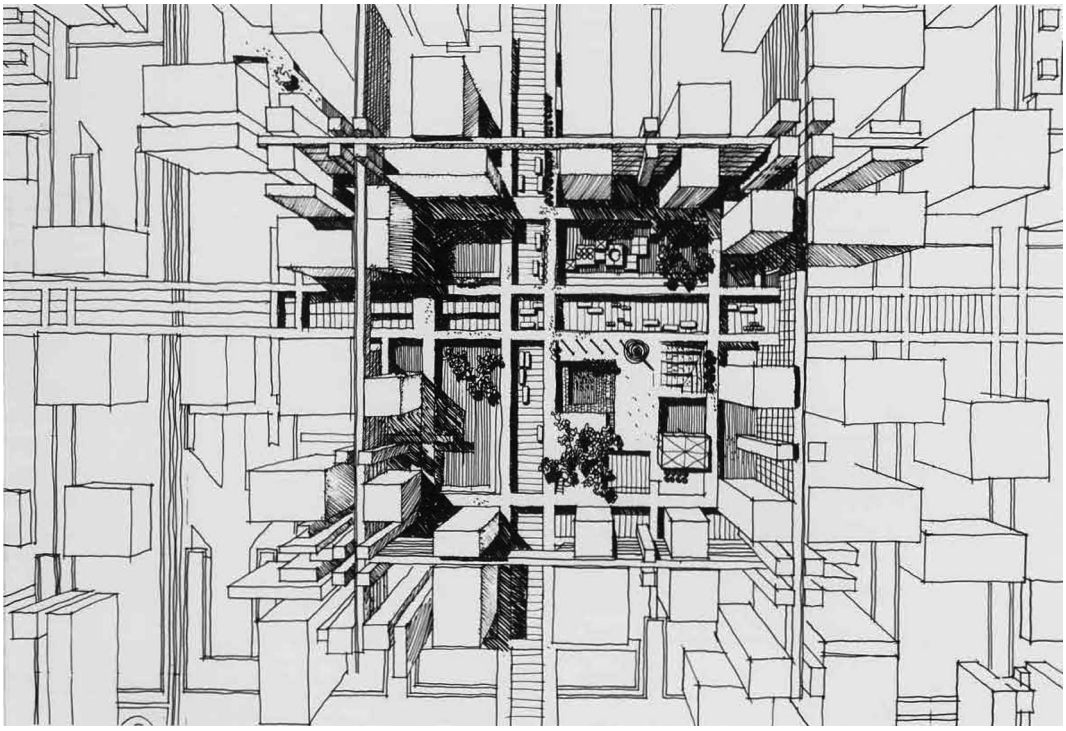


Fig 3.15 Regional Plan Association. Sketch for the Office Cluster principle [1969]

comfortable if the pedestrian-oriented areas were properly dimensioned in relation to the potential activities that the surrounding buildings would generate. They identified the main constraint being, not the lack of space, but the insufficient irrigation capacity of the transportation systems.

The proposed design principle was called the *Access Tree* – a set of interrelated precepts for functional and visual organization. The three main configuration rules for the Access Tree referred to:

1 | the volumetric clustering of the tallest buildings around the points of highest accessibility,

2 | opening of public spaces in the density points of the clusters, and

3 | locating the squares below street level, closer to the subway level.

The tall building clusters were meant to minimize walking distances, convey protagonism to the high-rises and ensure a representative urban image. The provision of open space in the form of *memorable public squares* would take advantage of the already given built and pedestrian density. These intersection points were named *mixing chambers* and were supposed to create the shortcut between public transport and the buildings' elevators with the potential to become veritable social hubs. These two first guidelines are comprehensible. However, the third recommendation, to place the squares below street level, raises eyebrows and discloses the still retrograde thinking of the era that unconsciously prioritized motorized traffic. Nevertheless, the separation of pedestrian and motorized levels, was justified with a practical purpose – merging building lobbies with subway entrances –, and a conceptual one – to penetrate the horizontal street membrane and integrate the spaces below and above ground in order to enhance the three-dimensional nature of the city center. It was an obvious attempt to de-congest dense urban poles by creating additional movement levels for pedestrians, and not one to celebrate the street jam.

In the Access Tree principle, infrastructure becomes the key to the physical form of the Central Business District. The elements along the relevant movement paths – train's platforms, stairs, public corridors, sidewalks, building lobbies, elevators etc. – would be parts of a single system. The planning approach had to become three-dimensional insofar that it needed to penetrate the street membrane to reach the crucial transportation facilities. The articulation of the horizontal and vertical circulation created a composite movement system.

The inspiration and belief in such a system were provided by the prototypical Grand Central Station and Rockefeller Center. The two projects were already structured as multilevel access trees. The authors of the report praised the functioning as one organism, considered even a single building entity. Grand Central represented the conceptual archetype of integrated multi-level development, mixed activities and direct mass transportation access.

The aim of the Access Tree was to generate a prototype of multi-level, multi-use urban distribution centers. A strong focus was set on the pedestrians and their freedom to move. The success of the proposed model for Manhattan's Central Business District relied and depended on the users' guaranteed freedom and comfort. Circulation paths, attractive functions and activities would enhance the spatial experience. The 42nd Street case study for the Midtown area proposed linking meaningful sites like Grand Central Station, Times Square, Columbus Circle, and Rockefeller Center within one large unified system. According to Yoos and James,[336] the study culminated with the 1971 Special Greenwich Street Development District, which generated the complex multilevel urban design solution the World Trade Center [Lower Manhattan]. The Second Regional Plan report concluded with the statement and forecast that the study would *"merely add to the literature of urban design unless New York overcomes its gigantism and moves ahead on a more human and three-dimensional scale."*[337]

The Second Regional Plan set Manhattan's urban framework. Concomitantly, private undertakings on individual plots were forcing the emergence of additional regulatory mechanisms. The Second Regional Plan dedicated a chapter to incentive zoning and summerized the important findings from the San Francisco Zoning Study [1966]:

"1. Good access to the building and improvement of access to other properties in the area, from the various means of transportation feeding the downtown area.
2. Improvement of pedestrian movement into the building, along the street and between streets.
3. Provision of pedestrian amenity by means of ground level open space.
4. Arrangement of the building so as to provide light and air to streets.
5. Protection and enhancement of views."[338]

Following this set of criteria, the developer was be expected to offer bonus features mainly at ground level or just above or below the street level, where pedestrian movement was easy to stir. Within this framework, privately owned public spaces emerged as a compromise solution between public and private interests at the threshold between real estate speculation and public benefit.

336 Yoos and James, "The Multilevel Metropolis."

337 Regional Plan Association, *Urban Design: Manhattan,* 127.

338 Ibid., 123.

4|3.2 Privately Owned Public Spaces[339]

Privately owned public spaces [POPS] represent a specific category of public space introduced for the first time in the 1961 the Zoning Resolution of New York City. The Department of City Planning recognized the need for the provision of more public space in highly densified commercial areas of Downtown and Midtown, so it developed an interesting negotiation mechanism within the private sector – the real-estate investor and developer.

The term *privately owned public spaces* is in itself an oxymoron. The effects of privatization, both on large-scale structures as well as on public space, have been discussed here in previous chapters. Even in the before mentioned lecture announcing the Quito Papers,[340] the four urban thinkers were critical of the forces of the private sector incising into the public apparatus. Joan Clos accused the [free] market of not being a good urban planner, claiming that the private owner does not understand that the provision of public space is good! Sennett underlined these statements, arguing that protecting the public realm meant resisting the privatization of public space. The neoliberal economy has modified the notion that public belongs to the public. His call for an open city comes as a reaction to these forces trying to re-write the laws of the city to the detriment of public space. Indeed, private speculative interests do not usually match with the altruistic desire to provide democratic spaces for the population. Nevertheless, all these forces act concomitantly, in different proportions, in the apparatus of the city.

This thesis will not discuss the political or economic implications of the POPS phenomenon, for this is a matter that requires a different type of debate. The focus is set on the characteristics and potential of this specific urban tool for the enrichment of the public realm. Can POPS be understood as a valid urban design strategy addressing Sennett's latest recommendations? Could POPS successfully address aspects of the open city, such as the porosity of the built environment?

Manhattan's privately owned public spaces have been widely documented by Jerold Kayden. His book *Privately Owned Public Spaces: The New York City Experience* is composed of thorough research and reflects the status quo of the year 2000. Nevertheless, New York's evolution of POPS is ongoing. Kayden's published work has been followed up by a website, *apops.mas.org*[341] that reveals a timely, accurate description.

339 a majority of the following paragraphs on POPS have been discussed by me in the published paper:
Sorana Rădulescu, "Interior Public Spaces. Addressing the Inside-Outside Interface." *Marginalia. Limits within the Urban Realm*, Vol 5 (2017): 99-114.

340 Joan Clos at the "Designing the Urban Age" talk (Quito, 2016), https://www.youtube.com/watch?v=rNh8R4ojZJs, last accessed February 13, 2018.

341 the joint project of Kayden's "Advocates for Privately Owned Public Space" Organization and the Municipal Art Society of New York.

History of POPS

New York pioneered the birth and implementation of POPS with the 1961 zoning resolution. The work had already started in 1948 when the city turned to external consultants for recommendations. The previous regulation foresaw three types of zoning districts addressing use, height and area. The height districts were the main determinants of the relationship between buildings and open public areas. Due to the rigid volumetric prescription, the urban form resulted in something that was highly predictable: within the Manhattan grid, skyscrapers occupied almost 100 percent of the site, with several setbacks [*ziggurat* or *wedding-cake* formations].

Nevertheless, it was not until the 1956 Voorhees Walker Smith & Smith study that the city managed to overcome its regulation inertia and set new outlines for its urban development. The 1961 released zoning resolution added a maximum bulk limitation in the form of the FAR [floor area ratio]. FAR has since been a highly effective regulatory device – not only an essential urban indicator and parameter, but also the *currency* that accompanied every negotiation. The goal of the proposed regulation was to ensure access to light and air, thus creating a feeling of openness on the street level. High buildings cast shadows and darkened the street. Beyond confining the streetscape, the skyscrapers' dimensions generated complex underground situations, a maze of corridors, connections and subway entrances, deprived of natural light. But the new regulation was not supposed to only act in a restrictive manner to that undesirable situation: incentive zoning was introduced.

According to Kayden, incentive zoning supposed a positive deployment of public policy instead of a punishing one. It provided a bonus, usually in the form of additional floor area, in exchange for the provision of a public amenity or affordable housing. The authors of the Urban Design Manhattan manual specified that incentive zoning *"should be developed to reward private developers with added income from their property if they attain publicly beneficial urban design objectives. The magnitude of these rewards should be scaled to the public benefit provided."*[342] Even nowadays, the incentive bonuses have been granted for the provision of privately owned public spaces, visual or performing arts spaces, subway improvements, theater preservation, fresh food stores and affordable housing [Inclusionary Housing Program].[343]

William Whyte has widely documented the rise and fall of incentive zoning. *"It seemed such as splendid idea. Developers wanted to put up buildings as big as they could. Why not harness their avarice? Planner saw a way."*[344] The regulation would first downsize the bulk limit, then agree to up-zoning against a trade. Within the framework of incentive zoning, the provision of privately owned public spaces was one important object of trade. POPS were introduced as

342 Regional Plan Association, *Urban Design: Manhattan,* 11.

343 NYC Department of City Planning, "Glossary of Planning Terms," http://www1.nyc.gov/site/planning/zoning/glossary.page, accessed April 23, 2017.

344 William Whyte, *City: Rediscovering the Center* (New York: Doubleday, 1988), 229.

a new type of normative character, located on private property yet physically accessible to the public-at-large that developed a new spatial language and typology. POPS emerged as a bonus device, a negotiation asset. Out of the intention to provide open space and light in highly densified areas of Manhattan, in an environment where the driving force was the private sector, any means for negotiation seemed beneficial. The bait for the private developer was additional FAR, translated into immediate increased financial benefit. In exchange, the investor had to offer spaces for public use on its property and agree to further manage and maintain them.

The Voorhees draft had only introduced the concept of *plazas*, as a publicly accessible outdoor area. However, the 1961 resolution added the concept of *arcade*, understood as a continuous open area to a street or plaza.[345] The design requirements for the negotiated public spaces were scarce, the benefit – additional FAR – was highly attractive for the developers. Offering an appealing trade, incentive zoning had become a powerful and dynamic mechanism for the provision of POPS. Between 1968 and 1973 five new categories of POPS came to life: *elevated plazas, through block arcades, covered pedestrian spaces, sunken plazas, open air concourses*. They emerged out of a flexible, case-by-case approach that succeeded in modifying and extending the regulation. The goal was for medium and high-density commercial districts to enjoy a visible improvement of life at street level through, and in despite of, new skyscraper developments. This thesis specifically looks at one of these categories: the covered pedestrian space – the culmination of the progression from street to interior.

In 1970, the City Planning Commission approved a zoning amendment for the covered pedestrian space, defined as *"an enclosed area directly accessible to the public from an adjoining street, arcade, plaza, court, yard, pedestrian mall, or other covered Pedestrian space which is a part of the public pedestrian circulation system."*[346] It was the first indoor space responding both to urban requirements – connection to adjacent circulation paths, accessibility, amenities – and architectural requirements – furniture, lighting, materiality, entrance situation, space dimensions –, serving both for circulation and as public destination, supported by public amenities [shops, restaurants, cafes etc.]. The mechanism created an interesting cycle: more built density would bring more people that would enjoy and vitalize the extra public amenity offered in exchange. It seemed a self-sustaining perpetuum-mobile. Nevertheless, by the 1980s, an obvious decay of many of the bonus-spaces became visible. Whyte was commissioned the study of POPS and, within the framework of his Street Life Project, he started observing and mapping how they worked. *"In an ill-conceived effort to reduce 'pedestrian congestion on the streets,' the planners were bonusing people away from the streets."*[347] As a conclusion of his observations, Whyte clearly advocated *"against bonusing a hierarchy of spaces the denominator of which is that*

345 Jerold S. Kayden, The New York City Department of City Planning and The Municipal Art Society of New York, *Privately Owned Public Spaces: The New York City Experience* (New York: John Wiley & Sons, 2000), 11.

346 New York, N.Y.: The Commission, "City Planning Commission Report," CP 21138 (1970), https://archive.org/details/calendarofcitypl6197newy, accessed April 29, 2017.

347 Whyte, *Rediscovering the Center*, 245.

they are withdraws from the street, and the ultimate success of which depends on withdrawing people from streets, as well."[348] Nevertheless, his argument was not against the typology of atriums [covered pedestrian spaces] but against the fact that their disposition drained the vitality of the street. Yes, the internalization of public space can be beneficial, especially for the developer attracting users inside his building. Thus, in Whyte's opinion, the typology was valid but did not need to be bonused.

The case of New York has become paradigmatic in the provision of interiors with the claim to be public. These spaces are hosted by the building structure but are simultaneously growing out of the street. They are often designed by the architecture team of the host-building [in some cases with the additional implication of a landscape or urban designer]. The interior POPS – a hybrid between an urban plaza and a building lobby – create a special form of publicness. As Harteveld also recognized,[349] the zoning resolution achieved the goal of providing an incredible amount of public spaces – both outdoor and indoor – with new acceptations. It is undeniably remarkable that incentive zoning – in a clever approach – catalyzed the emergence of these new characters on the billboard of public spaces. Their validation came in time, through their acceptance by the public. Indoor areas especially needed to get endorsed through their use in order to rewrite the urban narrative and become part of everyday urban life.

Twenty-first Century POPS | Current Zoning Regulation

New York's zoning *"is the language of the physical city: it is a three-dimensional blueprint for what any area of the city can become."*[350] The current Zoning Regulation has grown more restrictive and demanding, trying to ensure a high level of urban quality. In Manhattan nowadays [2017] there are approximately 530 POPS in 327 buildings and, despite revised rules and stricter requirements, negotiations continue within the dynamic urban device of incentive zoning. The area of Midtown contains the highest amount of POPS [99 in Central Midtown and 77 in East Midtown]. 43 of these POPS are covered [interior] pedestrian spaces. The city has triggered a huge, widespread network. Kayden referred to it in the preface of his book as a *decentralized Central Park.*

In order to get an accurate view in addition to the exhaustive documentation provided by Kayden's endeavor, the present situation has been documented through an interview with two representatives of the Department of City Planning: Stella Kim – then program manager of Manhattan's POPS – and Claudia Herasme – deputy director of the urban design office.[351] The

348 Ibid., 248.

349 Maurice Harteveld, "Bigness is All in the Mind," *Oase Journal* No 71, Urban Formation and Collective Spaces (2006):114-133.

350 Amanda Burden, Preface to *Zoning Handbook* (2011), https://www1.nyc.gov/assets/planning/download/pdf/about/publications/zonehand.pdf, accessed May 12, 2017.

351 The interview took place at The NYC Department of City Planning, 120 Broadway, New York on May 13, 2017.

transcript of the interview, retrievable in the Appendix, provided substantial information on the public administration's approach and vision on the subject.

At the beginning of the POPS history, in the 1960s, the aim was simply to sanitize the city and provide light and air. Unconcerned with the actual use of the spaces, the city was just asking for free space. After learning from failed examples and following the changes in the patterns of use, the current design objectives pursue open and inviting connections to the sidewalk, accessibility, quality seating and vegetation and insurance of safety and security.[352] Since a successful public space has to attract and bring people together, the impulses need to be set through the design: adequate furniture, lighting, vegetation, amenities etc. In 2007, all previous design regulations for outdoor POPS were updated and synthesized into one outdoor plaza designation: *the public plaza*. The regulation for covered pedestrian spaces applicable for bonus has not changed since their approval in 1970 and dictates their size – a minimum area of 3,000 sq ft [278,7 m2]; a minimum width, at any point, of 20 ft [6,1 m]; a minimum height of 30 ft [9,1 m] –, the required uses – small stores and cafes, occupying the maximum feasible frontage; banks, loan offices, insurance offices or similar office type uses are prohibited –, illumination – natural light is preferred –, maintenance and opening hours – 7:00 AM to midnight –, physical obstructions, furnishing and equipment – planting, landscaping, ornamental fountains, statuary, outdoor furniture, sitting areas, kiosks, works of art, light wells etc.

Beyond Whyte, other critics of POPS have expressed their concerns through the years. Jeremy Németh offered an overview of different critical approaches of bonus spaces.[353] One major concern is security issues, as owners prioritize security over social interaction, leading to cases of social exclusion. Furthermore, bonus spaces are not legally forced to tolerate free speech, religious activity or unmediated political expression, discouraging truly democratic expression. Further critics refer to the commodification of these spaces, prioritizing consumption and addressing only a privileged minority of the society. Indeed, we look at non-traditional forms of public space, new typologies that still need to formulate their complete set of characteristics.

Recent information on the current situation of Manhattan's POPS was provided by a 2017 audit.[354] It showed that 182 out of the 333 investigated POPS failed to provide the required public amenities, have been poorly maintained or restrict their use beyond the accepted framework. As Kayden already acknowledged, *"when gates to the privately owned public spaces are locked during hours of public access, or when doormen improperly inform visitors that the space is private, then part of the greatness of the city, its inherent publicness is diminished."*[355]

352 NYC Department of City Planning, "Privately Owned Public Spaces," https://www1.nyc.gov/site/planning/zoning/districts-tools/private-owned-public-spaces.page, accessed April 26, 2017.

353 Jeremy Németh, "Defining a Public: The Management of Privately Owned Public Space," *Urban Studies* 46(11) (2009): 2463-2490.

354 Scott M. Stringer, "Audit Report on the City's Oversight over Privately Owned Public Spaces," (April 18, 2017), https://comptroller.nyc.gov/wp-content/uploads/documents/SR16_102A.pdf, accessed April 27, 2017.

355 Kayden, *Privately Owned Public Spaces*, vii.

Nevertheless, we can still celebrate the possibility of having these gates open! Indeed, since their maintenance is to be provided by individual private building owners within a completely decentralized system, control is difficult. The provision is not enough. As always, only a process of constant retrofitting, control and revision can keep the required amenities and places alive. These findings can then be translated to improvements of the regulation.

4|3.3 Learning from the POPS

The interest of POPS lies in the moldable and adaptive mechanism they established. What started as an attractive bonus policy evolved to an urban strategy for the physical enhancement of the public realm. Incentive zoning shifted the focus away from the rigid, form-giving masterplanning. It provided room for unexpected, formally unplanned urban evolutions and rewrote the laws for the street level. Moreover, I argue that this tool set the base for what would become a happy marriage between building and the public sphere towards achieving a high degree of porosity. The porosity of the built environment can be attained by helping buildings to become more public by actively considering the public realm. Then, incentive zoning becomes more than a barter and POPS are more than just a compromise solution.

The analysis is based on eight selected case studies – three in Downtown and five in Midtown Manhattan. The selection was based on several factors:

1 | the POPS had to be covered pedestrian spaces [CPS]. There are forty-three instances of the CPS type in Manhattan.
2 | the POPS had to have amenities.
3 | the POPS needed to have, if possible, a direct link or proximity to transport infrastructure.
4 | sufficient information about the POPS needed to be accessible.

After having visited the majority of Manhattan's covered pedestrian spaces and having reflected on empirical findings within the topical literature, eight POPS examples have proved most useful for comparative analysis. The three analyzed covered pedestrian spaces in the business district of Downtown are primarily identified by their address at their location on **60 Wall Street [1]**, **100 William Street [2]** and **180 Maiden Lane | Continental Center [3]**. The other covered pedestrian spaces in the commercial district of Midtown, also named by their address, are located on **120 Park Avenue [4]**, **550 Madison Avenue | Sony Plaza [5]**, **590 Madison Avenue | IBM Plaza [6]**, **725 Fifth Avenue | Trump Tower [7]** and **875 Third Avenue [8]**. The main sources of information are Jerold Kayden's already cited *anthology* of POPS and its corresponding virtual database *https://apops.mas.org*, as well as the interview conducted with representatives of New York's Department of City Planning, transcribed in Chapter 6 | 2.2.

[01]  60 Wall Street

[02]  100 William Street

[03]  180 Maiden Lane [Continental Center]

[04]  120 Park Avenue

[05]  550 Madison Avenue [Sony Plaza]

[06]  590 Madison Avenue [IBM Plaza]

[07]  725 Fifth Avenue [Trump Tower]

[08]  875 Third Avenue

Fig 3.16 New York, Manhattan figure ground plan

The comparative analysis, detailed in the Appendix, Chapter 6 | 1, extracts and contrasts specific features of each POPS according to four main topics:

1 | general information
It corroborates the basic information that introduces each case study. Project data and characteristics, such as opening hours, combined typologies or size, are extracted and compared.

2 | design elements and amenities
Due to the ambivalent character of covered pedestrian spaces – affiliated both to the street and to the host-building –, the elements that belong to one or the other register are being highlighted. This section elaborates on the employed materials, the provided amenities and uses as well as the addressees of the spaces. The aim is to find out how these spaces perform in the urban landscape.

3 | links and elements of circulation
The focus is set on the infrastructural component of the POPS. The connection to the street is scrutinized regarding visual and physical means of bringing the spaces into a closer relationship with the urban network.

4 | border
This part specifically looks at the interface between in- and outdoor and the hybrid space of exchange that might emerge. The permeability of the border is regarded according to its material presence, depth and access situation. The analysis looks for design decisions that can overcome barriers and improve the infrastructural character of the entire public space network.

General Information | Findings

As previously stated, the analyzed POPS are located in Lower and Midtown Manhattan, these being the two districts that have allowed covered pedestrian spaces. Due to the high built density and the mixed character of the districts – office use is predominant –, covered pedestrian spaces were built with the intention of offering an additional resource for space.

Six out of eight examples were built at the beginning of the 1980s in the short time span between 1980 and 1983. In all analyzed cases, the architects of the buildings were all the designers of the POPS. Building and public space were originally conceived concomitantly. Subsequent alterations, when given, occurred under the auspices of other designers.

The majority of examples house a combination of types – the CPS is accompanied by other types of POPS, mostly being arcades.

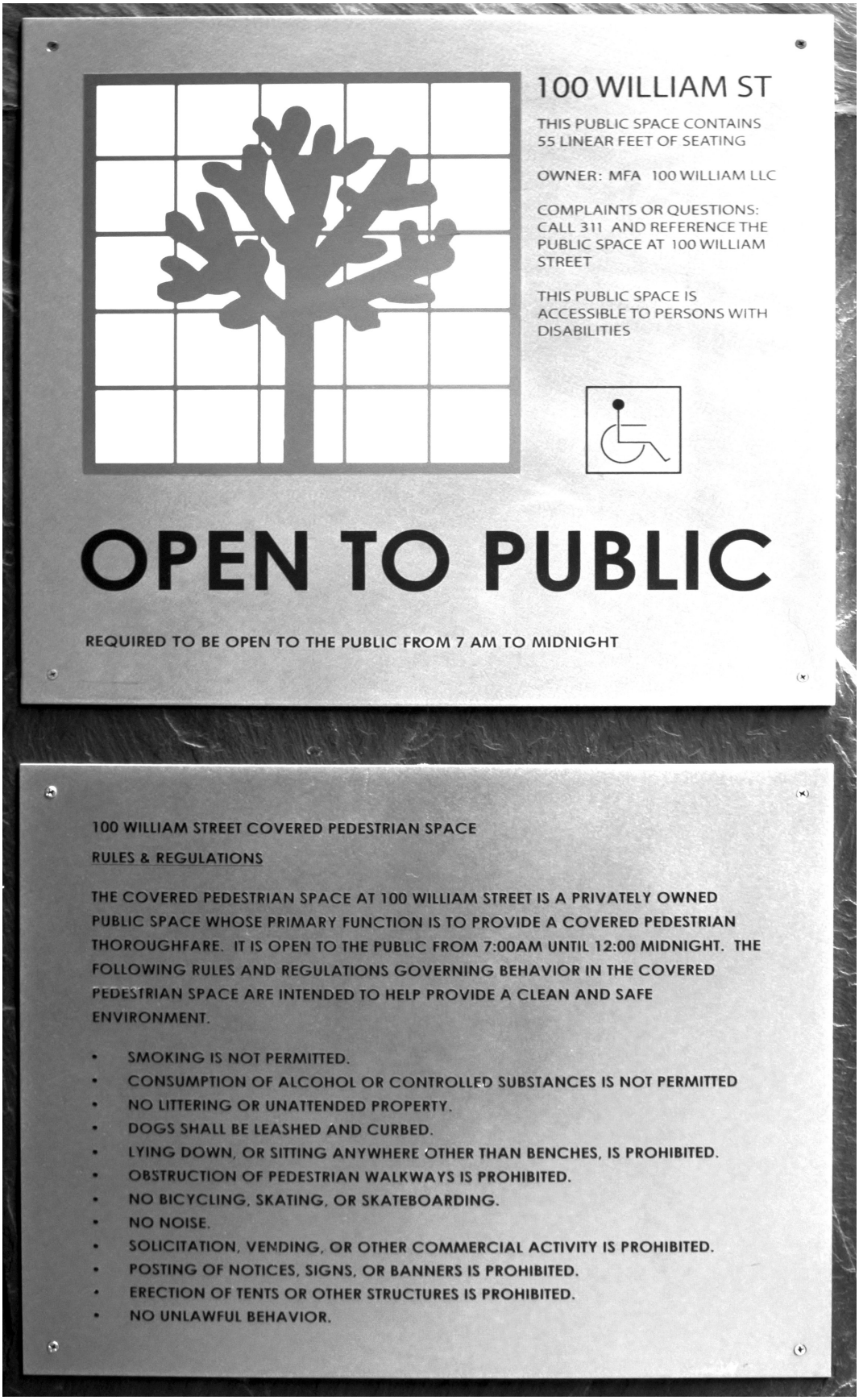


Fig 3.17 View of a POPS indication shield [2017]

Most interior spaces – except for the outdoor 100 William Street [2] and the indoor space of 590 Madison Avenue | IBM Plaza [6] – have climate control, thus maintaining a different temperature than the exterior one[s]. Considering New York's versatile climate conditions – cold winters and torrid summers –, the constant inner temperature provides a feeling of comfort and shelter.

Regarding the size, most of the analyzed CPS are approx. 500 m2. Exceptions are 550 Madison Avenue | Sony Plaza [5] at almost 1.000 m2 and 180 Maiden Lane | Continental Center [3] at approx. 1.500 m2. Some POPS accumulate size if several types are combined. Such is the case of 590 Madison Avenue | IBM Plaza [6] that reaches approx. 1.200 m2 of interior space when the area of the through block arcade is added as well.

All CPS have restrictive opening hours, each of them having a different schedule. This aspect of the POPS underlines their private nature and relates to the use of the building. They all remain closed at night. When questioning if public space should be available at all times, the case of Manhattan's Central Park comes to mind: it also closes nightly between 01:00 AM and 6:00 AM.

Design Elements and Amenities | Findings

A defining characteristic is the highly diverse nature of the analyzed POPS. No similarities of spatial design are traceable.

The interior public spaces hold a mix of urban features and lobby-like architecture of an office tower. The cladding of floors and ceilings indicate an urban-scaled *living room*. The furniture – moveable tables with chairs, benches etc. – relates to an open space situation. The same moveable furniture is used for outdoor parks and plazas, therefore being a recognizable element from exterior public spaces. The vegetation – small trees, large planters – mimics the street planting. The layout of lighting elements is usually ambivalent; a combination of street lights, reflectors or indoor-specific light elements – spots, hanging lamps etc.

On some occasions, the entrance apparatus to the buildings' private areas is separated, spatially reduced and elevated, thus generously opening the ground floor to public use. In the case of Continental Center [3], the lobby of the office building is on the first floor, accessible through elevators and escalators from the ground floor CPS. In the case of 120 Park Avenue [4], the entrance to the upper building floors is physically separated from the POPS and reached from another street.

Regarding materials, façade cladding and lobby-specific finishes are often mixed in the CPS. The Sony Plaza [5] place, for example, spans between two building façades; their cladding becomes the interior finish on the lateral sides of the POPS. The diversity of materiality instills

the spaces with different characters, ranging from neutrality – such as 100 William Street [2] – to over-design. The highly decorative interior of 60 Wall Street [1] or Trump Tower [7] create interiors that are strongly-impregnated with a pre-determined identity. In these cases, the architectural will overshadows the urban component.

In most cases, the interior floor material is different than the sidewalk's. However, it usually recreates the roughness of the street pavement. The outdoor CPS 100 William Street [2] or the indoor 590 Madison Avenue – IBM Plaza [6] are the exceptions. The continuity of large tiles from the sidewalk to the POPS enhances the urban character of the space, conveying the impression of the street. On the other hand, the highly polished finishing of Trump Tower [7] strongly detaches the POPS from the street realm. The choice of materiality proves to be another aspect that reveals the dichotomy of belonging of these spaces – oscillating between building and street.

The interview with Herasme and Kim revealed an increasing importance in the provision of amenities. The initial zoning resolution from 1961 did not require any amenities for the bonused spaces. The newest regulation, approved in 2007, drew from lessons learned through decades of experience and consistently improved the requirements. The provision of amenities is paramount, especially regarding the frontage – the programmatic edges of the spaces. The more opportunities for the users to engage with the POPS, the better the space performs and is assimilated in the cityscape. Eating, drinking, meeting, watching performances or just lingering are activities that need to be supported by the spaces' layout and offered uses. Certain amenities, such as a café or a kiosk, even make a direct reference to the very popular food trucks parked along the sidewalks.

The majority of the visited spaces, all grandfathered under the previous, less-restrictive regulation, have revealed an austere provision of public uses. The provision of space, not of amenities, was priority. There is no doubt that all the analyzed POPS could benefit from additional programs and uses, which would enrich the user experience. A more versatile program could attract more users and activities. The food-court in the underground level of 875 Third Avenue [8] or the Trump Tower restaurant are appealing to a broad audience. However, the right balance between under- and over-programmed needs to be thoroughly considered. On one hand, the retail frontage does not manage to provide liveliness; the exposed artwork is not really acknowledged and the gallery-character of the spaces could be better exploited; the restaurants and cafes are not landmarks. On the other hand, none of the analyzed spaces seem commodified. People can enjoy them and make use of the seating opportunities without necessarily buying something.

Kayden's extensive mapping of the POPS, as well as personal on-site observations proved that the uses are diverse. Despite many behavioral restrictions, these spaces are open to everyone. Due to their location in the dense commercial and business districts, the main users are office workers, resulting in higher usage during lunchtime hours. Despite the fact that, over the

years, these initially mono-functional districts have grown to be very mixed, the POPS are still being acknowledged and used. Beyond office employees, tourists, random passersby or even homeless people find shelter inside de CPS. The spaces are mostly conceived for staying and lingering, not only as connections.

The eight POPS revealed a highly ambivalent character. It is considered important that the overall perception of these spaces should reach beyond that of a building lobby. Nowadays, every POPS is signaled through an obligatory plaque – the indication of the presence of a public space. Ideally, this should not be the case; these spaces should be able to render their uses as both public and urban without any additional tag. An adequate term to characterize them could be *urban lobbies*. The great challenge lies in creating an inviting atmosphere through design and layout, without succumbing to lobby-like architecture.

Links and Elements of Circulation | Findings

As an extension of the sidewalk, the connection of the analyzed POPS to the existing street network is essential. An important finding is the fact that the spaces all mediate between different streets through their multiple accesses. Therefore, they create shortcuts and break the length of the blocks. The position of the entrances is on opposing sides and enables easy transit and direct connection between streets. None of the eight POPS is a cul-de-sac; they are embedded in the dynamic, continuous network of streets, underlining their infrastructural character.

Despite the fact that one initial selection criterion was the link to transport infrastructure, only a few of the analyzed spaces actually comply. The interior space of 60 Wall Street [1] is concomitantly the entrance lobby for the Wall Street subway station. The multilayered space of 875 Third Avenue [8] penetrates the underground and reaches one entrance of Lexington Avenue-53 Street subway station, concomitantly opening an underground retail and restoration area. This link may lead to a better acknowledgement of the space. In the case of 120 Park Avenue [4], the interior space is detached from the Grand Central subway entrance, placed in the exterior space of the arcade. The interview at the NYC Department of City Planning revealed the fact that all connections to the subway network are controlled by another entity, the Metropolitan Transportation Authority [MTA]. Therefore, not many synergies between the CPS and the transport hubs occur.

Regarding pedestrian circulation, the defining aspect that dictates the urban, public character of these spaces is the continuity of flow and rhythm of movement. The covered area of 100 William Street [2] shows the importance of this uninterrupted circulation, making its urban character unquestionable. It also creates an ideal entrance situation through the lack of any disruptive vertical layer. The urban dimension of the entrance – a large breakthrough in the

building's volume – is a welcoming gesture. In the case of the interior spaces, all entrances proved problematic.

The NYC zoning regulation already recognized the importance of the separation between in- and outdoor areas when introducing the covered pedestrian space type in 1970, as do the planners at the Department of City Planning, who constantly revise and asses every submitted design. The zoning resolution currently dedicates a paragraph to the requirements of access to a covered pedestrian space:

"For the purpose of ensuring prominent public attention to the covered pedestrian space, the openings at the face of the building for entrances to the covered pedestrian space shall be at least 20 feet [6,10 m] *wide, 30 feet* [9,10 m] *high and unobstructed for a depth of 30 feet* [9,10 m], *except, where the covered pedestrian space is air conditioned, the openings at the entrances may be partially enclosed. Such enclosure at the entrances shall be transparent in nature, commence at a height not less than eight feet* [2,40 m] *above the floor level at the entrances, and be set back from the face of the building at least 12 feet* [3,60 m]. *Air curtains are permitted but shall be located at a height not less than eight feet. Such entrances are permitted to be fully enclosed only for that portion of the year between October 15 and April 15, provided, however, that such space is readily accessible to the public between 7:00 a.m. and 12 midnight or on a schedule suitable to meet the public need."*[356]

Except for one entrance of the 120 Park Avenue [4] CPS, the rest of the analyzed spaces do not present horizontal impediments at the access point – the floor level is continuous and acts like an extension of the street. Nevertheless, the arcades, placed between sidewalk and indoor space, distort the flow and strangulate the exterior circulation space. Moreover, due to their unfortunate, narrow proportions, they interrupt the visual relationship. Hiding the CPS behind colonnades only separates them from the street realm and censors the connection.

Inside, mechanical elements – elevators, escalators – mediate between levels. Continental Center [3] placed the entrance to the office floors on the first level, overlooking the generous space of the CPS, visibly connected through escalators. Otherwise, slight differences of levels are overcome through ramps and stairs. Again, the difficult layout of 120 Park Avenue [4] shows how the building approach – ramps and stairs instead of sloped surfaces following the inclination of the street – absolves the CPS from its urban character. Instead, 100 William Street [2] skillfully mediates with an inclined surface between the street levels and the building entrance.

Only two of the analyzed spaces are multi-story: Trump Tower [7] and 875 Third Avenue [8]. They stretch the public realm vertically through the succession of several levels. In these cases, the potential of the infrastructural public space to perform three-dimensionally can be examined best. The Trump Tower [7] POPS elevates the public up to its terraces – public

356 NYC Department of City Planning, "Zoning Resolution Article VII: Administration. Chapter 4: Special Permits by the City Planning Commission," 74-84.

gardens – on the fourth and fifth floor and leads it to the underground level – the restaurant. The spatial magnitude is experienced through the tall atrium that comprises all levels. The last two upper floors connect to the gardens. Regarded as isolated features, the exterior spaces of the terraces appear strikingly urban. The furniture, the planting, the materials, the intimidating presence of the surrounding skyscrapers, all contribute to a highly urban feeling at approx. 25 m above ground. Moreover, the gardens strongly resemble the typically congested pocket-parks, often found throughout the district adjacent to the sidewalks. However, this strongly impregnated urban character is merely an elevated enclave, completely detached from the street realm. It can be best reached only after passing through all the intermediate floors, accompanied by the solemn movement of representative escalators. The tall and impressive atrium, as well as the shiny escalators underlie a strong statement – an exacerbated depiction of real-estate luxury.

The three-leveled space of 875 Third Avenue [8] uses the battery of escalators to connect the concourse, ground and mezzanine levels. Kayden's evaluation of the POPS revealed a positive performance regarding its level of activity, especially in the underground floor. He attributed it to the connective character of the space, dynamically mediating between subway, street and office floors. In despite of – or maybe even because of – lacking the exuberance of the Trump Tower [7] atrium, the multi-level circulation space 875 creates a strong visual link and orientation between the floors.

Border | Findings

The transition from the exterior space to the interior urban lobby is paramount for the definition of these interior public spaces. The separation from the street holds the key to a successful implementation of the POPS. The POPS' mere presence acts as a caricatural representation of urban space that is detached from its surroundings if they cannot become a natural enhancement of the street level. Again, the border/boundary differentiation gains importance. Its materiality and formalization becomes fundamental in the search for a porous environment with ambiguous edges. The purpose of interior public spaces should not be that of internalizing flows and draining the vitality of the street, but enhancing the public realm when needed – in highly dense and crowded areas.

The analyzed POPS have a strong and manifold relationship to their host buildings, unveiling again a conflict of their belonging – to city or building:

1 | the building volume gets distorted by the covered pedestrian space.
In the case of 100 William Street [2], the office building façade is set back, retires from the street front and opens toward the POPS.

2 | the building and the POPS are adjacent.

The cases of Sony Plaza [5] and IBM Plaza [6] are similar: the CPS are structurally independent from the host building and placed in propinquity to them. Their roof structure is independent from the host building as well. Both examples enjoy additional light through glazed coverings.

3 | the building envelope encloses the CPS.
In this sense, the case of Continental Center [3] is highly illustrative, as its interior public space remains concealed under the same façade skin of the skyscraper. The exterior appearance of the building provides no indication of the presence of the POPS. Similarly, Trump Tower [7] and 875 Third Avenue [8] also camouflage the POPS behind a unitary frontage, dictated by the building. The fact that in these two cases the contained POPS are three-dimensional must have posed an additional challenge regarding the structuring of the envelope.

Another type of enclosure is given in the cases of 60 Wall Street [1] and 120 Park Avenue [4]. The CPS are enclosed within the buildings' structure, however revealed through the different materiality of their skin. Their interface to the exterior space – the arcade – opts for higher transparency through glazed curtain wall solutions. In both cases, the façade layout of the host buildings corresponds to the arcade frontage, not to the enclosure of the CPS.

Regarding the materiality of the CPS's façades, the analysis dissected the physical characteristics of the interface to the exterior space of the eight case studies. How can the vertical edge be reinterpreted as an opportunity for exchange and communication? The materiality of the separation skin can radically influence the permeability of the interface. The case of 100 William Street [2] reaches the maximum of permeability. With no façade to the sidewalk, the broad entrance situation does not shift the scale dramatically and allows for a similar reading of the space as the street. The office building reveals the thermal envelope of its four lower floors only after accessing the covered public space that acts as a forecourt. In the case of IBM Plaza [6], the glazed curtain wall façade allows for transparency and visual contact both from the enclosed space as from the street. The POPS is showcased in an inviting way. The glazing of the roof reveals the urban dimension of the surrounding high-rises.

The Continental Center [3] opts for a curtain wall façade with a three-dimensional substructure. This impedes the direct approach of the interface and creates a physical censorship. Although transparent from the inside, the façade is reflective on the outside and appears rather repellent from the street. The generous public space hosted beyond the envelope remains concealed. Thus, bi-directional transparency between the adjacent interior and exterior spaces is essential. Furthermore, see-through situations can add to the urban experience. Covered pedestrian spaces that allow for visual connections beyond their limits – the opposite of a cul-de-sac situation – are better embedded in the street network. This is the case of 60 Wall Street [1], 100 William Street [2], Sony Plaza [5] and IBM Plaza [6]. As Claudia Herasme recognized, visibility is a pre-requisite, as people want to see and be seen, feel safer and be part of the urban entertainment.

The findings regarding the interface lead to the acknowledgement that, in order to perform on an urban level, the POPS's separating layer to the street should be as invisible as possible. In all cases, the spaces inside are far more generous than the façade allows to see from the street. The most difficult relationship to the street is caused by the rigid, lobby-like layout in the cases that are enclosed within the building structure. The transformation of the street front next to 875 Third Avenue [8] – opposite low-rise buildings were demolished in 1990 – proved the importance of transparency between in- and outdoor public experiences. The POPS gained more presence in the cityscape and acceptance from its users.

A particular aspect of the thermal envelope is dealing with entrance doors, which become the connection between the exterior and interior realm. The dimension, position and type of entrance device can easily shift the experience from an urban to an architectural scale. The analysis shows that all interior CPS reveal design failures regarding the formulation of their access. The notion of *indoor* already suggests mediation through a domestic device – the door. Indeed, the POPS are accessed through conventional, standard-sized building doors. Swing doors are often paired with a set of revolving doors. Even if the spaces are serviced through several entrance points, the punctual nature of these access situations resembles a funnel that hinders the natural augmentation of the public sphere. In some cases, such as 120 Park Avenue [4] or Continental Center [3], the entrance doors are framed, reducing them to an architectural threshold between two realms of very different size and scale. The movement flow is interrupted – especially in the case of revolving doors that imply deceleration and a change of pace.

When analyzing the created *bonused* spaces in the case studies, their hybrid nature becomes obvious. The question of what the interface is mediating between steps into the foreground. As previously seen, the interior space beyond the street is suddenly dedicated to the broad public, and not just to the users of the building, who often need to pass a control point to access the private floors. Thus, the numerous actors need to be drawn inside: the amenities become attraction points. Initially, POPS were planned without dedicated uses, adopting a more generic definition. Further along in their development, they were colonized by public functions that could easily be housed within the structure: cafes, restaurants, shops, sitting areas, exhibition areas etc. Instead of a scenography exercise, real urban spaces arise.

The spaces themselves act as an interface mediating between the horizontal and vertical dimension. They rewrite a Nolli-like map of white urban forces fighting to penetrate the black architectural form. They mediate between the speed of movement on the street and the rather static condition imposed by a building structure. Unlike arcades – designed as a transition space –, CPS are spaces to stay and linger. The eight examples showcased different characters and dynamics, ranging from quiet rest areas to more active parts. In some cases, such as Sony Plaza [5], the space functions as a shortcut between the bordering E 56 and E 55 streets but also as the opportunity for a quiet pause. It is a space that announces the lobby to the office building. The interior space of Continental Center [3] merges the urban functions of

the public area with the entrance to the office floors by elevating the latter on the mezzanine level. In the case of 120 Park Avenue [4], the entrance to the office floors is spatially separated from the public space. The POPS is not irrigated by the hustle-and-bustle of the building's users and performs as a distinctive, isolated add-on. Furthermore, the design of the space reacts to the slope of the street by lowering the interior level to connect evenly on the side of E42 Street. The level difference emphasizes the interior/exterior difference and brutally separates the two spaces.

Despite criticism, it can be concluded that these renowned examples of covered pedestrian spaces have been performing positively in their urban and architectural surrounding, and users have engaged with them. Interior POPS are less likely to be read through their spatial structure with architectural means, but need to be understood as virtual accumulations of intensity and activity. They become connectors and attractors in the dynamic urban realm. Then, as in Eco's open works, they are *"not just as a conglomeration of random components ready to emerge from the chaos in which they previously stood and permitted to assume any form whatsoever"*[357] but nodes generating new synapses within the urban network, mediating between the horizontal dimension of the street and the vertical dimension of the building. Interior POPS are a rightful constituent of the open city.

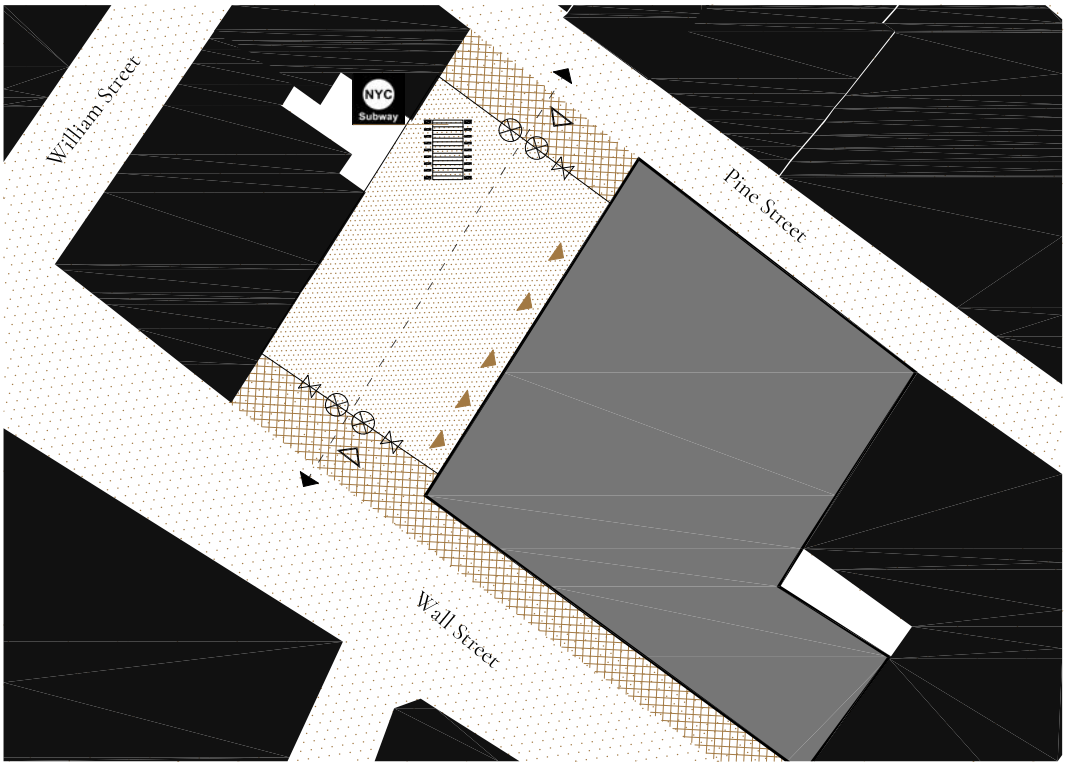
The process of validating interior public space as an urban feature – physical entities with a morphological and functional contribution to the urban realm – is essential for the current approach of this work. *"Instead of fearing a transgression of the public,* – Harteveld asserted – *we could also accept the shifting boundaries between the public and the private – they have been shifting continuously through history – and find new ways to define public space."*[358] It is a process of re-tracing and blurring the separation line between the urban and architectural realm. POPS give clues on finding the contemporary blueprint of the Nolli map towards reinterpreting the joint between the horizontal street realm and the vertical building structure, applicable in any dense urban setting.

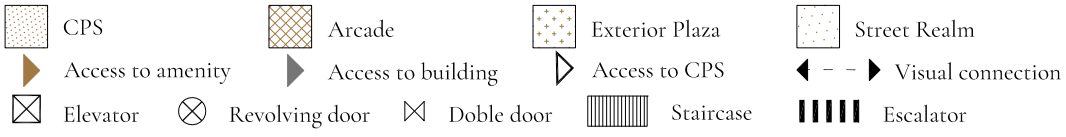
The case of New York's POPS remains paradigmatic. Throughout the years, the city's administration has concluded that the success of the provided spaces relies on design and amenities. This analysis has further revealed that the specific layout of accesses, the consideration of [material] transparency and programmatic impregnation are the keys to a successful implementation of POPS. These findings lay the solid base for the subsequent extrapolation of the elements of Urban Gulliver's infrastructural public realm.

357 Umberto Eco, *The Open Work* (Cambridge: Harvard University Press, 1989), 20.

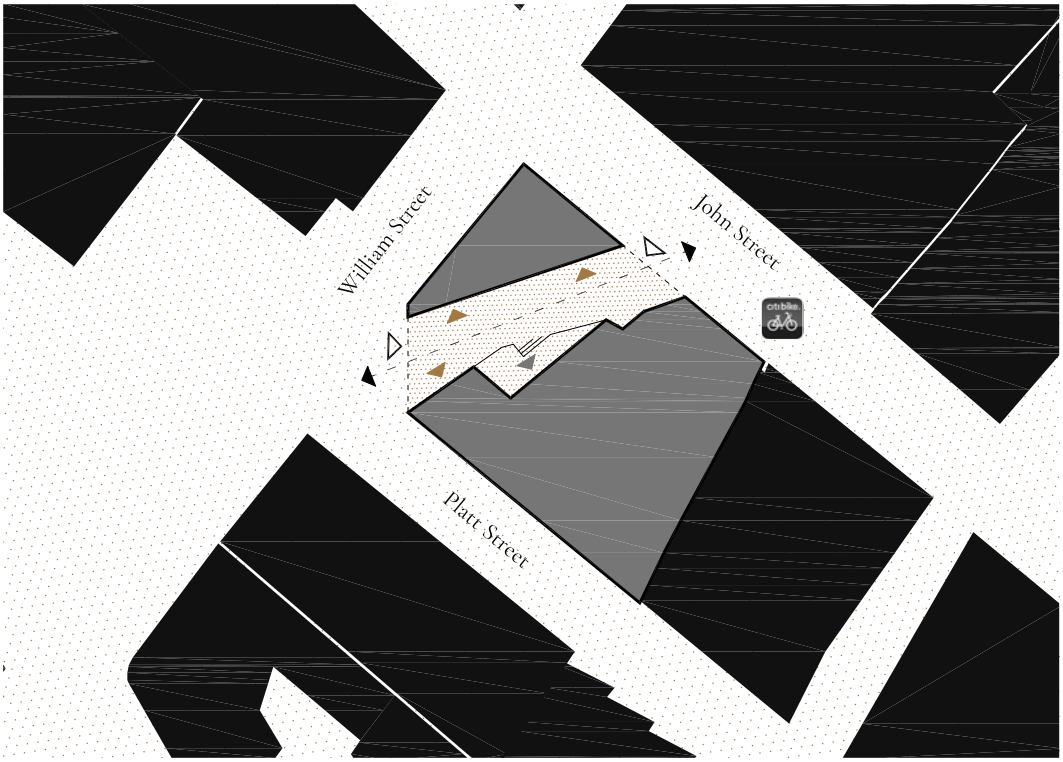
358 Harteveld, *Interior Public Space,* 165.

[01] 60 Wall Street — Ground Floor 1 | 1000



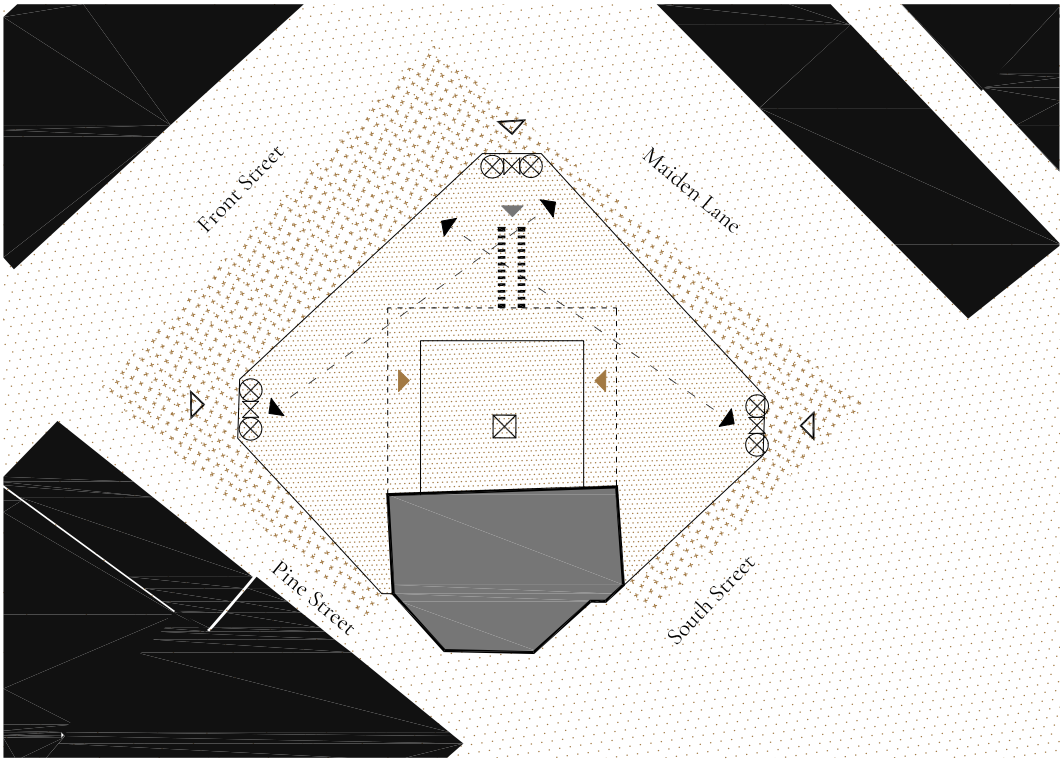


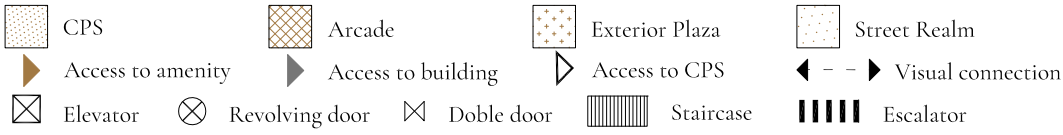
[02] 100 William Street Ground Floor 1 | 1000



CPS
Arcade
Exterior Plaza
Street Realm
Access to amenity
Access to building
Access to CPS
Visual connection
Elevator
Revolving door
Doble door
Staircase
Escalator

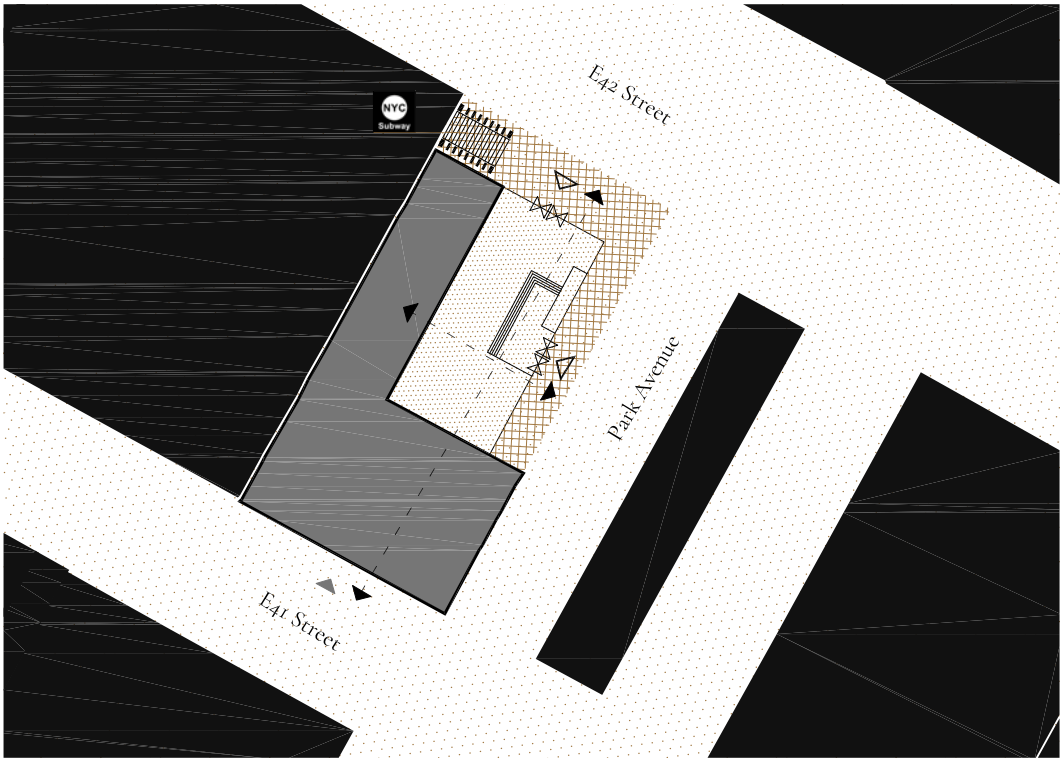
[03] 180 Maiden Lane [Continental Center] Ground Floor 1 | 1000





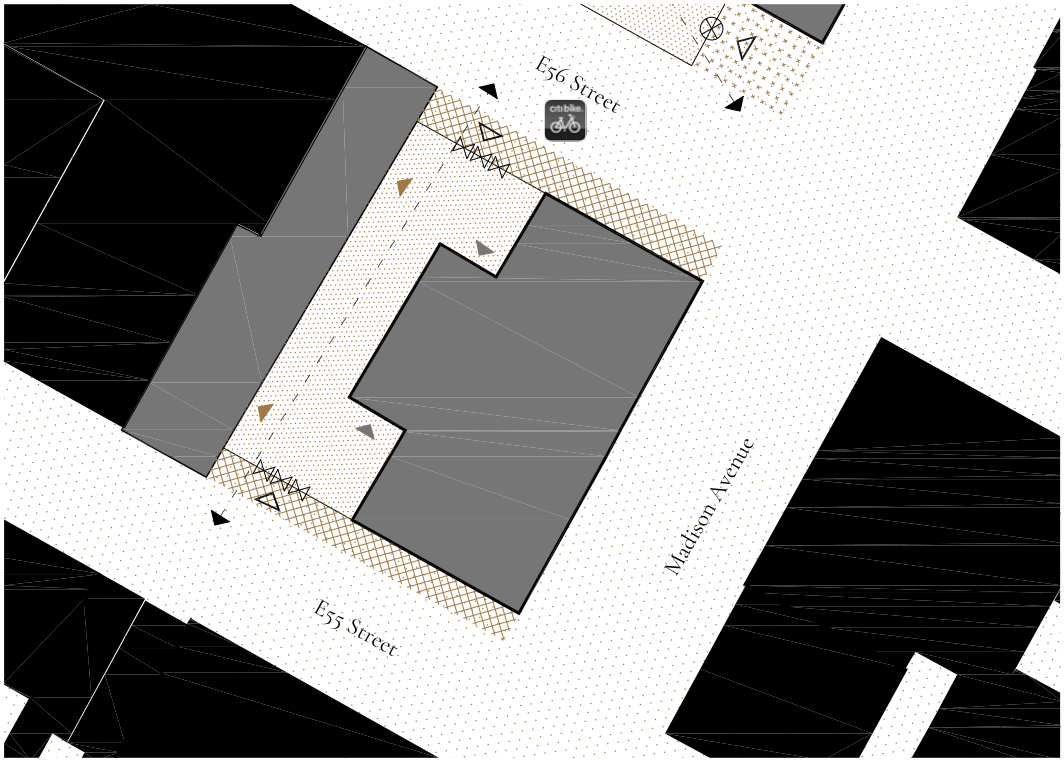
[04] 120 Park Avenue

Ground Floor 1 | 1000



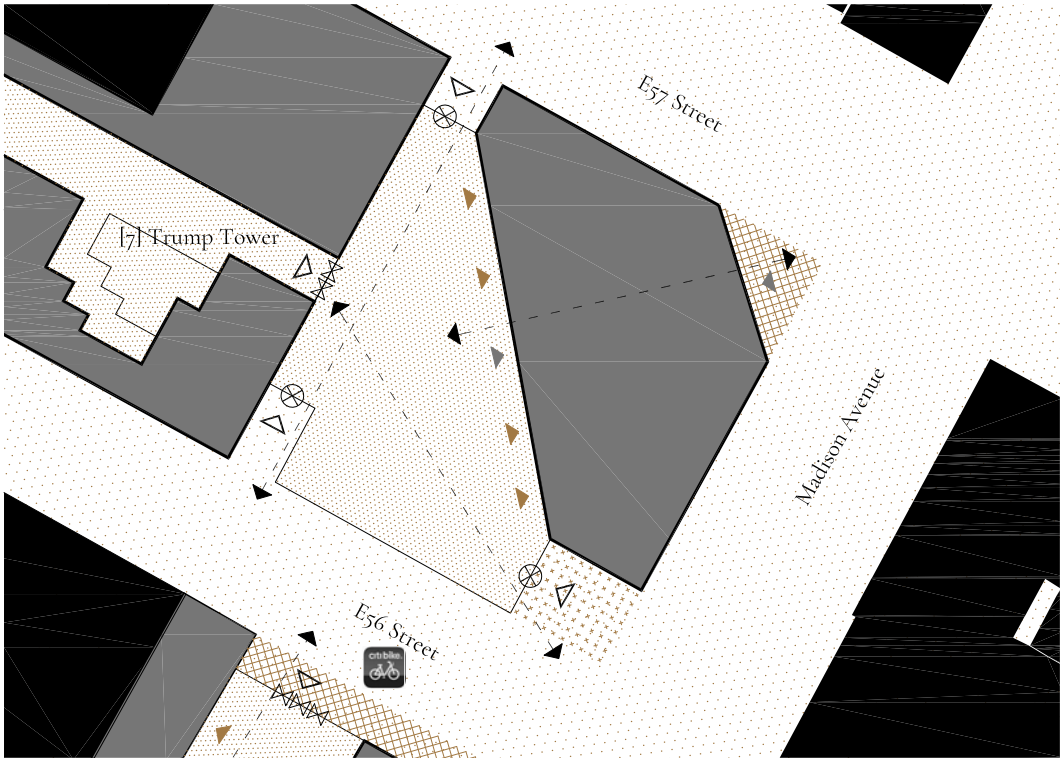
CPS
Arcade
Exterior Plaza
Street Realm
Access to amenity
Access to building
Access to CPS
Visual connection
Elevator
Revolving door
Doble door
Staircase
Escalator

[05] 550 Madison Avenue [Sony Plaza] Ground Floor 1 | 1000



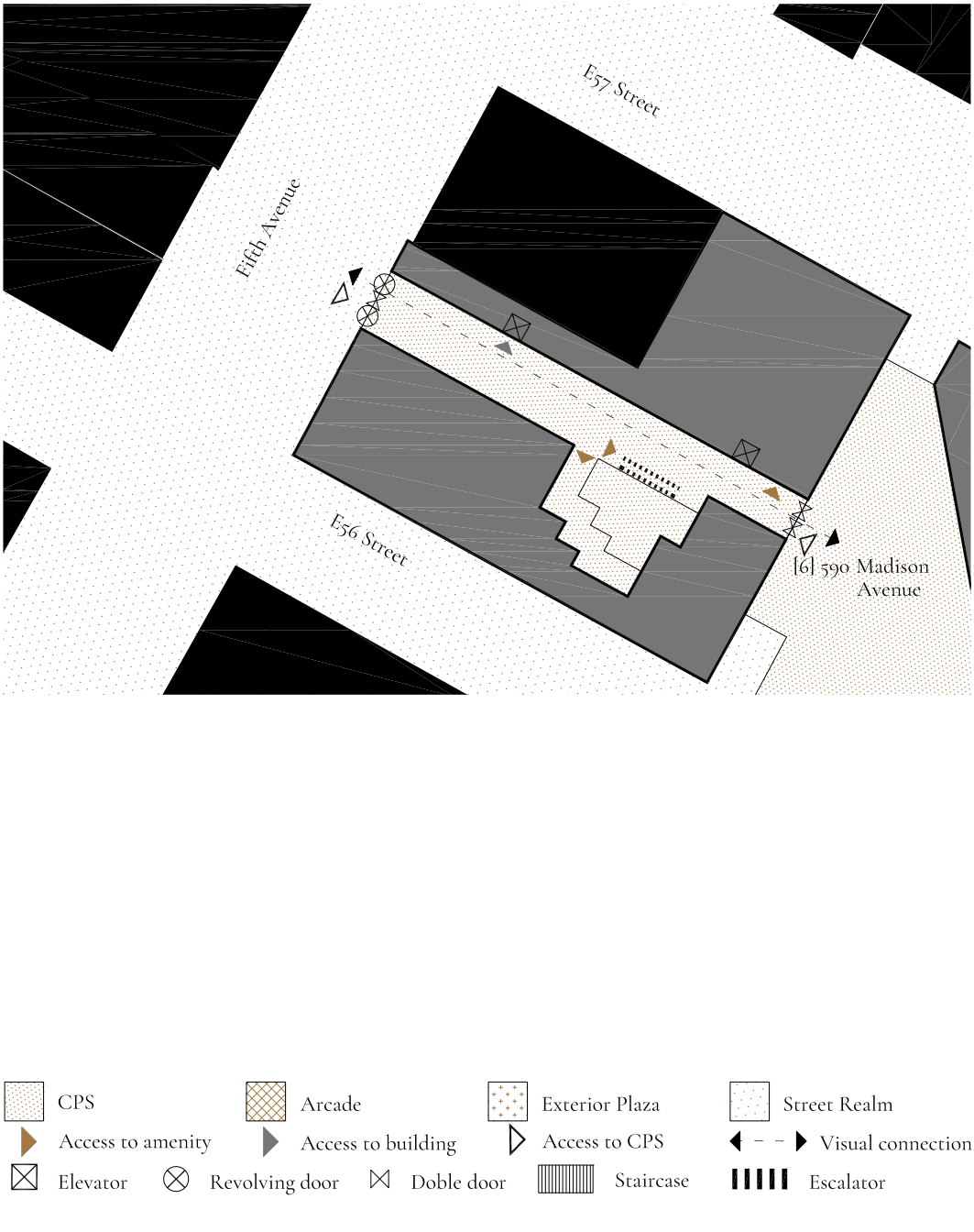
CPS
Arcade
Exterior Plaza
Street Realm
Access to amenity
Access to building
Access to CPS
Visual connection
Elevator
Revolving door
Doble door
Staircase
Escalator

[06] 590 Madison Avenue [IBM Plaza] Ground Floor 1 | 1000



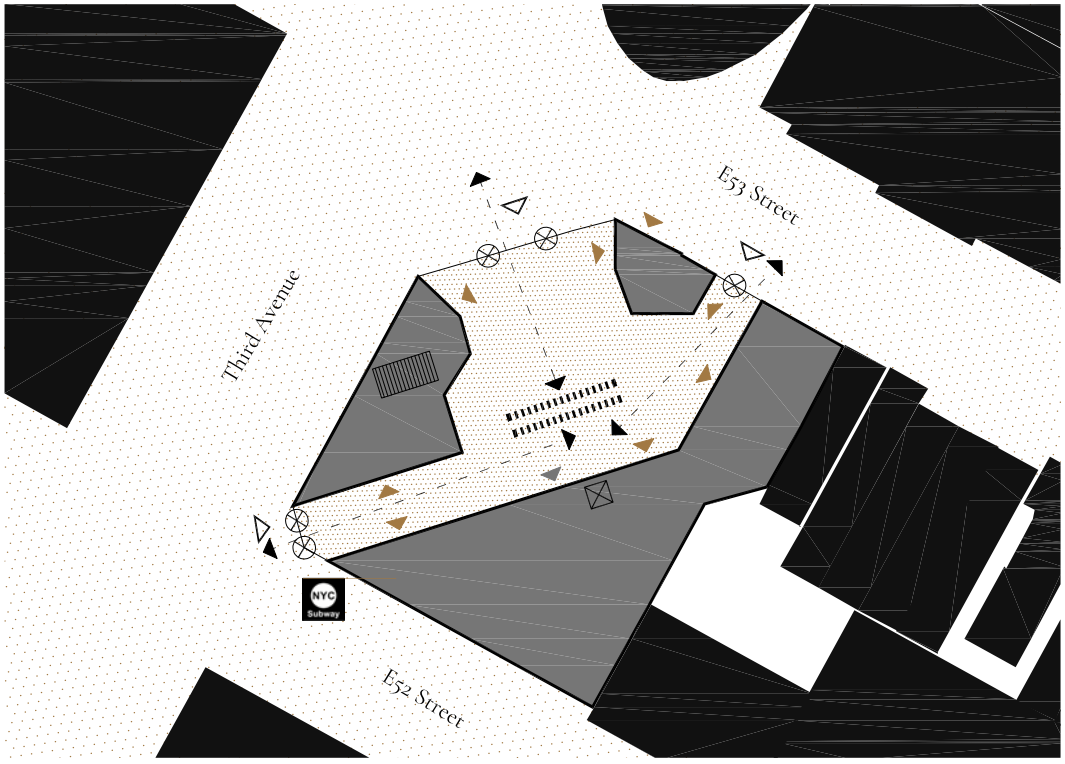
CPS
Arcade
Exterior Plaza
Street Realm
Access to amenity
Access to building
Access to CPS
Visual connection
Elevator
Revolving door
Doble door
Staircase
Escalator

[07] 725 Fifth Avenue [Trump Tower] Ground Floor 1 | 1000



[08] 875 Third Avenue

Ground Floor 1 | 1000



CPS
Arcade
Exterior Plaza
Street Realm
Access to amenity
Access to building
Access to CPS
Visual connection
Elevator
Revolving door
Doble door
Staircase
Escalator

4|4 FACETS OF URBAN GULLIVER'S INFRASTRUCTURAL PUBLIC REALM

In Koolhaas' Bigness, *"interior and exterior architectures become separate projects, one dealing with the instability of programmatic and iconographic needs, the other – agent of disinformation – offering the city the apparent stability of an object."*[359] This is a critical condition that Urban Gulliver needs to surmount. Gulliver is the character that combines all scales, therefore working as an entity at the threshold between city and building. It is the intersection point between urban and architectural approaches and between horizontal and vertical spatial organizations.

As extracted from the examination of the L'Illa case, Urban Gulliver negotiates with both realms through the infrastructural quality of its public spaces. Further on, the case of POPS was regarded as the mechanism that has already addressed the friction zone between the two realms. At this threshold, the aim was to identify the features that underline and strengthen the infrastructural component. The analysis of the eight case studies specifically focused on the elements that can either hinder or enable the networked connection of these *urban lobbies* to the system of traditional, exterior public spaces [at this point, Rem Koolhaas' collection of fundamental elements of the architectural repertoire has been a relevant reference]. The research consistently fathomed the aspects of the infrastructural character in order to reveal design-specific aspects that can enhance it.

Aureli defined the term *infrastructure* as the in-between space – a space that could never be conceived and imagined in itself. He argued that it can only exist as a space of confrontation between the parts that form its edges.[360] His approach of understanding the *formal* – the architectural body – was through the experience of limit, understood as the relationship between inside and outside. The limit – considered a restrictive term – is regarded here from the point of view of the definition of the interface – the junction space between two realms.

359 Rem Koolhaas, "Bigness: the Problem of Large", in *Small, Medium, Large, Extra-Large; Office for Metropolitan Architecture.* ed. Rem Koolhaas et.al. (New York: Monacelli Press, 1995), 501.

360 Aureli, *Absolute Architecture*, 27.

In order for Urban Gulliver to sustain its infrastructural quality, the consideration of the interface as a permeable membrane has proven essential. The term interface is understood as a common territory, the place where independent, often unrelated systems meet or engage in communication with each other.[361] As previously mentioned, Sennett announced the great challenge of architecture lying in the design of the crossing through spaces. The interface bears great resemblance to Sennett's idea of border – the space of potential, communication and exchange. It represents the collision point between the forces that sustain Urban Gulliver.

The interface – either a layer or a space – represents the territory of mediation between the horizontal and the vertical vertexes. It enables the gradient from the urban street realm – where it is rooted – to the architectural building realm – which it alters. It is the binding element whose systemic deployment enhances the infrastructural network. The linking potential of the interface is defined by the combination and simultaneous consideration of elements of circulation, materiality, size and program.

Connectivity through Elements of Circulation

Gulliver is embedded in the urban context through the active consideration of its infrastructural component, streaming flows and rhythms that belong to the city. How can an L-sized organism handle these different speeds? Public space, both horizontal and three-dimensional, is strongly experienced through motion, in a wide range of tempos. Pedestrian movement constitutes the *blood* flowing through the veins of Urban Gulliver's circulatory system. The streams become the liquid component of an otherwise static structure. Furthermore, it needs to exploit the binding power of these flows. What are the means of sustaining movement through the interface?

Thoughts on movement and mobility have always accompanied architectural and, more so urban approaches. The act of walking – the way of experiencing spatial sequences – is intrinsic to human behavior, and it has repeatedly been emphasized in scholarly discourse under various terms: *flaneur-ing*, *meandering* or *deambulating* all imply the experience and enjoyment of public realm.

Concepts for L-sized structures have tackled the topic of mobility from diverse perspectives. It was a core topic for megastructuralists, for instance. Constant Nieuwenhuys based New Babylon's layout on humans' nomadic character. For Yona Friedman, mobility stood for interchangeability. Instead, Cedric Price explored mobility in a literal way, as the physical manipulation of different architectural elements. Despite the fact that the visionary architect saw the future lying in the exploration of the fluidity of physical structures and away from

361 According to Merriam-Webster dictionary.

the rigidity of object-buildings,[362] the translation of his principles to architecture remained truncated.

In this research, the primary focus has been set on pedestrian motion. The previously analyzed case studies have provided insight on the relevant aspects that enable and sustain patterns of circulation in a three-dimensional public realm. In *Vertical Village*, Klumpner and Brillenbourg defined topography as the DNA of the city, which conveys individuality and uniqueness. This topographic ground is essential in the generation and support of the public space, moreover, in three dimensions. When approaching multi-level public space, bridges, elevators and mechanical stairs are used as devices for rapid and functional displacement. They not only change the dynamics of movement, but often fail to offer the needed ground for the spontaneous proliferation of public life. Urbanity is interrupted in such pedestrian highways. This is why a robust base becomes essential. The topographical aspect of public space is essential on ground floor, understood also as starting level for the deployment of a three-dimensional network.

Leaning on the findings from the previous study of L'Illa, the different types of public space were all linked through a topographical stratus. It facilitated the legibility of the public realm in its complexity. L'Illa showed how the manipulation of an underlaid topographical skin created seamless crossings between spaces of different characters and sizes. The ensemble handles several levels of publicness, perfectly connected in themselves and with the surroundings. Seven of the eight analyzed POPS shared the same level with the street. 100 William Street [2] even mediated in a topographical approach between two different street levels and a slightly elevated entrance. The exception, 120 Park Avenue [4], confirmed the violent rupture that is perceived in movement, when the articulation of levels becomes abrupt. During the conducted interview, Herasme repeatedly warned about the public realm break occurring in sunken or elevated plazas.

As Kevin Lynch also recognized in the 1960s, urban space is a networked space. Gulliver's urban character is conveyed through its public spaces. The connection and synapses become essential elements of design. Embedded in a topographical continuum, public space is relevant in its continuity. In order for the network to function as a three-dimensional matrix, public space needs to be understood and pursued as a *continuum*, where the links generate a continuous flow. When the synapses between distinct spaces for the public are missing, the continuum of public space cannot be achieved.

As already stated, public spaces cannot serve as mere connectors or pedestrian highways enabling a rapid and effective displacement from one point to another. Manuel de Solà-Morales pointed out that *"good public space has no limits, or the ones it has are undefined, multiple, oscillating. [...] Watch those perimeters!* – he warned – *They are both main theme and baptism of fire*

362 Stanley Mathews, *From Agit-Prop to Free Space: The Architecture of Cedric Price* (Black Dog Publishing, London, 2007), 250.

of urban quality."[363] Indeed, the network of public spaces has to be by definition expandable and limitless. The generation of autonomous, self-sufficient islands breaks the flow. Such interruptions only enable spaces dedicated for public use yet drained of their potential urban character.

The continuum articulates elements. Instead of pursuing *linkage* solely, De Solà-Morales' approach on the public realm insisted on the *articulation* of floors, pavements, roadways, itineraries or supports. He considered articulation a more complex base for a relationship between distinct elements and spaces. Articulated elements of circulation sustain the flow and do not create disruptions. They belong to the urban repertoire. The diverse movement rhythms and speeds that occur in the three-dimensional public space need constancy.

Even if interiorized, ramps, streets or plazas easily introduce and distribute the street dimension into a built structure. They create seamless connections and can gradually shift scales. Escalators and stairs inevitably change the pace. Their deployment requires topographical support and a conceptual underpinning.

Elevators are the most difficult element of motion. They create a caesura that inevitably separates realms. Elevators cater to functionality and time-efficiency, however are weak connectors within the public realm. Even if they recreate an urban atmosphere, rooftop or elevated terraces, such as in the case of Trump Tower [7], are unable to maintain a relationship with the surrounding public realm if the connection is compromised. Stephen Graham dedicated an entire chapter[364] to this means of transport, reflecting that, in comparison to the literature on horizontal ways of transportation, the investigation on vertical means of transportation in buildings or vertically organized cityscapes is scarce.

Some elements clearly belong to the architectural vocabulary, such as the elevator. They encapsulate users in a defined space and transport them to a concrete destination, in most cases spatially unrelated to the initial point. The cases in which an elevator maintains the continuity between the two linked spaces are rare. Other elements belong to the urban repertoire, such as streets or plazas. Elements such as stairs or ramps have a less strict belonging, their disposal and dimensioning marks their character and attribution to a specific realm. The affinity of these elements is alterable. Escalators, for example, after revolutionizing the connection between interior spaces, have proved their versatility in the streetscape as well, being a common choice in the connection of multi-layered public spaces. If the continuum and topographic substratum is ensured, Gulliver must not shy away from the mix of elements of circulation.

363 Solà-Morales, de, "The impossible project of public space."

364 Stephen Graham, *Vertical; the City from Satellites to Bunkers* (London; New York: Verso, 2016), 132.

The elements are never a means of detour. In this regard, besides physical connection and continuity, visual links are equally essential as they keep users part of the bigger picture and provide orientation and participation in the larger setting.

Permeability through Materiality and Size

The next aspect considers the materiality and dimension of the interface. Regarding size, the essential conclusion drawn out of the analyzed project refers to the relevance of working with the urban dimension. This means managing distances and proportions that make reference to the street realm. In L'Illa, the large-sized breakthroughs in the lower levels of the main building perforated the built structure and extended the public realm to the interior of the block. The example of POPS has revealed the incredible differences perceived when the interior spaces have generous heights and magnitude – the regulation defined the necessary minimums – and a similar scaled passage opportunity from the street.

For Aureli, the formal definition of an architectural product emerges out of the designer's decision on how the inside space relates to the outside space and how the latter is delineated from it. His starting point in the quest for the definition of architectural form and interior space was, indeed, the architectural realm. The present approach has the opposed starting point. The urban penetrates the architectural, however in a process of cross-contamination – domestication of the public, randomization of the private.

The permeability of the interface can be achieved through the consideration of materiality. In this regard, Manuel de Solà-Morales' theoretical debate offers, once again, a solid base. He revered the city and its overwhelming complexity through the material condition of public space. Thus, his conception of public space implied physical features that contoured a perceptible idea of the city, such as matter, fabric, texture, consistence etc. De Solà-Morales' notion of *urban base* is sustained through materiality. *"I work on the skin of cities.* – he wrote – *[...] I am interested in material urbanity, urbanity made of touch and vision, of sensation and suggestions."*[365]

Unlike structural, systemic or functional approaches, the author looked at the material aspect of the urban setting, defined as the *urban skin*. The urban skin represented for him both the epidermis and the substratum of the idea of the city, strongly related to the configuration of public spaces. The material condition could distinguish between spaces dedicated to the public and urban public spaces. Furthermore, De Solà-Morales inextricably tied the generation of urbanity to the tangible, the material, since *"the city, macle of conflict and solidarity, stability and dynamism, connection and distance, appears in the material condition of public space."*[366] Materiality,

365 Solà-Morales, de, "A Matter of Things," in A *Matter of Things; Manuel De Solà-Morales,* ed. Manuel de Solà-Morales i Rubióet al. (Rotterdam: NAI Publ., 2008), 23.

366 Solà-Morales, de, "The Impossible project of public space."

according to the author, defines distances, rhythms, continuities, sequences, frictions, intensity of use and participation. It can enact a perpetual dissolution of boundaries. *"Urbanity is articulation, complexity and difference. Articulation of floors, pavements, roadways, itineraries, supports, empty spaces."*[367]

The material condition of the interface is examined at the junction between in and out and building and city. The materiality of the separating layer is best represented in section. Robert Mantho's publication *The Urban Section*[368] provided a thorough analysis of the fine nuances in ground floor transition zones. These were defined as the area where public space changes from open to enclosed. The transition is addressed through various devices and methods that have significant impact on the perception and experience of the street. The transition zone has different depths from just the thermal separation layer of the façade to a spatial figure, such as a threshold. The author argued that the physical characteristics of the base of the street wall that are defined through architecture are a key determinant of how people perceive and use this zone of the street or, more generally, the public space. The street wall conveys the spatial definition of the open space and determines the enclosure. Similar to Auerli's experience of the limit, Mantho's approach on the street wall formally distinguishes between building and street. It is however regarded as a place of potential, not a schism.

The most important aspects refer to its vertical definition, the relationship of the base to the room of the street, the characteristics of the façade on top of the base and the roof scape. The base of the street wall structures the interaction between interior and exterior spaces, defines the edge of the street room, supports the activity of the street and offers visual stimulation factors. It is the central contributor to the identity of the street. The interaction between interior and exterior spaces of a street defines the vitality of the urban environment. This interaction is sustained and enable through architectural means such as composition, proportion, materiality, scale, accessibility and so on. Determining if the configuration of the base of the street wall is hard or soft, abrupt and direct or layered and modulated establishes the character of the street edge. Soft street edges invite social gathering and blur the distinction between interior and exterior spaces.

Activation through Program and Use

Gulliver's infrastructural public realm is sustained by its amenities. In order for the interface to appear attractive to users, a balanced mix of uses is imperative. Synchronicity and mixity – attributes of the open city – are the main attributes imported from the traditional street.

367 Solà-Morales, de, "For a Material Urbanity," 147.

368 Robert Mantho, *The Urban Section. An Analytical Tool for Cities and Streets*, (London: Routledge, 2015) 12-13. New urbanist Patrick Geddes used the transect concept, borrowed from ecology, to establish a model of for the appropriate relationship between the gradation of density in the build environment and the natural habitat. He suggested a means of examining the vertical spatial component of urban form. Urban transect was the way to rethink zoning and design guidelines in an effort to address the perceived problem of urban sprawl.

Whereas buildings are erected for specific uses in specific time frames, the street is a melting pot offering a twenty-four/seven setting. The equilibrium between density and mixity reflects on the relationship between building and activity. The right tune is difficult to find; therefore, urban space often oscillates between under-used or over-programmed areas. As De Solà-Morales argued, *"bewilderment and complication are confused with supposed urban complexity."*[369] Indeed, urban complexity implies a state of *healthy* saturation with urban stimuli. Complication and bewilderment occur when the programmatic mix is magnified beyond the assimilation capacity of the users. Over-programming means over-defining. In this case, functional indeterminacy becomes the secret spice of the mix. As De Solà-Morales underlined, this indeterminacy must not be understood as vagueness, but rather as the provision of space for many possibilities. Indeterminacy does not breed a sterile ground, but opens room for manifold uses.

Regarding the degree of informality, both Maas and Thorsen tackled the topic of reprogramming as an important feature of [indoor] public spaces. Even if the original design determines a specific use, the structure has to be able to allow reprogramming, since public uses are likely to mutate. Saskia Sassen – from her position of an urban researcher, not planner – also considered that *"the public space suffers from being overdetermined. We need other categories. In this aspect I am extremely interested in the idea of indeterminate space."*[370]

The acknowledgement of bringing the POPS to life with urban functions, retail and restoration was decisive for the successful implementation of Manhattan's traded public spaces. Both interviewed urban designers from the New York Department of City Planning, Herasme and Kim, underlined the imperativeness of good design and the provision of uses for the passersby. Especially when talking about interior public spaces, the edges of the enclosed areas require animation through a functional mix. The overall attitude is supportive towards retail and additional amenities. The eight analyzed cases – even Trump Tower! –, grandfathered under a previous, less-demanding regulation, are all poorly pigmented with urban program.

A compound of public program was also envisioned at the edges of the interior park of L'Illa. The architects imagined a variety of activities that would address different daily timeframes and different users. Then, the landscape layout of the park itself could remain more austere. The formal indeterminacy was compensated by richness in activities. The creation of venues that become relevant through qualitative, not quantitative density, stirs urbanity. Qualitative density relies on mixity.

Programmatic over-determinacy and an emphasis on retail can stir a rapid privatization and commodification of the public terrain. Within this hybrid setting, forces are being constantly renegotiated. Sennett's writings, especially *The Fall of Public Man*,[371] have disclosed the century-

369 Solà-Morales, de, "For a Material Urbanity," 145.

370 Saskia Sassen, "Economy, City and Public Space," *Quaderns d'arquitectura i urbanisme,* No 266-267 (2015): 10-13.

371 Richard Sennett, *The Fall of Public Man* (New York: W. W. Norton Company, 1977).

long, intimate link between urban space and commerce. Indeed, commercialization can always turn into a threat for the public realm. However, these phenomena must not be deprecated. Retail is not the sine qua non condition of the layout of any public space; notwithstanding, the consideration of a balanced mix certainly animates it. The real peril occurs when the provided program becomes restrictive and generates exclusivity. In this regard, the rather occult processes of privatization happening through the Business Improvement Districts are considered dangerous for the stability and durability of public space.

The need for *a wholly new concept of three-dimensional linkage* was anticipated by Fumihiko Maki in the 1960s. He noted that *"if we are successful at making unified and meaningful complexes of form and activity near the ground, we are notably unsuccessful at going into the air with linked functions."*[372] As already mentioned in the previous chapter, the means to achieve three-dimensional connections have been repeatedly explored. A few years after Maki's statements, Cedric Price anticipated that *"the measurement of three- and four-dimensional space is only achieved through an agreement, if only with oneself, on intervals of both distance and time. [...] Thus, just as the perfect line has no width, then the true space has no boundaries – merely an agreed progress between prearranged intervals."*[373] It is in this sense that Urban Gulliver approaches the three-dimensional bond between the horizontal street space and the vertical building structure: through the infrastructural component of its network of public spaces. This in-between space – the interface – aspires to be boundary-less through seamless connections, material dimension and programmatic activation.

372 Fumihiko Maki and Jerry Goldberg, "Linkage in Collective Form," in *Investigations in Collective Form*, (St. Louis: Washington University, 1964), 33.

373 Cedric Price. "Public Spaces and Private Spaces," *London Architecture Club Magazine* No.2 (1978).

5

CONCLUSIONS

The foundation of this thesis was formulated by a combination of personal interest, naïve curiosity and a bit of intuition. From the first outlines of the hypothesis, the study commenced the quest for a new, fictional character that could exemplify a possible urbanization strategy. At this point, certain conclusions can be drawn as a result of the extensive research applied to this study. The open-ended narrative is a feature that indeed applies to Urban Gulliver's open system, but not to a dissertation.

Urban Gulliver was introduced as an urbanite, which emerged out of the need to react to the contemporary challenges of the urbanization process, with special focus on the European cityscape. This reality and its worldwide projection were recently addressed by the UN-Habitat through the proclamation of the New Urban Agenda, which provided a broad, initial normative foundation for the thesis. Despite its highly generic content, the UN-Habitat's endeavor was considered meaningful because it provided a loudspeaker for the acute issues that urbanizing environments currently face. In parallel, the Quito Papers acknowledged the same complex challenges from a theoretical perspective. This sudden global awareness underpinned the topic of the thesis. Additionally, the present crisis of the city was exacerbated by the recent crisis of the planning discipline. Koolhaas' notorious requiem for urbanism had already predicted the collision of the urban and the architectural realm. This was the exact point where the investigation and the implicit object of study positioned themselves. Various planners and scholars had been vocal about the fact that the planning and designing of cities still happened within an over-regulated, risk-averse framework. The outputs were anachronistic, rigid and restrictive urban plans. It has become the stringent responsibility of the present time to address the complex urban challenges of the future.

This thesis interpreted part of this responsibility lying in the indisputable necessity to provide high-density environments. This translated to the search for densification strategies that could ensure a high degree of living comfort. The investigation of the topic revealed the fact that the variety of currently employed basic measurements failed to grasp the complexity of the density concept. Instead of trying to understand density through ratios, it was rather the outcome – the dense urban form – that deserved more attention. L-sized structures can accommodate high density patterns. The correspondence between urban form and density

is expressed through the attribute of compactness. However, the recent interpretations of compact urban structures through the perspective of density proved superficial or biased. This thesis called upon a character outlined a few decades earlier: Compact City. Similar to Urban Gulliver, Compact City was outlined as a fictional character and was elaborated upon down to the finest details. The exercise of accommodating high density structures within a compact L-sized form was interesting, however, Compact City lacked persuasiveness. By being over-defined, it remained in the realm of fiction. It was one of many approaches of dense L-sized structures in the urban and architectural discourse of the last century. The retrospective look on several well-known instances disclosed the fact that none of the cited L-size concepts had thoroughly considered a viable insertion strategy. Most examples remained utopian, unaware of their effect on the context. Moreover, the examination of the performance of contemporary L-sized developments revealed the imperativeness of a reliable implementation strategy.

It was at this point that the search for a strategy for urban densification that could accommodate inner-city life led to the introduction of a new character that epitomized the L-category – the threshold between the scales of architecture and urban design, between urban space and building. Out of the belief that the potential of inner-city large-scaled structures has not yet been fully exploited, the work introduced Urban Gulliver, a fictional character that embodied an idealized version of the L-size.

Once coined, the term required specification. Searching for the requirements to outline this inherently urban protagonist, Urban Gulliver's further depiction was based on a set of characteristics that sketched its portrait and claimed its rightful place in theoretical discourse. The object of research emerged out of the ever-mutating L-size trend of the last decades. It firstly posed the important question of the feasibility of metropolitan architecture beyond the threshold of critical mass. The personification of a disciplinary approach and implementation strategy through a fictional character could repeat the mistakes of the past.

The third chapter focused on deepening the traits of Urban Gulliver. Based on the comprehensive scholarly debate on the future of cities summarized in the Quito Papers, the concept of openness – a set of properties of the built environment – provided the much-needed systemic framework. The principles of an open system – the discussion spanned from Umberto Eco's to Richard Sennett's theories – were considered of paramount applicability for Urban Gulliver. For Sennett, openness implied keeping a place alive through three attributes: synchronicity, incompleteness and porosity. His approach provided the ideal conceptual groundwork for a large-scaled structure. Under the auspices of the open system, Gulliver could evade the rigidity of over-planning and constantly adapt to unpredictable growth and change. These features were more sharply expressed through the hybrid nature of Urban Gulliver. Within the open structure, hybridity was considered the warrant of complexity and synchronicity. Hybrid L-sized structures – constantly redefining their character – have found their acceptance and applicability in every urban setting. They have dealt with constant challenges and have confronted economic and speculative forces. Throughout their evolution, the urban L-sized

mixed-use began to include additional functions, hitherto disregarded as rightful constituents of a building structure – i.e. open public space, transport infrastructure, etc. This alloy of programs eventually overran the boundaries of a building structure and had to find a way to be restructured in a hybrid form.

It was concluded that openness worked as a strategic framework for Urban Gulliver, concealing city and building, and reuniting the attributes of all scales into a common platform for experimentation. Hybridity represented a significant intrinsic attribute of the open system. Hybrid uses would catalyze without the expectancy of finished forms and functions. The adaptation and change over time would be insured by different facets of indeterminacy that required a robust framework and enforced Urban Gulliver's personality. The attribute of indeterminacy, with all its aspects, sustained its versatility. Within the complexity of the hybrid character, indeterminacy was considered a valuable asset that could ensure resilience and adaptability. Urban Gulliver was not depicted as a finite product, but as an incubator that would change, mutate, evolve and reinvent itself when necessary.

On one hand, the enounced theoretical requirements outlined Urban Gulliver's potentials. It was anticipated that complying with the framework of openness, hybridity and indeterminacy would provide a resilient implementation strategy. It was important to highlight that this framework was not based on theoretical speculations but on viable characteristics of the built environment, for which Urban Gulliver represented a platform for experimentation. On the other hand, the study revealed important threats and challenges that the research considered to have strongly affected L-sized structures in the past. The potential of large structures lied in their capacity to become fragments of the city. This potential could easily turn into a flaw, when the gravitational force of the L-sized kindled insular and self-sufficient aspirations. The wide array of contained uses could easily enable the structure to work independently, as a self-sufficient entity within the city. The threat of turning into a self-sufficient microcosm that caters solely to its inhabitants is real for Urban Gulliver. The tendency towards insularity means becoming immune to the surrounding city.

Another menace was the feared process of commodification. Large-scaled developments easily become commodified products, with severe consequences on their performance in the cityscape. One specific issue was the commercialization imprint. Retail – this fast food category of the architectural repertoire – can nest into any other structure and extend its tentacles. Shopping and retail often proved to act as the warrant of a collective urban awareness for an unrooted, identity-less urban society. Instead of demonizing, the thesis acknowledged these forces that affect our urban environments. Urban Gulliver would need to confront and resist them – in the case of insularity and self-sufficiency –, or – referring to commercialization – turn them into assets.

The newly introduced character, Urban Gulliver, is a fictional one. As previously mentioned, it was delineated with a set of characteristics that emerged on one hand out of the need to

overcome the main threats and implementation challenges L-sized structures have faced, and on the other hand out of the conviction that openness, hybridity and indeterminacy were indispensable traits ensuring the resilience and appropriation of such a structure. This thesis speculated on these ideal features without leaning on existing examples. Notwithstanding, these ruminations and theoretical reflections needed to be contrasted with what was intuited to be the closest version of Urban Gulliver. It was difficult to find a facsimile of a fictional character, as this could possibly have invalidated the novelty of Urban Gulliver. However, intuitively looking for a project that might comply with these requirements led to the L'Illa Diagonal ensemble in Barcelona. L'Illa represented an ambiguous position in the transition scale between architecture and the city, marking Gulliver's field of action. The project was examined according to Urban Gulliver's basic characteristics – location, dimension, uses, infrastructural component and public space. The requirements and threats were also contrasted with the case of L'Illa. It was concluded that the established characteristics were a valid framework for Urban Gulliver. It was also deduced that the formulated threats could be greatly overcome.

L'Illa was an isolated example that could not build a case. However, it was proof that Urban Gulliver could pass from fiction to reality. It was clear that Urban Gulliver needed a chance – a more nuanced implementation strategy. After identifying L'Illa as an Urban Gulliver avatar, the study looked at key features of the research in order to extract a possible implementation approach. A recurring topic found through the analysis was the consideration of the ensemble's public character and of its network of public spaces. The investigation disclosed the recurrent focus set on the agglutinant – the binding substance of different compositions – and elaborated on this key-aspect, understood as the adequate planning strategy for creating the necessary synapses between L-sized structures and their surrounding urban fabric.

The case of L'Illa Diagonal could be applied directly to the hypothesis of the research and emphasized Urban Gulliver' chance. The significance granted to the network of public spaces led to the formulation of the research question: *To what extent and under what circumstances does the active consideration of public space improve the performance of Urban Gulliver as an urban densification strategy?* The retrospective look on L-sized instances throughout the twentieth century also revealed the lack of attention granted to public space. Therefore, the generation of public space has been considered the essential starting point and common denominator across a variety of possible approaches on Urban Gulliver. Moreover, the composite form of building and urban space that Urban Gulliver epitomized would have to be mediated through the public space component. This approach required a three-dimensional network of public spaces, enhanced by novel models and acceptations of public space instances.

The Urban Gulliver model deliberately acknowledged the contemporary diversification of public space types and addressed it within the framework of the open system. The fourth chapter of the thesis initiated the search for new potential and features of the public realm, aligned with both contemporary and future evolution patterns. Sennett's thoughts on porosity were

the thread that accompanied the search. Instead of re-creating the conventional understanding of public space or pursuing an idealized blueprint, the research aimed at identifying new instances of public space – an alternative to the ongoing narrative of loss and decay. It was considered necessary to redefine and extend the notion of contemporary public space, as an increasing amount of public life has been accommodated within new frameworks – spatial or virtual – in recent years. A conclusion drawn from the theoretical examination is that the pessimistic theories of Michael Sorkin [disneyification] and Marc Augé [non places] were overshadowed by the optimistic tone of Manuel de Solà-Morales [collective spaces], Hajer and Reijndorp [new public domain] and Matthew Carmona. According to Carmona, contemporary society demanded a new reading and the reinvention of the role of public spaces. This claim, supported by several scholars and practitioners, set the foundation for the approach of Urban Gulliver. The subsequent part of the thesis was concerned with understanding *how public space could be re-defined beyond its traditional acceptance.* As the concept of public realm had diversified and had become elastic, three phenomena – linked to the previously enounced threats of L-sized structures – were considered influential: interiorization – related to insularity –, privatization and commercialization – byproducts of the vehement commodification process that affects large-scale ensembles. These mutations occurred especially at the encounter of city and building – the Urban Gulliver neuralgic spot.

The discussion of the affectation of all three phenomena on the public realm led to several resolutions. The interiorization of public space, extensively debated by De Solà-Morales, Rice or Harteveld, required the user's acceptation. Enhancing the vocabulary of public spaces with interior ones became a key approach for Urban Gulliver's most sensitive point – the encounter between [horizontal] urban space and [vertical] building. Insularity could be avoided if the interior realm acted as an addition to the existing network, and not as a distinct entity.

Similar to L-sized developments, public spaces have also turned into a vehicle of privatization. Even if seductive at first glance – clean, safe, welcoming, well-designed – urban privatized areas introduced a superposed a layer of restrictions that forced users to compromise and rewrite their behavior. Such replica spaces could easily bias Urban Gulliver. Despite the worrying speed of the privatization process and its increasing extension in European metropolises, it was considered paramount to ensure and maintain publicness – primarily through unrestricted, free access.

Large interventions have the responsibility to attend to public and urban needs. However, under the auspices of the private investor's authority, commodification and commercialization of the spaces dedicated to the public were unavoidable consequences. Cities increasingly promoted themselves as commodities and competed for attractiveness. Shopping became the driver of commodification, since the facile access to entertainment, leisure and retail suppressed the need for spatial quality.

Apart from these conceptual mutations, the meeting of public realm and building was regarded as a place of potential, with abilities yet unexploited. This topic was discussed under the concept of capillarity – the host structure's absorption capacity of public flows. This ability implied the three-dimensionalization of the public realm relying on an all-encompassing exercise in porosity. The figure-ground representation of the Nolli map stood exemplary for the negotiation between the two realms and their mutual affectation at the threshold between public and private, open and closed, accessible and restricted. Furthermore, the study argued that a contemporary symbolic adaptation of the Nolli map representation had to include the third dimension and blur the clear boundaries between the figure and the ground.

In a recent informal discussion about the topic of the thesis, I was asked if the ***L*** [from L-sized] represented the two approached dimensions – horizontal and vertical. I considered it an interesting coincidence. Throughout the years, large-scale interventions complying with high-density requirements have leaned on several solutions for elevating the public realm and multiplying the suppressed public space on the ground floor – elevated or rooftop terraces, high-walks, bridges. This research took into consideration the majority of these solutions, as well as the overuse of the term *vertical public space*, as a critical factor. Therefore, the subsequent part of the study addressed the question of the *re-definition of public space in the third dimension and looked for the elements that contributed to its recognizability*.

In order for the ground to be fluid and continuous, this thesis leaned on Aureli's definition of infrastructure as the in-between space. Thus, the research has proven that infrastructural public space has mainly been a remnant or a compromise, but not a precondition of previous L-sized structures. The chance of Urban Gulliver lied in acknowledging the infrastructural backbone of the public space network. To underpin this aspect, New York's Manhattan was considered as a paradigm.

New York's decades-long tradition of privately owned public spaces has been highly disputed. This thesis approached the topic in order to understand *under what circumstances the exterior public realm could penetrate built structures and what the implicit mutations would be.* The implementation of POPS was regarded from the point of view of addressing the need for porosity – a critical aspect of openness. First realizations took into account the importance of design and the provision of amenities. Expanding on these factors, the analysis further revealed that the specific layout of the points of access, the consideration of [material] transparency and a programmatic mix that addressed urban necessities were the keys to a successful appropriation of [especially interior] POPS. The collection of Manhattan POPS was considered to be a network of urban lobbies. The spatial structures at the collision point between building and open space emerged through a cross-contamination between the realms. A combined vocabulary of both architecture and urban design composed a hybrid syntax. As private and public forces act concomitantly, in different proportions, in the apparatus of the city, a re-writing of the laws of the city would have to prioritize public space. Additionally, as POPS were a product of incentive zoning, the research questioned the validity of this

administrative tool as well. It concluded that only a process of constant retrofitting, control and revision could ensure an ongoing positive performance of these spaces in the urban setting. Regarding POPS as an enabler of a balanced relationship between building and open space – and not just a compromise solution – through providing a high degree of porosity, turns incentive zoning into something more relevant than just a barter.

These findings reassured that the chance of Urban Gulliver to integrate in existing urban fabrics stemmed from the systemic consideration of the public space network and laid the base for the extrapolation of the elements of Urban Gulliver's infrastructural public realm.

Exterior public space is often perceived as two-dimensional. It is the horizontal extension that defines it most. By understanding public space beyond its outdoor limits, Urban Gulliver approached the three-dimensional bond between the horizontal street space and the vertical building structure. The infrastructural component of this extended network of public spaces challenged a three-dimensional conception of an enriched public realm, the key to a successful appropriation of Urban Gulliver in its surroundings. The three-dimensionality is not to be understood as a reiteration of a Piranesian configuration of space, but as the deliberate consideration of all dimensions encountered in the horizontally laid out open space of the city and in the vertically developing space of buildings. This in-between space – the interface – aspired to be boundary-less through seamless connections, material dimension and programmatic activation.

In the contemporary architectural and urban scene, size still matters. The city is a mechanism in constant change. Urban Gulliver could become a constituent part of the mechanism – not only a hybrid in itself but also a hybrid between city and building – that could meet the necessary requirements for the reinterpretation of urban realities. This study embarked on a quest for the uncertain, boundary-less, hybrid version of an urban presence placed in a disciplinary compromise zone. Urban Gulliver embodies the idea of three-dimensional urbanism, the ultimate bond between the urban and the architectural scale. Within the open system, public spaces [interpreted through their infrastructural component] would serve as the necessary joint between the two scales. The aim was never to establish a catalogue of elements with which to design, but to reveal the potential of the interface, which could, through design and programming, sustain the infrastructural character. Beyond a design recipe, planning Urban Gulliver under the auspice of the infrastructural component of its public spaces was considered a viable, future-oriented strategy for urban densification.

Future Prospect

The premise of this research has never had the intention of making a ground-breaking discovery. The novelty of this study consists of a subtle enhancement of a nuance. Urban Gulliver claims a disciplinary place between architecture and urban design and requires a more clearly delineated position. It outlines a tactical approach.

The shift from public sector towards private ownership models, the increasing density and changing patterns of public life in the European metropolises justify this and further research. Furthermore, the findings could be translated into improvements of the [European] administrative regulation apparatus. Through the tool of POPS, incentive zoning established a moldable and adaptive mechanism. The initial bonus policy, attractive mainly for real estate speculations, evolved to an urban strategy that could achieve a physical enhancement of the public realm in highly densified environments. Incentive zoning shifted the focus away from the rigid, form-giving masterplanning and opened a way for unexpected, formally unplanned urban occurrences. It was considered to be more of a transparent mechanism with increased benefits for the urban space, than the ongoing, occult privatization process of public ground taking place in European cities through, for instance, business improvement districts.

Recent economic alterations and lifestyle changes have fueled the emergence of the shared economy. This has exercised a stark influence on architectural approaches. The novel consideration of space usage and optimization of the programmatic mix for shared experiences has been an interesting exercise in recent years. The emergence of established platforms for co-working and co-living – such as WeWork, Talent Garden, NomadLife etc. – have triggered unexpected permutations of uses by putting the quality of sharing in the foreground. This thesis considers this tendency to be influential for the future development of public space. Prognostics are hard to fail, however, the mutation of the concept of public space towards a common ground for the sharing of uses is foreseeable. In order to accompany and sustain this development, the future in-depth research on Urban Gulliver could pursue this direction.

6

APPENDIX

6|1 ANALYSIS OF EIGHT MANHATTAN POPS

General Information

[1] 60 Wall Street

Record No	515
Location	Midtown Manhattan
Building arch.	Edward Larrabee Barnes
Public sp. arch.	Edward Larrabee Barnes | Zion and Breen | R. Stern [1995 alteration]
Year	1989
Type POPS	covered pedestrian space [CPS] + arcade
Opening Hours	07:00 AM - 10:00 PM
Size	approx. 500 m2
Climate control	yes

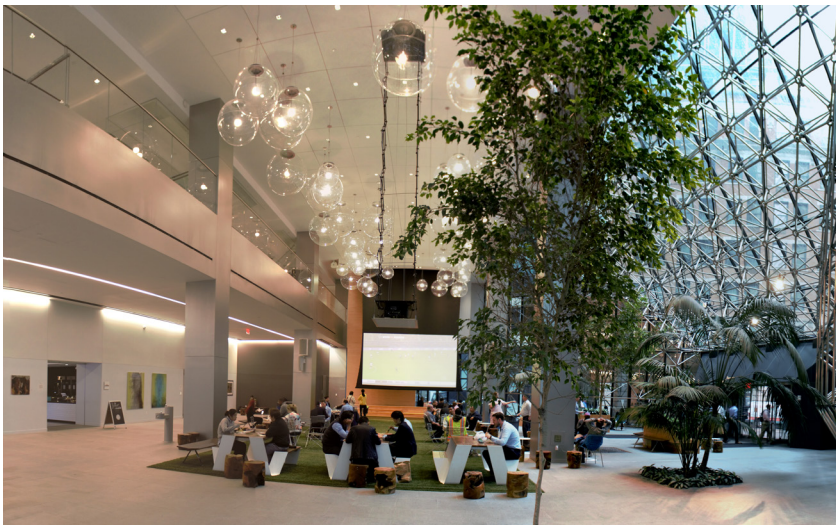
General Information

[2] 100 William Street

Record No	107
Location	Lower Manhattan
Building arch.	Emery Roth and Sons
Public sp. arch.	Emery Roth and Sons | Rogers Marvel Architects [2010 alteration]
Year	1973
Type POPS	CPS
Opening Hours	07:00 AM - midnight
Size	approx. 485 m2
Climate control	no

General Information

[3] 180 Maiden Lane [Continental Center]



Record No	111
Location	Lower Manhattan. The space *"was a mandatory lot improvement for Parcel 20Q of the 1973 Special Manhattan Landing Development District, one of the City's special purpose zoning districts, repealed in 1998"* [apops.mas.org]
Building arch.	Swanke Hayden Connell | Kohn Pedersen Fox
Public sp. arch.	Swanke Hayden Connell | Kohn Pedersen Fox [CPS]
Year	1982
Type POPS	CPS
Opening Hours	Monday through Friday, 8:30 AM - 5:30 PM
Size	approx. 1.520 m2
Climate control	yes

General Information

[4] 120 Park Avenue

Record No	559
Location	Midtown Manhattan, opposite to the Grand Central Terminal.
Building arch.	Ulrich Franzen
Public sp. arch.	Ulrich Franzen [CPS]
Year	1982
Type POPS	CPS + arcade
Opening Hours	CPS Mo - Sa 7:30 AM - 9:30 PM | Su 11:00 AM - 7:00 PM
Size	arcade approx. 380 m2 CPS approx. 475 m2
Climate control	yes

General Information

[5] 550 Madison Avenue [Sony Plaza]

Record No	518
Location	Midtown Manhattan
Building arch.	Philip Johnson and John Burgee
Public sp. arch.	Philip Johnson and John Burgee Gwathmey Siegel and Associates [1992 and 1998 alteration]
Year	1983
Type POPS	CPS + arcade
Opening Hours	arcade 24h CPS 7:00 AM - 11:00 PM
Size	arcade approx. 330 m2 CPS approx. 945 m2
Climate control	[CPS] yes

General Information

[6] 590 Madison Avenue [IBM Plaza]

Record No	515		
Location	Midtown Manhattan		
Building arch.	Edward Larrabee Barnes		
Public sp. arch.	Edward Larrabee Barnes | Zion and Breen | R. Stern [1995 alteration]		
Year	1982		
Type POPS	CPS with seating area + arcade + urban plaza + through block arcade		
Opening Hours	arcade, urban plaza		24h
	CPS, through block arcade		8:00 AM - 10:00 PM
Size	indoor	CPS	approx. 765 m2
		through block arcade	approx. 435 m2
	exterior	urban plaza	approx. 170 m2
		arcade	approx. 170 m2
Climate control	no		

General Information

[7] 725 Fifth Avenue [Trump Tower]

Record No	514
Location	Midtown Manhattan
Building arch.	Swanke Hayden Connell Architects
Public sp. arch.	Swanke Hayden Connell Architects | Thomas Balsley Associates
Year	1983
Type POPS	covered pedestrian space [CPS] + landscaped terraces + passageway
Opening Hours	CPS 8:00 AM - 10:00 PM landscaped terraces open during store hours
Size	CPS approx. 615 m2 terrace approx. 590 m2
Climate control	[CPS] yes

General Information

[8] 875 Third Avenue

Record No	654	
Location	Midtown Manhattan	
Building arch.	Skidmore, Owings and Merrill	
Public sp. arch.	Skidmore, Owings and Merrill | David Kenneth Specter	
Year	1980	
Type POPS	arcade + CPS + open space + public circulation space	
Opening Hours	arcade, open space	24h
	CPS, public circulation space	Mo - Sa 8:00 AM - 10:00 PM
		Su 11:00 AM - 7:00 PM
Size	CPS	approx. 650 m2
	arcade	approx. 60 m2
Climate control	[CPS] yes	

Links and Elements of Circulation

[1] 60 Wall Street

Link to: **-street network**	connects Wall St. and Pine St., between William St. and Pearl St.
-transport infrastructure	The POPS contains an access to the Wall St. subway station. One entrance point is placed within the interior space, the other one is exterior, accessible from the arcade
Entrance/s	one access from Wall St. | one access from Pine St.
Impediments	*- horizontal:* none, the floor is continuous *- vertical:* the façade to the adjacent sidewalks and the entrances restrict flow
Visual links	*- inside > outside:* through glazed façade *- outside > inside:* hidden by arcade
Elements of circulation	escalators | stairs

[2] 100 William Street

Link to: **-street network**	connects John St.and the corner between Platt St. and William St.
-transport infrastructure	The POPS connects to the NY city-bike station on the John St. sidewalk
Entrance/s	open entrances from both sides. It is a through-block connection
Impediments	- *horizontal:* none, the floor is continuous. The entrance area to the building is separated by a slight change of level, marked by seating benches
Visual links	The open multistory high space connects both street sides visually, providing orientation
Elements of circulation	- slightly inclined floor - escalators to a service retail use - three steps and ramp to the entrance doors of the building

Links and Elements of Circulation

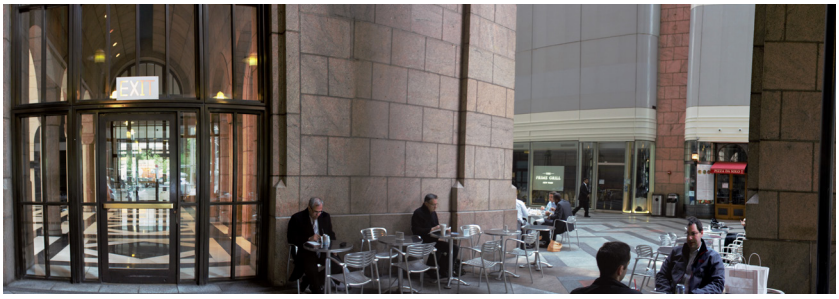
[3] Continental Center

Link to: **-street network**	The interior space links to the exterior public spaces on the sidewalks of Maiden Lane and Front, Pine and South St. through the corners
-transport infrastructure	The POPS does not directly connect to the transport infrastructure
Entrance/s	The CPS has four entrances, one at each street corner. The entrance lobby to the office building is elevated in the mezzanine floor.
Impediments	*- horizontal:* none, the floor is continuous between the street and the interior. *- vertical:* the continuous curtain wall façade creates a repellent boundary. The only access is enabled through the revolving doors
Visual links	*- inside > outside:* through glazed façade and its three-dimensional sub-structure *- outside > inside:* hidden by the reflecting glazing
Elements of circulation	escalators | stairs | elevators

Link to: **-street network** **-transport infrastructure**	The CPS links to the arcade and sidewalks of Park Avenue and 42nd St. The arcade provides an entrance, placed outdoor and next to the access to the CPS, to the Grand Central subway station
Entrance/s	The CPS has two entrances – on Park Avenue and on 42nd St. Due to the decreasing street level of Park Avenue, the lobby of the building is placed on a higher level, on the 41st St., physically separated from the CPS
Impediments	*- horizontal:* none on 42nd St., the floor level is continuous. The entrance on Park Avenue mediates between the street and the CPS level through stairs and ramps. The interior space is on a lower level *- vertical:* the narrow surrounding arcade and the low entrances restrict flow
Visual links	*- inside > outside:* through glazed façade and the filter of the arcade pillars *- outside > inside:* good transparency and visual connection from the arcade. Poor visual links from the sidewalk, through the arcade
Elements of circulation	ramps | stairs

Links and Elements of Circulation

[5] 550 Madison Avenue [Sony Plaza]



Link to:

-street network

The POPS creates a through-block connection between E55th and E56th St. through the CPS and links these streets to Madison Avenue through two arcades as well

-transport infrastructure

The POPS connects to the NY city-bike station on E56th St.

Entrance/s

The CPS has two main opposite entrances, one on E55 St. and another one on E56th St. These entrances are preceded by the arcades, that stretch up to Madison Ave. The POPS connects to the building's lobby as well

Impediments

- *horizontal:* none between street, arcades and the interior
- *vertical:* the narrow surrounding arcade and the large planters in front of the entrances restrict flow

Visual links

- *inside > outside:* the view above the street level is facilitated through the generous height of the space and through the glazed façade and roof
- *outside > inside:* poor visual links from the sidewalk, through the arcade

Elements of circulation

elevators

[6] 590 Madison Avenue [IBM Plaza]

Link to:

-street network

The interior space links to the sidewalks of E57 St., E56 St. and Madison Avenue, as well as to the Fifth Avenue through the adjacent lobby of [7] Trump Tower

-transport infrastructure

-

Entrance/s

The CPS has five entrances from the street; three of them link the interior space directly to the street, the other two pass through buildings – the private lobby of IBM tower and the CPS of Trump Tower

Impediments

- *horizontal:* none, the floor is continuous
- *vertical:* the narrow entrances interrupt the flow

Visual links

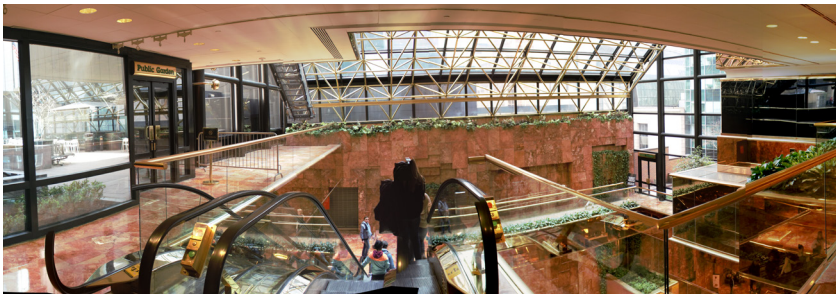
- *inside > outside:* through entirely glazed façade to the sidewalk and through glass roof to the sky
- *outside > inside:* good transparency and visual connection from the sidewalk through the nonreflective glazing

Elements of circulation

-

Links and Elements of Circulation

[7] 725 Fifth Avenue [Trump Tower]



Link to:

-street network

The POPS connects Fifth Avenue to Madison Avenue through the interior space of [6] IBM Plaza

-transport infrastructure

-

Entrance/s

The CPS has one main entrance on Fifth Avenue, a connection to [6] IBM Plaza on the opposite side and, laterally, to the retail store on E57 St.

Impediments

- *horizontal:* none, the floor is continuous between street and the interior.
- *vertical:* the relatively narrow entrances that do not anticipate the public spaces inside.

Visual links

- *inside > outside:* from the terraces, the view of Manhattan's neighboring skyscrapers is impressive. From the CPS, the view outside is hindered by the lack of contact to the street
- *outside > inside:* poor visual links from the sidewalk, the façade of the CPS is minimized, the entrance resembles that of an office building.

Elements of circulation

escalators | elevators

Link to: **-street network**	The CPS links to the Third Avenue and E53 St. through lateral entrances from each street and a main entrance on the corner
-transport infrastructure	The multilevel CPS connects to the underground subway Lexington Av-53 St.
Entrance/s	The CPS has three entrances on street level and an entrance from the subway station on the underground level
Impediments	*- horizontal:* none, the floor is continuous from the street corner, the floor level is continuous. The lateral entrances are separated from the sidewalk level through stairs
Visual links	*- inside > outside:* the glazed parts of the three-story high façade enable high visibility *- outside > inside:* good transparency only through the main glazed façade.
Elements of circulation	escalators | elevators | stairs

Design Elements and Amenities

[1] 60 Wall Street

Design elements

- furniture: metal moveable tables and chairs; marble benches along the lateral walls and the columns
- vegetation: palm trees in planters
- lighting: ceiling lights
- displayed artwork
- fountains and sculptural water features

Materials

- white marble tiles on walls and columns
- white lattice covering walls and ceiling
- mirror-surfaces on walls

Amenities

- retail on the eastern frontage: cafes | restaurants | newspaper shop
- seating areas | rest-rooms | entrance to office building

Users

Wall Street employees at rush hours, people eating lunch or taking a break, homeless people, tourists

[2] 100 William Street

Design elements

- furniture: black stone benches along the passage space
- vegetation: no vegetation
- lighting: ceiling spots at both entry points; vertical light columns

Materials

- intensive use of the color black
- ground floor:
  - glazed curtain wall with black vertical mullions along the retail front on both sides
  - the building lobby is marked by a fully glazed façade without mullions and white marble panels
- upper levels:
  - curtain wall façade with horizontal stripes of transparent glazing and black glass panels in between

Amenities

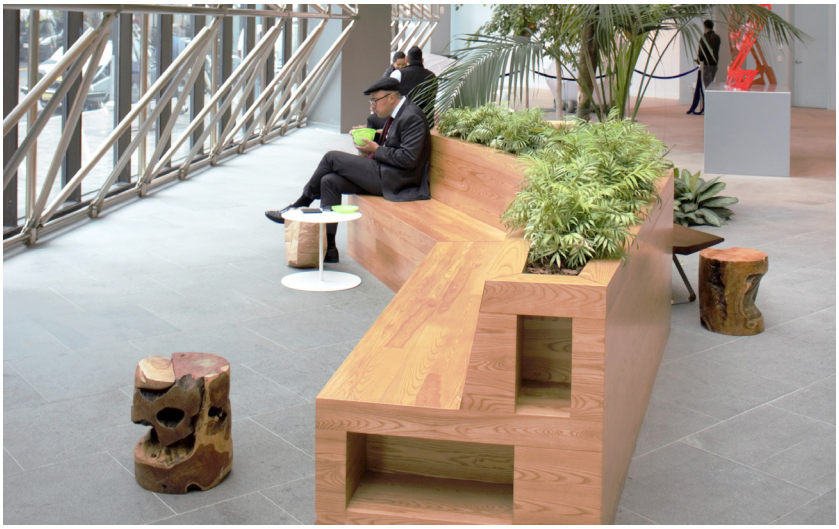
- retail on both sides: cafes | shops
- entrance to office building

Users

office building users and visitors, passersby

Design Elements and Amenities

[3] Continental Center



Design elements

- furniture — wooden benches and stools, tables with chairs
- vegetation — different species of trees
- lighting — hanging ceiling lights
  linear lights and spots incorporated in the ceiling
- displayed artwork

Materials

- grey granite tile floor
- grey carpets at the entrances, green carpet in the sitting area of the cafe
- three-dimensional steel lattice of the façade
- interior glass façade of the enclosed mezzanine level
- aluminium cladded or white painted walls

Amenities

- venue for a series of special events, exhibits, and weekly performances, video wall with sixteen television monitors
- retail frontage | seating areas | rest-rooms | public telephones

Users

Wall street employees eating lunch or taking a break, homeless people, tourists or spectators of a specific event

Design elements	- furniture	granite benches and ledges, moveable tables with chairs
	- vegetation	medium-size plants in planters
	- lighting	spots incorporated in the ceiling punctual hanging streetlights on the interior walls exterior reflector panels
	- artwork	the POPS has displayed sculptures from the permanent collection of the Whitney Museum of American Art since 1982
Materials	- beige granite tile floor on floor and walls - mirror surface - glass façade between CPS and entrance lobby of the building	
Amenities	art exhibition | seating ares | rest-rooms | kiosk	
Users	passersby, tourists or visitors of an art exhibition, homeless people	

Design Elements and Amenities

[5] 550 Madison Avenue [Sony Plaza]

Design elements

- furniture: metal benches along the planters; moveable metallic tables with chairs
- vegetation: small-size plants in round or in layered planters
- lighting: streetlights; multiple reflector lines under the ceiling
- displayed artwork

Materials

- grey granite tiles
- pink stone blocks - façade of the skyscraper
- glass façade and roof with white metal sub-structure
- aluminium panels

Amenities

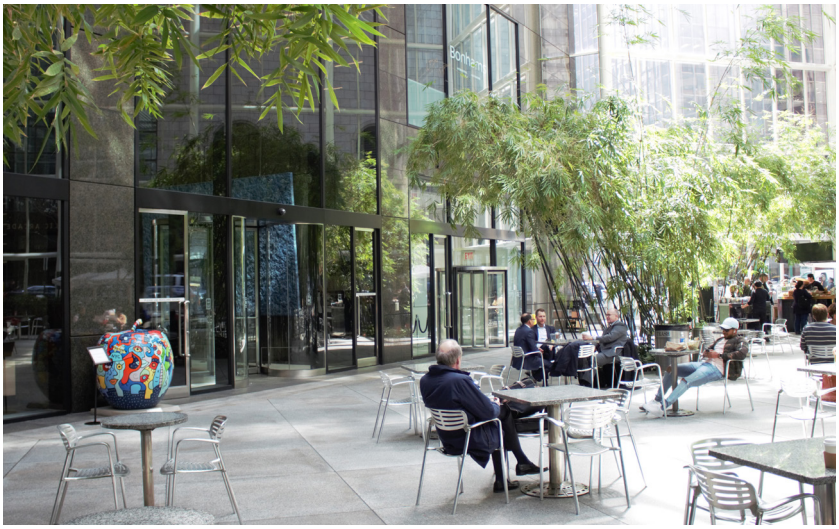
seating areas | food kiosk | retail frontage | Sony exhibition area | rest-rooms

Users

passersby, office employees, tourists, groups of schoolchildren

DESIGN ELEMENTS AND AMENITIES

[6] 590 Madison Avenue [IBM Plaza]



Design elements

- furniture: moveable metallic chairs with granite-topped tables; fixed linear seating elements
- vegetation: middle-size plants, bamboo trees
- lighting: ceiling spots at the entrance to Trump Tower; hanging street lamps and reflectors from the roof beams
- displayed artwork [sculptures by H. Moore, K. Appel and A. Calder]

Materials

- grey granite tiles
- black granite stone blocks - interior façades of the skyscrapers
- glass façade and glazed shed roof with white steel sub-structure

Amenities

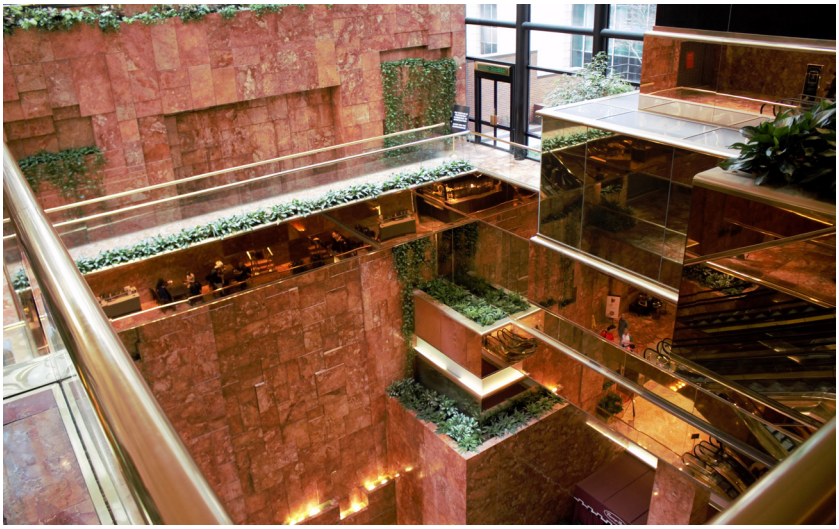
food kiosk | retail frontage | seating area | entrance to office building

Users

tourists, passersby, office employees on lunch break

Design Elements and Amenities

[7] 725 Fifth Avenue [Trump Tower]



Design elements

- furniture: benches, moveable tables with chairs
- vegetation: small-size plants vertically displayed planters; trees and bushes on the terraces
- lighting: multiple ceiling spots
- displayed artwork
- interior waterfall, fountain on the terrace

Materials

- facetted red marble on floor and walls of the atrium
- golden metallic panels for interior cladding
- parts of glass façade and roof with golden metal sub-structure

Amenities

restaurant and cafes | retail frontage | entrance to office building | rest-rooms

Users

tourists, passersby, office employees, etc.

Design Elements and Amenities

[8] 875 Third Avenue

Design elements

- furniture: multiple seating opportunities at underground, ground floor and mezzanine level
- vegetation: small-size plants in planters; bamboo trees in round planters
- lighting: ceiling spots

Materials

- white and grey polished stone tiles
- white panels and large wood panels for interior wall cladding
- glass façade

Amenities

- retail frontage [kiosks, small shops] | restaurants and cafes | seating areas entrance to office building | rest rooms
- scheduled weekly public events

Users

passersby, travelers/commuters, office employees, homeless people

BORDER

[1] 60 Wall Street

Materiality of vertical border	curtain wall façade with black mullions in four horizontal registers transparent glass
Materiality of horizontal areas	- floor material arcade same as sidewalk - floor material CPS granite tiles in three-colored pattern - the entrances to CPS are covered by canopies, lowering the immediate entrance space
Depth of border	The thickness of the border is marked by the arcade's space in between the CPS and sidewalks as circulation area. The CPS is thus not adjacent to the street.
Permeability	The thick arcade pillars create a visual separation of the CPS to the street, although they do not hinder the movement
Entrance	- revolving glass doors in the middle - glazed double doors on the two sides

Materiality of vertical border	The border to the street is not existing. The interior skin is the actual façade – thermal skin – of the building.
Materiality of horizontal areas	- floor material same as sidewalk - ceiling material black panels
Depth of border	-
Permeability	The wide and tall void that marks the entrances to the CPS enables a maximum permeability. The dimension of the opening that addresses the urban scale and the immediate visual contact to the opposite side render the space as secure and welcoming. It is an extension of the sidewalk
Entrance	-

BORDER

[3] 180 Maiden Lane [Continental Center]

Materiality of vertical border	curtain wall façade with a square grid of black mullions, reflective and transparent glass
Materiality of horizontal areas	- exterior sidewalk of small cement tiles - interior grey tiles
Depth of border	The thickness of the tubular support frame creates a physical separation and hinders the direct relationship from inside to outside
Permeability	From the exterior, the border renders flat. Reflective during the day, it mirrors the street and hides the interior. The continuous façade material and small entrance points disable a natural flow between in- and outside.
Entrance	There is one entrance in each corner, resolved through two revolving glass doors and a double glazed door in the middle, marked by a grey frame. The domestic size of the entrance does not announce the large multistory, multifunctional indoor space

Materiality of vertical border

CPS - curtain wall façade with aluminium mullions, transparent glass.
arcade - an enfilade of square pillars, finished in grey granite panels, on Park Avenue; an enfilade of round pillars, finished in light-grey stone, on the side of 42nd St.

Materiality of horizontal areas

- CPS beige granite tiles
- arcade large grey tiles, similar to the ones of the sidewalk

Depth of border

The arcade creates a very tall and narrow in-between space, between CPS and sidewalk, which works as a circulation area – an extension of the sidewalk. The CPS is not adjacent to the street. Inside the CPS, a further layer of separation is created through the white steel sub-structure of the curtain wall, as well as through the level difference

Permeability and Entrance

Despite the space of the arcade, the height and transparent façade of the CPS allows a high visual permeability. The two entrances, each marked by a grey frame, create restrictive penetration points of domestic scale

BORDER

[5] 550 Madison Avenue [Sony Plaza]

Materiality of vertical border	curtain wall façade with a square grid of black mullions, transparent glass.
Materiality of horizontal areas	exterior and interior – a pattern of black, grey and pink tiles.
Depth of border	The oversized dimension of the steel lattice supporting the curtain wall creates a deep separation between the interior and exterior realms
Permeability	The visual relationship between in- and outside is lower at the users' level and higher upwards. The small entrance points and the arcade space hinder the natural flow between in- and outside
Entrance	The entrance is set back from the street front, being preceded by a continuous arcade. The relatively low height of the covered access area and the planters in front of the six glazed doors at both entrances considerably diminish the magnitude of the entrance apparatus

[6] 590 Madison Avenue [IBM Plaza]

Materiality of vertical border

curtain wall façade with mullions – black on the outside, white inside –, and large panels of transparent glass.

Materiality of horizontal areas

large granite tiles, similar to the ones of the sidewalk.

Depth of border

The separation layer between in- and outdoor space is enabled through the thin façade. Therefore, the street space and the interior space of the POPS are abutting.

Permeability and Entrance

The high transparency and reduced thickness of the thermal envelope allow for great visual The three entrances, proportionally very small compared to the façade surface, are designed with a revolving door and one additional glazed door each. They restrict the physical permeability of the space.

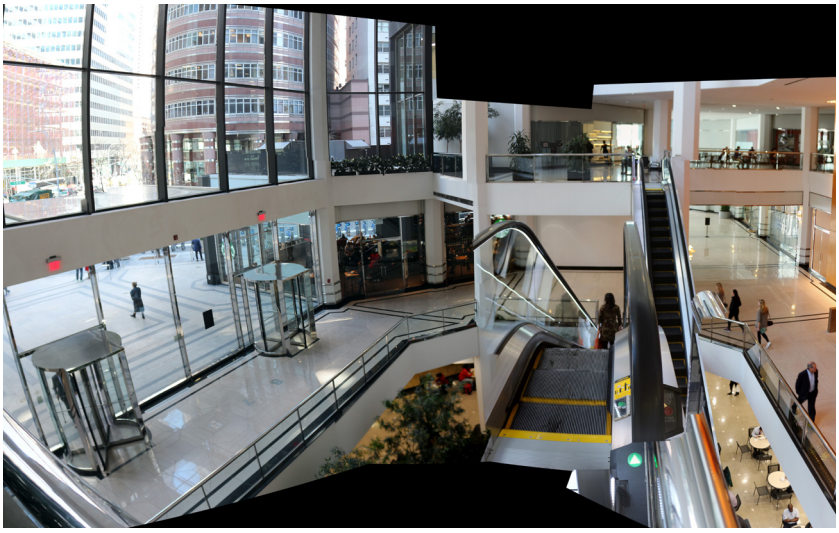
BORDER

[7] 725 Fifth Avenue [Trump Tower]

Materiality of vertical border	curtain wall façade with large panels of reflective and transparent glass	
Materiality of horizontal areas	- exterior	large cement tiles
	- interior	polished red marble tiles
Depth of border	The glazed façade of the main entrance from Fifth Avenue is set back and enables a limited visual relationship to the inside	
Permeability	The border is reduced to an entrance. The longitudinal space of the CPS that crosses the high-rise's ground floor plan, is retired from the street front	
Entrance	Despite a large entrance frame on Fifth Avenue, the actual access is only enabled through a pair of revolving doors. On the opposite side, from the interior space of [6] 590 Madison Avenue, the entrance is enabled through a pair of double glass doors	

BORDER

[8] 875 Third Avenue



Materiality of vertical border

CPS - curtain wall façade with dark mullions, transparent glass to the street
- on the inside, the program oriented to the five-story high space is only separated by glass panels that indicate an indoor finish

Materiality of horizontal areas

CPS white polished stone tiles

Depth of border

The main façade with the entirely glazed curtain wall reveals the magnitude of the multi-level interior POPS. The skyscraper's structure intersects with the space of the CPS, framed by an additional volume in the façade.

Permeability and Entrance

The height and transparent façade of the CPS enable a high visual permeability. The main entrance, enabled through two separated revolving doors, covered by a large cantilevered roof, create narrow penetration points of reduced scale, compared to the overall size of the interior space

6|2 INTERVIEWS

6|2.1 Interview with Lluís Tobella Farrán

Interview with	Lluís Tobella Farran	[LTF]
Conducted on	July 6, 2017 by Sorana Radulescu	 [SR]
Duration	95 minutes	
Place	the coffeehouse Bilbao Berria on the ground floor of L'Illa Diagonal. Barcelona, Spain	
Sketches	the following drawings belong to Lluís Tobella Farran, and were sketched during the interview on a notebook	

Lluis Tobella Farran is an architect, graduate of the Barcelona School of Architecture of [1973] and PhD in Architecture [2003]. He is a professor of Architectural Projects of the UPC-ETSAV, currently responsible for the Final Projects Workshop. Furthermore, he was the collaborating architect of the Center for Housing Studies of the COAC [1974-1976], municipal architect responsible for Urban Planning of the City Council of Sant Cugat del Vallès [1979-1980] and municipal architect of the Town Hall of Banyoles. [1980-1985]. The present interview was conducted due to his position as project leader of the urban plan of the L'Illa Diagonal block and of the design and execution of the ensemble's main building [1987-1994].

LTF Aquí estoy un poco para ver hoy qué es lo qué necesitas. Porque la Illa tiene, tiene muchas entradas posibles, ¿no? Se puede entrar de muchas maneras, ver muchas cosas. Te puede interesar alguna corelación con la ciudad. Supongo que es lo que más te interesa a ti.

SR La relación con la ciudad y el espacio público.

LTF Y el espacio público...

SR Sí, más que nada el espacio público. Es el focus de mi tesis de doctorado es el espacio público en grandes estructuras urbanas. La Illa es ejemplar, es paradigmática.

LTF Ya, sí.

SR De hecho me es muy difícil conseguir otros casos de estudio, comparables, parecidos...

LTF Además está en el cuerpo de la ciudad, ¿no?

SR Sí, el tejido urbano.

LTF Está en la Diagonal de Barcelona que es la traza más significativa del Ensanche de Barcelona.

SR Sí, sí. Ya le digo. Me cuesta mucho. Estoy viendo otro proyecto en Londres.

LTF Eh, lo que pasa es que los ingleses no integran mucho. Los ingleses van a saco. Osea, ponen al lado un pub y hacen una pieza ahí con que además abajo hay tres estaciones de metro y un... Piensan mucho desde el edificio. El edificio manda mucho y la ciudad está allí, pero...

SR Y aquí ha sido diferente.

LTF Otra cosa, distinto... Sí, bueno, el hecho también de los dos arquitectos principales, Moneo y Solà-Morales, que uno es urbanista.

SR De hecho, le iba a preguntar: ¿En, en qué momento del proyecto se ha considerado de manera activa el espacio público y cómo? ¿Cómo los textos de Solà-Morales o su parte teórica han influido en el proyecto según su opinión...?

LTF Mira, bueno, yo diría que el espacio público en la ciudad está presente siempre. Ya en el concurso. En la tesis lo explico... La propuesta ganadora del concurso es una propuesta que lo que hace es... Una propuesta, yo diría que es, básicamente, urbanística. Básicamente, de tratamiento de cómo se trata esta gran manzana. Había muchas propuestas. No sé si te has mirado la documentación del concurso... En la tesis el tema del concurso lo dejé apartado. De los participantes hay alguna cosa, pero no entré. No entré ni con los arquitectos para no entrar en cuestiones muy específicas de los arquitectos y todo lo pensé desde el edificio. Osea, el edificio como el centro de estudio. Y a partir de ahí... Para no perderme... Bueno, yo no me perdía porque estuve trabajando siete años exclusivamente en este edificio... Entonces, esto que te decía, está desde el inicio porque claro, hay... Esto está en la tesis muy explicado. Pero ahora ya no me acuerdo tanto de la tesis...

SR Si, no tanto de la tesis, sino de la propia experiencia, ¿no?

LTF Sí, sí. De hecho, la idea del concurso es la que manda y luego se va modificando. Por ejemplo: ¿el edificio dónde se pone? Pues se pone en la Diagonal, ¿no? Y una manera de ponerlo en la Diagonal es ponerlo encima de la Diagonal, no de lado como como el edificio de al lado, de Vilaplana, que es al revés. Se pone perpendicular, se entra de lado, ¿no? En cambio, L'Illa lo que hace es, si tienes 350m de línea en la Diagonal ocupa los 350m. Con lo cual es una manera de dar protagonismo. A ver, ¿cuál es el elemento urbano más importante de este emplazamiento? Es el contacto con la Diagonal.

SR Sí.

LTF No hay solares en Barcelona que tengan 350m de contacto con la principal pieza del Ensanche. ¿Por qué? La traza arquitectónica, urbanística más importante del Ensanche de Barcelona, aparte de la retícula, es la Diagonal. Tú sabes, supongo que has... el Ensanche es la retícula esta, la Diagonal, la diagonal de dos islas. Lo sabes esto, ¿no? Resulta que hay una posición clara...

LTF Here I am today to see what you need. Because L'Illa has many possible approaches, right? You can enter in many ways, see many things. You may be interested in some correlation with the city. I guess that is what interests you the most.

SR The relationship with the city and the public space.

LTF And the public space ...

SR Yes, more than anything, the public space. The focus of my PhD thesis is the public space in large urban structures. The Illa is exemplary, it is paradigmatic.

LTF Yes, of course.

SR In fact, it is very difficult for me to get other comparable, similar cases of study ...

LTF It's also embedded in the city structure, right?

SR Yes, the urban fabric.

LTF It is on Barcelona's Diagonal, which is the most significant trace of the Ensanche in Barcelona.

SR Yes. I struggle a lot. I'm looking at another project in London...

LTF Well, what happens is that the English do not integrate much. The English build regardless. I mean, they put a pub next door and they make a piece there where there are three subway stations and a ... They think a lot from the building outwards. The building commands a lot and the city is there, but ...

SR Here, in this case, it was different.

LTF Another thing, completely different ... Yes, well, also the issue of the two main architects, Moneo and Solà-Morales, who is an urbanist.

SR In fact, I was going to ask you: In what moment of the project has the public space been actively considered and how? How the Solà-Morales texts or his theoretical contribution have influenced the project, in your opinion ...?

LTF Look, well, I would say that public space in the city is always present. Already in the competition. In my [doctoral] thesis I explain it ... The winning proposal of the competition is a proposal that, what it does is ... Our proposal, I would say that it is basically urban. Basically, about how this big block is treated. There were many proposals. I do not know if you have looked at the documentation of the contest ... I left the theme of the competition aside in the thesis. There is something about the participants, but I did not continue. I did so in order to avoid entering into very specific questions of the architects and everything I thought from the building. In other words, the building as the study focus. And from there ... To not get lost ... Well, I would not get lost because I was working seven years exclusively in this building ... So, what I was saying, is from the beginning because of course, there are ... This is in the thesis very explained. But now I do not remember the thesis so much ...

SR Yes, not so much about the thesis, but about the experience itself, right?

LTF Yes, yes. In fact, the core idea of the competition is the one that guided us, then it was modified. For example: where should the building be placed? Well, it's on the Diagonal, right? And one way to put it on the Diagonal is to put it on top of the Diagonal, not on the side like the building next door, from Vilaplana, which is the other way around. It gets perpendicular, it enters sideways, right?

SR Yes.

LTF Instead, L'Illa what it does is, if you have 350 m of line in the Diagonal, it occupies the 350 m. So it is a way to give protagonism. Let's see, what is the most important urban element of this site? It is the contact with the Diagonal. There are no sites in Barcelona that have 350 m of contact with the main piece of the Ensanche. Why? The most important architectural, urban design of the Ensanche of Barcelona,

SR Privilegiada.

LTF ... muy privilegiada! Entonces, todo lo demás es accesorio. Osea, las piezas que dan la vuelta son piezas que conforman la isla pero que no son el objeto principal. Y luego, cada decisión de proyecto que se va tomando, va incidiendo en eso, continuamente, continuamente, continuamente, de manera que la acera esta de la Diagonal del edificio se mueve, se retrasa, amplia la acera. La hace más grande, con lo cual le da más importancia. El edificio se vacía por la Diagonal, para que la Diagonal llegue hasta los edificios de detrás. Para el sol también... Porque además es una orientación norte. Entonces, hay un problema aquí de contraluz. Entonces, aquí dábamos importancia también al movimiento de las personas, porque este movimiento de gente, en esta acera sur, esta parte baja de la Diagonal, ¿es el hormigueo más grande desde que se puso la zona universitaria arriba, no? Se creó un flujo de gente continuo. Fíjate que si andas por la de arriba es muy distinto. Hay un tema: siempre tendemos a ir por las partes bajas, ¿no? El Ensanche de Barcelona baja un 4 percent. Entonces la gente se mueve más por la banda de abajo de la Diagonal, no por la de arriba. Porque además arriba los edificios entregan con una topografía de escaleras y de pequeños cambios.

SR Sí, es verdad.

LTF Por esta idea también de que la vivienda – hay edificios de vivienda – tenga esta protección, no entrar tan directo. En cambio, aquí era al revés: pensaban en un centro comercial, un centro público... Y el contacto es fundamental, no? Entonces, a partir de ahí se van desplegando aspectos más laterales como es: la Diagonal es importante, pero ¿qué pasa en una esquina y que pasa en la otra esquina? ¿Cuál es la importante? Evidentemente, la importante es Numancia. Porque es también una vía importantísima que viene de Sarriá que baja hasta el puerto, empalmando con el Paralelo... Es el espacio de aire más importante del barrio de Les Corts, que es de los barrios más ventilados de Barcelona porque entra el viento predominante de Barcelona – el garbí. El garbí es un viento del sur-oeste que, por un lado, es el único que entra cada día, a la una, y ventila y humidifica toda la ciudad. Es un viento húmedo, porque viene del mar. Si te paseas aquí a la una verás que hay mucho viento cada día... Luego, por esto está la esquina. Esta esquina del edificio tiene doce metros.

SR Marca el hito.

LTF Exacto, marca el hito, pero también es la esquina con el Ensanche. Esta es la otra clave, ¿no? Porque, cuando tienes las dos manzanas del Ensanche y tienes esta traza tan importante, entonces resulta que este es nuestro ángulo. En la Diagonal, que es la pieza importantísima, el edificio se retrasa, pasan muchas cosas. Pero luego el siguiente punto importante es éste, es la calle Numancia, que es el significativo porque es el encuentro de la Diagonal con la traza de la Illa.

SR Ahora realmente está describiendo un proyecto urbano.

LTF Urbano, sí, totalmente urbano, que siempre está aquí, presente. Entonces esto es como un hilo de donde vas tirando y que siempre va. Luego hay que ver la sección, que este es un edificio que va bajando, va bajando, va bajando y luego va subiendo, va subiendo, subiendo a lo largo de la Diagonal. Volvemos a lo mismo, ¿no? Pero es que hace lo mismo además en planta. [dibuja] Si lo hago en planta también ahí. ... tiendas... vas moviéndote.Ahora, el hotel de la Diagonal. ¿Por qué? Porque queríamos que este hotel tuviera fachada en la Diagonal. No la calle de atrás de Les Corts. La idea era que, que la Illa tuviera el edificio principal aquí, y del otro lado el hotel. Y por eso aparecen aquí todos estos portales. También desde las aceras te vas moviendo... Estaba previsto que los coches, los autobuses, vinieran por aquí [por la Diagonal] y desembarcaran a la gente y volvieran a salir [por el parque abierto]. Osea, esto era una calle, que estructuralmente se puede pisar. También hay que fijarse en los bomberos, jaja. Pero este era un paso. Todo esto tiene que ver con... Fíjate que es siempre lo mismo: la Diagonal, la Diagonal, la Diagonal... Y, entonces a partir de aquí vienen todos los aspectos secundarios, como este que te decía de la acera. De la planta esta que se va retranqueando. No me acuerdo de las medidas, pero me parece que se pasa de una acera de 20m a una acera de 30m. El edificio va ganando acera, con lo cual va ganando espacio público, que hemos cedido a la ciudad. En este sentido es generoso, ¿verdad? ¡Yo siempre digo que para hacer buena arquitectura siempre se ha de ser generoso! Claro, hay que aprovechar mucho los espacios de estos intermedios, de transición, de dentro-fuera. Son los buenos, son los buenos, ¡son los buenos! Y aquí se ha demostrado que aguanta bien el paso del tiempo. Claro, con todo esto podemos llegar a por qué la estructura es como es.

SR Estas decisiones urbanas primarias han desencadenado una serie de...

apart from the grid, is the Diagonal. You know, I suppose you've ... the Ensanche is the grid, the Diagonal is the diagonal of two islands. You know this, right? It turns out that there is a clear position...

SR Privileged.

LTF ... Very privileged! Then, everything else is accessory. In other words, the pieces that turn around are pieces that make up the island but are not the main object. And then, every decision of the project that is being taken, is affecting that, continuously, continuously, continuously, so that the sidewalk of the Diagonal along the building moves, it is set back, it widens. The building makes it bigger, which gives it more importance. The building gets emptied towards the Diagonal, so that the Diagonal reaches the buildings behind. For the sun too ... Because it is also a north orientation. So, there is a problem here of backlighting. So, here we gave importance also to the movement of people, because this movement of people, on this southern sidewalk, this lower part of the Diagonal, is the biggest tingling since the university zone was put up, right? A continuous flow of people was created. Notice that if you go on the sidewalk above it is very different. There is a theme: we always tend to go through the lower parts, right? The Ensanche in Barcelona goes down by 4 percent. Then people move by the sidewalk below the Diagonal, not by the one above. Also because the upper buildings touch the ground with a topography of stairs and small changes.

SR Yes, it is true.

LTF For this idea also that the housing – there are housing buildings – have this protection, not to enter so directly. On the other hand, here it was the other way around: they thought of a shopping center, a public center ... And contact is fundamental, right? Then, from there, more lateral aspects are displayed, such as: the Diagonal is important, but what happens in a corner and what happens in the other corner? What is the important one? Obviously, the important one is Numancia. Because it is also a very important way that comes from Sarriá that goes down to the port, connecting with the Parallel ... It is the most important air space in the neighborhood of Les Corts, which is one of the most ventilated neighborhoods in Barcelona because the prevailing wind enters of Barcelona – the garbí. The garbí is a south-west wind that, on the one hand, is the only one that enters every day, at one, and ventilates and humidifies the entire city. It is a wet wind, because it comes from the sea. If you walk here at one you will see that there is a lot of wind every day ... Then, this is the corner. This corner of the building has twelve meters.

SR A landmark.

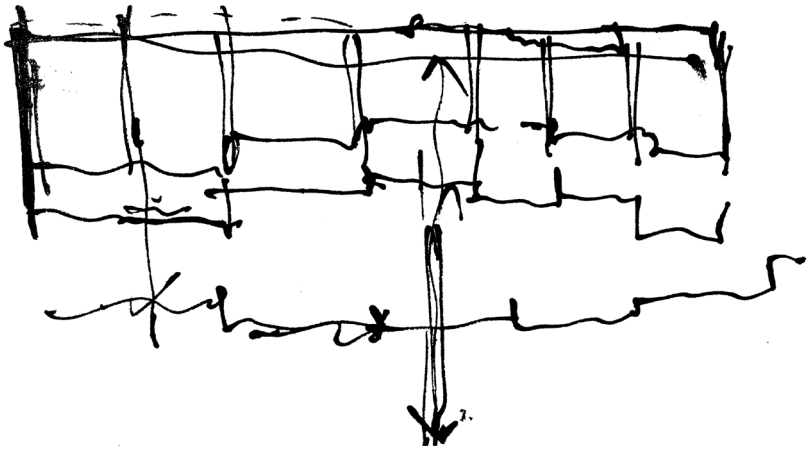
LTF Exactly, it is a landmark, but it is also the corner with the Ensanche. This is the other key, right? Because, when you have the two blocks of the Ensanche and you have this important trace, then it turns out that this is our angle. In the Diagonal, which is the most important piece, the building is set back, many things happen. But then the next important point is this, Numancia Street, which is significant because it is the meeting of the Diagonal with the L'Illa route.

SR Now you are really describing an urban project.

LTF Urban, yes, totally urban, that is always here, present. So this is like the thread of the project. Then you have to see the section, that this is a building that goes down, goes down, goes down and then goes up, goes up, up along the Diagonal. We go back to the same, right? But it also does the same in the floor plans. [draws] If I do it on the floor plan, too. ... stores ... you're moving.

SR Yes.

LTF Now, the hotel of the Diagonal. Why? Because we wanted this hotel to have a façade on the Diagonal. Not the back street of Les Corts. The idea was that, the Illa had the main building here, and on the other side the hotel. And that's why all these portals appear here. Also from the sidewalks you move ... It was expected cars, buses, to come here [on the Diagonal] and disembark the people and go back out [through the open park]. In other words, this was a street, which can be stepped on, structurally speaking. You also have to look at the requirements of fire department, haha. But this was a step. All this has to do with ... Notice that it is always the same: the Diagonal, the Diagonal, the Diagonal ... And, then from here come all the secondary aspects, like this one that told you about the sidewalk. The floors are successively



LTF Claro, claro, continuamente. Si en la cabeza de los arquitectos no estuviera presente el urbanismo de Barcelona de la manera que lo estaba, esto no sale... Porque en el concurso – luego se cambió mucho, pero en el concurso – lo que se presentaba eran, que esto eran edificios. Pero piensa que cuando se planteó el concurso no se sabía qué pasaría aquí. Porque decían que era un proyecto de ordenación, y nada más. Un concurso de ideas y, básicamente, de ordenación. Se hablaba de una ordenación para fijar un plan especial de aprovechamiento de la ciudad. Aquí hay toda una historia previa de que esto era el antiguo hospital de Sant Joan de Deu, había unas escuelas de monjas aquí abajo, un campamento de gitanos enorme en medio. Hubo que pactar con ellos, ir con la maleta de dinero para que se marcharan. Los promotores de Winterthur... Se había intentado hacer muchas cosas, pero nunca salía... Y hasta que no entra Winterthur y la familia Sanahuja, que eran los grandes propietarios. Luego había muchos pequeños propietarios... Pues todo esto hace que se pueda pensar en una operación que necesite de un plan especial. Entonces el ayuntamiento convoca al concurso. La propuesta ganadora del concurso, el planteamiento del edificio principal quedó parecido a lo que se quedó haciendo. El edificio principal era [dibuja]...

LTF Nosotros no llegamos hasta la calle. Entonces es aquí es donde hay el edifico principal, y aquí... en el concurso ya no me acuerdo, pero sí que estaba esto más o menos. Ya en el concurso el edificio principal sí que estaba claro que venía aquí, era un edificio que se planteaba para que se pudiera hacer como casas separadas, por tanto, eran las casas del Ensanche. ¡La misma operación del Ensanche! Porque en el Ensanche normalmente primero se construyen estas piezas [en medio]. Se hacen casas con los parcelarios que había, que eran antiguos. Lo último que se construye son las esquinas, ¿no? Porque no estaba pensado que se cerraran las manzanas. El proyecto de Cerdá es más bien un proyecto de ordenación de viales, un ingeniero que organiza el movimiento, la circulación de personas y vehículos, y ya está. Lo otro no estaba claro lo que pasaría Entonces se va construyendo por trozos. Y hay de todo, ¿no? Casas por aquí, casas por allá. Entonces, un poco se repite esto aquí. Osea, la propuesta es un edificio de casas adosadas pero que ya tienen unas obligaciones geométricas que se ponen en relación con la ciudad.

SR ¿Entonces se podría ir solidificando este frente en el tiempo?

LTF Sí, sí. Esa era la idea.

SR No tenía que venir la gran pieza de golpe.

LTF No, no, claro, no, no. Inicialmente lo que había era la propuesta de un gran edificio. Esto sí, pero un edificio formado por edificios separados, y además se decía que se podía hacer por promotores distintos, por constructores distintos. Si tú miras los planos, los dibujos, son casas separadas. En mi tesis hay unas perspectivas, donde no todas las ventanas son iguales, sino que todas las ventanas son distintas, y los materiales son distintos, porque se pudiera hacer por trozos. Casas adosadas, una al lado de otra. Y podría hasta quedar un trozo vacío. Pero luego viene el promotor y dice: ¡nos atrevemos a hacer una pieza de golpe! Entonces es cuando hay el cambio del proyecto y cambiamos todo. Aunque se parezca mucho al concurso no, no... Hay cambios muy importantes de la escala del edificio, de los materiales, del tamaño de las aperturas – que no tienen nada que ver con las aperturas de vivienda, digamos, o de oficinas. El edificio entonces reconoce la escala a la que estamos trabajando. Pasamos de una escala de manzana, a una escala urbana ya. Por eso te digo, la ciudad está siempre presente. Y yo diría que el edificio es 100 percent ciudad y lo demás es deudor; viene en consecuencia de la ciudad. No hay decisiones formales, pero siempre está la ciudad, siempre. ¿Porque se pone travertino y no se pone plástico, diríamos? Porque ya hay

setting back. I do not remember the measures, but it seems to me that you go from a sidewalk of 20 m to a sidewalk of 30 m. The building is gaining sidewalk, which is gaining public space, which we have given to the city. In this sense it is generous, right? I always say that in order to make good architecture one must always be generous! Of course, we must take advantage of the spaces of these intermediates, of transition, of inside-out. They are the good ones, they are the good ones, they are the good ones! And here it has been shown that it holds up well over time. Of course, with all this we can arrive at why the structure is as it is.

SR These primary urban decisions have triggered a series of…

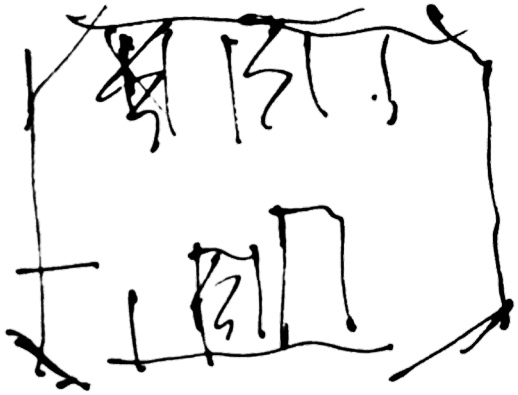
LTF Of course, of course, continuously. If in the head of the architects the urban planning of Barcelona was not present in the way it was, it does not come out … Because in the competition – afterwards much was changed, but in the competition – what was presented was, that this they were buildings. But when the competition was launched, nobody knew what would actually happen here. Because they said it was an urban development project, and nothing more. A competition of ideas and, basically, of urban development. There was talk of a layout to set a Special Ordination Plan for the uses of the city. This was previously the site of the old hospital of Sant Joan de Deu, there were some nuns' schools down here, a huge gypsy camp in between. It was necessary to enter an agreement with them, to go with the suitcase of money so that they left. The promoters of Winterthur … They had tried to do many things, but never left … And until Winterthur and the Sanahuja family came in, they were the main owners. Then there were many small owners … Well, all this makes it possible to think of an operation that needs a Special Ordination Plan. Then the city council launches the competition call. The winning proposal of the contest, the approach of the main building was similar to what was built. The main building was [draws] … We did not get to the street. Then this is where the main building is, and here … in the competition I do not remember, but it was more or less this. Already in the competition idea it was clear that the main building came here, it was a building that was conceived so that it could be done as separate houses, the houses of the Ensanche. The same operation of the Ensanche! Because in the Ensanche these pieces are usually first constructed [in the middle]. Houses were built according to the plots. The last thing that got built are the corners, right? Because it was not intended to close the blocks. Cerdá's project is rather a road planning project, an engineer that organizes the movement, the circulation of people and vehicles, and that's it. Everything else was not clear what would happen … Then it got built by pieces. And there is everything, right? Houses around here, houses over there. So, parts of this are repeated here as well. In other words, the proposal is a building made of townhouses that already have some geometric restrictions that are related to the city.

SR So, could this front be solidified in time?

LTF Yes Yes. That was the idea.

SR The big piece did not have to be built entirely from the beginning on.

LTF No, no, of course not, no, no. Initially there was the proposal of a large building. Yes, but a building consisting of separate buildings, and that could also be done by different developers, by different constructors. If you look at the plans, the drawings, they are separate houses. In my thesis there are perspectives, where not all windows are the same, but all different, and the materials are different, because it could be done by pieces. Townhouses, one next to the other. And there could even be an empty piece. But then the developer comes and says: we dare to make the entire piece! That's when there is the change of the project and we change everything. Although it looks a lot like the competition, it is not… There are very important changes in the scale of the building, the materials, the size of the openings – which have nothing to do with the opening of housing, say, or offices. The building then recognizes the scale at which we are working. We passed from the scale of a block to an urban scale. That's why I tell you, the city is always present. And I would say that the building is 100 percent city and the rest is its debtor; it comes in consequence of the city. There are no formal decisions, but there is always the city, always. Why do you put travertine and do not put plastic, we would say? Because there is already the stone, the construction of the Ensanche that is made of stone, etc. There is always the history of the city set … This is a bit my thesis. What always interests me about architecture is how to explain those decisions. In other words, the architecture explained – Why were those decisions, which



la piedra, la construcción del Ensanche que es de piedra, etc. Siempre está la historia de la ciudad puesta... Esta es un poco mi tesis. A mí lo que me interesa siempre de la arquitectura es cómo explicar esas decisiones. Osea, la arquitectura explicada – ¿Por qué se tomaron aquellas decisiones que a veces las tomas y no has encontrado la justificación? Incluso, yo cuando hacía la tesis... lo tenía muy claro, porque yo estuve metido allí desde el primer día. Siempre defiendo que en cualquier actuación urbanística o de proyecto arquitectónico están claros los problemas a resolver, ¿no? ¿Cuáles son las cuestiones que es necesario abordar, cuál es la jerarquía de estas decisiones? Entonces es más fácil encontrar soluciones de proyecto, ¿no? eh? No digo que sea definitivo, pero es más fácil. Entonces, volviendo a la historia esta, ¿hasta que punto esto acaba? Ya te imaginas, nadie sabía hacer un edificio así... Son 70.000m2 por encima y 130.000m2 por debajo. Es un iceberg; más hundido que sobre rasante. El concurso hablaba de hacer 100.000m2 en superficie, en la manzana. Pero de los sótanos no se hablaba, ¿eh? Entonces es cuando esto aparece como una gran pieza, es cuando, bueno, aparecen ya otros números. En el momento que esto se convierte en una pieza que se construye, claro, la estructura no puede ser cualquier cosa, ¿no? Entonces, aparece el tema estructural... qué pasa cuando superpones cinco plantas de aparcamiento con una galería comercial, con... había habido viviendas, hoteles, había habido muchas cosas.

SR Osea, los usos no quedaban claros, no estaban claramente definidos desde el principio?

LTF Que va, no, nada, en el concurso nada. Se fue definiendo todo sobre la marcha, porque nadie sabía qué hacer. No hay especialistas... Vinieron unos ingleses que sabían cosas, pero claro, saber cuántos cines vamos a poner. Irán habiendo cines. ¿Cuántos restaurantes? ¿Qué tamaño de las tiendas? ¿Cuántas tiendas? ¿Cuántos millones cada tienda? Claro, todo eso era un proceso que se iba decidiendo sobre la marcha. Y cada vez íbamos poniendo más ingredientes. Pero también teníamos decisiones que sí que eran nuestras. Todo y que intervenías mucho en el programa. Porque, claro, hacíamos un edificio que es muy distinto. Decíamos: ¿es El Corte Inglés o son las galerías no sé qué?

SR Osea, ¿las galerías comerciales siempre han existido en el planteamiento? ¿El uso comercial estaba previsto desde el principio?

LTF Sí, sí, siempre. El uso de oficinas, comercial y aparcamiento yo diría que desde el inicio. Entonces, cómo estos ingredientes se mezclaban... Había también el tema de la vivienda, y el tema del hotel ... Era más rico...

SR ¿El programa funcional?

LTF La promoción ha sido siempre muy conservadora. Los promotores iban reduciendo cada vez más. Porque claro, no veían claro las cosas... Habíamos mezclado muchos usos. Queríamos que fuera un edificio como una pequeña ciudad, ¿no? Como la Unité de Marsella, digamos. L'Illa es distinta que la Unité, pero tiene hotel, guardería, escuela, tiene comedor, tiene vivienda, tiene, residencia, tiene aparcamiento. El aparcamiento, por su tamaño, era difícil. Si haces un edificio sólo de oficinas, es mas claro... ¿Pero así? Al lado de todo esto habían las decisiones técnicas que tomamos para que esto fuera posible. Es decir, encontrar la relación entre la medida del edificio y las decisiones de los elementos de este edificio. Un elemento clave era la estructura. Ya te puedes imaginar que había pruebas de toda índole. Bueno, ya sabemos que, en un edificio de cinco plantas de sótanos, el proyecto empieza por el aparcamiento, porque si no luego no hay manera de resolver nada. Además, había los ángulos. El solar es... [dibuja]

you sometimes take, taken and what is the justification? Even when I did the thesis ... It was very clear, because I was stuck there from the first day. I always argue that in any urban planning or architectural project the problems to solve need to be clear, right? What are the issues that need to be addressed, what is the hierarchy of these decisions? Then it's easier to find project solutions, right? Hey, I'm not saying it's final, but it's easier. So, going back to the story, to what extent does this end? You can imagine, nobody knew how to make a building like this ... They are 70.000 m2 above and 130.000 m2 below. It's an iceberg; more sunk than above ground. The competition talked about making 100.000m2 on the surface, in the block. But the underground levels were not even mentioned, huh? Then, when this appears as a great piece, well, then other numbers appear. The moment this becomes a piece that is built, of course, the structure can not be anything, right? Then, the structural issue appears ... what happens when you overlap five parking floors with a commercial gallery, with ... there had been houses, hotels, there had been many things.

SR You mean, the uses were not clear, not defined from the start?

LTF No, nothing, nothing in the competition. Everything was defined on the fly, because nobody knew what to do. There were no specialists ... There were some Englishmen who knew things, but of course, regarding how many cinemas we had to put. There should have been cinemas. How many restaurants? What size of stores? How many stores? How many millions each store? Of course, all this was a process that was decided on the fly. And every time we were putting more ingredients. But we also had decisions that were ours. We intervened a lot in the program. Because, of course, we made a building that is very different. We said: is this El Corte Inglés [large Spanish chain of department stores] or is it the galleries 'I do not know what'?

SR You mean, the commercial galleries always existed in the approach? Was commercial use planned from the start?

LTF Yes, yes, always. I would say the uses of offices, commercial and parking were there from the beginning. So, how were these ingredients mixed ... There was also the topic of housing, and the theme of the hotel ... It was richer ...

SR The functional program?

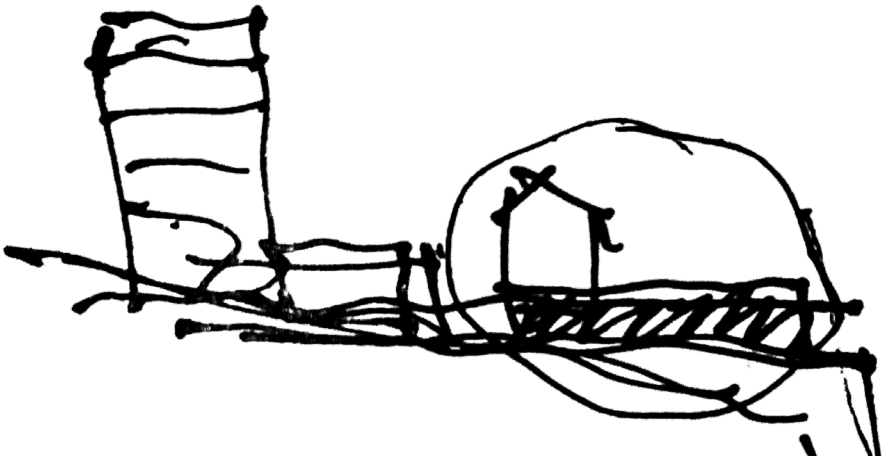
LTF The developers had always been very conservative. They were reducing more and more. Because of course, they did not see things clearly ... We had mixed many uses. We wanted it to be a building like a small city, right? Like the Unité in Marseille, let's say. L'Illa is different than the Unité, but it has a hotel, a nursery, a school, a dining room, a house, a residence, a parking lot. The parking lot, because of its size, was difficult. If you make a building just for offices, it's clearer ... But like that? Beside all this, there were the technical decisions we made to make this possible. That is, found the relationship between the measure of the building and the decisions of the elements of this building. A key element was the structure. You can already imagine that there were trials of all kinds. Well, we already know that, in a building with five floors of basements, the project starts with the parking lot, because otherwise there is no way to solve anything. Also, there were the angles. The plot is ... [draws] I've drawn it wrong. This is so. So here you have an encounter with the Diagonal, with an angle that is repeated, because there are streets that pass, passages that enter ... Another very important issue of the relationship with the city. The building exceeds its own limit; this is a matter of scale, and then of the relationship with the city. A building of this size cannot remain on its site, right? And that's why, of course, the building has to deal with some crossings, some parking lots that go down there, there is the tunnel below ... And then the passages that allow to cross.

SR Pedestrian crossings only or also for the car?

LTF Yes, pedestrian. You could pass up to here; this was a cul-de-sac, for the buses to come by Diagonal, but in the end this has not happened. In the project there were crossings than those that have been built...

SR Was it more porous?

LTF Yes, the topic of generosity that I mentioned before. There was more public space, too. Of course, the developers were looking for profit and they always wanted to get things out, and we were saying: 'no, no,



Lo he dibujado mal. Esto es así. Con lo cual aquí tienes un encuentro con la Diagonal, con un ángulo que se repite, porque hay calles que pasan, pasos que entran... Otro tema importantísimo de relación con la ciudad. El edificio sobrepasa su propio límite; este es un tema de escala, y luego de la relación con la ciudad. No puede ser que un edificio de esta envergadura se quede en su solar, ¿no? Y por eso, claro, el edificio llega a un momento que hay unos pasos, unos aparcamientos que se van ahí abajo, está el túnel de debajo... Y luego los pasos que permiten atravesar.

SR ¿De manera peatonal o también en coche?

LTF Sí, peatonal. Podías pasar hasta aquí; este era un cul-de-sac, para que los autobuses vinieran por Diagonal, pero al final no ha pasado esto. En el proyecto había más pasos de los que se han construido...

SR ¿Estaba más poroso?

LTF Sí, el tema de la generosidad que te decía. Había más espacio público, también. Claro, la promoción lo que buscaba era rentabilidad y querían siempre sacar elementos, y nosotros: i...no, no, que hay que dejar espacio! Que no tuvieras que sacar el abrigo. Tú entrabas en invierno con el abrigo y pasabas con el abrigo por dentro. No pasa nada. En parte era esto. Pero no estabas en la calle. Es cuando había toda esta discusión de... continuamente, la gran discusión era del edificio que daba a Diagonal. Nosotros queríamos que las tiendas entraran desde la Diagonal. También desde dentro, pero especialmente desde la Diagonal. Al final, se cerró el tema. Tú sabes, la estrategia de un centro comercial es que la gente entre, pero no pueda salir.

SR Sí, que se pierda adentro.

LTF Que no encuentres la puerta de salida, no encuentres las escaleras de emergencia, no encuentres los ascensores. Estás en un laberinto. Pero aquí no pasa... Y es el gran éxito, yo creo. Nosotros defendíamos siempre que no pasara esto, que hiciéramos una calle. Volvemos a que aquí es una calle, esto es una calle, ¿no?

SR Es una calle con una plaza.

LTF Es una calle con tiendas. Y una plaza.... Que es lo que pasa en Barcelona, como en Paseo de Gracia; es como poner una cubierta al Paseo de Gracia, o a la Diagonal. La Diagonal tiene 50m, tampoco tiene mucho. Es poner otra Diagonal pequeñita dentro.

SR Una avenida a otra escala.

LTF Otra escala, pero miramos la ciudad, la estructura urbana, continuamente. Tienes avenidas, calles, pasajes... La gente en Barcelona tiene una tradición de calle importantísima. Las ciudades mediterráneas son calles, la vida se hace en la calle, hace buen tiempo, ¿no? Bueno, para seguir el hilo, las decisiones claves se hacen de la estructura. Esta superposición era complicada por el parking, las oficinas. ¿Cuál es la buena luz para las oficinas? ¿Cuál es la buena estructura considerando las medidas para el aparcamiento?... Luego había el tema de los ángulos. Poníamos retículas, y teníamos claro que la retícula tenía que ser en posición de la Diagonal, pero teníamos los pasos... Siempre había estos dos ángulos, y lo probábamos todo: si 10x5, si 7x12, si 7 no sé qué... ¡Y el día que decidimos, que encontramos la medida! Me parece que es 12x7,80, si no recuerdo mal. 7,80 es la medida que daba Diagonal, y 12 es la que viene

we have to leave space!' That you did not have to take off the coat. You went into the building in winter with the coat on and you went with the coat inside. This was part of the overall idea. But you were not on the street. It is when there was all this discussion of ... continuously, the great discussion was of the building that faced Diagonal. We wanted the stores to enter from the Diagonal. Also from within, but especially from the Diagonal. In the end, the subject was closed. You know, the strategy of a mall is for people to come in, but not get out.

SR Yes, that they get lost inside.

LTF That they do not find the exit door, nor the emergency stairs, or the elevators. You are trapped in a maze. But this does not happen here ... And this is where the great success lies, I think. We always struggled for this not to happen, we made a street. We come back to a street here, this is a street, right?

SR It is a street with a square.

LTF It is a street with shops. And a square ... That is common in Barcelona, as in Paseo de Gracia; it's like putting a roof on top of Paseo de Gracia, or Diagonal. The Diagonal has 50 m, it does not have much either. It is like putting another tiny Diagonal inside.

SR An avenue to another scale.

LTF Another scale, but we look at the city, the urban structure, continuously. You have avenues, streets, passages ... People in Barcelona have a very important street tradition. The Mediterranean cities are streets, life happens in the street, the weather is good, right? Well, to follow the thread, the key decisions are made of the structure. This overlay was complicated for the underground parking and the offices. What is the good light for the offices? What is the good structure considering the measures for parking? ... Then there was the subject of the angles. We had reticles, and we were clear that the grid had to be in the position of the Diagonal, but we had the passages ... There were always these two angles, and we tried everything: whether 10 x 5, or 7 x 12, or 7 I do not know what ... And the day we decided, we found the measure! I think it's 12 x 7,80, if I remember correctly. 7.80 is the measure given by Diagonal, and 12 is the one that comes from behind. The day we found this, oh! And we put 12 as well, then 24 ... Then it turned out that 12 was a measure of parking space plus step, huh? There are 5 plus 7, let's say. And the 7,80 are 3 parking spaces.

SR 7,50 m plus the width of the pillar structure, probably.

LTF The free parking space is 7,50 m... The pillars of the basement have a diameter of 90 cm. And the 12 and 12, 24 was a measure that went well for the offices, because it gives enough depth to have two large fields. In addition, it is the measure of the narrow part of the building. It is a structure of great span, which maintains the idea of the building. In section, between slabs, there are 4,20 m, because we wanted the building to withstand the passing of time, to recognize its dimension, the scale, and the adaptations it allowed. You had the necessary space if you needed to put technical ceilings or floors. So ... The big acknowledgement was when we discovered that the diagonal of this, of these two modules is the angle of the Ensanche with the Diagonal, that is, the angle of the city! This is a secret that only architects are interested in, let's say, but it solves the problems when you arrive at the Numancia corner, you have this pillar here and nothing happens. Or when you cross Constanza Street – this very wide street that goes through here below, from where the parking lots start. So we had this double possibility, to always play with the module. So, here we breathe. We had a structural mesh that allowed whatever you wanted. Then, there is all the displacement of the setbacks, which is another story, the setbacks are cantilevers of up to 3 m normally.

SR Because that is the main nucleus... Then everything grows from these 24?

LTF Exactly, yes, yes. This allows you, when the building is rotated, to have the grid always superimposed on this. You have the grid that allows you, when it suits you, to have this angle, and not find the entrance to your office with strange things. That is implacable, a great leap from the beginning of the project. Look how we pass from a competition, where we presented some houses one next to another, all different, to this. But we had the will to make a façade. As in all the Diagonal. If you walk along the Diagonal, you have these big pieces. We were searching, like someone who is looking for the treasure.

de atrás. ¡El día que encontramos esto, oh! Y pusimos el 12 así, luego 24... Entonces resultaba que el 12 era una medida de plaza de aparcamiento más paso, ¿eh? Son 5 más 7, digamos. Y el 7,80 son 3 plazas de aparcamiento.

SR Serían 7,50m más la estructura, probablemente.

LTF De plaza son 7,50m... Los pilares del sótano son de 90cm de diámetro. Y el 12 y 12, 24 era una medida que iba bien para las oficinas, porque da profundidad suficiente para tener dos grandes crujías. Además, es la medida de la parte estrecha del edificio. Es una estructura de gran luz, que mantiene el tono del edificio. En sección, entre forjados, son 4,20m, porque queríamos que el edificio aguantara bien el paso del tiempo, que reconociera la dimensión, la escala, y que permitía, adaptaciones. Si te necesitabas poner techos técnicos, suelos técnicos, pues tenías espacio. Entonces... El gran salto de esto fue cuando descubrimos que la diagonal de esto, de estos dos módulos es el ángulo del Ensanche con la Diagonal, osea, ¡el ángulo de la ciudad! Este es un secreto que sólo interesa a los arquitectos, digamos, pero te resuelve el que tú, cuando llegas a Numancia, tengas este pilar aquí y no pase nada. O cuando se cruza la calle Constanza – esta calle muy ancha que pasa por aquí debajo, de donde salen los parkings de abajo. Así que teníamos esta doble posibilidad, de siempre jugar con el módulo. Entonces, aquí respiramos. Teníamos una malla estructural que permitía lo que quisieras. Luego, hay todo el desplazamiento de los retranqueos, que es otra historia, los retranqueos son voladizos de hasta 3m normalmente.

SR Porque ese es el núcleo principal y luego todo lo que crece, ¿crece de estos 24?

LTF Exacto, sí, sí. Esto te permite que cuando el edificio se gira, aquí tienes la retícula siempre superpuesta a esto. Tienes la retícula esta que te permite, cuando te conviene, tener este ángulo, y no encontrarte la entrada a tu oficina con cosas raras. Eso es implacable, un gran salto desde los inicios del proyecto. Fíjate cómo se pasa de un concurso, donde pasamos unas casitas una al lado de otra, porque además eran todas distintas, a esto. Pero teníamos la voluntad de hacer fachada. Como en toda la Diagonal. Si tú te paseas por la Diagonal, tienes estas piezas grandes. Íbamos buscando, como aquel que va buscando el tesoro. Íbamos trabajando. Volvíamos atrás, delante, y todo este proceso con la ebullición de la promoción. Hubo un momento en que dijimos: quitamos el hotel y levantamos una planta – una propuesta que hice yo. Y yo dije, ¿por qué no levantamos una planta más a todo y no ponemos el hotel? Porque a mí me parecía que al final, el espacio central era un poco justo. El parque, que lo habíamos cerrado demasiado, con las escuelas. En [el proyecto] de las escuelas también participamos nosotros, pero planteamos la ordenación de las escuelas. Parece una, pero son dos. Nosotros propusimos dos porque había una propuesta de unos arquitectos que se les encargó por parte de la propiedad esto, porque creíamos que no lo teníamos que hacer todo nosotros también. Y entonces claro, había el tema de que podía pasar que acabaras teniendo en la manzana un edificio importantísimo, y aquí unas casitas. De tres plantas. Nosotros propusimos evidentemente estudiarlo, pensarlo desde la sección – yo siempre les digo a los estudiantes que todo el mundo empieza los proyectos por la planta, pero yo pienso que los buenos edificios están pensados desde la sección. Aquí, además, tienes la pendiente que baja un 4 percent. Aquí poner una casita es ridículo. Entonces nosotros lo que hicimos fue poner una cosa que era un edificio extensivo, pero que está en contacto con el suelo. Que no se levanta, que es el edificio de dos plantas – una masa, como una pequeña isla. Juntamos las dos escuelas, comparten los patios en medio, y ya está. Son entidades distintas, hay una escuela pública y la otra es privada, de las antiguas monjas que había allí al lado del hospital.

SR Con esta intervención se completa la manzana.

LTF Sí, lo completa. Lo mismo que en el jardín. En el jardín tampoco quisimos hacer nada, lo hicimos al revés: si teníamos el jardín, lo que hicimos es una depresión – unos agujeritos para que la gente pudiera encontrar aquí unos espacios. En lugar de hacer cosas que salieran, vaciamos. Siempre manteniendo que el edificio es el edificio, y que el suelo es el suelo. El suelo llega al -1 [primer sótano] y a la primera planta, todavía ahí estamos en el suelo. A la que empiezas a levantarte ya estás en el edificio... Cuando estás a 12 plantas, pues no es un rascacielos, pero es un edifico en altura. Fíjate que eso son condiciones urbanísticas también. Hay que tener relación con la ciudad y pensar, ¿qué pasa cuando te levantas más de tres plantas? Antes, los edificios de vivienda, hasta 3 plantas, se hacían sin ascensor. Decían: hasta 3 plantas todo el mundo sube. Pero a partir de 3 plantas se complica, ¿no?

SR A mí justamente me interesa muchísimo la esfera pública hasta dónde se puede extender en altura. Entonces aquí es un caso súper interesante, porque absorbe a la esfera pública y la distribuye en vertical.

LTF Sí, sí, esto lo aprendimos en relación con los comerciales también. Hasta ahora te he hablado de cosas muy generales. Por ejemplo, las decisiones de fachada, todo eso también tiene mucho que ver. Todos los materiales y las

We were working. We went back and forth, and all this process with the pressure of the developer. There was a moment when we said: let's remove the hotel and build another level – a proposal that I made. And I said, why don't we go up another floor and put the hotel? Because it seemed to me that in the end, the central space was a bit tight. The park, which we closed too, with the schools. We also participated in [the project of] the schools, we proposed the ordination of the schools. It seems one, but there are actually two. We proposed two because there was a proposal from some architects that were commissioned by the property, because we thought we did not have to do everything ourselves too. And then, of course, it could happen that you ended up having a very important building on the block, and here some little houses. Of three floors. We obviously proposed to study it, to think it from the section – I always tell the students that everybody starts the projects for the floor plan, but I think that the good buildings are designed from the section. Here, in addition, you have the slope that drops by 4 percent. Here, putting little houses is ridiculous. So what we did was putting instead an extensive building, but that is in contact with the ground. That does not rise, which is the two-story building – a mass, like a small island. We put the two schools together, they share the courtyards in between, and that's it. They are different entities, there is a public school and the other one is private, of the old nuns that were there next to the hospital.

SR With this intervention the block is completed.

LTF Yes, it completes it. The same as in the garden. In the garden we did not want to do anything either, we did it the other way around: if we had the garden, what we did was a depression – some little holes so that people could find spaces here. Instead of doing things that came out, we emptied. Always maintaining that the building is the building, and that the floor is the floor. The ground level reaches the -1 [first basement] and the first floor, there we are still on the ground. When you start to get further up, then you are already in the building … When you are at 12 floors, it is not a skyscraper, but it is a tall building. Notice that these are urban conditions too. You have to be related to the city and think, what happens when you get up more than three floors? Earlier, the housing buildings, up to 3 floors, were made without an elevator. They said: up to 3 floors everyone goes up. But from 3 floors up is gets complicated, right?

SR I am very interested to what extent can the public realm be extended in height. So here is a highly interesting case, because it absorbs the public and distributes it vertically.

LTF Yes, yes, we learned this in relation to commercials too. So far I have told you about very general things. For example, façade decisions, all that also has a lot to do with everything. All materials and project decisions correspond to the scale of the building and the urban scale. And because of that, we do not have a little window. It's a large window. 3 x 3! The façade material is travertine, a large piece too. They are pieces that come out of the 7,80 module. I think it was 1,10 m, but I do not remember exactly.

SR Everything was subordinated to these modules.

LTF Yes, and there were some special joints and many other things here, you know?

SR Speaking now of the drawing of the façade, which you mentioned, it is interesting because it is not a fully glazed curtain wall. It has an empty-full ratio, which gives it a certain neutrality, which allows almost anything to happen behind.

LTF Yes, yes, this can be explained very well in the succession of working models. You see, for example, at the beginning, it was a much more closed building, the openings were smaller. There was more dominion of the full than of emptiness. And this was increasing, it was also growing to lose weight, surely. Also to have more light, more transparency, and also find this urban dimension of the window.

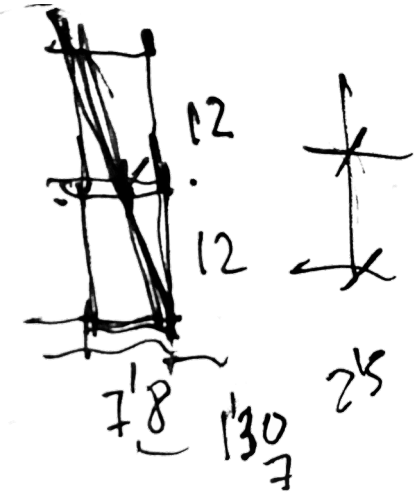
SR Do you believe that uses could be changed in the current layout of the building?

LTF Yes, yes … Totally. Without any problem.

SR If you decide to make part of it luxury housing…

LTF Well, it would cost a little more, yes, but it could be, of course, could be.

decisiones de proyecto se correspondan con la escala del edificio y la escala urbana. Y por eso, no tenemos una ventanita. Es una ventana. 3x3! El acabado de fachada en travertino, una pieza grande también. Son piezas que salen del módulo de 7,80. Me parece que era 1,10m, pero no me acuerdo exactamente.



SR Todo se subordinaba a estos módulos.

LTF Sí, y habían unas juntas y muchas cosas aquí, sabes?

SR Hablando ahora del dibujo de la fachada, que lo ha mencionado, es interesante porque no es un muro cortina totalmente acristalado. Tiene una proporción vació-lleno, que le confiere una cierta neutralidad, que permite casi que pase cualquier cosa detrás.

LTF Sí, sí, esto se puede explicar muy bien en la sucesión de las maquetas de trabajo. Se ve, por ejemplo, al principio, era un edificio mucho más cerrado, las aberturas eran más pequeñas. Había más dominio del lleno que del vacío. Y esto se fue aumentando, fue creciendo también para quitarle peso, seguramente. También para tener más luz, más transparencia, y encontrar también esta dimensión urbana de la ventana.

SR ¿Usted cree que se podrían cambiar usos en el edificio actual?

LTF Sí, si... Totalmente. Sin ningún problema.

SR Si se decidiera hacer una parte de vivienda de lujo...

LTF Bueno, costaría un poco más, sí, pero podría ser, claro, podría ser.

SR Es entonces un edificio bastante versátil. En este sentido.

LTF Sí, sí. También queríamos que aguantara bien el paso del tiempo. Esto lo teníamos clarísimo.

SR ¿Y para esto los cambios de usos eran algo que se contemplaba desde el inicio?

LTF Sí, sí, aunque la promoción, en este sentido, no tenía claro lo de la vivienda. Osea, tenían que ser usos generales, diríamos. No muy específicos, muy personales. El uso comercial. Todo lo que sea de oficina, trabajo... La vivienda, podría haber sido vivienda de lujo, especializada, no sé. Pero fue una lástima que las cubiertas... Porque este edificio que tiene este repertorio de cubiertas magnifico, que al final, lo perdimos... Fue una tontería porque, el tener recuperadas las cubiertas comportaba nuevas decisiones de instalaciones muy importantes – tener elementos instalaciones intermedios –, y la propiedad no se atrevió con esto. Pero fue una lástima... No es un edificio que tenga una cubierta, sino muchas cubiertas, porque tiene cambios de nivel y esto permitía crear en cada una cosas distintas. Piscinas, había piscinas. el hotel ya tenía una piscina arriba. Tienes muchas posibilidades.

SR ¿Hubieran sido terrazas privadas?

LTF Yo pienso que... no lo sé. Los promotores se cansaron. No podían ya con tanta capacidad del edificio. El edificio los superaba por todas partes. El riesgo era grande también. Hay edificios de esos que se convierten en parques temáticos. Pero aquí no se trataba de eso.

SR Que bueno que lo menciona así porque...

LTF Claro, porque no es eso, un parque de atracciones! Yo creo que la vivienda arriba iba muy bien. Áticos de vivienda que no tenían por qué ser grandes. Además, había un hotel residencia. Hubo un momento que no se iba a hacer el hotel que se hizo porque no había en Barcelona tantos hoteles. imagínate lo que ha pasado después. Y ahora sólo hay hoteles... Pero, en aquel momento, el promotor no ha querido hacer el hotel, que al final lo han hecho otros.

SR Y ahora va bien, supongo, ¿verdad?

LTF Sí, sí, ahora todo va bien porque ha habido esta explosión turística. Nosotros insistíamos en la variedad de usos; era muy importante para el edificio, porque hace ciudad. ¡La ciudad es esto!

SR It is then a very versatile building. In this sense.

LTF Yes Yes. We also wanted it to stand the test of time well. This we had very clear.

SR And for this the changes of uses were something that was contemplated from the beginning?

LTF Yes, yes, although the developer, in this sense, was not convinced about housing. I mean, there had to be general uses, we'd say. Not very specific, very personal. Commercial use, everything that is office, work ... Housing, could have been luxury housing, I do not know. But it was a shame that the rooftops ... Because this building has this repertoire of magnificent rooftops, that in the end, we lost it ... It was silly because, having recovered the rooftops would have involved new decisions of very important installations – having intermediate installations elements –, and the developer did not dare it. But it was a pity ... It is not a building that has one rooftop, but many rooftops, because it has level changes and this allowed creating different things in each part. Pools, there were pools. the hotel already had a pool upstairs. You have many possibilities.

SR Would they have been private terraces?

LTF I think ... I do not know. The developers got tired. They could not handle so much building capacity. The building surpassed them in many aspects. The risk was great too. There are buildings of these scale that become theme parks. But it was not the case here.

SR Good thing you mention it like that because...

LTF Sure, because it's not that, an amusement park! I think housing above would have been very good. Penthouses that did not have to be big. In addition, there was a residence hotel. There was a moment that the hotel was not going to be done because there were not so many hotels in Barcelona. Imagine what happened afterwards. And now there are only hotels ... But, at that moment, the investor did not want to do the hotel, which was eventually done by others.

SR And now it's fine, I guess, right?

LTF Yes, yes, now everything is going well because there has been this tourist explosion. We insisted on the variety of uses; It was very important for the building, because it makes city. That's what city is!

SR It is the Eixample block that is...

LTF Yes, our city is like that.

SR Yes. But I found it extremely interesting what you said at some point that it was the idea of the Unité d'habitation, in the sense that it is like a condensed city. In other words, the uses of a city compacted in a structure, but this structure really attracts the public from all sides, and does not make it self-sufficient. Also another of my questions was: What do you think have been the important keys to success? Because obviously it is a successful building for the city...

LTF The first important aspect is the location, the best place in the city. If you put it somewhere else, it's not the same, right? We already had a great challenge, and on top of that we had the best plot in Barcelona. If you do it wrong ... The analysis of the place allows you to understand this. Others did not understand this. [refers to the buildings on the other side of Avenida Diagonal, especially the building designed by the architects Fargas i Tous] This building is dead ... It is also on the opposite side, which is not the same, but anyway... When you have lived a lot the city ... When I design, urbanism has always interested me. In fact, masterplans and city planning have interested me a lot. I do not believe in thinking objects without knowing where you put them. Especially of that dimension, right? There is the need to be as substantive as possible. Because if not, then you fall in the theme park. Here, the theory of Manuel de Solà-Morales and Moneo had a lot of influence. And the developer also counts a lot. Initially, it was the city hall. The one in charge of the project was Joan Busquets. Joan Busquets is now the metropolitan general director of Barcelona, professor at Harvard. He was the promoter of the competition. In the competition there were many planners, it was a restricted competition. There's Giancarlo De Carlo, Mario Botta etc.

SR The park that has remained here, is it private property?

SR Es la manzana del Eixample que es...

LTF Sí, nuestra ciudad es así.

SR Sí. Pero me pareció sumamente interesante lo que ha dicho que en algún momento ha sido la idea de la Unité d'habitation, en el sentido que es como una ciudad condensada. Osea, los usos de una ciudad compactados en una estructura, pero este caso en realidad es algo que atrae de todas partes el público, y no lo hace autosuficiente. También otra de mis preguntas era: ¿Cuál cree que han sido las importantes claves del éxito?, porque obviamente es un edificio exitoso para la ciudad...

LTF La primera es estar en el mejor sitio de la ciudad. Si eso lo pones en otro sitio, no es lo mismo, ¿no? Ya teníamos un gran reto, y encima teníamos el mejor solar de Barcelona. Si lo haces mal... El análisis del lugar te permite entender esto. Hay gente no se enteró. [se refiere a los edificios del otro lado de avenida Diagonal, especialmente al edificio proyectado por los arquitectos Fargas i Tous] Está muerto este edificio... También está en la parte de arriba, que no es lo mismo, pero bueno... Cuando tú has vivido mucha ciudad... Cuando diseño, el tema del urbanismo me ha interesado siempre. De hecho, planes generales y la ordenación de la ciudad me han interesado mucho. Yo no creo en pensar objetos sin saber dónde los pones. Sobretodo de esa dimensión, ¿no? Ahí está la necesidad de ser lo más sustantivo posible. Porque si no, entonces caes en el parque temático. Aquí, la teoría de Manuel de Solà-Morales y de Moneo cuentan mucho. Y también cuenta mucho el promotor. Inicialmente era el ayuntamiento. El que encarga el proyecto es Joan Busquets. Joan Busquets ahora es el director general metropolitano de Barcelona, profesor de Harvard. Ese es el promotor del concurso. En el concurso hay muchos urbanistas, es un concurso restringido. Está Giancarlo De Carlo, Mario Botta etc.

SR El parque que ha quedado aquí, ¿es propiedad privada?

LTF Es privado pero cedido al ayuntamiento. Yo creo que sí, sí. Lo construimos nosotros e hicimos todo, pero es abierto. Es público, sí, sí. Pero formaba parte del concurso. Hay un tanto por ciento que has de ceder siempre.

SR ¿Ceder a la ciudad?

LTF Formaba parte del Plan especial. Después de ganar el concurso, lo primero que se hizo fue el Plan especial. En el Plan especial se había discutido mucho de esto... la relación que había entre el urbanismo y la arquitectura. Esta discusión famosa de si tenían que hacer planes o se tenían que hacer proyectos... Por ejemplo, Gregotti [participante en el concurso] era un urbanista bastante urbanista, que defendía las manchas. El urbanismo era un tema de manchas. Era como abstracto, de números.

SR ¿El master plan típico?

LTF Sí, el master plan. En cambio, aquí había una tendencia de profesores de urbanismo que defendían el proyecto. Osea, el plan sí, pero con el proyecto. Tú tenías que comprobar a qué propuesta formal te llevaba el plan urbanístico, porque te podías encontrar que, a partir de un plan general, un plan fantástico salía una porquería de ciudad. Porque esto sí que era una cosa que había pasado en la ciudad gótica y renacentista, los proyectos urbanísticos. Cuando se abrían las famosas calles nuevas, había un proyecto detrás de arquitectura ponían casitas una al lado de la otra. En cambio, cuando hacías planes y nada más, luego no se sabía qué pasaba. Entonces, aquí había también esta discusión. Y con todo el movimiento olímpico, cada plan tenía incorporado su proyecto. Un anteproyecto de lo que aquel plan daría. Por lo tanto, la discusión era del plan y del proyecto. Aquí se hizo un poco lo mismo porque Manuel [de Solà-Morales] era también de esta corriente. En aquel momento, en las escuelas de arquitectura se empezaba a buscar arquitectos, profesores, que aparte de ser urbanistas o de querer ser urbanistas, supieran proyectar. Se buscaba gente joven que proyectara bien, que quisiera ser urbanista. porque claro, si no, había gente que no, que nunca habían cogido un lápiz y sabían hacer un dibujito para una casa. En nuestro plan especial lo primero que hicimos al mismo tiempo explorábamos... Claro, un edificio así ¿cómo lo amoldas? Íbamos trabajando en un pseudo-proyecto, pero al mismo tiempo teníamos que aprobar un plan especial. Tenía que ser un plan que tuviera una licencia municipal del planeamiento porque no se sabía todavía, a lo mejor el hotel lo haría otro y así íbamos. Entonces empezamos a dibujar, pero claro, con la idea, no queríamos hacer manchas. Queríamos hacer un anteproyecto. Y este anteproyecto – que era ley urbanística, aprobada – nosotros teníamos que cumplirlo. Entonces, claro, cuando hacíamos ya el proyecto ejecutivo de verdad, había cosas que no nos iba bien. Habíamos puesto, por ejemplo, 18m y necesitábamos 21m.

SR ¿Qué flexibilidad daba este plan aprobado?

LTF It is private but assigned to the city hall. I think so, yes. We built it and we did everything, but it's open. It is public, yes, yes. But it was part of the competition. There is a percentage that you have to preserve as public park always.

SR Give in to the city?

LTF It was part of the Special Plan. After winning the competition, the first thing that was done was the Special Plan. In the Special Plan much of this had been discussed … the relationship between urbanism and architecture. This famous discussion of whether they had to make plans or had to do projects … For example, Gregotti [participant in the contest] was an urban planner, who defended the spots. Urbanism was a subject of spots. It was like an abstraction, numbers.

SR The typical master plan?

LTF Yes, the master plan. On the other hand, here there was a line of urban scholars who defended the project. I mean, the plan itself, but with the project. You had to check the formal outcome that the urban plan took you to, because you could find that, based on a general plan, a fantastic plan would produce a bad city. Because this was something that had happened in the Gothic and Renaissance city, the urban projects. When the famous new streets were opened, there was a project behind the architecture – they put houses next to each other. On the other hand, when you made plans and nothing else, then you did not know what was happening. So, here was also this discussion. And with the entire Olympic movement, each plan had its project incorporated. A blueprint of what that plan would give. Therefore, the discussion was about the plan and the project. Here, the same happened because Manuel [de Solà-Morales] also had this conviction. At that time, architecture schools began to look for architects, professors, who aside from being urbanists or wanting to be urbanists, knew how to project. They were looking for young people who designed well, who also wanted to be urbanists. Because of course, otherwise, there were people, who had never taken a pencil in their hands and didn't know how to make a drawing of a house. In our Special Plan – which was the first thing we did – at the same time we were exploring … Sure, a building like that, how do you mold it? We were working on a pseudo-project, but at the same time we had to approve a Special Plan. It had to be a plan that had a municipal planning license because many things were not yet known, maybe the hotel would be done by another team… Then we started to draw, but of course, with the idea, we did not want to make spots. We wanted to make a blueprint. And this preliminary draft – which was an urban law, passed – we had to comply with it. So, of course, when we did the real detailed project, there were things that were not going well for us. We had put, for example, 18 m and we needed 21 m.

SR How flexible was this approved plan?

LTF Mmm, very little, because we had, we wanted … There was always the possibility to fire us, planners, or change the developer during the development of the project. Those things happen. Then, the one that comes after us, if he does not have to fulfill a strict plan, then he can make a mess, right? And I remember an Italian architect, Andrea Casiraghi, who worked with us, and we said: 'Andrea, we have to move this alignment because this does not comply with the Special Plan.' And he said: 'But, the Special Plan, aren't we the ones who did it?' Now we have done something that we cannot fulfill. We have to modify the project because we do not comply to our plan.

SR There were two different instances…

LTF But this is the good thing about the project process. Now, regarding the uses, the commercial issue. I told you before about the floor plans. Well, the conclusion we arrived at was that, in a commercial building, there are three good floors from an economic point of view. Three! The ground floor, the +1 and the -1; from there on, it is very difficult for people to go up or down. Look at the strategies of El Corte Inglés [big chain of department stores] to get people to go up. People go up there, but it's hard for them to leave.

SR Well, people go up to the floor they need, too. Each floor has a department …

LTF Sure, but look at this facility that they have here with the street. Pim, pam, pum, pam. This is very good, is it not?

LTF Mmm, muy poca, porque habíamos, queríamos... Podía ser que en pleno desarrollo del proyecto nos echaran, o cambiaran la propiedad. Esas cosas pasan. Entonces, el que viene, pues se encuentra con una cosa que no ha de cumplir y no la cumple, y te deja aquello hecho una porquería, ¿no? Y recuerdo un arquitecto italiano, Andrea Casiraghi, que trabajó con nosotros, y le decíamos: 'Andrea, hemos de mover esta alineación porque esto no cumple con el Plan especial.' Y decía: 'Pero, ¿el Plan especial no lo hemos hecho nosotros?' Ahora hemos hecho una cosa que ahora nosotros no podemos cumplir. Tenemos que modificar el proyecto porque no cumplimos nuestro plan.

SR Eran dos instancias diferentes.

LTF Pero esto es lo bueno del proceso de proyecto. Ahora con respecto a los usos, el tema comercial. Te decía antes de las plantas. Pues se llegó a la conclusión que en un elemento comercial hay tres plantas buenas desde el punto de vista económico. ¡Tres! La baja, la +1 y la -1; a partir de allí cuesta mucho que la gente suba o baje. Fíjate en las estrategias de El Corte Inglés [gran cadena de tiendas por departamento] para que subas. Allá sube la gente, pero le cuesta salir.

SR Bueno, la gente sube a la planta que necesita, también. Cada planta tiene un departamento...

LTF Claro, pero esta facilidad que tienen aquí con la calle. Pim, pam, pum, pam. Esto es muy bueno, ¿no?

SR Sí, realmente no hay barreras, no hay interrupción de flujo. Esto fluye.

LTF Claro, estás siempre en una calle, y tienes luz. Hasta en la planta primera. Esta galería, esta pieza que se mueve ahí, es importantísima. [dibuja en sección] A esta pieza le dimos vueltas por un tubo. Esta pieza es independiente de todo el resto.

SR Entonces esa pieza se mueve libremente.

LTF Claro, y por aquí entra la luz. Esa es la clave, esto es lo que hace que esta galería. En la planta baja entra luz a través de los pasos, y en la planta primera a través de este lucernario que se va moviendo. Y es lo que hace que tú aumentes la superficie comercial.

SR ¿De vitrina?

LTF Sí. Y todo esto fue cambiando. Había momentos que estábamos ya desanimados, porque al mismo tiempo, había toda la discusión comercial. ¡Recuerda, tenemos 350m de fachada!

SR Ya, fachada con potencial comercial orientada a una avenida tan importante de la ciudad.

LTF Luego otro aspecto importantísimo fue la implantación, cómo este edificio se pone en el suelo. Porque tienes un suelo que baja un 4 percent, como baja el Ensanche de Barcelona. Y aquí tienes la Diagonal que es un 1 percent... No, me parece que es un 0,7 percent. Bueno, aquí hay todo un tema, e hicimos un estudio topográfico muy importante, también con la idea de ver que pasa. A lo largo de la fachada de Diagonal la calle baja 2,5m.

SR Media planta.

LTF Exacto. Entonces claro, el edificio ha empezado a hacer cosas, a subir y a bajar y hacer cosas. Y si tienes aquí una galería comercial de 350m, ¿qué pasa aquí? Entonces dijimos que la galería, la planta baja es inclinada. Si tú pones una bola ahí, baja.

SR No es realmente una pendiente notable, pero...

LTF Es la pendiente de la Diagonal.

SR Sí, y lo que resuelve es no hay ningún impedimento en el acceso, todo fluye.

LTF Exactamente. Pero resuelve otra vez lo mismo: la relación del edificio con la Diagonal. ¡Puedes salir! Puedes tener puertas siempre. Pero en las tiendas esto a veces no se cumple. La pendiente para los comerciantes era una cosa totalmente esotérica. Y para los constructores también, porque hay pocos edificios que tengan una planta baja comercial de esta envergadura en pendiente. La primera planta estaba también en pendiente, pero ha tenido unos cambios. De todos modos, también tiene sus cambios de nivel. Sabes, esto es el elemento urbano. Si tú dices: 'yo voy a hacer un edificio que mantiene el contacto con la Diagonal para siempre', pues lo mantiene.

SR Yes, there really are no barriers, there is no flow interruption. Everything flows.

LTF Sure, you're always on a street, and you have light. Also in the first floor. This gallery, this piece that moves there, is very important. [draws in section] We struggled with this piece. This piece is independent of all the rest.

SR Then that piece moves freely.

LTF Sure, and here comes the light. That's the key, this is what this gallery does. On the ground floor light enters through the passages, and on the first floor through this skylight that is moving. And that is what makes you increase the commercial surface.

SR Of showcase?

LTF Yes. And all this was changing. There were moments that we were already discouraged, because at the same time, there was all the commercial discussion. Remember, we have 350 m of façade!

SR Yes, façade with commercial potential oriented to such an important avenue of the city.

LTF Then another important aspect was the implantation, how this building is placed on the ground. Because you have the floor that drops by 4 percent, as Barcelona's Ensanche goes down. And here's the Diagonal which is 1 percent … No, I think it's 0.7 percent. Well, here is a whole issue, and we did a very important topographical study, also with the idea of seeing what happens. Along the façade of Diagonal the street level decreases 2,5 m.

SR Half plant.

LTF Exactly. Then of course, the building has started doing things, going up and down and doing things. And if you have a 350 m shopping gallery here, what's going on here? Then we said that the gallery, the ground floor should be inclined. If you put a ball there, it rolls down.

SR It's not really a remarkable slope, but …

LTF It is the slope of the Diagonal.

SR Yes, and it resolves the access without any impediment, everything flows.

LTF Exactly. But it mostly solves, again, the same thing: the relation of the building with the Diagonal. You can go out! You can always have doors. But in the stores this is sometimes not true. The slope was a totally esoteric thing for the merchants. And for the constructors too, because there are few buildings that have an inclined commercial ground floor of this size. The first floor was also inclined, but has had some changes. Anyway, it also has its change of levels. You know, this is the urban element. If you say: 'I am going to make a building that maintains contact with the Diagonal forever', then you keep it.

SR And this was decided in the Special Plan?

LTF No, it was a decision that was taken later. In the Special Plan you could not see this. The scale of the Plan was 1/200, I think.

SR It's a very large scale!

LTF Yeah, it's a lot.

SR That's already an architecture scale, is it not?

LTF Yes. Yes. There was a lot of 1/500 too. But there were 1/200 plants. Yes. And from this building [the main one], the general floor plans were drawn at 1/250. We designed special tables with a supplier, because this building was drawn by hand halfway through. Then we started with Autocad. And we drew on transparent paper. In pencil, because it was faster. And all the plans were made at 1/250 because it was the size of the table, which allowed us to put the whole plan. The plane measured 2 m and a peak, right?

SR ¿Y esto se decidió en el Plan especial?

LTF No, fue una decisión que se ha tomado después. En el Plan especial no podías ver esto. La escala del Plan me parece que era 1/200.

SR ¡Es una escala muy grande!

LTF Ya, es muchísimo.

SR Eso ya es escala de arquitectura, ¿no?

LTF Sí, sí. Había bastante de 1/500 también. Pero había plantas de 1/200. sí, sí. Y de este edificio [el principal], las plantas generales se dibujaron a 1/250. Diseñamos unas mesas con el proveedor, porque este edificio se dibujó a mana hasta la mitad. Luego entramos con Autocad. Y dibujábamos en papel vegetal. A lápiz, porque era más rápido. Y se hacían todas las plantas a 1/250 porque era la medida de la mesa, que nos permitía poner toda la planta. El plano medía 2m y pico, ¿no? Compramos unos tableros… Nuestro despacho se construyó para hacer este proyecto y se destruyó cuando se terminó el proyecto.

SR ¿Crearon un despacho para este proyecto solamente?

LTF Sí, sí. Primero unos trabajando en el despacho del Solà-Morales, en Sarriá. Pero luego nos instalamos en un edificio que íbamos a destruir. Una casa de pisos. Luego teníamos en la calle… Pero siempre teníamos estas mesas. Y teníamos una maqueta a escala 1/250 también. Íbamos todo el día cortando y pegando, y se destruyó. Todo el día le metíamos y le quitábamos cosas. Teníamos cuatro soluciones puestas que íbamos probando.

SR Aja, ahora le quisiera preguntar sobre esta plaza de aquí. El edificio viene, da la vuelta, hace como un gancho y abraza lo que sería este espacio de la…

LTF Bueno, es la esquina de Numancia, con la importancia de Numancia. Piensa que el otro lado no da a la calle. Ahí queríamos generar – esto era un tema comercial también – lo que llamábamos 'rotores'. Si tú generas dos piezas muy buenas en cada punta, esto genera un círculo, un movimiento, entonces, te garantiza las tiendas comerciales. Y si los extremos no funcionan, los del medio se mueren.

SR Entonces, por un lado, la plaza aquí era el motor comercial, ¿verdad? Y del otro lado, El Corte Inglés que es…

LTF El Corte Inglés, ahora es el FNAC [cadena de tiendas de productos electrónicos y libros], eso. Pero aquel punto es el único punto que falla un poco, porque… Especialmente en la planta primera. Aquel fondo, aquel cul-de-sac, todo y que hay una escalera que baja… Aquel es un punto que… tener esto para que funcione no es fácil, ¿eh?

SR ¿No tiene la misma fuerza que la plaza?

LTF Nooo. Por eso te decía que viniéramos aquí. Porque este es el punto bueno. Y está esta calle pequeñita, esta rampa que hay aquí, que enlaza con la calle Les Corts. Todas las trazas están en relación a la ciudad.

SR Realmente desde fuera hacia dentro…

LTF Claro. Con las de arriba hasta abajo, porque esta pieza permitía empezar a trazarlo. Es muy bonita la sección transversal porque se ve como el edificio se ancla. En la sección se ve el paso de abajo, el edificio prolonga su vida, su actividad en el parking. Aquí aparcan 2.000 coches. Las rampas de acceso están en la calle, debajo de las aceras. Y la calle se prolonga hasta Sarriá, del otro lado de Diagonal. Son dos barrios distintos, Les Corts y Sarriá, y esto está en el límite, ¿no? Este paso no estaba inicialmente tampoco por debajo de la Diagonal, salió así en el proyecto. Lo necesitábamos… El edificio no tenía capacidad de resolver toda su densidad en el mismo. Necesitaba aprovechar de la ciudad. Entonces lanzamos los coches fuera. Esto es un anclaje en la ciudad. Y el edificio supera su propio límite. Pero los supera bien, en relación a las calles. Es un edificio que no se entiende si no está donde está, ¿no? Porque si este edificio lo pones en no sé donde, no es el mismo, ¿no?

SR Tal cual, sí, sí. Osea, no es una isla autosuficiente.

LTF Claro, no lo es.

We bought some boards ... Our office was built to do this project and it was destroyed when the project was finished.

SR Did you create an office for this project only?

LTF Yes. Yes. First some of us were working in the office of Solà-Morales, in Sarriá. But then we settled in a building that we were going to destroy. A house with flats. Then we went to the street... But we always had these tables. And we had a model at 1/250 too. We went all day cutting and gluing, but eventually it was destroyed. All day long we were putting things on and off the model. We had four different solutions that we were testing.

SR Aja, now I would like to ask you about this square here. The building comes, turns around, turns into a 'hook' and embraces what would be this space of the ...

LTF Well, it's the corner of Numancia, with the importance of Numancia. Remember that the other side does not face the street. There we wanted to generate – this was a commercial issue too – what we called 'rotors.' If you generate two very good pieces at each end, this generates a circle, a movement, then, you guarantee the success of the commercial stores. And if the extremes do not work, the shops in between die.

SR So, on one side, the square here was the commercial engine, right? And on the other side, El Corte Inglés, which is...

LTF The Corte Inglés now is the FNAC [chain of stores of electronic products and books]. But that is the only point that fails a bit, because ... Especially on the first floor. That bottom, that cul-de-sac, even though there is a staircase that goes down ... That's a point that ... Making it work is not easy, huh?

SR Doesn't it have the same driving force as the square?

LTF Nooo. That's why I told you to come here. Because this is the good point. And there is this little street, this ramp that is here, that connects with the Les Corts street. All the traces are in relation to the city.

SR Really from the outside in...

LTF Sure. From top to bottom, because this piece allowed to start tracing everything. The cross section is very beautiful because it looks like the building is anchored. In the section you can see the passage below, the building prolongs its life, its activity in the parking lot. 2.000 cars park here. The access ramps are on the street, under the sidewalks. And the street extends to Sarriá, on the other side of Diagonal. They are two different neighborhoods, Les Corts and Sarriá, and this is at the border, right? This connection didn't initially pass below the Diagonal, it came out that way in the project. We needed it ... The building did not have the capacity to solve all its density within it. I needed to take advantage of the city. Then we throw the cars out. This is an anchorage in the city. And the building exceeds its own limit. But it surpasses its limits well, in relation to the streets. It is a building that is not understood if it is not where it is, right? Because if you put this building I don't know where, it's not the same, right?

SR Definitely, yes. I mean, it's not a self-sufficient island.

LTF Of course, it is not.

SR Then this public square, it works like a town square. At first it was open, right? I was exterior space.

LTF Yes, yes. Then ... In fact, it's outer space, we'd say. Because then this side was closed. It is covered, but it is fully ventilated. Now there are those doors. This is an outdoor plaza that was closed a little more than it should have. The upper part was always difficult. And the roof is, well, regular. This roof is very complicated. There is all this interior ... There are also all the pavements – the travertine – that enter and leave and make the traces of the sidewalk. Then there is always this relationship with the city. These big decisions or great initial wills – which I think is interesting and pretty, right? – in relation to the volume, to the positioning of the volume in relationship to the city; all this is to be taken into account in the structure, to be taken into account in the façade, to be taken into account until reaching the pavement. All scales are present, because the layout of the street enters the building.

SR Entonces esta plaza pública, pues funciona como la plaza del pueblo. Estaba descubierta al principio, ¿verdad? ¿Era espacio exterior.

LTF Sí, sí. Luego... De hecho, es espacio exterior, diríamos. Porque luego se cerró este lateral. Está cubierto, pero está totalmente ventilado. Ahora hay aquellas puertas corta temperatura. Esto es una plaza exterior que se cerró un poco más de la cuenta. Lo de arriba siempre fue difícil. Y la cubierta esta, bueno, regular. Esta cubierta es muy complicada. Hay todo este interior... Hay también todos los pavimentos – el travertino – que entran y salen y hacen las trazas de la acera. Entonces siempre está esta relación con la ciudad. Estas grandes decisiones o grandes voluntades iniciales – que creo que es lo interesante y lo bonito, ¿no? – en relación a la volumetría, al posicionamiento respecto a la ciudad, todo esto pasa por tenerse en cuenta en la estructura, tenerse en cuenta en la fachada, tenerse en cuenta hasta llegar al pavimento. Todas las escalas están presentes, porque el despiece de la calle entra en el edificio.

SR Sí, justamente lo fotografiaba yo antes porque estaba prestando mucha atención a este tema del pavimento que penetra...

LTF Y esto es muy bonito cuando llueve. Me lo hizo ver Rosa Feliú, que es la mujer de Solà-Morales, que es una fotógrafa muy buena. Le encantan sobre todo los reflejos del agua cuando llueve, aparecen en los charcos de agua. Y entonces hay estas piezas tan grandes de hormigón... Esto se hizo con escoba, ¿sabes? Es hormigón al que se le ha pasado una escoba, por eso salen todas estas trazas. No se quería tener un edificio como un aeropuerto... Todo nuevo, todo moderno. Es un edificio de hormigón en el suelo, de... Luego, también hay que mirar el volumen del edificio. Los volúmenes de arriba copian las trazas y están girados en relación a las trazas de las calles. Aquí todas las trazas de las calles van saliendo y si coges el volumen grande, cuando baja, se empalma con la calle que viene de arriba, la que pasa por debajo. Es igual que lo del ángulo. El ángulo agudo, es de 76º que es el ángulo de Numancia con la Diagonal. Había el tema de cómo hacíamos la esquina. Hay muchas tesis doctorales sobre las esquinas del Ensanche de Barcelona. Y aquí estaba claro que decidimos hacer un cortante. Porque no es lo mismo un ángulo obtuso, ¿no? La vista es distinta, ¿no?

SR Totalmente.

LTF Esta es más cortante, y como queríamos que fuera la esquina más importante de Barcelona, le pusimos el ángulo agudo. Lo miras y es como un cuchillo. Es que todo nos jugaba a favor porque cuando tú llegas de Madrid, diríamos, vienes del oeste. Entonces te encuentras con la arista de la Illa, la parte más alta, y ahí de lado tienes la arista en la esquina. ¡Todo es ciudad, todo es ciudad! Y lo bonito es qué hace el proyecto. Que no se hace de cualquier manera. Encontrando, ¿no? Utilizando las reglas de la arquitectura, de los arquitectos, y la geometría, la elección del material... Inicialmente, hablamos de una fachada de bloques de piedra, y acabamos con una fachada ventilada, que es lo que tocaba en aquel momento. Pero también de buena medida: son piezas grandes pero gruesas. Fue muy bonita la construcción de la fachada. En una fachada de hormigón de 350m de largo el tema de las tolerancias es difícil. Las cosas no encajan. Aquí no trabajamos como los ingenieros aeronáuticos. Hay movimiento, desplazamientos... Todo el mundo decía: 'habéis de hacer juntas, habéis de separar, porque es la manera de que no se note la junta'. Porque cuando tú haces una junta en un pavimento, pues te permite...

SR Sí, sí. ¿El mismo escalonamiento de estos bloques no permiten?

LTF Sí, pero claro, en el plano de fachada no era posible. La clave está en el detalle de la ventana, porque las ventanas tienen, las paredes son... Construíamos una pared de 30cm, en ladrillo, y a partir de aquí venía la fachada. Entonces construimos unos pre-marcos de acero, donde se iban a poner las ventanas. Estos pre-marcos se anclaban de manera que llevaban ya la pieza y el acabado de toda esta pieza que envuelve la ventana. Y con la precisión que da un teodolito laser, podíamos poner todas estas piezas. Estas sí que las podíamos poner alineadas. Entonces, en el momento que teníamos esta pieza bien puesta, y la siguiente y por arriba y por abajo, ya teníamos la fachada puesta. Entonces, sí esto se iba moviendo, no pasaba nada. Porque esto es lo que se movía. Y daba la alineación. Esto es muy importante, ¿eh? A partir de aquí, vinieron los obreros, trabajadores de la piedra. No había un sistema rígido para colocar la piedra, no iba por aquellas retículas metálicas que pones una guía... Pero claro, esta guía no se pone con un teodolito laser, porque te viene fijada por el sistema constructivo. Si tienes exactamente esta cota fijada, entonces puedes hacer un agujero, inyectar mortero, y, mientras va fraguando, tiene una tolerancia. Puedes moverlo, y esto es lo que hacían los montadores. Dejaban la piedra esa de anclaje. Unos anclajes que eran unas piezas de acero inoxidable, que acababan con un pico. Esto es lo que va dentro. Tenía un pivote por aquí, y otro pivote por aquí, que es donde iba la piedra puesta. Esta pieza es la que ellos anclaban a la pared y la podían mover un poquito para... Siempre hay tolerancia entre una piedra y otra, porque las juntas varían también. No son iguales.

SR Yes, I just photographed it before because I was paying a lot of attention to this topic of the pavement that penetrates...

LTF And this is very nice when it rains. Rosa Feliú, the wife of Solà-Morales, who is a very good photographer, made me see it. She loves the reflections of the water when it rains, they appear in puddles of water. And then there are these big pieces of concrete ... This was done with a broom, you know? It is concrete that has been passed a broom, that's why all these traces come out. You did not want to have a building like an airport ... Everything new, everything modern. It's a concrete building on the ground... Then, you also have to look at the volume of the building. The volumes above ground are rotated in relation to the traces of the streets. Here, all the traces of the streets are coming out and, if you take the big volume, when it goes down, it connects with the street that comes from the other side of Diagonal, the one that passes underneath. It's the same as with the angle. The sharp angle is 76º, which is the angle of Numancia with the Diagonal. There was the issue of how we made the corner. There are many doctoral theses on the corners of the Ensanche in Barcelona. And here, it was clear, we decided to do a cutting edge. Because an obtuse angle is not the same, right? The view is different, isn't it?

SR Totally.

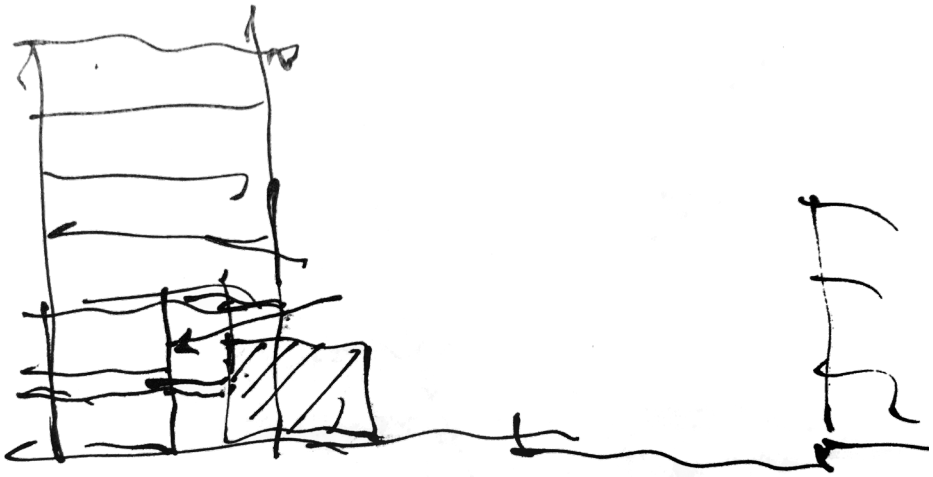
LTF This is edgier, and, as we wanted it to be the most important corner of Barcelona, we put the sharp angle. You look at it and it's like a knife. Everything was favorable to us because when you arrive, let's say, from Madrid, you come from the west. Then you find the edge of the Illa, the highest part, and there on the side you have the edge in the corner. Everything is the city, everything is the city! And the beauty is what the project does. That is not done in any way. Finding, right? Using the rules of architecture, architects, and geometry, the choice of material ... Initially, we talked about a stone block façade, and we ended up with a ventilated façade, which is what was appropriate at that time. But with a good measure: the pieces are large and thick. The construction of the façade was very beautiful. In a 350m long concrete façade, the issue of tolerances is difficult. Things do not fit. We do not work here like aeronautical engineers. There is movement, displacement ... Everyone said: 'you have to do joints, you have to separate, because that is the way you do not notice the encounters.' Because when you make a joint on a pavement, it allows you...

SR Yes, yes. Doesn't the geometry of these blocks allow you to bring in joints?

LTF Yes, but of course, it was not possible in the façade. The key is in the detail of the window, because the windows have, the walls are ... We built a wall of 30cm, in brick, and from here came the façade. Then we built steel sub-frames, where the windows were going to be placed. These sub-frames were anchored so that they already carried the piece and the finish of this whole piece that surrounds the window. And with the precision that a laser theodolite gives, we could put all these pieces aligned. Then, at the time we had this piece well placed, and the next ones above and below, we already had the façade on. Then, if this was moving, nothing happened. Because this is what moved. And it gave the alignment. This is very important, huh? From here, came the workers of the stone. There was not a rigid system to place the stone, it was not depending on those metallic reticles that you put a guide ... But of course, this guide cannot be measured with a laser theodolite, because it is fixed at the constructive system. If you have exactly this level fixed, then you can make a hole, inject mortar, and, while it is forging, it has a tolerance. You can move it, and this is what the assemblers did with the stone anchors. The anchors were pieces of stainless steel, which ended with a peak. This is what goes inside. I had a pivot here, and another pivot here, which is where the stone was placed. This piece is the one that they anchored to the wall and they could move it a little to ... There is always tolerance between one stone and another, because the joints also vary. They are not the same.

SR This was established in the project?

LTF Yes, of course, it's all drawn. We wanted the idea of the stone – this is more of an architects' thing. This explains the care of making a façade for a city on an important street. Because it's not the same. You have to take a lot into consideration, as far as you can. Here, we initially had the idea of the piece of stone, the block of stone. What was done in the end was a layout that was playing. That was breaking the joint. We modified the joints so that visually, one ended up seeing much larger pieces. The horizontal pieces were 0,6 m and the double, 1,2 m. In the drawings you see, the black ... You see big blocks, right? Then,



SR ¿Desde el proyecto?

LTF Sí, claro, está todo dibujado. Queríamos la idea esta de la piedra – esto es una cosa ya más de arquitectos. Lo que explica esto es el cuidado de cuando tú haces una fachada para una ciudad en una calle importante. Porque no es igual. En la medida de lo posible, has valorado un poco todo. Aquí teníamos inicialmente la idea de la pieza de piedra, el bloque de piedra. Lo que se hizo al final fue un despiece que era el que iba jugando. Que iba rompiendo junta. Lo que se hacía era variar las juntas de manera que visualmente, acabas viendo piezas mucho más grandes. Piezas horizontales había de 0,6m y dobles, de 1,2m. En los dibujos se ve, el negro... Tú ves bloques grandes, ¿no? Luego, en una segunda lectura, ves que hay bloques más pequeños. También hay unas piezas de acero inoxidable, que van pasando solamente en horizontal.

SR En los puntos donde están las grandes ventanas, ¿hay detrás un cambio de uso? ¿Cuáles son las intenciones, aparte de ofrecer una gran ventana hacía la ciudad?

LTF No. Nosotros las llamábamos las súper ventanas. No, estos son aspectos más personales, más anecdóticos. Queríamos resaltar cuando hay un cambio importante. Fíjate que están sobretodo en la parte más alta del edificio. Cuando se llega a la esquina, también giran distinto en la esquina. Hay un momento aquí que giran las ventanas. Es un acabado importante. Las llamábamos las súper ventanas porque eran dobles. Son muy grandes.

SR ¿Usted conoce algún proyecto similar, teniendo en cuenta que ha sido un éxito tan grande para la ciudad, como pieza de arquitectura? A mí me está costando encontrar un hilo conductor en esta dimensión intermedia. Obviamente, la dimensión del solar es un privilegio que no siempre se encuentra, ¿no? Pero me estoy preguntando ¿por qué este tipo de planteamiento, de una gran estructura, no es un modelo que se ha seguido mucho en Europa? Y ¿qué permite una intervención de esta escala?, que tiene una fuerza impresionante, se convierte en un gran motor para todo el entorno. De hecho, esta es la gran pregunta en mi tesis... Hay muchos edificios de gran escala, mega-estructuras, sobretodo en el espacio norteamericano, que han fallado de manera ejemplar.

LTF Ya, la ciudad americana es otra historia.

SR Totalmente. Pero para el entorno urbano europeo, con el que estamos acostumbrados aquí – la densidad, las dimensiones, la vida en la calle, etc. – hay modelos exitosos, como es este caso. Y me extraña que no es un legado que se ha ido siguiendo...

LTF Sí, entiendo... No sé, no sé. Yo diría que quizás es un poco al revés. Desde cada ciudad, desde cada territorio aparecen unos modelos que permiten... Por ejemplo, la operación de los Docks en Londres – yo tampoco la he visto en ningún otro sitio. O la operación del espacio portuario en Hamburgo, también.

SR Hmm, es otra dimensión.

LTF Claro, claro...

SR Ahí es la dimensión urbana, más el plan general, el máster plan que luego se ha ido llenando. Compaginar la perspectiva urbana con la arquitectónica y encontrarse en este punto intermedio, es ahí donde yo tengo el mayor

in a second reading, you see that there are smaller blocks. There are also some pieces of stainless steel, which are passed only horizontally.

SR At the points where the large windows are, is there a change of use behind them? What are the intentions, apart from offering large windows to the city?

LTF No. We called them the super windows. No, these are more personal, more anecdotal aspects. We wanted to highlight whenever a major change happened. Notice that they are mostly in the highest part of the building. When you get to the corner, they also go around the corner differently. There is a moment here that the windows go around the corner. It is an important element. We called them the super windows because they were double. They are very big.

SR Do you know any similar project, considering that it has been such a great success for the city, as a piece of architecture? It is hard for me to generally find a guiding principle in this intermediate dimension. Obviously, the plot's dimension is a privilege that is not always found, right? But I'm wondering why this kind of approach, of a great structure, is not a model that has been followed more in Europe? And what allows an intervention of this scale, which has an impressive force, to become a great driving force for the whole environment? In fact, this is the big question in my thesis ... There are many large-scale buildings, mega-structures, especially in the North American cities, that have failed in an exemplary manner.

LTF Sure, the American city is another story.

SR Totally. But for the European urban environment, which we are used to here – density, dimensions, life on the street, etc. –, there are successful models, as in this case. And I am surprised that it is not a legacy that has been followed...

LTF Yes, I understand ... I do not know, I do not know. I would say that maybe it's a bit upside down. From each city, from each territory appear models that allow ... For example, the operation of the Docks in London – I have not seen it anywhere else either. Or the operation of the harbor area in Hamburg, too.

SR Hmm, it's another dimension.

LTF Of course, of course...

SR That is the urban dimension, plus the general plan, the masterplan that has later been completed. To combine the urban perspective with the architectonic one and to be in this intermediate point, is where my main interest lies. Also to see which decisions stem from the urban thought, what comes from architectonic decisions and where they collide.

LTF The Vittorio Emanuele galleries would be something similar. They have the stores, they have the public, they have the offices, they have housing too. All the galleries of the nineteenth century... Surely there are also things in Vienna, right? Or the City of New York, the type of architecture of the skyscrapers is also a bit of this ... [L'Illa] was called a skyscraper lying down. There were two versions: some said lying down, and some said asleep. It is not the same to be asleep as to be lying down! It is not the same sleeping, asleep. It was also called the horizontal skyscraper. Actually, it is a little bit. Here it was convenient to make a horizontal building, not a vertical one. The big difference is that a vertical one does not maintain contact with the ground ... On the other hand, the horizontal one has the maximum contact ...

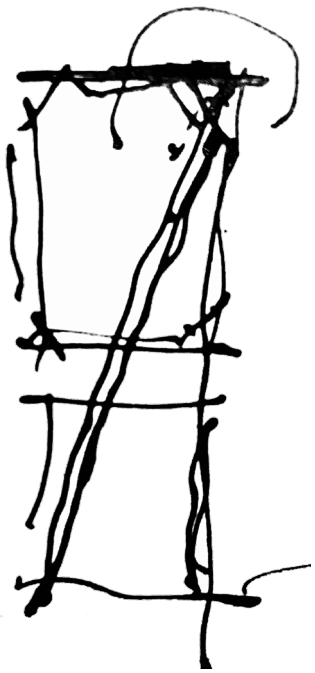
SR Each sector – what would be the vertically stacked floors of a skyscraper – has to be in contact ...

LTF Sure. Skyscrapers do not seek that contact with the city. Because they are looking, surely, for the isolation from the city. But a building that has all this intrinsic life; everything related to the city has to be horizontal, and everything that does not look for this relationship is vertical ... For example, the hotels have always been vertical. This building [L'Illa] could have had three horizontal floors and then a tower, in the corner ...

SR With a plinth?

LTF We would have had room for office space, huh?

interés, y ver cuáles son las decisiones que es lo que viene del pensamiento urbano y qué es lo que viene de las decisiones arquitectónicas y dónde se encuentran.



LTF Las galerías Vittorio Emanuele serían algo parecido. Tienen las tiendas, tiene el público, tiene las oficinas, tiene vivienda también. Todas las galerías del siglo XIX... Seguro que en Viena también hay cosas, ¿no? O la City de New York, el tipo de arquitectura de los rascacielos también es un poco esto... A éste [L'Illa] le decían que era un rascacielos acostado. Había dos versiones: algunos decían acostado, y algunos decían dormido. ¡No es lo mismo estar durmiendo que estar dormido! No es lo mismo durmiendo, dormido. También se le decía el rascacielos horizontal. En realidad, es un poco esto. Aquí convenía hacer un edificio horizontal, no vertical. La gran diferencia es que uno vertical no mantiene contacto con el suelo... En cambio, el horizontal tiene el máximo contacto...

SR Cada sector – qué serían las capas que se suceden en vertical en un rascacielos – tiene que estar en contacto...

LTF Claro. Piensa que los rascacielos no buscan ese contacto con la ciudad. Porque buscan, seguramente, el aislamiento de la ciudad. Pero un edificio que tiene toda esta vida; lo que tiene que tener relación con la ciudad es horizontal, y todo lo que no busca esta relación es vertical... Por ejemplo, los hoteles, de toda la vida han sido verticales. Este edificio [L'Illa] podía haber sido de tres plantas en horizontal y luego aquí con la torre, en la esquina...

SR ¿Con un podium?

LTF Nos sobraría espacio de oficinas, ¿eh?

SR Exacto, el edificio podium, con el hito vertical, la torre.

LTF Podía haber sido... Pero entonces, no es el Ensanche, es otra cosa. De hecho, aquí en la Diagonal ya tenemos edificios de estos. En aquella esquina tenemos el edificio de Correa [edificio 'Atalaya de Barcelona', arquitectos Federico Correa y Alfonso Milà, 1966-70, Av. De Sarriá, 71 – esquina con Diagonal], que es muy bonito, y otro edificio más abajo. Un edificio blanco, de los años 60, de piedra artificial... Es muy bonito aquel edificio, pero claro, es otra historia, es otra historia. Siempre, el tema es cómo resuelvo la llegada al suelo de una pieza vertical. La relación con el suelo, con la ciudad...

SR Y aquí es al revés. Es quizá la ciudad la que sube un poco, ¿no?

LTF Yo diría que es el Ensanche. Si comparas L'Illa con el Ensanche verás que toda la parte del otro lado, de abajo, es parecida de altura. Claro, tiene casas.

SR ¿En frente del hotel NH?

LTF No, el otro extremo, es un poco más alto que la manzana siguiente. Hay unos planos, que se ve el alzado de la Diagonal. Una cosa es mirar y otra cosa es ver. Hay que ver bien las cosas. Encontrar y entender lo que toca hacer aquí, o te puedes equivocar también, ¿no? En el momento, el Ensanche lo van eliminando... De momento va aguantando bien, pero al final, pasará que será un parque temático. Porque ya está pasando un poco en el centro. Centros historicos son parques temáticos. Lo que pasa es que van manteniendo las fachadas, pero dentro ya no... La vida ha desaparecido, ¿no? Ese es ya otro problema.

SR Sí, el Ensanche se está contaminando también. Pero es muy resiliente, es una estructura que aguanta mucho y que permite mucho.

LTF Es potente. Pero bueno, la presión es muy fuerte y... no lo sé. Ya veremos cómo acaba.

SR Exactly, the podium building, with the vertical landmark, the tower.

LTF It could have been … But then, it's not the Ensanche, it's something else. In fact, here in the Diagonal we already have such buildings. In that corner we have the building of Correa ['Atalaya de Barcelona' building, architects Federico Correa and Alfonso Milà, 1966-70, Av. De Sarriá, 71 – corner with Diagonal], which is very beautiful, and another building below. A white building, from the '60s, made of artificial stone … That building is very nice, but of course, it's another story, it's another story. The issue is always how I resolve the arrival of a vertical piece to the ground. The relationship with the ground, with the city…

SR And here it seems to be the other way around. Maybe it's the city that goes up a bit, right?

LTF I would say it's the Ensanche [going up inside the building]. If you compare L'Illa with the Ensanche you will see that the whole part of the other side, below, is similar in height. Sure, it has houses.

SR In front of the NH hotel?

LTF No, the other end is a little higher than the next block. There are some plans, which show the elevation along the Diagonal. It is one thing to look and another thing is to see. You have to see things well. Find and understand what to do here, or you can go wrong too, right? At the moment, the Ensanche is being eliminated … For now, it is still holding well, but will end up being a theme park. This is already happening a bit in the center. Historic centers are theme parks. What happens is that they maintain the façades, but inside they no longer … Life has disappeared, right? That is another problem.

SR Yes, the Ensanche is getting contaminated, too. But it is very resilient, it is a structure that supports a lot and that allows a lot.

LTF It is powerful. But hey, the pressure is very strong and … I do not know. We'll see how it ends.

6|2.2 Interview with Claudia Herasme and Stella Kim

Interview with	Claudia Herasme [CH] Director of the Urban Design Office of the NYC Department of City Planning, and Stella Kim [SK] Program Manager, Privately Owned Public Spaces of Manhattan of the NYC Department of City Planning
Conducted on	April 13, 2017 by Sorana Radulescu [SR]
Duration	76 minutes
Place	NYC Department of City Planning 120 Broadway 31st Floor | New York | NY 10271

The meeting started with Stella Kim [SK] presenting slides on the history of POPS. At one point, I [SR] specifically asked about interior POPS.

SK The interior POPS emerged in the 80's through the CPS and different special district regulations. Through that, a lot of those indoor public spaces have come into creation. Today, the only place where new interior POPS can be built is in the special district of Lower Manhattan. Today you can't build a lot of the spaces that you've seen; they were grandfathered under a previous regulation. So, that is why we are saying we should consent to outdoor spaces. As you might have felt and seen in these interior spaces, they rather feel privatized and are not read as public. We, in general, encourage more the outdoor spaces that from the sidewalk you can just go in. They can create a more successful public reading, as we want them to be! Although they are privately owned spaces, we are getting a public space out of the private developer for a bonus. POPS is just one typology of public spaces throughout the city, there are other mechanisms, but regarding POPS, we are focused on the outdoor spaces now. Lower Manhattan ¬– with the financial district and the offices, and its specific types of buildings is the only place where covered pedestrian spaces and interior POPS are allowed – in the sense that it generates a bonus.

CH I would say, but I don't have proof of what I am about to say, these started in the 60's. The general idea was to clean the cities and to provide all sorts of expensive spaces. The idea of separating uses. In fact, it was reflected in the regulation. We just asked for the space, there was no amenity that was required. And I think that, as the city and our thinking evolved, we have absolutely moved away from that. And POPS, in particular, because they are something that is an exchange, it is an amenity that you get in exchange for very valuable floor area in Manhattan, we felt that we needed to make sure that we were getting the best amenity that we can for the city. So much so that we had in the last decades... We are still very conservative, but I would say we have absolutely recognized the necessity to have these spaces being animated by borders with activities: Retail, restaurants, whatever... You do need the tranquility and to escape from the hustle and bustle of the city, but there's a balance there. There is no absolute science for it.

SR That was actually one of my main questions, because I did see that there are additional uses provided for the public, such as art galleries, showrooms, restaurants etc. Was this something that was regulated or is it something that you impose now?

CH It's permitted. It is not imposed, but it is permitted.

SR But you are in favor of that?

CH Yes, it adds to the life of the public space.

SR Would this be important to enhance?

CH Yes, definitely.

SK It's hard to generalize about it because it really depends... As you can see from the timeline, there are so many regulations! We have lived and learned since the 60's on what makes a successful space that if, for example, a lot of our positive passed under what was the first iteration – with no program even existing yet – which was the plaza, under the 1961 zoning resolution, which basically asked for barren space. It didn't permit all the amenities that we require nowadays from a new space. So, each of the 540 spaces were grandfathered under whatever regulation from the past and we only started with the newest regulation – with the public plaza – in 2007. That's when we started requiring retail frontage on a space – the art galleries and coffee shops that you might see at least on outdoor plazas today. That is now required, that you have a usage frontage, because we realized it adds to the animation of a space and provides a reason for the people to go there, sit there, to linger, and create an additional amenity, in addition to trees and seating. Not to say that some of these interior ones also required, depending on the regulation they were passed on, some kind of retail – like the ones on Fifth Avenue. Some of them were passed under the Special District Fifth Avenue text, which is now dead. However, that required extra amount of retail, and there could only be these uses. So, it went so far as to dictate all those things. The

requirements really depend on the space. Also, with a special permit, you could only build something if you provided this kind of amenity so they can also be required to provide something that someone else would not be required for the approval. But, back to the bigger picture, we do like retail and additional amenities.

SR Are these spaces more intended to have people seating or just to enable the crossing and facilitate circulation and movement?

SK A little bit of everything. I think you can see that different typologies can serve different functions. A lot of the POPS in Midtown are through-blockers, which articulate all the long blocks, because they provide those circulation paths all around. So there is both, that one for example – that kind of typology of spaces – has more of the circulation function but another type, like a corner or public plaza, supports people passing and also sitting. It kind of depends on the designer, we do not design them! The building owners would hire somebody to design them as to conform to regulation. It depends on how they are sited. We do have some restrictions on how they do site their spaces but, mainly, different typologies serve different functions. However, we do require at least seating and planting. Since the 70's, with the urban plaza regulations, we had to require that. This is when we realized we do want these to be useful spaces. In the 60's, when this was created, it was more for air and the barren spaces. They weren't thinking about how people were using spaces, but were only interested in just providing them. Today, we do want to facilitate use to improve the circulation aspect, and also require seating. Tables are only required after a certain size or as an additional amenity, but at least seating – protective seating and social seating, we have thought about that and improved the regulation in the last years to come to what we feel is comfortable today.

SR All this commercial activity sustaining these spaces, wouldn't it transform them slowly into commodified spaces?

CH Yes, but as I said, it is always a balance. The one thing is that we do review every single one of them. So, this is not like we wrote the rules and they go off and they do whatever they want to do. No. There is actual...

SK That would be a disaster!!!

CH There is a very thorough review, sometimes there is a lot of back and forth because they want to design something that we absolutely cannot support. So, I would just say that it is negotiated every time. I think that we have a baseline approach and then, it is really different when you have, for example, a commercial space and then all of the city gets around there and you have maybe a more exposed – I'm just making this up –, you provide a more open space. And, by design, you're basically giving the city in to the commercial, which is something that we do not allow. Even when the rules in 2007 created this requirement that you have to have a certain amount of seating and open space from the sidewalk, there still is freedom. There is flexibility on where you put them. It is a combination, there is a lot of design review that happens and discussions, to ensure that there is always a balance between the perceived or potential privatization of the space versus the sense of being and staying open throughout the life of the project.

SR In your opinion, do these spaces belong more to the street or more to the building? And I don't mean the completely open space – the parks –, but these in-between areas that may be also connected to the subway, or another transport hub? For example, the one in Citicorp building, it is three-dimensional but it also has outdoor space... Or in the case of Rockefeller Center. I am interested in the three-dimensionality of the space and how these POPS can really become a mediator between the vertical and horizontal movement.

CH What do you mean by three-dimensionality? Do you mean elevated or sunken?

SR The sunken plazas, for example, are all spaces where you obviously have both directions of movement – that one space, which really mediates between them... Between the horizontal movement on street-level and the up and down movement to the transport infrastructure or to the buildings.

CH I would say that we have actually moved away from those spaces as well. We used to allow spaces to be elevated or sunken, we do not allow that anymore. There can just be like a little bit of topography that we allow. For sure, historically, we have many. But we have a combination of things. We have also had a lot of incentives or regulations about creating access to infrastructure through private property and that is something not really related to POPS. A lot of them are just things that we negotiate when big developments come in and need a permit or things that we already pre-identify with the MTA [Metropolitan Transportation Authority, the entity running the subway network]. For example, Times Square had a big redevelopment, and we had identified that, in order to better manage the crowd, we would need more entrances. So, in the buildings that were redeveloped we created bigger and better entrances to the subway. We do a lot of that, I would say that we have definitely and absolutely moved away from spaces like that.

SR Why? Because they fail?

CH I'm not sure if you have seen the history of the Apple cube plaza on 59th Street. It was a sunken plaza that was a whole level down. And all you could see from the street was a bit of tree canopy and, if you got a little bit closer, you could see the top of the umbrellas. There was no way of you knowing that that was public unless you had incredibly big stairs that would almost be pushing you into that space. How do you know that any of that is really public? Here, this is a good example, there's a combination of barren and sunken [space]. And maybe, if you really think about the design and make it more attractive, people will go. But in that case, there were two really bad things. You were ten feet down and you disconnected from the street. And besides, there was nothing to do there!

SR That is mainly a matter of design and of the amenities that you put in, right?

CH Right, but the design premise or value that, especially for the 2007 overhaul... And this is why I was mentioning the Apple cube plaza: it was sunken – basically that's what the Apple store used to be. Now it got filled and elevated just a tiny bit, a few steps, precisely so that it could be a part of the street life. That's what it is about, you want to see and be seen! You don't want to be hiding! You will feel safer but also be part of the entertainment of being in a public space. Surely, you want to have your moments of intimacy, sit in front of a fountain, feel that you are on your own, but you still want to be part of the bigger picture.

SR That is really something that I have noticed and that drew my attention, because I realized that often the interface between inside and outside is mediated through revolving doors. This is really a blockage in the flow. But inside I have seen – for example the Continental Center or even 120 Park Avenue or 875 Third Avenue – in many of them, when you are inside, you have the feeling that you are both in the street and also starting to enter the building. The furniture there is more related to urban furniture. So, that becomes an interface, an in-between, but the moment when you get in, it is often so institutional... It is like entering the lobby of the building. Have you ever thought of this interface, of improving it, of making the flow more natural to get in there? It is a detail of design that can really change a lot.

CH Yes, these are all 80's plazas.

SK Because people weren't thinking that much about how these spaces would be used. When those interior spaces were approved, I don't believe they had really strong design standards on the entrances, or in general. They were looking for something that was reasonable. You also have to think, on the flipside, especially for the interior spaces, the building security and points of entry are major concerns. Safety is a concern for everybody – for the building users and the public space users. So, thinking about all those different needs requires a balance. The different kind of functions and needs perceived by the people who maintain it, the people who use it, the agencies who pass approve of the spaces... I don't believe there were strong requirements on the entrances back then.

SR Do you think this could improve? If you reconsidered this interface could the public space that is offered inside the building be consistently improved?

CH We have a catch 22 there, which is that, as Stella [Kim] mentioned, those are all grandfathers. The way the resolution worked in New York was that once you get a permit it is forever, until you come back to

us for some changes. So, we do not have the authority to go back and ask them to do any changes. At this point, Citicorp is probably the landmark, for Citicorp to change that plaza would have to be their own decision. If they came to us… Especially the sunken plazas, they are really hard. We do not have records to go back and tell them you have to change it. If they came back… The way we wrote it for 2007 is that any plaza that needs to be redesigned has to move in the direction of the new rules.

SK We call it 'in great accordance with the current standards.'

SR What are the current standards?

SK Current standards require a lot of elements within the plazas: seating, planting, circulation, retail frontage, transparency… Only a certain amount can be used for lobby, 20 percent planting. We have a lot of requirements today. A new plaza that was passed in our older regulations would need to be closer to today's standards. We cannot ask them to meet everything per se.

SR And you don't allow the interior ones anymore? New ones only here, in Lower Manhattan?

SK Yes, those would be new ones, but there are so many that have been built under other regulations. There are spaces that are built as interior circulation spaces, part of the building, but they are not providing a bonus.

CH That is more of a site planning issue. We would allow them in terms of approval, but they do not get a bonus.

SR Are there any recent examples?

CH The Bank of America tower, I think.

SK I think that is a POPS, next to Bryant Park… A popular interior space, that a lot of people have considered successful, is the IBM building. In terms of newer ones, there is one really close to here, very popular, 180 Maiden Lane. It got re-designed.

SR So, you consider it successful?

SK Yes, although I haven't been recently. It is looked upon as the classic successful indoor space. With bamboo trees, the lighting…

CH: Yes, it has a lot of seating. And I think this is part of what we have found over the years. People feel safer and more invited when there is a lot of seating. Then, there are many people sitting, and also, even if it is empty, it is a sign that you are welcome. I am sure you know about Amanda Burden; she was our commissioner for the Bloomberg administration. She was extremely interested in POPS and she always said that this was the reason why she became a city planning commissioner, because she wanted to fix the POPS in terms of making sure they are an asset to the city.

SK Maiden Lane 180 is a good interior space.

SR You mean Continental Center, right? I actually wanted to ask you about it. I visited it yesterday, and what I really enjoyed was the fact that there were people with their lunch boxes sitting, there were several seating offers, movable seats, a restaurant, an art exhibition, there were homeless people looking for shelter because it was raining outside. So, I really thought that it was a nicely used public space. This is the kind of space I am talking about, and looking at. What I really find interesting, and correct me if I am wrong, what used to be the lobby of an office building is now assumed as a public area. The lobby has been minimized and put in the upper level. You take the escalators and you have it on the first level, still in connection to this public space. Isn't this a good model? It allows the public sphere to penetrate the ground floor, isn't it a bonus for the city?

SK Yes, it is a successful one. However, we do not have a lot of great ones, to be honest. It is tricky because in no way it becomes a buildings' front yard that can easily become privatized then. Not all of them are separated in the way you mentioned. We often do not have a clear definition. This one is pretty well-defined because you have the escalators up and the lobby in the upper level. This one is clearly defined

because it has a lot of visibility from all sides, it has retail inside and it's well used in a way that you don't feel unsafe within the space, but again, that safety concern would be something to really think about with this interior spaces, although this one, by being so transparent, feels safe. It really comes down to the design of how successful or not, especially the indoor spaces, can be. To say that it's the best model would be a little bit tricky.

CH: I think that it's a really good model for us and we still allow it in Lower Manhattan, precisely because the density of the use is so high that looking at it from a bigger picture you start with: 'I'll take whatever I can get' and so, let's expand into private land. Then, it becomes a matter of quality and design. If that building, for whatever reason didn't have a glass, it would have been completely different. And so I think that that's what it really comes down to, we look at the plan, review the location, the orientation, the natural light - some of them are already existing and don't have a lot of sunlight, this is something we have become more sophisticated about over the years, in terms of orientation. I would say that the city has also evolved over time, New York in the 80's is not the same New York today where we have literally moved outdoors as a city, people are actually wanting to be outside. These are great spaces, especially in winter.

SK I would like to say that in winter and rain people go into this spaces more so. They do provide a good use. This is the model.

SR So, actually, the benefits of the outdoor spaces are light, ventilation and orientation, right?

CH: Of the outdoor spaces? Yes! You are physically outside and we, as human beings, have that need, especially in a city like New York, where everybody lives in a small apartment, you want to be outside. Before, we didn't have as many options as we have now – access to the river, for example. I think that the role that POPS played originally – Lower Manhattan and Midtown was mostly office space –, they were really viewed as the lunch time place. The concept of indoor public space was catering the workers, not necessarily the tourists or the workers of other levels, not necessarily about residents. Now, Lower Manhattan and Midtown are very mixed, with a lot of residences. Before, they were business districts. I think we are responding to that as well, public space is mediating between transportation and a quick lunch.

SK The whole culture of lingering in public spaces is more supported, in general, in and out of city government, adding up cultural aspects, more functionality, use and enjoyment of the space. This translates into regulation and design.

CH: The other important thing about New York is that we are really bad at enforcing. Because the city is so big, there's so much to enforce, the reason... [Claudia shows me a piece of paper] I don't know if you've noticed this sign? We have a detailed list of what you're supposed to find there, in each POPS, and that is because we're giving enforcement out to the users. If you walk in and you are interested, you can read it up and cross-check if everything in the list is there. In the case that there is something missing, there is a number you can call and tell them that they need to put up that tree, there where it's missing.

SR Do you have that feedback, do people engage, making sure that these amenities are provided and respected?

CH: The number listed is 311, which is a reporting service for the city, although some of the older signs that we didn't regulate say 'call the owner.' The enforcement of today is the Public Department of Building; they go out and inspect the space and they will write a violation message to the building owner. We really don't see all the complaints that come in, because they go to the Department of Building.

SK I think we are getting better. My role here is pretty new – I've been here for six months –, but the fact that we're having someone in staff fully dedicated to the POPS all day, hopefully we'll be better at the enforcement aspect. But then again, we're not the enforcing agency but more ensuring the compliance. We do have, in addition to the complaint-driven aspect of it, we also now require, with the new regulation, that owners submit a compliance report every three years since their plaza was approved, basically to demonstrate that they still comply with their approval. That applies only to plazas that have

been approved by us since 2007. So, not all plazas are subject to that – only thirty-two or so. Not all POPS have the sign.

Claudia has a meeting and leaves the room.

APOPS is a separate website [https://apops.mas.org]. It is the complement of this book, the website is the online version. This book was produced by the Municipal Art Society and the Harvard professor Jerold S. Kayden in 2002. The website has some updates, but the book is frozen in time since. It doesn't capture everything but surely a good resource. We have our own website, but it doesn't hold so much in it, the website gives a brief history and walks through the design programs, has some diagrams helpful to understand. [https://www1.nyc.gov/site/planning/plans/pops/pops.page]

SR Now that you mention it, I think that I saw the categories of POPS in your website, are there new categories that you'd think could emerge now and that would make sense?

SK I don't know about new ones, but I worked prior in San Francisco, in the planning department, and they had rooftop POPS, which we don't have here. I think that's really interesting in an urban environment, I think that would be something to explore, that we don't allow yet.

SR And how do they work? How does the connection from street level to rooftop work?

SK It differs. In some, there is a separate elevator or sometimes it will be integrated with the main building elevators. I don't know if you've been in buildings where there is a restaurant in the rooftop, for example, or a hotel in between, and so the elevator controls your access to the public spaces and bypasses all the private space in between.

SR I just wonder – since you are concerned about the detachment of this interior public spaces on the ground floor from the street level –, the rooftop POPS is even more unattached to the street level so this connection becomes essential in order to make it understandable as an enlargement of the street space and not that you would only get there if you know they are there.

SK Yes, that is the tricky part about them and that is something to review and think about. It is a neat idea but the implementation part, of course, needs to be thought through.

SR What I found interesting here was the garden on the fifth floor at the Trump Tower on Fifth Avenue. I don't know if that is a POPS, is it?

SK Yes that is a POPS. Although there is a lot of security going on. [Donald Trump had become US president on January 20, 2017].

SR It's not that bad, it went pretty well. You take the escalators; it is sort of disconnected, although when you get into the lobby you immediately have signs to the sixth floor garden so everyone points the way and you have the Starbucks on the first level and then you don't have any other attractors along the way so you move with the escalators up to that point and there's a door. It's a really surprising space, since it's totally urban if you can take a picture of it without knowing where it is and without showing the building you would have a feeling that is on a ground floor. It provides different views and I really thought it was a good example, and, what definitely should be improved, in my opinion, is the connection. Which is working pretty well, it's not as disconnected as it would be with an elevator, for example, because you slowly move with these escalators... I really thought it's an interesting and feasible model.

SK There is a point we allowed elevated plazas but there's only a handful in the city.

SR Do they work well?

SK I personally haven't been to any of them, there's only a handful. I think the same concern with sunken and elevated ones is the disconnection. They're challenging in that sense. I do think, like you said, they provide a nice different kind of space and experience. It is something we could explore more.

SR So in the end it's a matter of how you design the connection to the street, right?

SK Yes. The accessibility and visibility both physically and in signs and then how you access the space, and knowing how to access the space. As a user, if you can't see how to access the space maybe you don't feel like asking someone and choose to just continue walking on the sidewalk and move on. Visual cues, design and operationally are a lot to consider.

SR Did the POPS start in New York? The idea of the POPS started in New York?

SK Yes, we are the starters of this what we call incentive zoning, as in you provide the plaza for the public and you get the bonus. That concept of incentive zoning started here in 1961 with the zoning resolution and from then on other cities have followed that idea, for example San Francisco.

SR Also beyond the USA? Have they been exported?

SK I think so, that's one of my homework items, becoming more familiar with the international level. I'm thinking Singapore right now. I think they're also becoming more advanced about design centered or not. I think initially whenever cities start exploring this, they think about the legal framework of how they work and once they have that sorted out then they consider to have the design tables built in. I think that slowly some advanced international cities that are immensely urban are at some design stage. For example, Singapore was releasing in some standards for their POPS, very minimal. I have also spoken to city planning in Seattle, they're starting to have POPS. Internationally, I'm honestly not too familiar with the work that's taking place in parallel with ours. I don't know about any city in Europe.

SR I know London has imported the model, it's one of my homework now too. I'll let you know once I know more. Do you think that from the 60's until now this incentive zoning has changed the image of the city? Has influenced it in an important, beneficial way?

SK Yes, there's over 540 POPS, which creates like over a million... Sorry, please don't record this. I wish I had the number written down, but I think it covers ten percent of Central Park. It provides 540 more spaces than would've happened otherwise, and especially in the most tense [sic] parts, where these POPS are located – Financial District and Midtown –, providing these pauses to offices. It just provides so much more public space in areas that, other than the waterfront, don't have any other way to bring the public life together. They immensely provide an amenity by quantity and quality. This differs on the space, but they do provide that, as all of the incentives on problems like, currently the MIH [Mandatory Inclusionary Housing], for affordable housing, that also provides a bonus. There's several bonus mechanisms within the city, that one being something that is really hot right now if you provide a certain amount of affordable housing you also get a bonus. There's so many things that the public and the city can breathe out of, that it becomes a win-win. In general, this type of programs brings a lot of benefit that wouldn't happen otherwise. I think New York, in general, does a really great job at extracting public benefit through this kind of models where everyone wins from it, in a way.

SR Are these POPS mainly given to office buildings? Can residential buildings also ask for something like that?

SK The idea of them was to provide open space in areas that lack open space, so they're concentrated and allowed in medium to high density commercial districts, for example here in Midtown. It was meant to provide relief in highly congested areas. Like Claudia [Herasme] said, there's a mix of residential here now as well, so areas that have an overlay of high density residential and commercial, they could have a plaza. In this zoning, if you see under 33 – 14 article 3 chapter 3 - 33 – 13, around there, in the zoning resolution is where it talks about what allows the bonus. In these zoning districts you can get like a 2,0 FAR for providing a public plaza that meets these standards and then appoints to this section. So, that part will say what areas of the city they are allowed in and, again, it will be the medium to high density commercial areas.

SR So if you would build a residential building in midtown, could you also apply for this?

SK If it's allowed within the zoning. If your zoning district is, for example C 4 6, whatever the zoning allows. C-districts are commercial, commercial can also be hotels in which case a plaza would be allowed. In

purely residential areas they would have neighborhood parks already. But we had a phase that had residential plazas, that was tide to creating a plaza that was more catered towards residents. Along the East Side, in the Upper East Side there's a lot of condo buildings that have a plaza, there are residential buildings with them but, then again, they would need to be within a commercial district.

SR I see. Are these places managed by the owners of the buildings and do they also establish the rules and regulations?

SK Yes and no. They are maintained by the owners, they are obligated to and that is part of they're approval. In terms of the rules and today's standards they are required to be open twenty-four seven. The interior spaces have separate rules, since the building shuts down at some point, usually with their office use. The interior spaces have to print rules following their schedule, the outdoor spaces, in general, are open twenty-four hours. If you have a major safety concern, we do allow you to close your plaza but the spirit of the program is to have spaces that are always available. In terms of activities, we allow owners to put in what we call a prohibition sign that helps them to ensure safe and comfortable environment for all users and this sign says that you can't prohibit behaviors that would be the normal use of the space, like eating & drinking, gathering in small groups, lingering... A lot of owners would not want homeless people in their plaza, for example, but that's again the spirit of plazas. It's a space meant to be lingered in, by anyone, they're public. We don't allow for them to prohibit what's a normal use. Some signs might say: 'No biking within the plaza!' since it could create a safety concern for other users or 'No dogs!' because they could pee on the plants. In that way they have a little bit of control, they need to maintain the plaza but always being aware that it is a public space.

SR Yeah, I wasn't allowed to take pictures in some of them.

SK Really? Oh, that shouldn't be. You can submit a complaint to 311. These are the kind of things, especially in interior spaces, that we need to know and communicate and be more transparent with the owners, it's tricky.

SR It is, I can imagine. I wanted to ask about the Second Regional Plan, is it still valid? Do you have a newer for Manhattan?

SK I don't know what the regional plan is, I don't know if we have a regional plan in place but if it's the zoning resolution, this is what dictates everything, all the land use.

SR The second Regional Plan was sort of a guideline for Manhattan in that time, 1969 I believe, talking about the importance of infrastructure, the Access Tree model and how the urban design should grow out of an infrastructure network.

SK Oh, ok. I'm not familiar with that plan.

SR The zoning resolution – is there a new one or is the 1961 zoning resolution still valid?

SK The zoning resolution is updated almost on a daily basis, because of certain special permits, ones that are passed by the city planning commission, that's updated all the time but the design standards require a lot of thoughtfulness and this hasn't changed since 2009, the main text amendment happened in 2007. We just established a regional planning office within the agency so you can google or talk to Carolyn Grossman she's the director. We could reach out to her if you needed to ask more questions.

SR Thanks, it shouldn't be at that scale, this regional plan was only looking at Manhattan. This is why I thought it was very interesting. Is there a strategy of implementing this public spaces in connection to public transport, for example? Or is it just random, whoever asks for them and is in the zoning district can get it? Do you have zones that you favor or that you see have great potential?

SK No, there's no favoring. All these are by private application, so the owner coming to us. It's all from outside coming in. There are the ones that connect to the subways. These were provided under the spaces of open air concourses, that could still happen today. We also have a zoning with subway improvement, that's another mechanism for bonus floor area.

SR One last question: What would your personal definition of public space be?

SK My definition would be... Simply put, a physical space that could be used and is accessible by the public regardless of their relationship of the surrounding buildings. Anyone can use that space.

SR Do you think it needs to grow out of the street?

SK Yeah, I think in terms of accessibility that helps. In general, I think it's better off if it's connected because it's on a private lot but a public space. Otherwise, the owner could easily try to privatize it and not make it known that it's public.

SR Thank you.

SK You're welcome.

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