

Local urban morphology vs globalized identity

DiverCities around the railway stations
in Turin and Lyon

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globalized identity DiverCities around the railway stations
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« la forme d'une ville / Change plus vite, hélas ! que le
cœur d'un mortel »

Charles Baudelaire, *Le Cygne*, *Les Fleurs du mal*, 1857

The research is supported by an iconographic apparatus, which includes a photographic selection collected during the direct experiences of the places, as well as schemes and diagrams, developed during the evolution of the analysis. The narration by images that accompanies the written part is proposed as parallel, complementary text. Photographs and drawings, where not specified, are to be considered production of the author.

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Introduction

The research carried out aims to suggest a reflection on the urban form of contemporary cities, product of the emblematic dualism between globalization and local identity. The work is structured in four main chapters that govern the line of thinking and development. In the first part is made clear the subject of the argumentation: the city of today, of huge infrastructures and of the digital revolution, with a specific investigation about the medium-sized European cities, not totally turned into over saturated megalopolises, but already in part contaminated by the metamorphosis of the great capitals.

The phenomena of transformation and homologation which affect the cities are analysed in their collision with the place. History and memory clash with technology and change, and the results are not at all predictable. The urban morphology is the main parameter of comparison, allowing to investigate about typologies, space, movement, and human habits. The purpose is not to provide answers about the criticality of the city, nor to questioning the approach that urban planning has conducted so far. Rather, it is an observation through perhaps a renovated awareness about weights and measures on which the city of today takes shape, alters, and becomes something.

An important index in this study is represented by the railway stations, constant protagonists of the urban progress, able to generate around them new realities, pieces of cities.

The second chapter indeed discusses the comparison of the sites involved in the study: in particular, Turin and Lyon are the references case studies, objects of a – still open – social, economic and political debate around high speed connections. Their territories also reveal some common non-negligible denominators, and Porta Susa and Part-Dieu stations become the pivots of the

*Dealing with the ambiguities
of the contemporary city*

project. The analysis of the urban fabric allows to the identification of some peculiarities, which describe defined districts with specific characteristics: these constitute therefore the area of interest of the project proposal. The resulting methodology consist of two parallel, multilayers analyses, from which to simultaneously get data and considerations. Reading the urban fabrics also leads to understanding the interstitial space: this is possible by framing the respective matrixes, their permeability, the shape of the void.

The definition of the strategy belongs to the third part of the work. This one is voluntarily based on a series of provocative scenarios, in order to test what is now called globalized identity, minimally or largely contaminated in its referential typologies. The purpose is therefore to realize one single square for two stations, an apparently identical place, where distances are reduced, time is annulled, and France and Italy share a precise image of the city, an experience. 4 typological forms, outputs of the third millennium city, crown this urban paradox, declaring precise functions and connotations.

The research continues in the last chapter, considering different directions of development: on the one hand the coherence, then the perception, and finally the personalization. In this step, many potential realities of the same project are observed and broken down into their multiple faces. If a first vision confirms the rules of the global city, pursuing a compositional uniformity, the following perspectives give way to the more anthropological side.

Learning how people occupy space, move within it, determine ordinary paths, relationships, empty areas and urban condensers, inevitably leads to dwelling on crucial meanings: architecture is this through the perception of

who interacts with it and with it creates relations; otherwise it remains only a building. It is thus essential understand how the inhabitants use the space, how they exploit from a place more functions, different opportunities. From a pure and, we might say, aseptic design environment, it is finally explored its personalization. The space is now inhabited, made private, customized, in a word: identity.

More perspectives do not want to identify one solution, but rather a world of possibilities. The context is confirmed as an unquestionably key factor with which architecture, either by detachment or continuity, will always have to deal with and draw its compromises.

1. The city and its complexities

1.1

Contemporary dichotomies

The city is a complex organism, intricate in its structure, in its relations, in its elements that compose it. Today's city is a constantly evolving entity, in great contradiction with its nature of the past and with its prospects towards the future, which within it host unsolved issues.

The nowadays dichotomies, as its meaning suggests, are expressed in a series of distinct and opposing concepts, essential criteria by which individuals must measure themselves to understand the place in which they are located. The historical and cultural factor, as well as technological progress and innovation motivate the results of the city, its forms, directions, its development. The relationship between the urban coefficients that are mutually exclusive and denied, but at the same time coexist inside the city, constitutes the perimeter of this speculation.

Globalization and identity

Notions in contradiction

In order to better identify the framework of this research, it is necessary to provide a clarification regarding the historical-cultural context to which it refers. As the title suggests, the phenomenon of globalization in the urban dimension is the starting paradigm from which the dissertation takes shape. So it is a question of cities, urban form, and the concept of *global*, which is now part of our daily vocabulary. Globalization has undoubtedly radically changed the forms of aggregation of the city, defined as an agglomeration and settlement of the human being. The forms of internal relationship and connection with the rest of the world are mutated. The connotations and dimensions are changed: coagulation through capillary systems, condensation of central nodes, or even thinning and decentralisation. The global issue has allowed the worldwide diffusion of trends, ideas and problems. The economy of cities itself has taken on new commercial potentials through the intensification of international market and investments.

The effects of this economic evolution, first of all, have determined an ever-increasing interdependence of national economies, generating as externalities social, cultural, political and technological interdependencies whose positive and negative effects are of global importance, combining business, cultures, habits, thought and heritage. The speed of communication, movement and circulation of information has established the opportunity for growth for territories that have long remained on the margins of world economic development, triggering mechanisms to narrow the gap between space and time. Technological development also on the building scene has decreed an increase in infrastructure, connection systems and therefore a consequent reduction in the distances on the basis of which cities now interface in a new network of international relations, between cooperation and competitiveness. As its urban morphology shows,

the global city is therefore transformed in function of its connection systems and its new needs, altering the traditional connotations and deforming the existing links to reconstruct new spaces, new axes, new substantial hierarchies. From the positivist point of view that urban innovation brings with it, the side effects of a violent transformation that still requires its adjustment are not negligible: we speak of environmental degradation, social disparities, loss of local identities, formal homologation. But not only that. The perceptive and anthropological aspect has had its declinations, first of all the loss of previous urban references: we are now part of a new social dimension, a sort of digital bubble, where our all directions are getting smaller and closer, despite the fact of traveling long distances and spending more time away from our old conventional places¹.

In this regard, architecture has also taken on board a translation of the global phenomenon. Functionalism and iconicity prevailed, the pragmatism of services and the avant-garde. New materials must respond to this renewed language, new volumetric configurations, made of immense spaces and dizzying heights. Can all this still be called architecture?

In a world dominated by the frenetic urban densification that seems to saturate and swallow up the ground, in a century exalted by modernization, speed and the ever-increasing number of connection networks, both material and digital, the primordial sense of an identity architecture that represents and generates something seems almost inevitably to have been lost². Hybrid spaces are born, aseptic spaces are born, spaces are born built on the needs of the user, purely efficient in the service they have to offer. They are spaces designed by routine, spaces that fade, that are not seen, that are not perceived in the ordinary. They are there, predictable and reassuring. They are invisible places.

¹ „We travel ever-increasing distances, yet live in an ever-decreasing circle of references.“

Richardson V., *Critical Regionalism: Architecture and Identity in a Globalized World*, 2003

² Augé M., *Non Places: Introduction to an Anthropology of Supermodernity*, 1995

³ Augé M., *Non Places: Introduction to an Anthropology of Supermodernity*, 1995

⁴ Bauman Z., *Liquid Modernity*, 2000

The debates on the social implications found have led to further reflections on the sense of place in the city, on the concept of Non-Places³ of contemporaneity, of which the philosopher and anthropologist Marc Augé is recognized as the main exponent, and especially on the sense of belonging, of identity. Understanding the origin of these new phenomena, which have laterally introduced new topics such as urban alienation, leads us to reflect on a double dichotomy: the quantity/quality of contemporary urbanization, the first of which imposes itself through a massive and convulsive proliferation of buildings; and function/identity, which remains one of the central issues of this problematization. This trend of thought has involved well-known figures from the fields of sociology, architecture, urban planning and philosophy.⁴

The explosive urbanization of the metropolis has increasingly boosted the development of large infrastructure projects, which have become the protagonists of this study. Airports, motorway service stations, subways, railway stations. It is the theatre of movement. The dynamism is vibrant. The crossing of space is incessant. Particular attention needs to be paid to the change of scale of the last century: the process of metropolisation and the transition to the planetary scale, due in particular to the enormous development of techniques and communication systems, have had two important consequences: on the one hand, the appearance of spaces in which social relations cannot be read immediately, and on the other hand, the generalisation of an overall context that still conditions every possible effort to locate.

The engine of this change has been identified in the strong will to assume new universal and always recognizable connotations.

The metamorphosis of urban fabrics, of their forms

of aggregation, and the trend of homologation and interdependence of international markets has slowly consolidated due to globalization. Is the individual still part of his own city in which to reflect, see, identify and feel as his own, or have the world-city really deprived citizens of their innate and spontaneous living?

Lyon Skyline, with focus on the district of Part-Dieu
Sandrine Sandrillon, 2017



Urban morphology as a design parameter

The urban form as a tool for reading social issues

The reading of urban morphology is an essential operation to the understanding of the building reality, considered in its typological cells and in the settlement system. It is in fact the first instrument of analysis of any design activity: it manifests the articulation of the volumes and the spatial configuration of the city, it defines boundaries, nodes, edges, voids. In the concentration of its buildings, the most significant information is captured: the porosity of the fabric, the compactness, the permeability of the paths. In the morphological system we recognise the architectural context of the buildings, as well as the social context. Citizens are those who have direct experience of its forms, which establish directions, points of aggregation, poles of condensation and disintegration. The morphological question and the concept of dwelling probably maintain a non invisible binding bond, which conditions the relationship between the individual and his environment, as well as the relative modes of experience. How are we in the spaces in which we live?

If it is true that there is a respective urban form for each historical era, it is also true that in the global movement between the end of the 20th century and the beginning of the 21st century, it is possible to distinguish a drastic metamorphosis of the city. The transformations of the urban profile can be read as a consequence of the rapid processes of urbanization and the following codification of new urban centers. Many of these become large cities. Others become metropolises. Architecture itself loses the references of the past, the design principles already consolidated. The structure of the pre-existing fabric can only be compromised.

The research is based on questions still unanswered, such as that suggested by the mind of architect Carlo Aymonino in his book *Lo studio dei fenomeni urbani*⁵: well, can the relationship between urban morphology and bu-

⁵ Carlo Aymonino, *Lo studio dei fenomeni urbani*, 1977

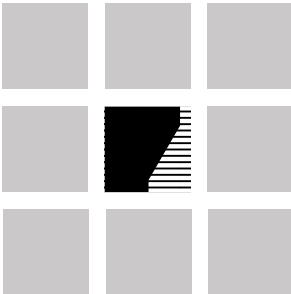
On the right: top view of the urban fabric of Turin, in the area of Porta Susa



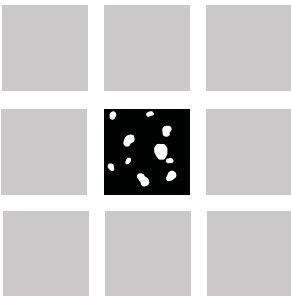
ilding typology, identity, traditional, still be traced in the urban structure of a city that has undergone very radical changes? How much is the typology affected?

The new forms of urbanization establish the birth of new places, new technological areas that disrupt the plot. If in the past a more active role was observed on the part of the territorial context, capable of shaping and giving direction to the urban settlement, through the pre-existence of buildings, and the landscape and natural elements, today there is a change of position on the basis of which man dictates new guidelines for expansion and concentration, supporting economic needs and overcoming the apparent territorial barriers. It is no longer rivers or mountains that circumscribe the boundaries of the building matrixes, and the study carried out in this thesis work focuses on this new passage of scale: the new scientific capabilities are confirmed as one of the main reasons for the morphological transformation. Human action alters its context and shapes it according to new political and economic needs.

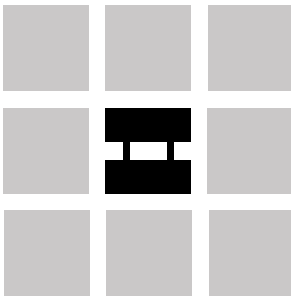
Even in the variation of this approach, radically anthropocentric and progressive, there is always a dialogue, a form of relationship, but it can differ in its many circumstances: dialogue for discontinuity and counterpoint, or for continuity and inurement. Even in the alterations of morphology it is possible to grasp a subtle diversification that offers various implications and singular conclusions respectively. We are able to see the *modification* of the fabric, which interrupts the modularity of its elements and breaks the regular and uniform mesh of the city. To this belong the possibilities of *contamination*, which occurs in small portions, through selections, altered in its original nature, and of *hybridization*, a condition that decrees the coexistence of more typological features that change the existing face.



Morphology modification



Morphology contamination



Morphology hybridization

Glocalization and architecture

Keeping a global mind in identity places

⁶ Leslie Sklair, *Iconic architecture and capitalist globalization*, 2006

⁷ Graham Owen, *Architecture, Ethics and Globalization*, 2009

⁸ Frederic Migayrou, *Archilab : Radical Experiments in Global Architecture*, 2001

⁹ Rem Koolhaas, *Architecture and globalization* in Sanders W.S. (ed) *Reflections on Architecture Practices in the Nineties*, 1996

On the right: Le musée des Confluences
DesignTellers.it, 2017

How architecture is involved in political and economic discourse and how it deals with this new language is a response that must be sought within the social stratification with which architectural production has always been its faithful expression. The reference to the social class is certainly an essential factor for the understanding of architecture and the city of today. In particular, the strong link between contemporary architecture and the transitional capitalist class is undisputed⁶.

While building production and the iconic representations of previous eras mainly reflected the strong powers, the government system and religious institutions, in the global era the architecture of great innovations, the avant-garde, fashion becomes the expression of the capitalist class, big business and big names. We learn that the transitional capitalist class has slowly and more and more conquered over the years a clear influence in the determination not only of the formal aspects of buildings, but also in the definition of times, places and type of public selected to make buildings, spaces and architecture an iconic result⁷. In the new global era, architecture takes on more and more new social meanings, new marketing messages. The iconic features, traceable from the first skyscrapers and in the vertical cities, become a new communication tool, a resource in the struggles for meaning and power. Many architects and critics have intervened in the globalization debate⁸, and among the many a central role has certainly won Rem Koolhaas, one of the most discussed contemporary architects who proposes various writings on the subject, in which he takes an eccentric position indicating globalization as a particular branch of architecture itself, an inevitable declination⁹.

Architecture is therefore conceived as a palimpsest of values in which it is possible to understand the manifestation of an era, the product of the global phenomenon, through which technological and scientific evolu-



tions, as well as social and cultural ones, are understood. Global dynamics have given rise to the creation of new transitional social spaces, the birth of new forms of urban branding, global brand shopping centers, theme parks, coastal developments, transport areas. These are not just urban elements but qualitatively new forms of cosmopolitanism, difficult to define, but for which a significant responsibility is attributed to the role of the most famous architects of today, the archistars. Starting from the initial concept of globalized architecture, i.e. able to exist and be located almost anywhere in the world, a key aspect is the consequences and significant implications on the sense of space on the part of users.

With a view to pursuing a careful analysis and encouraging a translation of the mechanisms that have evolved within the building fabric, it is certainly essential to investigate some of the key themes of the city, such as that of glocalisation. Also called glocalism - the term was first formulated in Japanese in the 1980s, then translated by the English sociologist Roland Robertson and then further elaborated and refined by the Polish sociologist Zygmunt Bauman¹⁰ - it indicates the application at local level of the ideologies and characteristics of globalization, through processes of relations through the specificity of local and territorial entities, and the international scene. With the triggering of globalization trends, even in the architectural dimension, one can read the effort and the enterprise to protect and preserve the local identity, the cultural individuality, the typical peculiarities of a given social and urban context, against the conformism of the globalized city, which tends to flatten the differences and the variety of the building product.

The same phenomenon can also be interpreted in a reciprocally opposite way, if we take as objective the tendency with which the individual local specificities, the par-

ticular elements of a given urban centre, try to model and shape themselves on the canons and connotations of global icons, with the aim and ambition of achieving new international and world importance. Two faces of the same deep-rooted urban condition are thus manifested: the search for a form of identity of its own and recognizable, and the aspiration for new global arrangements and configurations that reflect the fashion and stylistic features of the new era. This oxymoronic bivalence between the globalized city and local identity is the focus of the thesis research, where architecture takes the side of the active protagonist to examine the multiple urban visions and imagine potential future scenarios.

¹⁰ Zygmunt Bauman, *Globalization: The Human Consequences*, 1998

1.2

Railway stations

The new dynamics of a global connection have encouraged innovative forms of communication, movement and social relations and railway stations have become the platform of these evolutions, one of the most tangible examples of change. If the urban area along the entire railway line already constitutes an interesting fragment of the city, which already reveals its discrepancies, its fractures and its contradictions, the study of this thesis focuses instead on the precise district bordering the station itself, the area surrounding the stations. The occupation of space, the relationship between individuals and buildings, the gap between infrastructure and building map is crucial in this speculation. The observation carried out therefore focuses on the role represented by railway stations, on their active engine of urban development, not neglecting the principles of the past but investigating the meaning they represent today in the contemporary world.

Past meanings

We need to know the thinking of the past to understand how we think about the present and how we can imagine the future.

The progressive growth of functional and infrastructural interventions, of which the railway stations always represent an emblem of avant-garde and technology, as well as a demonstration of the scientific progress of the time, offers the opportunity to reflect on the approaches that citizens have matured over time with their respective places in the city. In the past, identified as the cathedrals of steam, the stations in this sense, have always had a decisive influence in the mechanisms of urban growth and in the generation of the system of mobility and viability of the city, embodying the values and ambitions of a decisive historical period, marked by progress and speed. For a century and a half, they have been the cornerstones, the command and articulation centres of a railway empire whose development has profoundly marked the physiognomy of many countries, has transformed our habitat and therefore our relationship with the natural, social and cultural environment: since 1830, thanks to the speed and reduction of distances, we have lived a new relationship with space and time, which encodes the stations as the main nodes, on which the remaining building grid was structured. The station is for the railway network what the heart is for the vessels in the circulatory system: it constitutes the muscle and regulates the flow, it is the organ of arrival and departure. (Jean Dethier). Anchored to the foundations of our social system, built on the initial principle of conquest of territories, markets and profits, elevated towards a mythical ideal of communication of goods and people, of unification of peoples. The station is one of the few public buildings that emerged from the Industrial Revolution and that have admirably illustrated, for more than 150 years, the attempts and hesitations, the fluctuations and metamorphoses of our Western societies. The stations are amazing revelations of the myths and realities of the epic of modern times. A true microcosm of industrial society, a public

place where all social classes meet and touch each other, the station is the multi-faceted mirror of a story that sometimes has already taken refuge in the mythical universe of an exciting and sometimes depressing actuality. The point of arrival or departure of the adventure, the station is also the place dedicated to 'brief meetings', or the terrain conducive to adventures, with unexplored sensuality. In the stations of the big cities, the megalomania of the new times is thus openly manifested, the cult of technological prowess that will guide the destinies of our civilization and feed an unprecedented phantasmagoria. The station becomes one of the temples of technology in which the ritual of a new religion is expressed. The

Le chantier de construction et la gare
Lyon Part-Dieu, Didier Nicole, 1949



spectacle of the arrival of the steam engine in the head gallery of a station remains, long after the disappearance of the locomotives, a synthetic vision of the promising splendours and majesty of industrial civilization.

For a century, the station has been a symbolic place of overcoming, that of the limits that are transgressed: the conquest of the ever faster speeds of the trains, are echoed in the station, the canopies and metal vaults increasingly bold that engineers throw above the sidewalks, structures whose immensity, sometimes bordering on the excess, seems to want to contain and dominate, in a single and the same mythical projection, the microcosm of society that the station represents¹¹. Even from a perceptive and sensory point of view, its architecture responded to what were the criteria of an essential building for the city: especially in the types of head stations, i.e. the founders of the line, the figure of the threshold, of an access gate to the city, as well as the sense of crossing an austere, solemn, important environment, was extremely emphasized. If physically the architecture of the station often adopts, in the nineteenth century, the form of a new city gate, mentally it is above all the door open to a fabulous distance, railway, adventurous and exotic, which has largely fueled the inspiration of novelists and poets, proof of the great power of suggestion.¹²

The relevance and meaning of the iron infrastructures were such as to equate them with the civil architecture, the pivotal building of urban centers, such as the town hall, the theater, the museum, the church, the main square. They embodied all the characteristics of the city's identity, representing real urban condensers and social aggregators. For the Western powers, the station emphatically translates the impulses of an imperialist policy that, for a century, has upset the fate of the world and found in the railway system a masterful tool for internal and external

territorial conquests. Given its strategic and monumental, affective and symbolic importance, the station clearly expresses the political logic behind its existence.¹³

In the 19th century, the rational application of railway timetables led to the unification of the time throughout the country in several countries. To impose this unified time on the sky of the modern metropolis, the station was equipped with a symbolic and functional, imposing and authoritative element: a high tower with large clocks that now rivals the ancient landmarks of the pre-industrial city: the church and the bell tower.

In recent years, the station has remained one of the places where the obsession with exactness and the domination of time in the city of modern times is most strongly felt. Because of the frenetic rhythms of the oscillatory movements that the industrial society has impressed on the world, the station, with an implacable daily ritual, swallows and vomits thousands of commuters; in this agitating agitation, in this stream of men, in this brutalisation of a long routine, millions of unproductive hours are consumed annually between the stations of the suburbs and those of the metropolis.

This daily drama, this enormous waste of human energy, is proportional to the inability of industrial society to conceive and implement, from the nineteenth century, plans for the development of the territory that did not involve the desertification of the countryside to the benefit of the immense expansion of cities. Instead of serving as a vector of decentralization, the railway network has often been used as an instrument of political, economic, and social centralism.

¹³ „The palaces of modern industry in which the religion of the century, that of the railways, is manifested. These cathedrals of the new humanity are the meeting points of nations, the centre in which everything converges, the nucleus of gigantic stars with iron rays that stretch out to the ends of the earth“. in Théophile Gautier, *Voyage en Italie*, 1850

¹¹ Dethier J., Dickens C., *Le cattedrali del vapore : stazioni, treni, letteratura*, 1985

¹² „Les plus belles églises du monde“ in Blaise Cendrars, *La Prose du Transsibérien et de la petite Jeanne de France*, 1913

Urban landmarks

Infrastructure or architecture?

What is today's perspective of urban evolution and its infrastructural systems highlights new determinant aspects. The previous iconic role played by stations since the nineteenth century industrial revolution gives way to renewed paradigms of a commercial nature, linked to services, the market, the most functional aspects. The condensers of the past are slowly contaminated by more complex and articulated characters. This profound mutation is not only found in its functional nature, but even the architectural structure encounters structural changes, absorbed by the new uses of the contemporary city.

The station, therefore, understood as the main gateway to the city, as a place of mediation towards the discovery of a new urban reality, gradually changes according to the economic reasons of the time: the densification of the land through the creation of shops and businesses extends even in height, blocking more and more space, saturating the entire volume of the complex, and generating the birth of shopping centers, platforms of a new global market, within the station itself. The consumption of surface and void is dictated and motivated by the financial income that responds to the needs and peculiarities of today's city. Its metamorphosis outlines new semantic attributes: the railway building becomes the place of neutrality, whose emptiness frightens even technocrats who try to deceive this vertigo with the diffusion of a musical molasses with alleged reassuring virtues. In all the countries the recent stations have almost abandoned the external signs of their civic vocation, the architectural structure of a centre of public life.

Because of the notorious excesses of a disembodied functionalism, devoid of the cultural references that the public requires, modern stations are so meaningless that they lock themselves up in the copy of dominant models of the current economic system - the shopping centre or

the office building - from which the manifestation of a search for profit and performance that visually seems to exclude any other vocation transpires first of all.

The analysis of these urban entities, which are not only important infrastructural elements, but also and above all the confluence of situations, dynamics, movements, allows us to find all the social facets that have contributed to the gradual modification of the existing morphology¹⁴. Flows change, so do the methods of interaction, about which technology and the digital world have taken over, and social spaces, meeting places, places of rest, places of pastime, also change. In essence, it also changes the way of perceiving architecture.

The value that the railway station has assumed today, understood as a type of reference for globalized cities, is translated into many meanings: it is certainly the key infrastructure element, around which and depending on which the entire road system and the network of connections with other stations and other urban centers is articulated. And yet, it is so inserted in the very network of our habits that we no longer look at it; we just have to suffer it. It is also the place of the crowd, of the transit, of the appointments, of the passing time, of the last greetings. It is the place where movement and dynamism are exalted to their full potential, where every step is frenetic, where one does not stop for long, but where one often returns.

The station is a place of needs, directions and choices¹⁵. It is in the stations that you can read the bewilderment and anguish of travelers, it is at the station that the brutality with which our society produces and rejects the marginalized is expressed: it is the first and last point of public landing in a system that has become almost exclusively urban. In the city, the station seems to be the only public

¹⁴ Bertolini L., Spit T., *Cities on rails: the redevelopment of railway station areas*, 1998

¹⁵ Biondo G., Monti C., Roda R., Ronzoni M. R., *Abitare il futuro: innovazione e nuove centralità urbane*, 2004

place where the division of society into classes is institutionalized. A hierarchy of the public place.

Many critics have long reformulated the value that railway stations have in the social context. There is an important change of perspective, which decrees the station as an urban reference, an expression of scientific innovation and modernity, as a functional pole, almost hybrid in its evolution and mixture of services, and the basis of the journey. The action of travel and the achievement of a destination, of long distances, are part of the ideals of the new millennium, and admitting that each movement is defined by a place of departure and a place of arrival, it is these two terms, the stations precisely, to give value to the path. They offer a possibility, and allow the individual to interface in a new urban experience.

On the right: stop of the Part-Dieu tram line on the eastern side of the Part-Dieu train station.



As a city inside the city

Statement of a globalized identity

¹⁶ Bertolini L., Spit T., *Cities on rails: the redevelopment of railway station areas*, 1998

¹⁷ Isola A., *Infra : forme insediative e infrastrutture / ricerche coordinate da Aima-ro Isola in 12 scuole di architettura*, 2002

On the right: Turin general view with focus on Prison Museum *Le Nuove*

The characteristic of the station as a self-referential entity, imposing, as well as historical symbol, makes it a constant ordinary reference for citizens who live in the city. Its authority and ancestry in the urban context is realized in the ability to generate around him a new piece of the city, coding it according to a connotation of reference, and a nature, even typologically, its own and distinguishable¹⁶. In the exploration of the city and entering the station district, it is clear and perceptible the materialization of a new urban texture, a stratification of buildings and functions subjected to the station itself, which live and develop in function of it and those who pervade it.

This infrastructural stripe, which is articulated within the urban matrix, often represents an area of discontinuity with the surrounding building. The distribution of buildings is in fact anomalous, unusual, altered in its axes of reference. Not only does the road system appear irregular and intricate in certain cases, but it also changes the entire public permeability, the accessibility of the spaces, and even the configuration of the buildings appears to have changed¹⁷. In the results of the cities in continuous transformation, new links of relationship between its form and its typologies are found. Rather than a passage of scale, or a simple morphological split, it is possible to affirm the consolidation of a sort of technological citadel, a territorial district, which reflects not only a different stylistic language, but also new values, new social agents. What may therefore become interesting in this first observation is to observe what kind of relationship exists between the traditional matrix and the reality attached to the railway.

In fact, the presence of such an imposing building complex seems to justify the coexistence of other buildings of a strictly contemporary nature: skyscrapers, shopping centres, industrial blocks and large structures in the ser-



In the foreground: the Tour du Crédit Lyonnais, more commonly known as the Tour Part-Dieu or Le Crayon, literally *the big pencil*. Always in the picture the Auditorium Orchestre National de Lyon. Sandrine Sandrillon, 2017



vice sector. Other buildings relating to entertainment, tourist services and the city's economic offerings are also concentrated¹⁸. We find the Auditorium and the exhibition complex, the museum structure or the large shopping centre, as well as various catering points, which try to slow down passers-by with lights and advertising spots. This perception is even more emphasized and amplified in large cities, whose urban commodification and the frenzy of mass media and digital expedients give more vemetty and excitement to the place. The city within the city is also the cradle of offices, banks and administrative offices. The catalyst of this space produces new forms of centralisation, attracting more and more economic opportunities and land consumption. Everything seems to be extremely defined and in the process of being reinvigorated. Can the perimeter of this special area still be modified? It is the most spontaneous question that arises from the awareness of this powerful new urban fact. It will be the future morphological evolution that will respond to the vicissitudes of the city.

¹⁸ Gallet R., *Redeveloping Lyon Part-Dieu: Innovative construction sites management in a dense urban area*, 2015

1.3

Why Turin and Lyon

The analysis of the railway stations, of the adjacent morphological area, of the squares, as well as of the surrounding architectural typologies finds a focus of investigation in the two parallel cases of Turin and Lyon, which become the two terms of comparison of a design experiment. Speculation does not stop at a formal key, which is why the stations of Porta Susa and Part-Dieu are compared in order to explain all their similarities or perhaps their factors of divergence. The choice is not accidental, and their historical past, like their geographical proximity, motivate a parallel examination to formulate new design hypotheses. Undoubtedly, there are several economic and political issues involved, which underlie the dualistic conception of the two urban centres. The aim is therefore to understand the metamorphoses of the two cities, compromised in their pre-existing hierarchies, and then to imagine possible double scenarios, perhaps one day closer and closer.

The economic-political issue

An investment for the future
or a deprivation of identity?

In the perspective of an increasingly interconnected, linked, and viable world, travel becomes a fundamental theme in the realization of the principles of globalized cities. Technology has innovated communication and movement systems, upsetting not only the possibility of exploring the world, but also the perception of spaces, and thus the temporal coefficient, clearly reduced. High speed has changed the way of conceiving distances and strengthened urban cohesions between the metropolises of the new millennium. The new commercial possibilities have made it possible to establish new links between economic powers, and this first datum has been the primordial reason for an already existing interaction between Turin and Lyon. The social and political debate that still today has not met with a compromise and a final ruling, is born but from a substantial economic issue, of considerable environmental impact. The connection of urban centres has always represented a profitable commercial resource in terms of traffic, exchange of goods, imports, extension of local markets on an international scale. The two cities, which have also embarked on this phase of transformation and economic connection, are now part of the stages of one of the most important trade corridors of today's century, which reaches the far east of Europe to the westernmost Spain.

Having to provide a definition of the European transport corridors, they are an integrated network on a continental scale, consisting of road and rail infrastructure of high characteristics (highways and fast and high-speed railway lines), capable of transporting passengers and goods between the various countries of the European Union. Turin and Lyon are part of the Mediterranean Corridor that connects the Iberian Peninsula with the border between Hungary and Ukraine, along the Mediterranean coast of Spain and France and then cross the Alps in northern Italy, in an easterly direction, touching



Map of the Mediterranean European Transport Corridor

¹⁹ Osservatorio Territoriale Infrastruttura, *Corridoio Mediterraneo*, 2014

the Adriatic coast in Slovenia and Croatia, and continuing to Hungary. In Novara and Milan, it also crosses the Rhine-Alps corridor (Genoa - Rotterdam/Antwerp), which will start with the opening of the Third Railway Crossing of the Giovi, in Verona, the Scandinavian-Mediterranean corridor towards central and northern Europe and in Venice, the Baltic-Adriatic corridor towards central and eastern Europe. The main railway projects along this corridor are the Lyon-Turin connections and the Venice-Ljubljana section. The main objective of this extensive railway network on a European scale is to ensure the connection between the Western European quadrant and Central Eastern Europe, encouraging economic exchanges and strengthening the competitiveness of countries and metropolises on the Mediterranean side¹⁹.

The empowerment of a robust and fast infrastructure system, capable of guaranteeing short import and export times, and in the future, faster and more constant tourist movements, seems to be the key point of a choice oriented to global progress, to European development, which puts two mutually opposed weights of action on the balance. On the one hand, we see the transformation of an innovative and powerful railway network, which exploits high speed and penetration into the Alpine landscape to offer new commercial, tourist and global opportunities²⁰. On the other hand, we find the landscape factor, the environmental criterion on which to weigh the political decisions still in place: the drilling of the Alps and the dismantling of some territorial realities that for many towns represent images of identity of past, memory, value of the place, natural heritage. On the basis of technical, economic, social, ideological and environmental considerations, different positions of thought and political orientations have inevitably arisen on the issue. In Italy there has been a strong opposition, closer to the local identity that the natural context represents for many, against instead a

²⁰ Berta M., *L'Architettura delle infrastrutture: un caso di cronaca. Una nuova «Porta d'Italia» sulla Torino-Lione*, 2012

faction mainly favorable to infrastructural growth, which is joined for example by the Order of Engineers of the Province of Turin, which expressed its opinion on the implementation of the line, declaring its role of political independence and support to scientific progress and technological innovation “to be pursued also through the construction of works and infrastructure that can promote the development of society and the territory.

Despite the agreements between the French and Italian governments, the extremely lengthy bureaucratic processes, but above all the absence of a meeting point, of a compromise between the two countries, determine the operational blockage of the infrastructure project, which still does not find a conclusive manoeuvre. The many factors of this controversial and complex panorama lay the foundations for this project research, which aims to intentionally concentrate on the precise segment between the two capitals, in order to assess the interferences and externalities of a logic that is now evolving in parallel.

Common denominators



Turin ortophoto, Google Earth

Orthophoto of the area of the stations of Turin, with particular attention to the technological district of Pora Susa, where you can recognize the Palace of Justice, the skyscraper Intesa Sanpaolo, the Museum of Prison Le Nuove, the OGR- Officine Grandi Riparazioni, some seats of the Polytechnic of Turin, as well as the station of Porta Susa, and lower right, the station of Porta Nuova.

Lyon ortophoto, Google Earth

Orthophoto of the third arrondissement of Lyon, La Part-Dieu, which frames the skyscraper Tour du Crédit Lyonnais (also known as Tour Part-Dieu), the homonymous shopping center, the food market of the Halles de Lyon Paul Bocuse, the Auditorium-Orchester National de Lyon and in the foreground the train station Lyon Part-Dieu, the nearest link to Paris.

Since we have to reflect on the common points of the two case studies of this research, a first observation is to be devoted to the reciprocal geographical position, which already lays the foundations of a discourse of comparison. First of all, Turin and Lyon are approximately the main urban extremes of France and Italy, which therefore place the two nations in a relationship of dialogue, exchange and, if we want, also competitiveness. The physical proximity, which has also allowed us to share common historical vicissitudes, among many, the involvement in the past of the Duchy of Savoy, has repeatedly opposed the two cities at different times of the previous era. Past dynamics and commercial developments have transformed urban centers into globalized cornerstones of a closer connection between France and Italy, the subject of today's controversy over the TGV.

If we then proceed with the observation of individual urban centers, a series of parameters, elements that make up the aggregate building and geographical jump out at the eye, as the return of a constant similarity.

Turin and Lyon are two cities strongly characterized by their relationship with geography and water, which interweaves their history. The rivers that plough the ground structure the sequence of cities that have developed over time on a geographical scale in a rhythmic manner, describing specific urban areas²¹.

The weaving of the buildings maintains a certain harmony, respecting in both cases, axes and lots²². The same typological elements seem to coincide in different episodes, in form and spatiality, volume and relationship with the context. In the analysis of the respective railway areas, it is possible to find significant analogies, which lead us to stitch together the logical thread of a uniform urban trend. An equivalence of the elements, respected in all essential points.

Not only has this combination always existed over the years, but it has always been recognized a strong duality, a rivalry at the identity level, which leads them at the same time, in this climate of economic fervour and excited progress, to want to strengthen their association. Zoomorphic symbology is one of the coincidences that lead us to reflect on the relationship that the two nuclei have mutually preserved over the years. They are the lion and the bull, two strong powers, which clash and meet in policies of support and rapprochement. The Porta Susa and Part Dieu stations represent the heart of the reflection. They are the two opposite and mirror terms of this study, whose geographical segment that distinguishes them, wants to be exhausted by an idea, a project proposal aimed at establishing the final conjunction. With their respective skyscrapers and other stylistic elements that have led to the search for spatial interaction, and to the re-study of its features, in function of an increasingly clear and marked correspondence.

The idea of an architectural and spatial complementarity, of a specularity of forms, which could poetically match and complete each other, is aimed at sealing a twinning now consolidated over the years, a bond not only intentionally infrastructural, but perhaps above all historical and identity.

²¹ Mei P., *Spazi pubblici e luoghi condivisi. Progetti architettonici per le città europee*, 2016

²² Baietto A., Rigamonti R., *Tessuti misti nella città compatta : un caso torinese*, Torino, 2003

2. Comparing the sites

2.1

Cities under the Alps

In the analysis of the two case studies it is progressively shown how much the morphological, territorial and geographical condition has been decisive in the gradual conformation of the urban systems, and how much therefore, some common factors have determined effects of a certain impact. Turin and Lyon are subjected to a simultaneous survey of comparison and contrast, through the observation of natural and artificial data, and evaluating in the first place the presence of a significant element, which has affected boundaries, topography and spatial distribution.

The Alps are the protagonists of the territorial framework, with respect to which, both urban settlements are located below. The Alps are also the barrier that divides the two towns and obstructs easier forms of connection, and they constitute a strong margin in the landscape.

Shape and city boundaries



Turin border and road system

The comparison of the two cities also aims to emphasize the territorial peculiarities, whose geographical position, and the presence of the Alps, has allowed to find more common points. The object of this observation are the respective hydrography, the frame of the urban fabric and the network of the road system, the prevailing typologi-

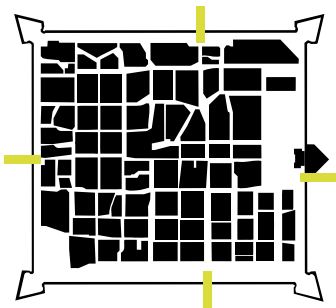


Lyon border and road system

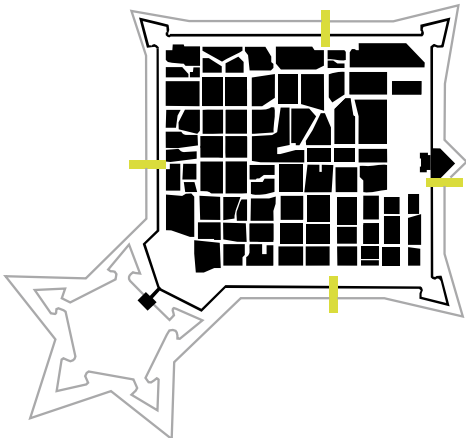
cal structure, the relationship between the buildings-poles and the context, and how these define the movements in the city. The outline of the perimeter allows the attribution of values in urban terms, useful to identify the most centrally located districts, the areas of industrial use, the suburbs, the extension of green areas.

Physical evolution

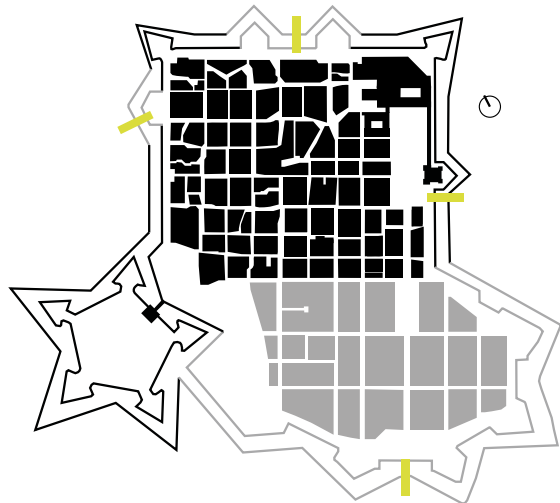
Turin urban system, 1550



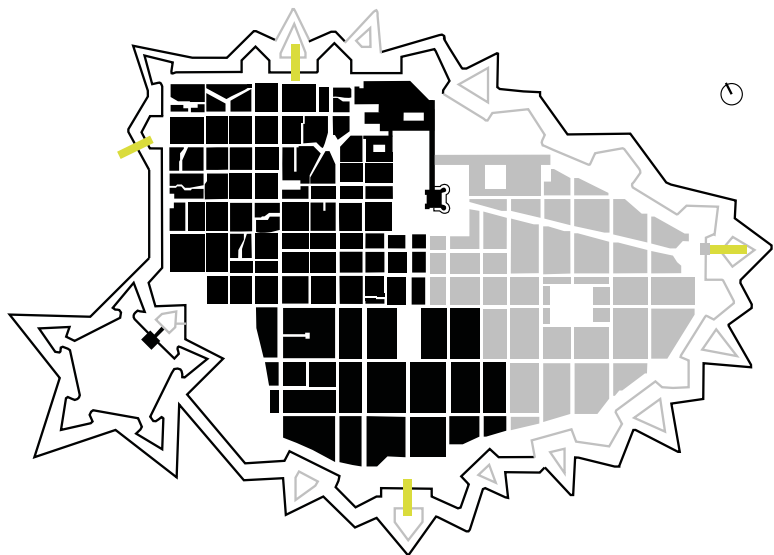
Turin, 1568



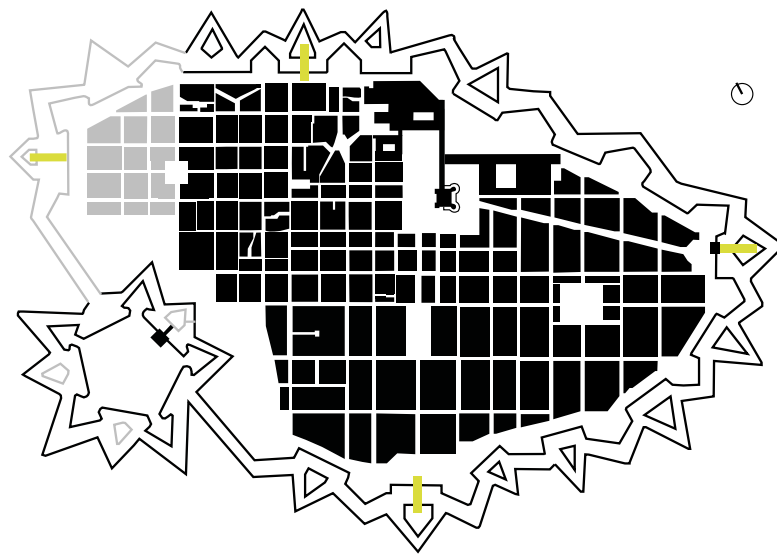
Turin, 1620



Hystorical urban plan of Lyon, 1550
Archives municipales de Lyon



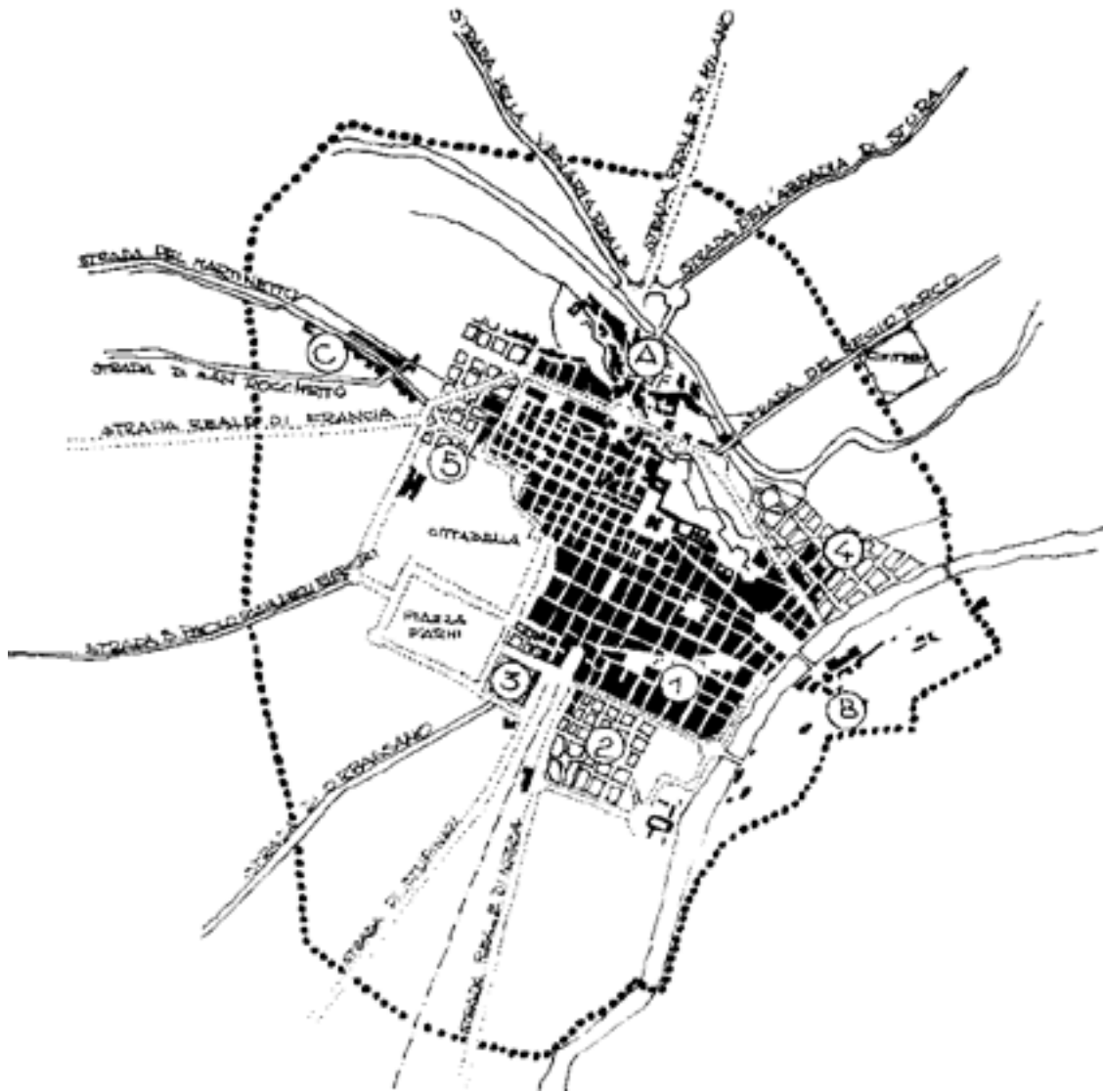
Turin, 1673



Turin, 1715-1729

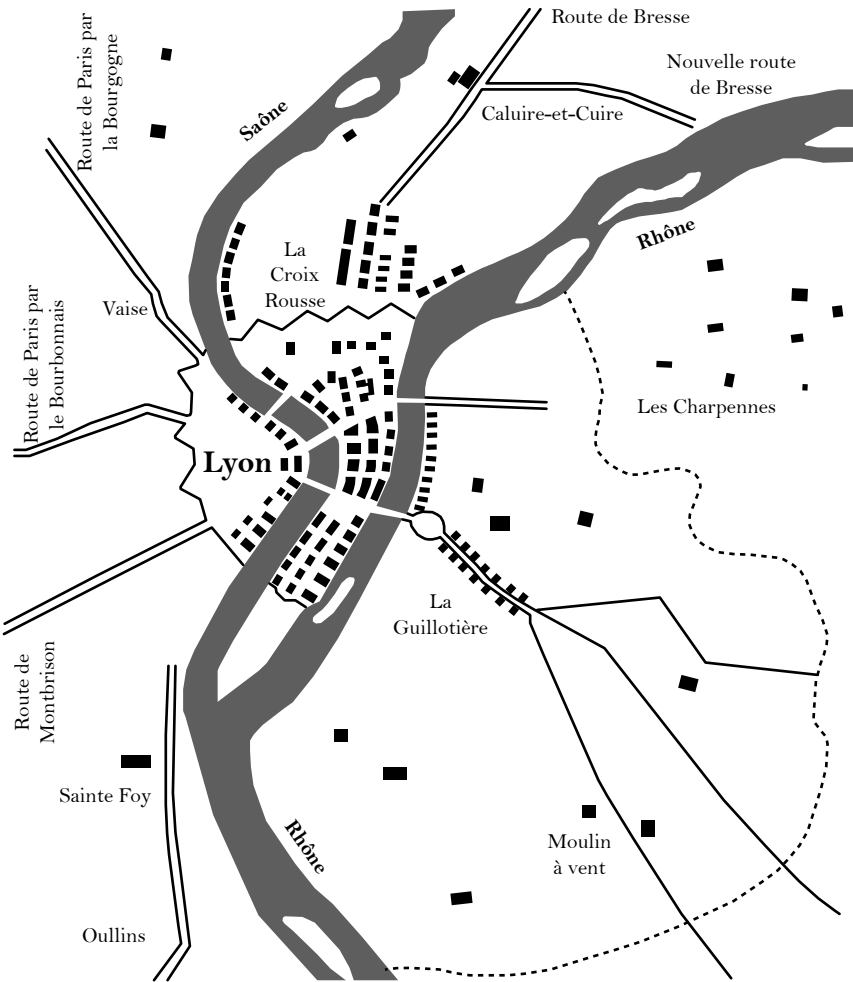


Hystorical urban plan of Lyon,
1678-1756
Archives municipales de Lyon



Urban structure of Turin, mid-nineteenth century

Magnaghi A., Tosoni P., & Barrera, a. t. *La città smentita : Torino: ricerca tipologica in ambiti urbani d' interesse storico*, 1989

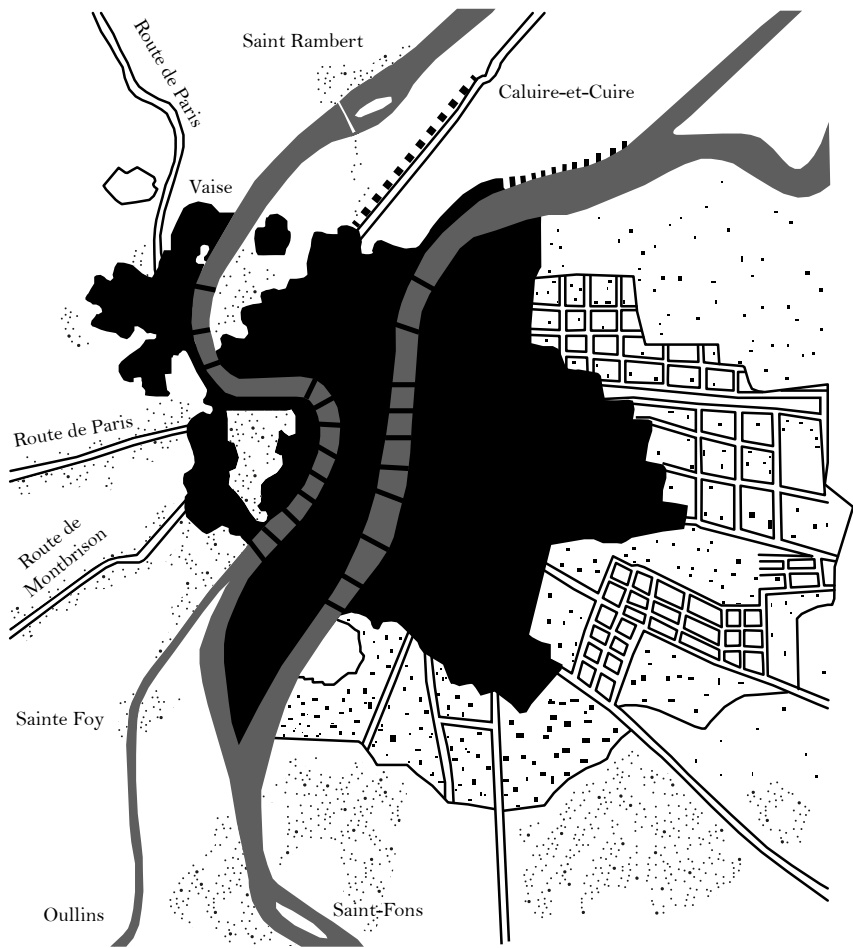


Lyon city framework and definition of the first districts, 1805



Urban structure of Turin, Late nineteenth century / early twentieth century

Magnaghi A., Tosoni P., & Barrera, a. t. *La città smentita : Torino: ricerca tipologica in ambiti urbani d' interesse storico*, 1989



Lyon and the expansion of its boundaries, 1911

Current matrix



Turin and the Porta Susa railway station area

In the diagrams above, it is illustrated a series of urban information that better define the overall picture of the object of analysis: it is possible to identify the road system, which branches more or less regularly in the surfaces of the two cities, the metro line in Turin, and the metropolitan system in Lyon, the railway lines and their



Lyon and the Part-Dieu railway station area

respective stations. In addition to the main hydrography that establishes the delimitation and demarcation of specific districts, are also highlighted the areas that have an irregular building fabric that is typologically discordant with respect to the traditional texture.

Conceptual scheme of the Turin road
connection system



Conceptual scheme of the Lyon road
connection system



2.2

Reading the urban fabric

The chapter discusses the classification of the most important references of the starting point, essential for the understanding of European metropolises. The observations and schematizations that are elaborated are suitable for the impression of the criteria of reading, the attracting poles, the margins, the thresholds of access or the lines of passage.

Are also researched and analyzed the limits of spatial discrimination and the breakers of new areas of specificity, which declare intrinsic properties and strong identities. The urban morphology of Turin and Lyon contradicts itself in its apparent harmony, finding its exceptions, its ways of contemporaneity.

These reflections are carried out on the basis of the theories and design principles, which break down the urban grid and its cells, extracting the most decisive aspects.

Morphological analysis

Organic vision of a multi-layered city

²³ Maretto P., *Realtà naturale e realtà costruita*, Firenze, Alinea, 1980

Continuing with the analytical process of the morphology of the two cities, the theoretical prescriptions of Saverio Muratori, an illustrious and emblematic figure in the panorama of the urban and architectural conception, as well as an important reference for the type-morphological studies in Italy, are pursued. The learning of the area is expressed through a survey and demarcation of the first traces and the ordering elements of the space. This method of analysis is clearly re-expressed in Paolo Maretto's texts, which underline the value of an urban scheme made up of stratified overlaps²³. The latter implies the territorial morphological structure expressed by the building grid; the presence of notable objects, i.e. urban poles of great aggregation, points of condensation and concentration; but also areas of circumscribed specificity, technologically and typologically identified, which refer to a social destination, commonly functional. The meaning of the masonry analysis is to explore the hidden structure of urban phenomena through the construction of a system of representation of reality, able to interpret and give concreteness to the internal dynamics.

The design of the city, as well as the contemplative act of understanding, studying and elaborating an urban fabric, is a matter of architecture. It concerns an open totality capable of accommodating the particular, the individual, and the universal, the collective, and of translating the urban fabrics into as many economic, social and cultural fabrics. The approach adopted is rooted in a purely organic vision of urban reality, which condenses in the unity of its essence a varied stratification of agents, a plurality of elements that finds its maximum realization in the cohesion and interrelation of all its parts²⁴. Urban morphology, assumed in all its forms, analytical and innovative, is a central theme for Muratori, and constitutes the critical and cultural context in which to consciously insert the project of architecture. It translates into an essential tool

²⁴ Maretto M., *Saverio Muratori: il progetto della città = a legacy in urban design*, 2015

as a study of the semantic form of urban textiles: it reads these traces, the signs of the place, identifies that specific structural link, layered, values, meanings, on which the concrete existence of a city is articulated. Understanding the logic of its formation means being part of a dynamic process of transformations that are its history. It means to reason, think and plan the future, the city of the future, in the awareness of its past²⁵.

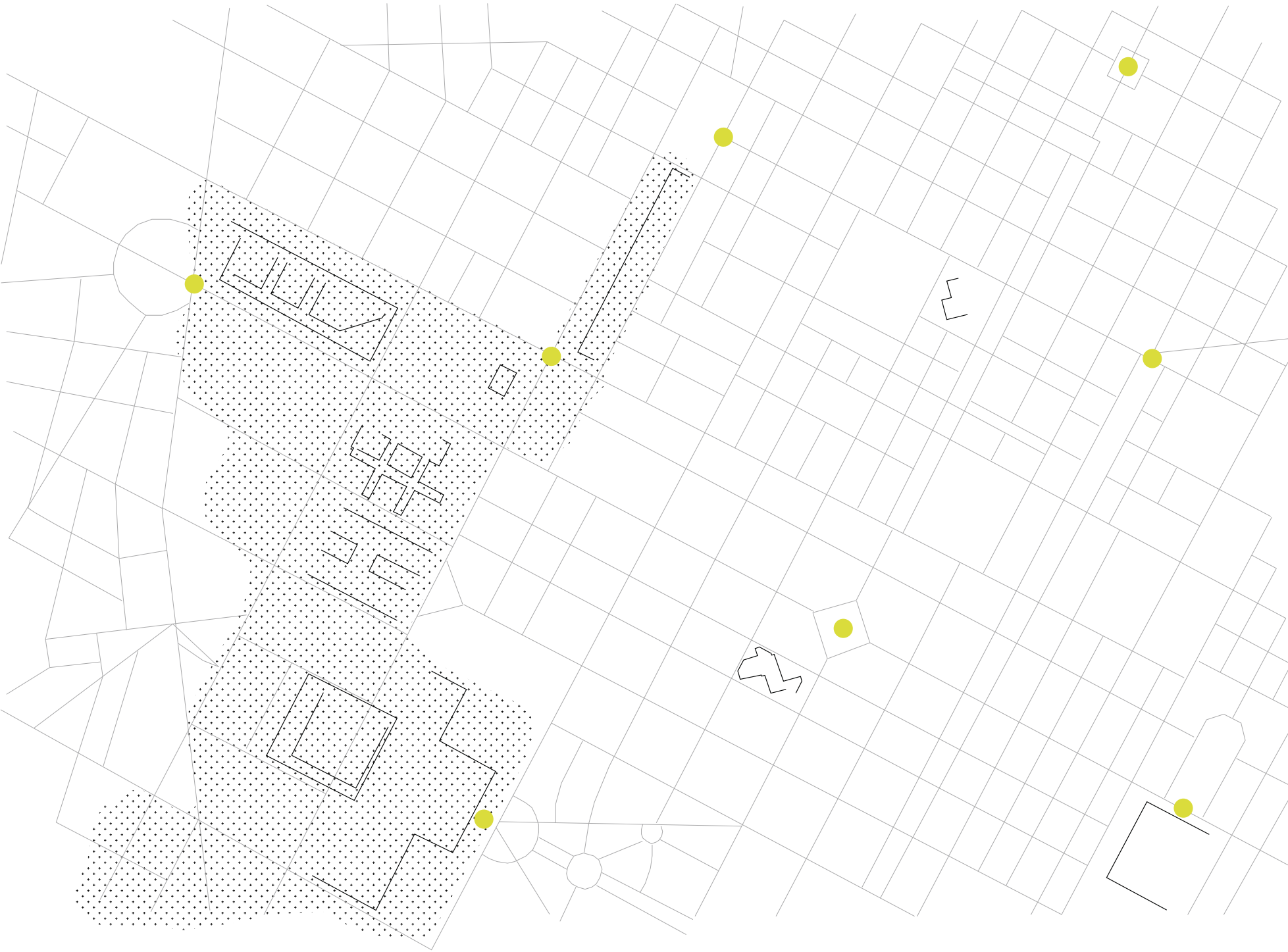
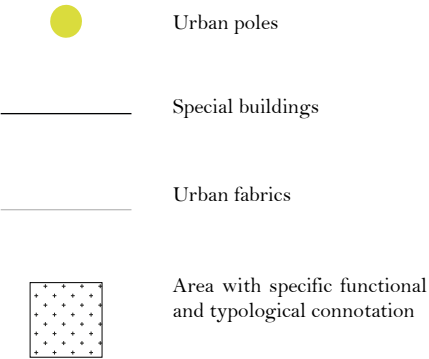
The analytical elaboration of urban textures is a very important link for the purposes of the work, because the real set of structures of a city, is the bearer, over time, of other social, economic, and cultural structures. It is the concrete product of the analyses and the necessary foundation of the synthesis, the point of connection between history and contemporaneity, between reading and design.

The different types of urban fabric become the result of the same number of economic, social, cultural and political fabrics, which find concreteness and form in them. A semantic form, from the study of which it is possible to read and write the history of an anthropic place in all its scalability. The building type can only be identified in its concrete application, i.e. in the building fabric. An urban fabric can only be identified in its total term, that is, in the urban organism, and the total value of an urban organism is grasped only in its historical dimension. The urban scale as an essential condition of associated life, of continuous references between particular and universal, between the individual and the civitas, constitutes the lowest common civil denominator of these experiences: the minimum context necessary for the structural reading of the building fabrics and for the design of the city²⁶.

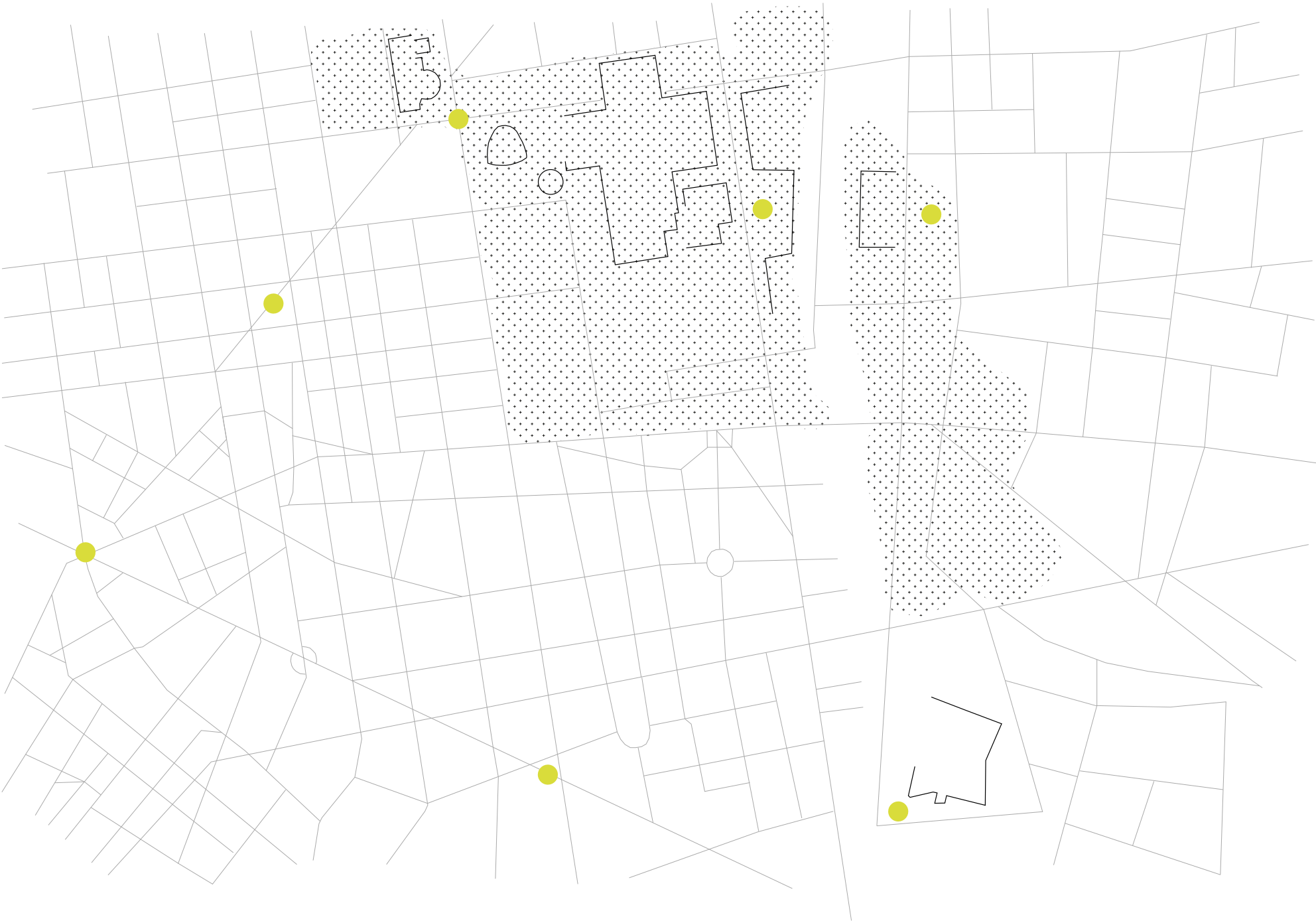
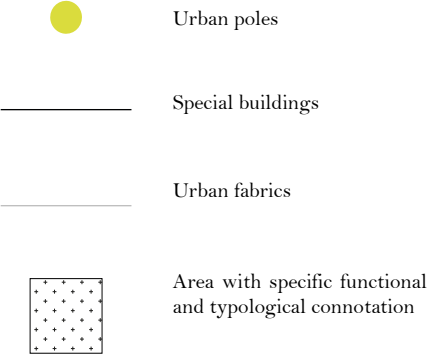
²⁵ Muratori S., *Studi per un'operante storia urbana di Venezia I*, in "Palladio", 1959

²⁶ Muratori S., Marinucci G., (a cura di), *Saggi di critica e di metodo nello studio dell'architettura*, 1980

The diagram represents the morphological reading of the fabric of Turin according to the analyses and iconographic codes previously illustrated, which identify the plot of the road system and the nodes of greatest affluence, the special buildings, that is, those with relevance in the urban context, and the so-called areas of technological degree, detected in their typological, aesthetic, and functional aspects. In the map it is possible to recognize the Porta Susa Station, the Palace of Justice, the Intesa Sanpaolo Skyscraper, the Le Nuove Prison Museum, the OGR - Officine Grandi Riparazioni, some offices of the Politecnico di Torino, the General Motors office, the Porta Nuova Station, the GAM - Galleria Civica d'Arte Moderna e Contemporanea, the National Artillery Museum..



At the same time, the morphological reading of the Lyonese fabric is re-proposed according to the analyses and iconographic codes introduced by Saverio Muratori, with a focus on the third arrondissement, La Part-Dieu. In the map it is possible to recognize the railway station of Part-Dieu, the skyscraper Tour du Crédit Lyonnais (also known as Tour Part-Dieu), the shopping center La Part-Dieu, the food market of the Halles de Lyon Paul Bocuse, the Auditorium-Orchester National de Lyon and the Fort de Montluc.



Perceptive analysis

Representing perception to codify it

²⁷ Lynch K., *The image of the city*, 1960

The perceptual analysis, which is clearly derived from Lynch’s theories, gives us an environmental image that shows the main structural codes of the building grid. In 1960, Kevin Lynch, with his best-known work, *The Image of the City*, reconfirmed the legitimacy and value of visual analysis. In fact, he states that one of the main dilemmas of contemporary American cities is reflected in the lack of an explicit and defined visual identity, the absence of an evident structure, which emerges to the eyes²⁷. These statements can be identified with the mechanisms of fragmentation and deformation of the margins that distinguish the urban peripheries, which are confirmed as responsible for the lack of opportunity for a consolidation of identity of places.

Lynch’s theoretical formulation concerns the possibility of understanding and interpreting the way in which the inhabitants of a city perceive the environment in which they live, outlining the most peculiar aspects of the environmental image through a series of reading tools. The impossibility of representing the socio-economic aspect of the object of analysis does not allow to elaborate the delineation of a public image, however the outcome of this abstraction can be an important support for the design process.

In its urban representation, five categories of elements, common to all cultures, are identified that, according to Lynch, allow the individual to orient himself within the city. The layout of the routes, also called channels along which the observer usually moves, suggests the shape of the building and consequently also the possible directions of urban flows. The canals then converge in the nodes, points of exchange and concentration, which materialize as fires of multiple paths, if in the road branching they are suitable to become a clot of movement and dynamism, in the volumetric configuration are the references to constitute important attractors, points of aggregation,

stasis, condensation. Then the margins emerge, linear elements that are realized as spatial boundaries, perimeters, barriers, that separate, interrupt, and fractionate the fabric. They delineate the lateral, sacrificed and peripheral spaces. Then there are the neighbourhoods, circumscribed areas distinguished by strong characteristics that integrate in them a strong identity, a structure and its meaning.

Lynch’s research has been for half a century and still involves a point of reference in urban design. His reflections on the need to invent a more complex and diverse cartography in order to make sense of the nature of invisible landscapes, as well as his analytical contribution on the relationships between spatial organization, urban morphology, cultural models and forms of economic and political power, and the stipulation of criteria to make the city’s environments safer and more liveable, have been crucial goals. It is not possible to forget his effort in understanding the various cognitive processes in the various cultural and social strata, and deviant behaviors in urban contexts, as well as his influence on the analysis of non-places of Marc-Augé, all is given by the great reasoning and intellectual stimuli, which he has brought to the panorama of urban theory, establishing new methodological forms to learn to read cities in every part of the world.

The schematization represents the morphological reading of the Turin fabric according to the analysis of the perceptive form of the city by Kevin Lynch. The urban configuration of the Porta Susa area is outlined by the five descriptive elements: the routes, fluid or difficult and intricate; the margins, which constitute physical barriers and elements of separation, such as the railroad tracks; the nodes, points of greater concentration, where the circulation thickens; the districts, circumscribed areas characterized by specific and peculiar properties, which reflect a typological identity, an architectural language of their own and a predominant intended use; the urban references - landmarks - buildings of reference in the urban context, with a great ancestry and aggregative capacity, able to maneuver flows, condition functional sectors surrounding and sometimes cover predominant roles also on the commercial level. The latter are also identified as urban condensers.

- Nodes

Minor Nodes

Landmarks

Minor Landmarks

Districts

Routes

Difficult Routes

Margin
-
- 84
- Local urban morphology vs globalized identity
- Comparing the sites
- 85

The same elaboration has been carried out with regard to the morphological reading of the Lyonese fabric according to the analyses on the urban image introduced by Lynch. The proposed graphic synthesis focuses on the commercial and infrastructural district of Part-Dieu, where the same iconographic criteria are respected as in the previous elaboration concerning the city of Turin.

- Nodes

Minor Nodes

Landmarks

Minor Landmarks
- Districts

Routes

Difficult Routes

Margin



Typological analysis

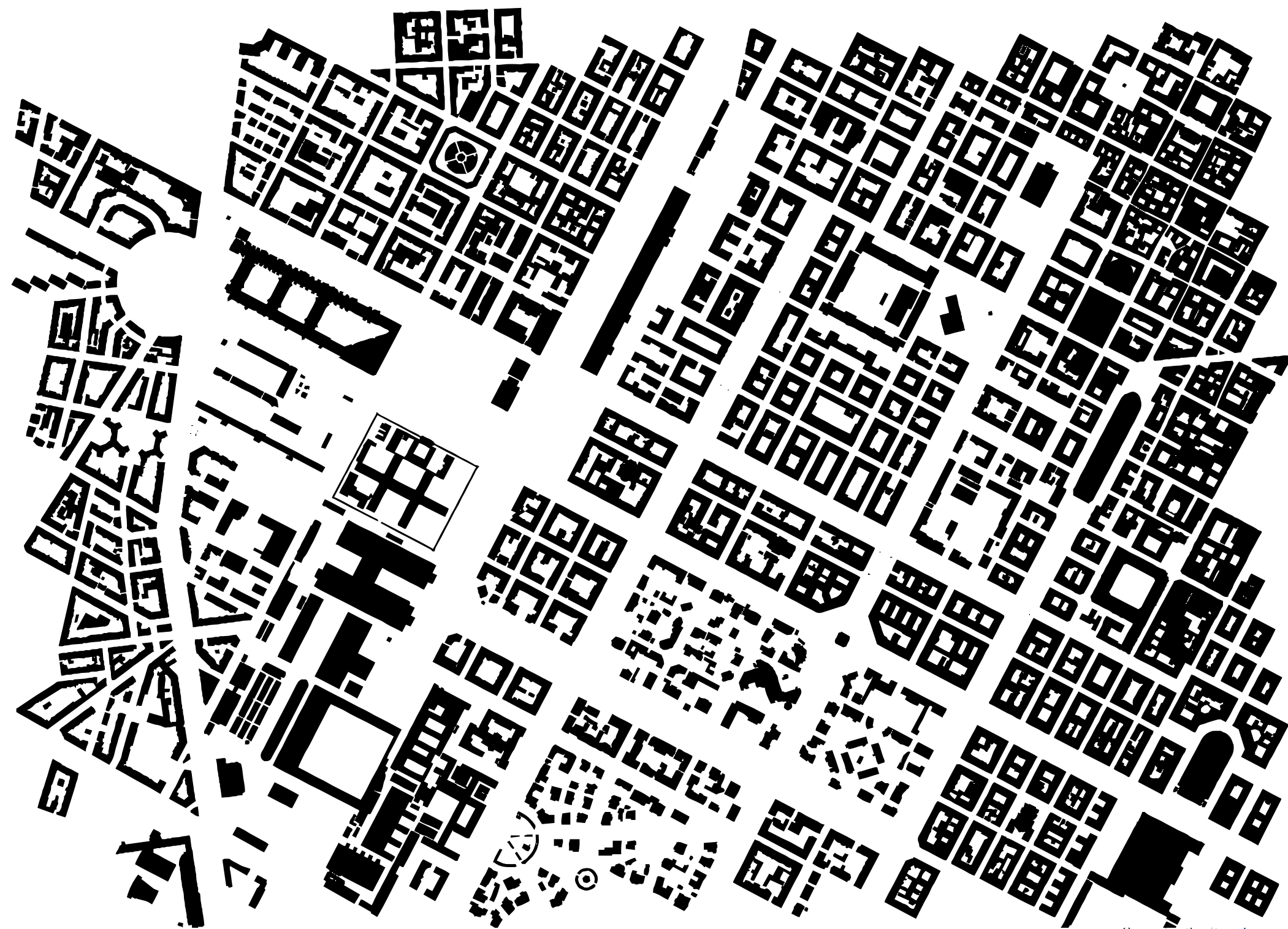
The typological analysis of the Porta Susa framework starts from the observation of the lots, to evaluate the relationship between the road system and the building fabric, the permeability of the paths.



The same elaboration of the lots is developed also for the district of Lyon, in which the special buildings and the empty space occupied by the railway tracks emerge immediately.



The study of the Turin painting faces a passage of scale, deepening the reading of the building. It is possible to know the relationship between full and empty spaces, closed and open spaces, as well as the porosity.



The same degree of elaboration is applied to the Part-Dieu arrondissement in Lyon, where it is possible to distinguish between special buildings and types of residential character. The relationship between diagonal axes and the orthogonal system of the road system becomes more explicit.

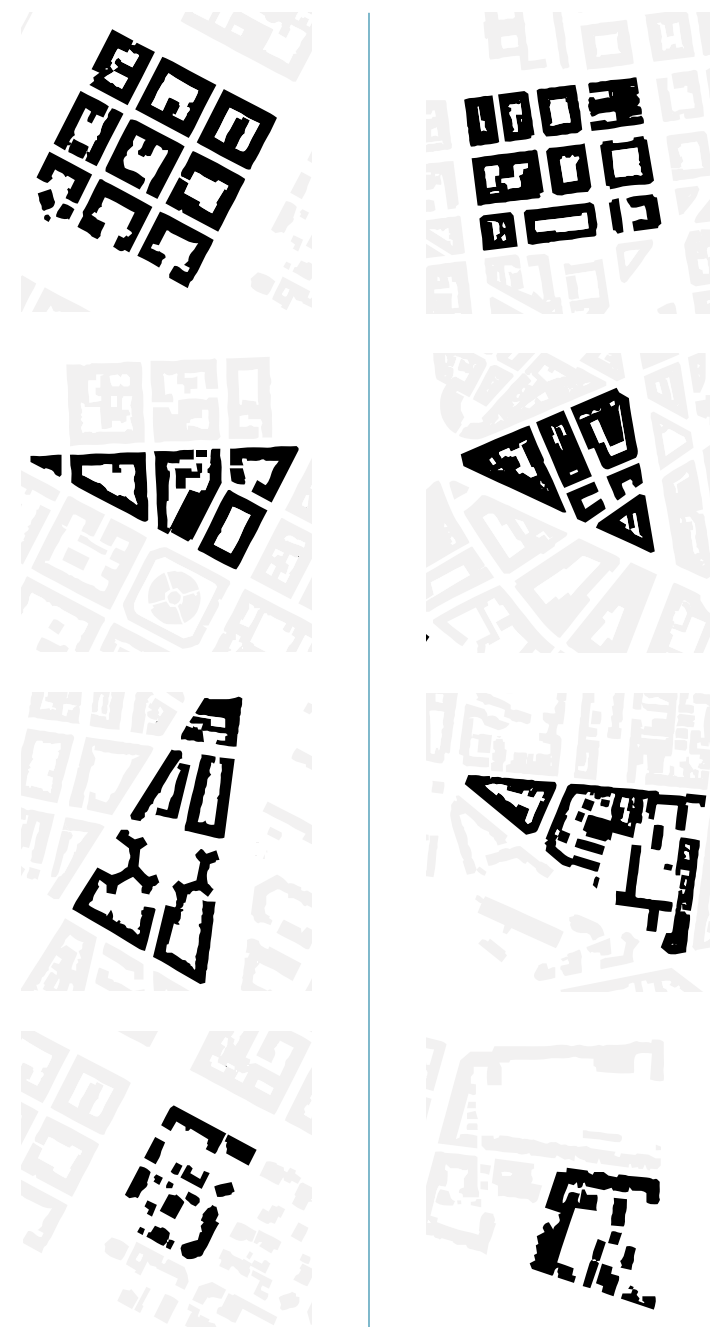


The research continues through the comparison of the episodes that make up the public space in the two urban centers of Turin and Lyon. Not only is the distribution of the buildings and the relationship between them highlighted, but also the proportion and symmetry of the blocks, the preservation of a perimeter, the internal courtyards, the semi-public and semi-private spaces. In any case, a comparison for Lyon is found in the Turin study.

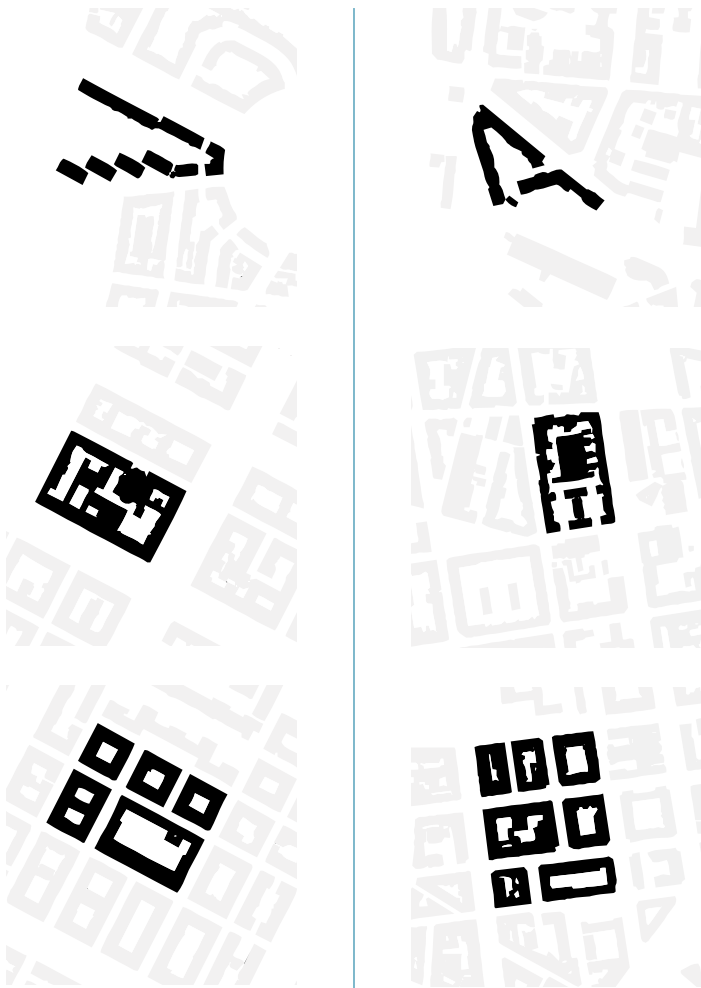
We can observe the analysis of the lots, the perimeter and the internal porosity. If the boundaries of the building blocks are largely respected in their continuity, the internal relationship between empty and built areas alternates between more homogeneous compositions and more fragmentary and disorganic situations.

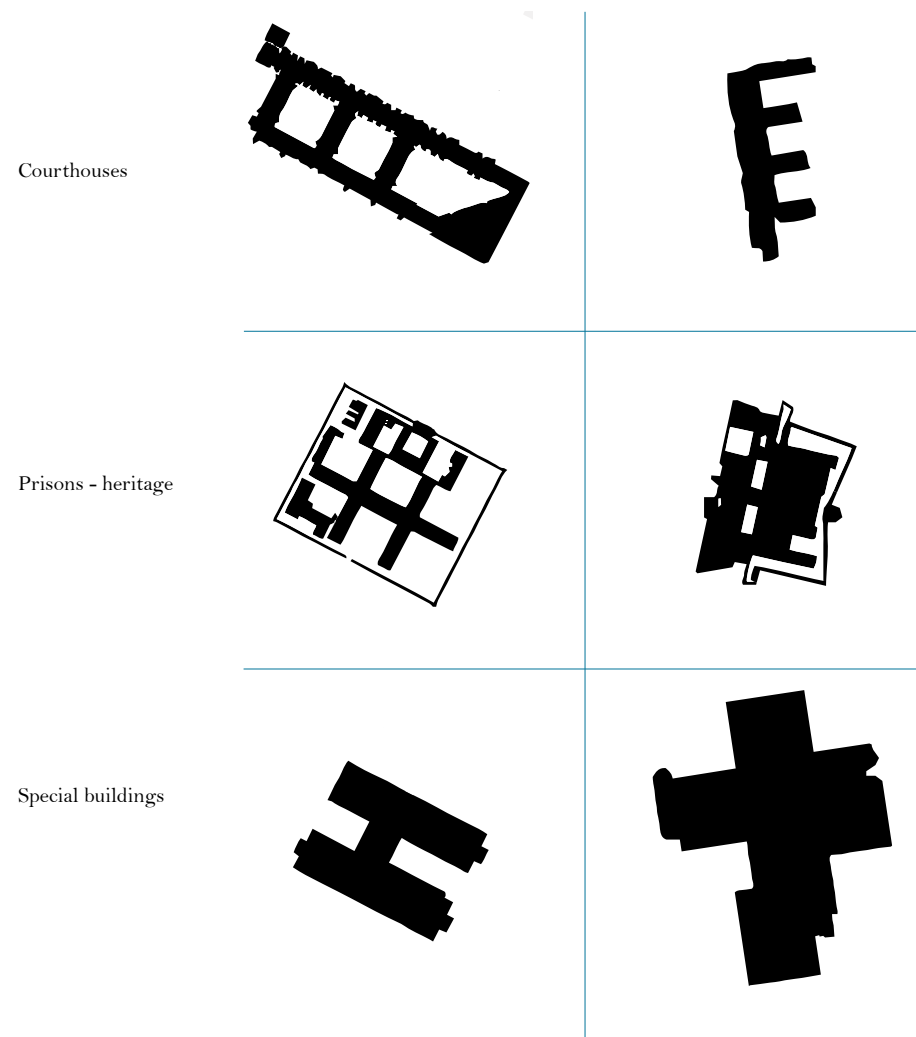
The subject of study are also the crossroads, the nodes, of the road network, the squares. Some similarities can be seen both in the elements that make up the system and in the spatial configuration. The axuality of the cardoon and decumanus of Turin is also recognised, in a less rigid form, in the French matrix of Lyon, as are the transversal grooves that break the uniformity of the fabric. In the same way, the exedra squares attest to the affinities of the urban apparatus, even in public spaces.

The continuity of the edges of the building is preserved in all its forms, while inside there are cavities and voids, closed or open patios, or buildings whose proportions and hierarchies respond to the homogeneity of the system.



Composition of the lots





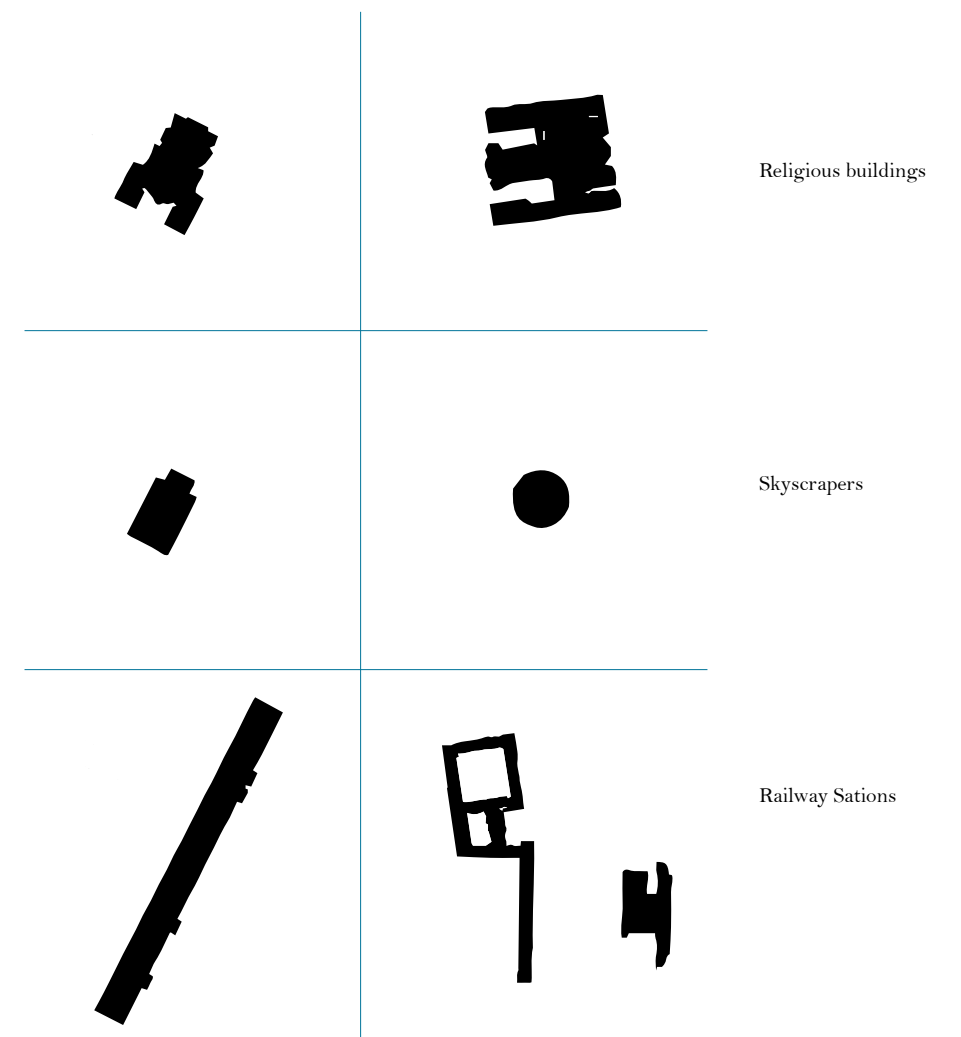
Courthouses

Prisons - heritage

Special buildings

The thesis work evolves with the structuring of a typological, abstract and atopic abacus of the emerging buildings, which stand out as key elements both in the urban complex and in the social context. The investigation includes judicial buildings, prisons, special buildings, religious buildings, heights - skyscrapers, railway stations. The grafting of these elements into the urban context constitutes the formation of those spaces, defined by the philosopher Michel Foucault²⁸ as *heterotopic*, that is, with specific peculiarities such as to be connected to all other

²⁸ Foucault M., Moscati A. (a cura di), *Utopie. Eterotopie*, 2006



Religious buildings

Skyscrapers

Railway Sations

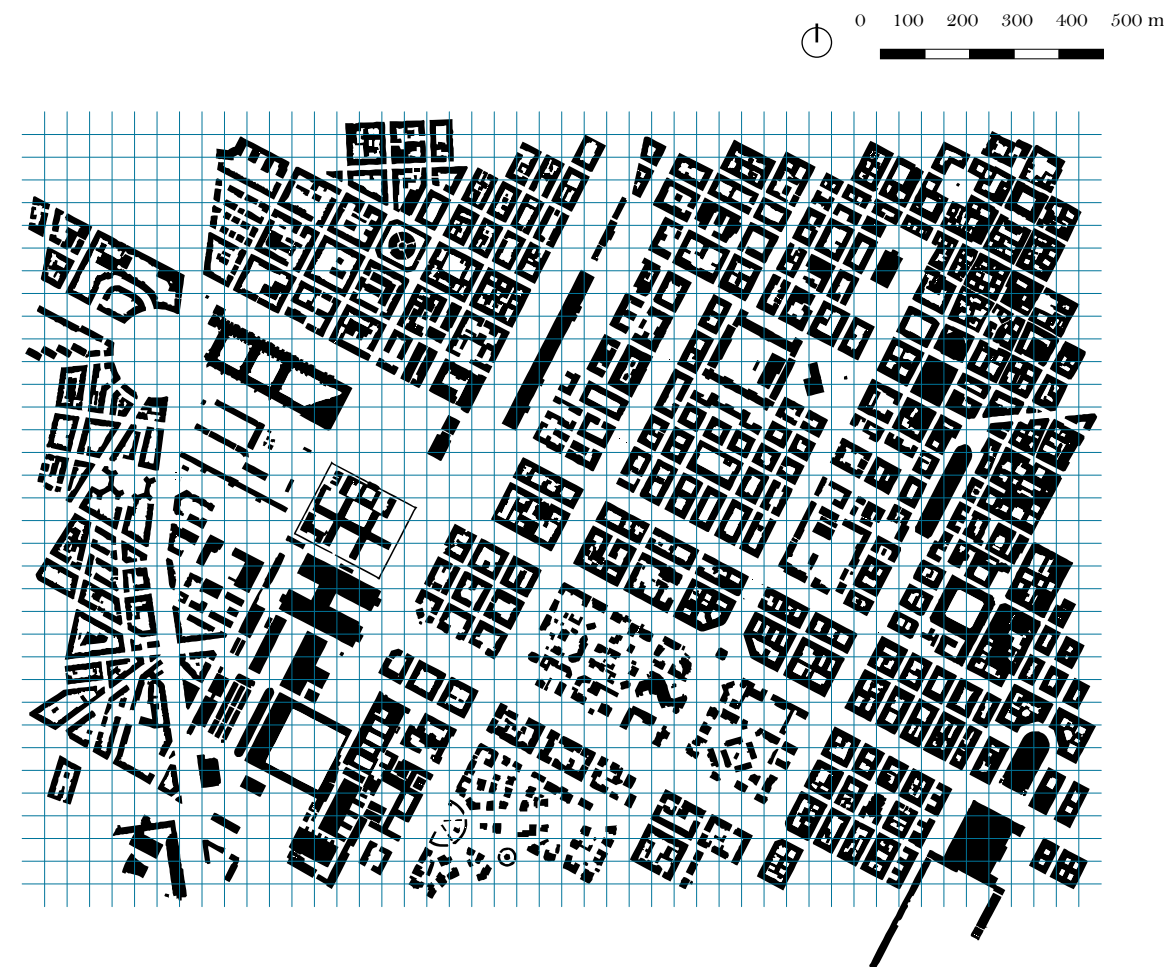
spaces, but at the same time so impactful as to suspend, neutralize or reverse the whole of the relationships that they designate, reflect or reflect. The heterotopic attribute, which derives from the concept of utopia but is resolved as its inverse symmetry, is expressed in the ability of these objects to connect, bind and communicate with each other the surrounding spaces.

2.3

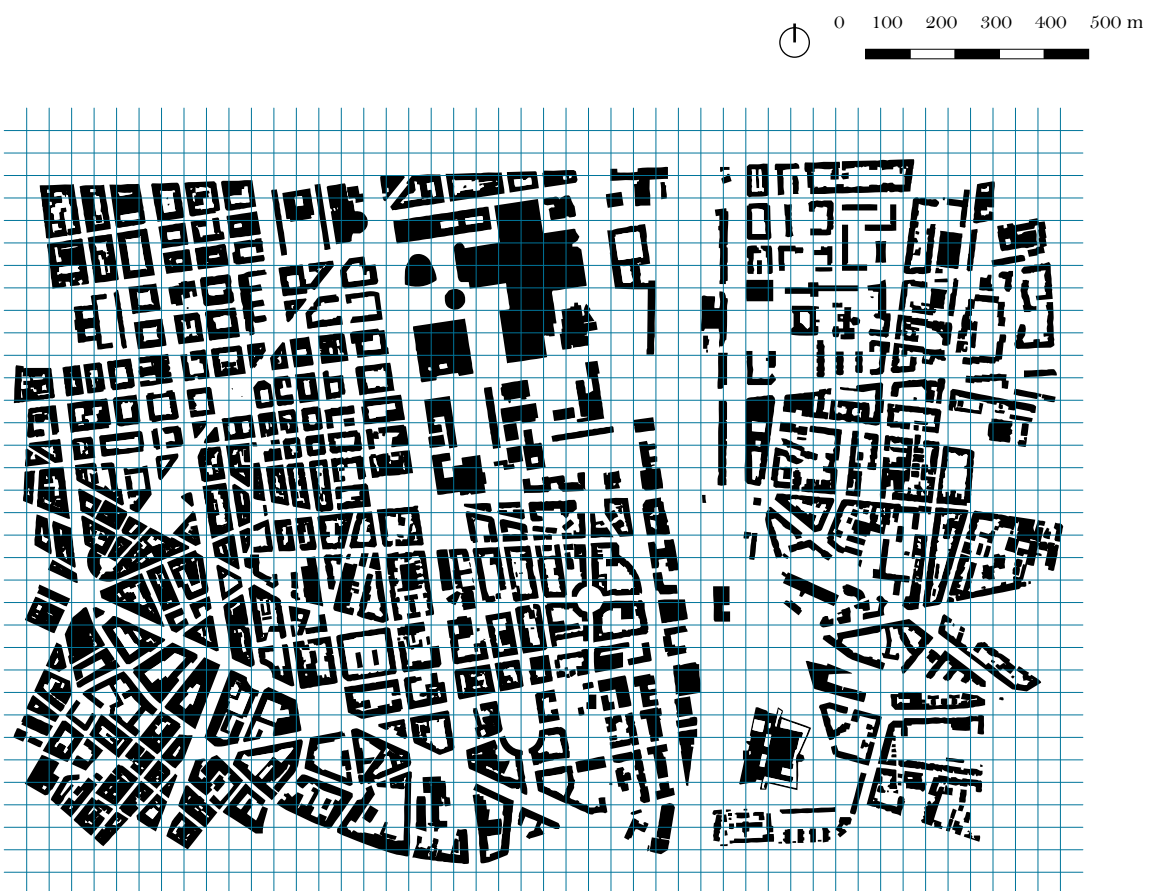
Understanding the space

The understanding of space takes place through its mapping, schematization and framing. The use of visual support systems allows the acquisition of a greater awareness of the dimensions, the distances between various terms, the proportions between different objects. The urban fabric of the two cities, which has been more accurately recreated, is analysed on the basis of its composition, the ramification of the roads and the possibilities of access. The permeability of the system allows to attribute connotations of public and private, and to reflect on the shared spaces, in which the community establishes relationships and interacts with what surrounds it. Emptiness acquires important capabilities. It is not the space of absence but the place of aggregation, of relationship, of the deepest expression of collective identity.

Framing the texture

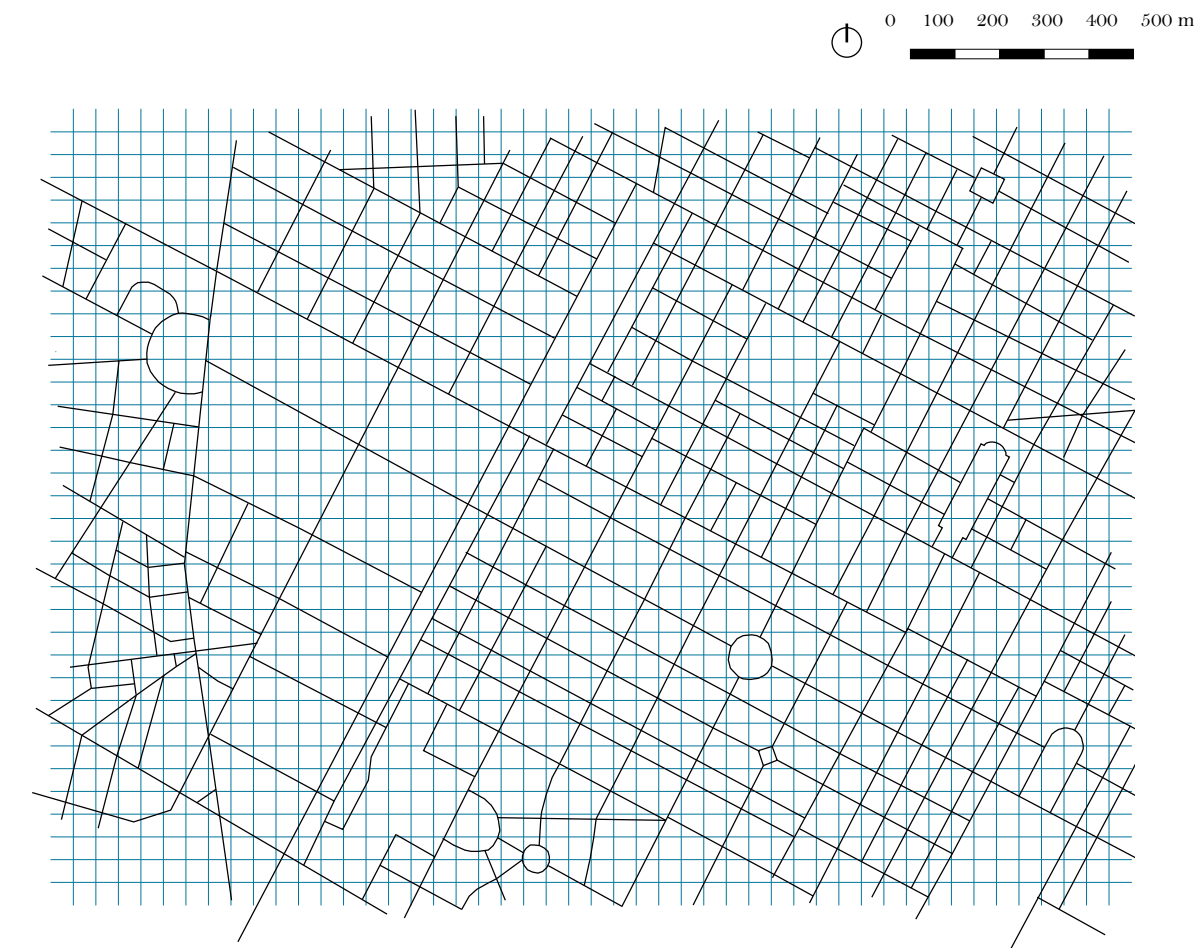


The investigation proceeds through the dimensional framing of the fabric through a grid, with a frame of 50 meters interval for each axis, in order to acquire a greater awareness of the proportions of the city, its distances, and the extent of its elements.

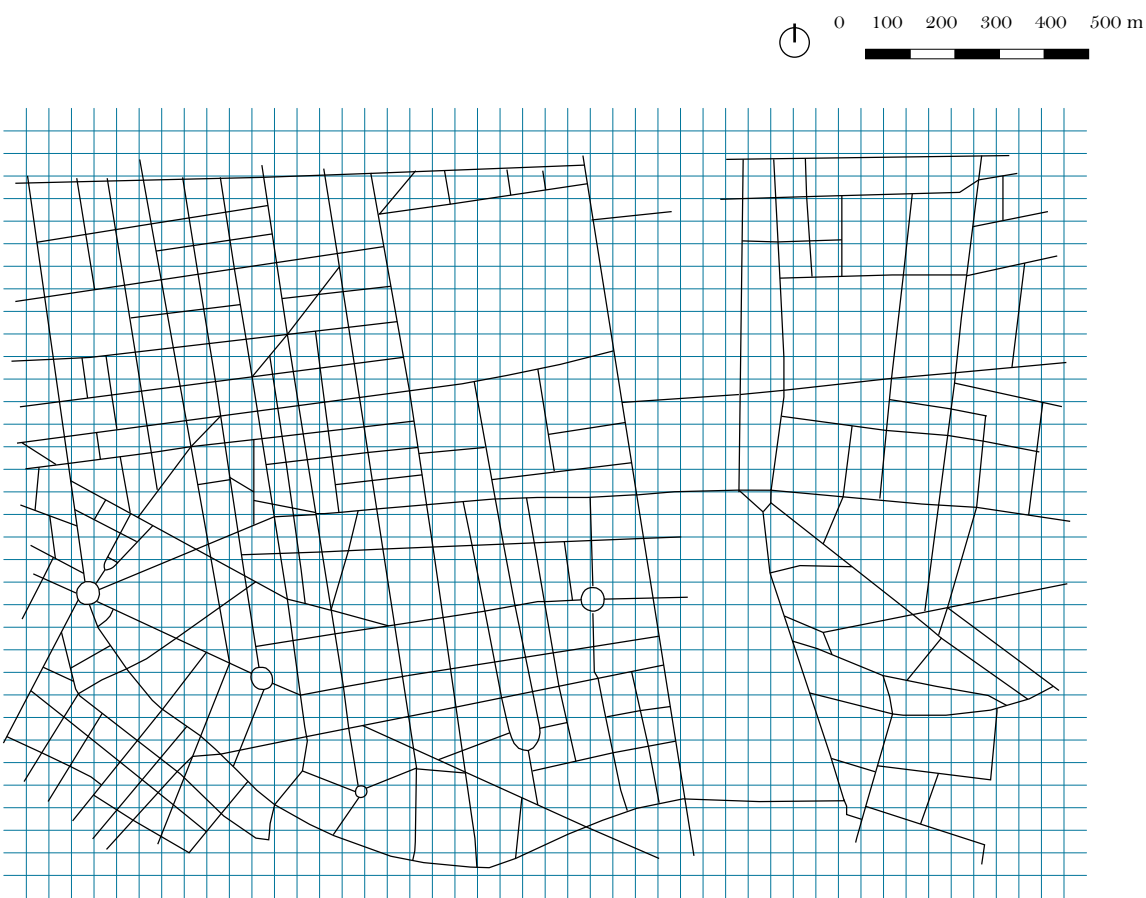


The operation is carried out for both the cities of Turin (on the left) and Lyon (on the right).

Streets, permeability and public spaces



The next step is to reformulate the road system and mobility, while maintaining the support of the grid, to understand the orders of magnitude of the routes, the distances between different portions of the city and the ease of connections. The operation of redesigning the road



matrix allows to acquire a greater awareness of the urban structure, its weaving and its most active fulcrums. Again the representation is presented on the left for Turin, and on the right for Lyon.

Shared



If we have previously paid attention to the layouts, to the way the district travels, to the flows, to the urban nodes and to the most concentrated nuclei, in this negative elaboration the focus shifts to the perception of the shared spaces, which expand and contract in function of the buildings and of the internal circulation. Sometimes they are delimited by walls, sometimes they are larger and less

Spaces



confined, usable by more categories of users. Similarly, the study is proposed again, in Turin (on the left) and Lyon (on the right).

In recent years, cities have undergone a process of critical rethinking regarding the use of their forms. Against the backdrop of the economic, political and social crises underway in the Europe of the third millennium - whi-

²⁹ Mei P., *Spazi pubblici e luoghi condivisi. Progetti architettonici per le città europee*, 2016

³⁰ Bauman Z., *Liquid Modernity*, 2000

ch also involves the proposed case studies of Turin and Lyon - important urban transformations and substantial rethinking can be recognized, leading to the reinterpretation of the public place as a space for comparison of the experiences of the metropolis. The theme of public spaces constitutes an environment of sharing, exchange and continuous interaction: it is the place where the community finds its maximum expression, reflecting the values of the contemporary *civitas*²⁹. These mechanisms are manifested through themes directly connected to the development of new forms of contemporary, social, nomadic and temporary living. The relationship with new infrastructures, both material and immaterial, as well as the transformations of economic and social conditions, are part of the essence of these environments. The critical re-reading of these environments is inclined to reconstruct an updated reflection on the public space of the contemporary city, as well as on its multiple forms of use and sharing. The idea of the space of sharing, proper to the community, has radically changed with respect to the one promoted in the 20th century. Bauman's liquid society undermines the very idea of traditionally recognised public space, the agora, the forum and the square³⁰. Today, the elements that make up this place are the main object of rethinking: the streets, parks, galleries, boulevards, gardens, the square itself.

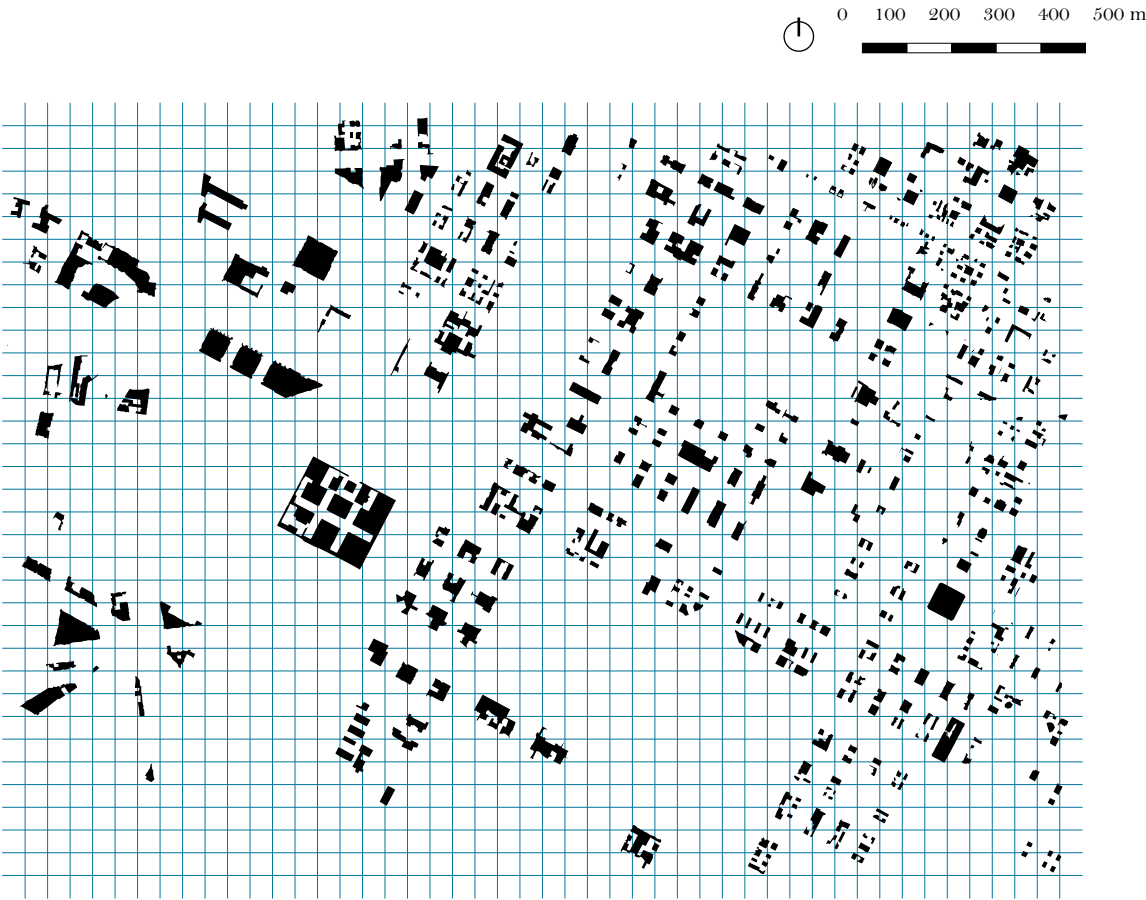
In the perception of these spaces new questions arise that denounce new perspectives and new cultural paradigms: the distinction between public and private spaces acquires new features, as well as the line of demarcation between real and virtual public spaces, and formal and informal spaces becomes more blurred. The new urban landscape today is strongly conditioned by the new tools of the global world, also made up of new virtual opportunities, the Internet, immaterial networks, social networks, which, however, are not always able to dialogue with a context on a local scale, characterized by traditional values, with

mnemonic aspects. In recent years, various design experiences have been carried out in the different contexts of the dispersed city, of which Vittorio Gregotti speaks, for example, hoping for the ability to metabolize current needs in the consolidation of new typological combinations, new unexpected centers of aggregation that can constitute reference design materials for the city of tomorrow, and at the same time promote other possible identities. urban design, as well as architectural solutions must take into account these internal complexities to meet the needs of the cities of the third millennium³¹. The conditions identified draw a new urban topography that is in contrast with the traditional conception of public space, at the time recognizable through regular figures coinciding with pure geometries. In the moment in which the previous idea of urban spatiality is refuted, Paul Virilio also supports the contestation of the previous notion of dimension, which denounces the crisis of a homogeneous space, overwhelmed by the accidental and heterogeneous space, in which the individual parts are the disintegration of the figures. This context of social and spatial fragmentation in which cities find themselves, represents the origin of the redefinition of new urban issues.

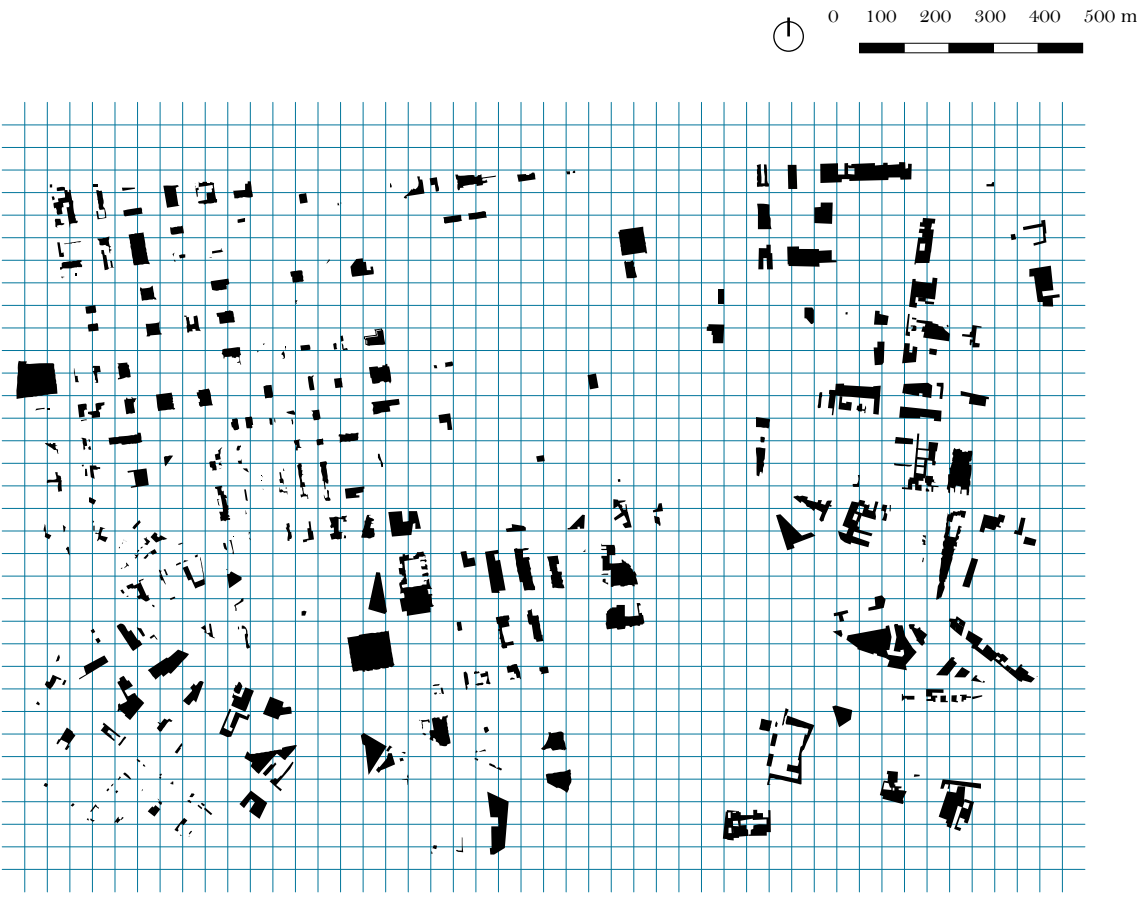
Shared spaces are also the places where conflicts, contradictions and paradoxes of cities are most visible. They embrace the coexistence of multiple cultures, practices, uses, embracing the broadest social stratification. They are also places of confrontation, where individuals and daily practices collide and compete for the same space, and whose definition of the public resides above all in its social aspect and in the pluralism that remains within them. The conceptual reworking of these themes underlines the need for a more complex, dense and broadened approach compared to the traditional limits of design.

³¹ Gregotti V., *La città e le contraddizioni dei nostri anni*, in "Lezioni veneziane", 2016

The shape of the void



By conducting the consequent operation of collecting the empty spaces, with the exception of the road system and always with the support of the grid, you can grasp the distribution of the cavities relevant to each lot, which allows you to develop further reasoning. The disparities between the maps of Turin and Lyon are more visible, as well as the relationship between the building context and



the railway infrastructure between the two cities is markedly more different. It is possible to grasp its rhythm, its distributive cadence, the scale of mass and simultaneously of space, the type of balance that is established between the two factors, and a new perception of solidity, which sees the void as a new, cumbersome mass.

³² Zevi B., *Saper vedere l'architettura. Saggio sull'interpretazione spaziale dell'architettura*, 1948

Thinking about the capacity and weight that a given architectural complex is able to exert on the context and on those who experience it, implies acknowledging its three-dimensional value that involves individuals. Construction as an architectural object is similar to a full entity, a mass that is excavated and penetrated by man, who walks inside it.

When designing architecture, we also design its own void, or perhaps, as Bruno Zevi would say, architectural existence does not derive from a sum of widths, lengths and heights of the building elements that enclose the space, but exactly from the void they generate, from the space enclosed within which people circulate and develop their human habits³². In this sense the space, which can hardly be fully represented in any form, which can not be learned and experienced except by direct experience, is the protagonist of the architectural fact. Taking possession of the space, knowing how to see it, is the key to understanding the buildings.

The individual has the ability, moving in the urban landscape and studying it from several points of view, to reveal its most intrinsic realities, as well as the fourth dimension, the time factor, which is only one of the many proportions that the void can assume. It exists in the circumstance in which there is a wall box that encloses it, thus assuming its specific character, and when this materializes, defines in immediacy the value, aesthetic, symbolic, empathetic, of the building object. It declares its poetic potential.

Each building constitutes a boundary, or rather a caesura in the spatial continuity, contributing to the generation of internal spaces, fully defined by the architectural work, and external or urban spaces, enclosed within that work and the other adjacent ones. The spatial experience therefore does not exist only in its architectural dimension, but the value of urban space is the first index to be metabolized by the community that explores it; the spatial

experience of architecture extends into the city, streets and squares, alleys and parks, stadiums and gardens, wherever the work of man has limited the voids, that is, has created enclosed spaces.

To explain the iconographic system used, it is necessary first of all to declare the desire for an interpretative work of simplification, whose spatial representation is subject to an operation of abstraction and conceptual synthesis. An interpretative sequence refers to this, a degree of in-depth study that will be consequent and necessary, and that underlines the importance of the method of graphic schematization: the synthesis must take place before the analysis, as well as the understanding of the urban structure, the relationship with the void, even before its articulations or its details.

3. Defining a strategy

3.1

The purpose

Once the criteria and substantial factors making up the urban matrices have been extracted, the study restores the question of railway stations to structure a bivalent experiment, aimed at examining the possibilities of the same urban system, declined in its different potential transformations. It is a reflection on the concept of local morphology in relation to the figure of globalized identity, which must prove its immutable universality. There are also many related themes. The area surrounding the stations, which takes on the appearance of a square. The facade of the stations and the relationship with the adjacent buildings. Social space. Two different scenarios are developed on the theories of the metropolises of the third millennium, which codify an urban structure and an almost similar hierarchical one, composed of modularity and iterations, which explore the future of the global phenomenon in its opposite and oxymoronic perspectives.

One square for two stations

A global square to cheat distances

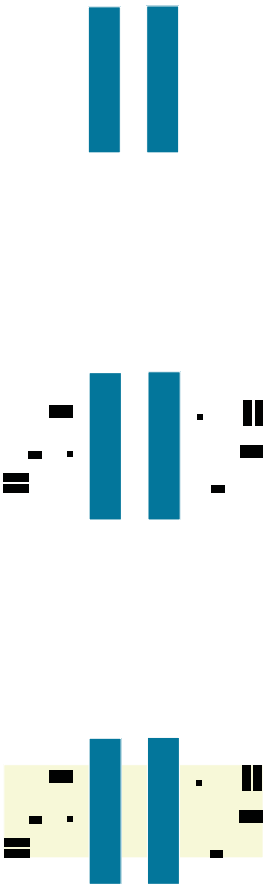
The development of the reflection is articulated on the analysis of the urban centers of Turin and Lyon, certainly not metropolis but medium-sized cities, marked by partial manifestations of the global phenomenon, which are expressed more clearly in the district of railway stations. The key concept lies in a basic hypothesis: to verify whether in their evolutionary processes, aimed at the universalisation of urban elements, a strongly identitary nature still prevails, determined by historical and cultural factors, by memory and morphology, or whether instead it is now essential to grasp the new values and outcomes of a globalised world, oriented towards the future and change. The thesis proceeds in its speculation through a design experiment: the identification of new global typologies - special as ordinary and recurrent models of contemporary metropolises - for the structuring of an ideal square, a new public space for two stations in two different cities, which nevertheless share urban and natural criteria. Therefore, the paradox lies in the double vision of two different sites, two distinct cities, starting from the design of a single environment, intentionally identical, where inhabitants, traditions and context can reveal and reveal substantial variables.

So why a square for two stations? The theme of public space, which finds its most concrete expression in the element of the square, constitutes a salient point in the redefinition of the urban environment. As Muratori himself confirms in his texts and projects, it is based on the dialectic, both simple and complex, of defining the public space, retracing the rich humanistic tradition of the squares of the urban scale and of the aggregator fires, placed inside them, whose passers-by end up intercepting, voluntarily or not³³. Fundamental to this reformulation of the city is the re-proposition of new special buildings, in a contemporary key, which will repeat the formal, structural and material characteristics of which they themselves

are exponents and promoters. As in the more traditional version, they play an identifying role for the urban organism in the territory, with a well declared semantic image, and a purely functional language, disruptive in the historical matrix.

The link with the station's infrastructure is not accidental. The globalized typologies are proposed as a means of mediation, or filter tools, in the passage from one context to another. They are the connection points of a symbolic line, a segment towards the discovery of two different countries. They act as catalysts for relations and social dynamics. The journey does not end in the rails of the train, but it is in the globalized architecture of its surroundings that it finds its final manifestation, its last stage. Beyond this, one looks out to explore the city. They are therefore elements of stitching up, of a relationship that has never been completely resolved, of a phenomenon that has perhaps never been completely absorbed.

Morphology, as previously stated, is an essential design parameter: conceiving an urban system is above all a process of knowledge to be implemented through the coincidence of reading and design, where it is not the second to derive by logical deduction from the first, but it is the reading itself that constructs a work of redesign. Therefore, we want to elaborate a proposal that represents not only a simple solution to the problems posed by reality, but perhaps and above all a critical construction that gives universal meaning to the particular and unifies the multiple, transcending concepts and thoughts that do not derive directly from reality but that nevertheless seem to complete it.



Evolution of the concept: two stations in two different areas; the global typologies make up a parallel project; the square as a connective fabric.

³³ Muratori S., *Architettura e civiltà in crisi*, 1963

A provocative scenario

The motto of this provocative scenario is clear: a project for two places, a square for two stations, which takes shape and matter through the arrangement of the 4 globalized archetypes, to discover announced or unlikely future developments. New ways of using, relating to and living in architecture are banned and at the same time predicted. One could think of a resolute vision of this metropolitan union between Turin and Lyon, which has not yet found a complete form. In this way, that search for confrontation and interaction, now visible on a political and commercial level, that fervour of competition and similarity, is exhausted in the imagination of a place, no longer so distant but that seems to match, whose two halves seem to complete, and in which the bull and the lion coexist, coexist in symbiosis and establish unbreakable links.

In photo: Tour Part-Dieu and the building of the administrative headquarters of the city,
Sandrine Sandrillon, 2017



Place-making

Tailored spaces for its inhabitants

In the imagination of possible cities, a central theme is also examined, which questions the predispositions and design codes of globalized spaces, regulated by economic reasons and maximum functional efficiency. Place-making is not only a philosophy but also a real design process: it is identified in a multifaceted approach to the design of public spaces that is built and defined starting from the human figure, to strengthen the system of benefits, services and possibilities, with the intention of creating opportunities that promote the health, happiness and well-being of people. This theory contains the expression of a different way of thinking and living in public space, which tends to involve the community in the reconfiguration and redevelopment of these environments. In the scenarios of the thesis experiment, the two faces of the shared space are presented, which are partly based on the adoption of these preconceptions. If the individual were to draw the lines of his public and private space, what would be the outcomes, consequences and complexities?

Rigid urban-scale design processes allow little space for local communities to make choices about the construction of public spaces. It is thus possible to often observe spaces that are compositionally resolved, but empty or underused, or vandalized and abandoned. Places that are not very popular and that do not contribute to the liveability of the contexts and penalize their attractiveness also in terms of investment, residential choices and liveliness of the microeconomic network. For a community, being made involved, responsible for designing its own place, but also free to express its own identities, represents the possibility of choice, of arbitrariness that can become a crucial part of planning.

As is already known, place-making is not such a recent idea. The concept of producing places by focusing the design mechanisms on the same users to give a new

face to public spaces, derives from the activities already conducted in the '60s, among many, by Jane Jacobs, who had theorized the need to design American cities for people and not only for cars or as shopping centers. Her idea of design dynamics was not unrelated to the needs of users; on the contrary, he aimed at defining flexible spaces, mobile in their physicality and in their intended use, adaptable to the times and to individuals³⁴.

This methodology, which is based on a collaborative process between public and private actors, both in the planning and management phases, focuses on the need to create liveable, attractive neighborhoods, revealing the relational and emotional capacity of the places, able to contribute to the maximum personal achievement of its users. The theme of the Place-making is therefore a stratified approach that fits into the profile of citizens: it becomes crucial in the reasoning of the thesis work as it finds its fulfillment in the identity sphere that defines the context, supporting its continuous evolution.

³⁴ Jacobs J., *The death and life of great American cities*, 1960

3.2

Survey and observations

The following discussion concerns the analyses carried out in the cities of Turin and Lyon, where inspections and observations were carried out in order to identify the starting elements, necessary for the assimilation of the contents and for the comparison of the results. The marked parallelism of the two technological districts, areas pertaining to the railway, can be seen in the detection of architectural types that denounce a precise correspondence. The square lacks definition and concreteness, is found in irregular and disorganic form, without a possibility of identification in the context. The vertical elements, such as the skyscrapers, are confirmed as pillars of that urban idea of avant-garde and progress that is protracted in globalization. There is no lack of simultaneous episodes of prisons and historical heritage, cultural centers, places of commerce, up to the mesh of housing cells, deprived of the linearity of the oldest and most traditional lots.

The project areas

Understanding a city in the most absolute way means building a space inside it, experiencing it

In this chapter is developed an investigation of the project areas, through a photographic apparatus designed to highlight the observations made in previous chapters. On the side are shown the orthophotos of the station districts, respectively at the top of Turin and at the bottom of Lyon, where you can see the morphological configuration of the cities, the thickness of the railway, the type of approach established with the existing building.

By resolving to a considerable extent the problems of three-dimensional representation, photography undoubtedly fulfils the vast task of faithfully reproducing everything that is two-dimensional and three-dimensional in architecture, that is, the entire building minus its spatial noun. The photographic views render well the effect of the wall box, both its volumetric values. Photography is a valid instrument of spatial representation, which once understood the meaning of architecture, can be investigated, deepened, improved. The most absolute way to understand a city and an architectural artifact is the experiential one: wherever there is a complete spatial experience to live, no representation is enough, we must go, be included, become and feel part and parcel of the architectural organism, we must space ourselves³⁵.

Because of these first considerations, both urban analyses of the two areas examined have been accompanied by the collection of empirical data and therefore by the direct experience of the two places. The inspections were essential in understanding specific dynamics of the place, related to movements, access points, the perception of mass and distances. Thanks to the exploration in both urban contexts, it was possible to grasp a series of aspects, which are flattened and minimized in the two-dimensional reconstruction.

³⁵ Zevi B., *Saper vedere l'architettura. Saggio sull'interpretazione spaziale dell'architettura*, 1948

On the right: Orthophotos of Turin and Lyon, Google Earth



Exploration in Porta Susa



On the left:
above, Top view Porta Susa
Railway Station, Julien Lanoo, 2013
below, Porta Susa overview, Ferrovie
dello Stato Italiane

In page: Turin Railway Station crossroads

In the next page,
on the left: infrastructure of Porta Susa
on the right: Photos selection of Turin
Railway Station, Julien Lanoo, 2013





Overview of Porta Susa district, Turin



Above: One of the entrance of Porta Susa Station
On the right: Intesa San Paolo Skyscraper

The Porta Susa station entrances are located laterally along the eastern side of the building, which overlooks Corso Bolzano. Once the threshold has been screened, it is almost immediately possible to descend to the lower floors, since the internal space of the station develops hypogeously in relation to the level 0 of the road. The glass and steel that cover the skin of the structure allow the creation of a luminous environment, apparently open, airy, that does not announce a sharp break between inside and outside. The different levels of the station are spacious and connected by stairs and balconies. Everything seems to recreate large squares, a road continuation covered by a large vault that seems, perhaps intentionally, to echo the contemporary nature of the adjacent skyscraper.



Postcards from Part-Dieu

Below: One of the entrance of Part-Dieu Railway Station

On the right:
above: Aerial photograph of the Lyon Part-Dieu district, Thierry Fournier, 2018
below: Overview Part-Dieu Railway Station, Sandrine Sandrillon, 2017





One of the two entrance of Part-Dieu Station

Part-Dieu urban area

La Part-Dieu shopping centre, in front
of the Station



Bibliothèque municipale de Lyon, in
front of the Station





Temporary entrance of Part-Dieu
Railway Station

On the right: front view of the Tour
Part-Dieu, Sandrine Sandrillon, 2017

The station of Part-Dieu is developed in two buildings arranged parallel to each other, and divided by the edge of the rails that cut the urban aggregate in two different portions. The connection between these two sections of the city is made possible by the same construction of the station, which acts as a connective tissue, and as a junction, ensuring the perception of a single neighborhood. The context is singular as a whole, studded with cranes and buildings under construction, among which stand out imposing buildings of clear industrial plant and other buildings with intentionally avant-garde features, such as the Tour Incity, the second skyscraper that flanks that of Part-Dieu. The access gate to the station, under the condition of the inspection, consists of a temporary pavilion that saturates much of the main square, given the road works, which generate in the perception of passers-by, an immense space and at the same time accessible only in a few places.



3.3

Global typologies

As previously illustrated, the research evolves with the identification of the global typologies, that is the typological forms of the city of the third millennium, which are expressed as results of the phenomenon of globalization. This phase of the process stems from the attempt to categorize new models more or less present and constant in contemporary urban centers, which lend themselves to symbolic buildings, stylistic features of today's city, alluding to a new version of Special Construction that Gian Luigi Maffei had identified and examined in the past in his writings. In order to better decipher the nature of these compositional devices, it is necessary to underline the hybrid character that justifies the mixture of functions and the flexibility of uses: these are spurious architectures, forms of sharing that define a mixed and simultaneously heterogeneous use, inclined to continuous adaptations and compromises with the changing context.

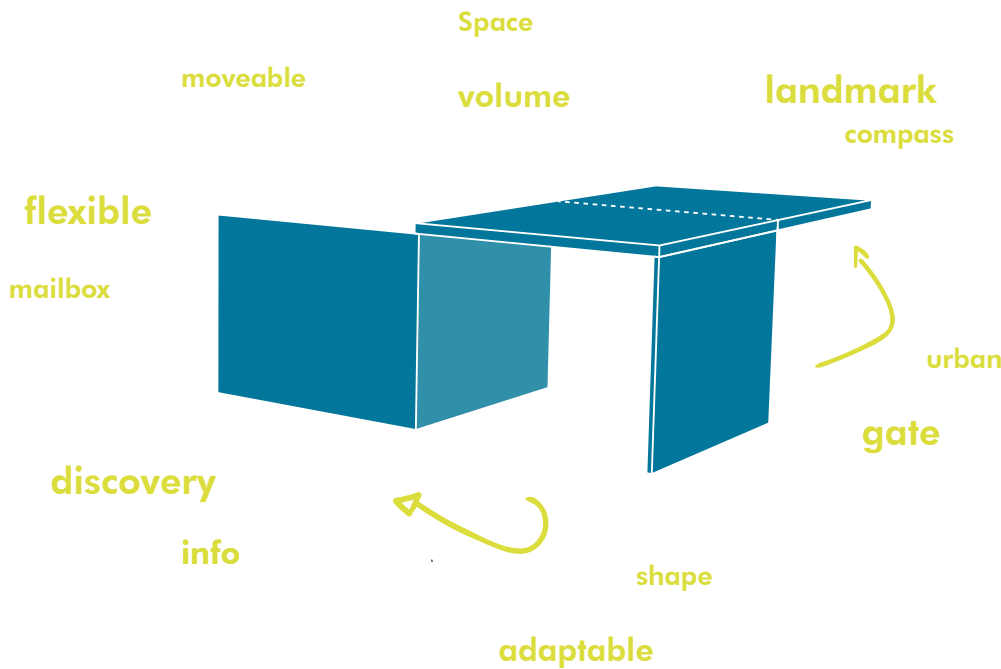
The infobox

A gate, a compass, a mailbox.
So many ways to be an
infobox.

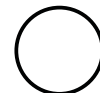
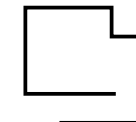
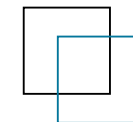
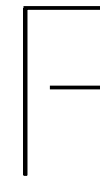
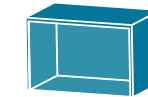
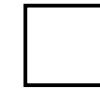
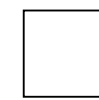
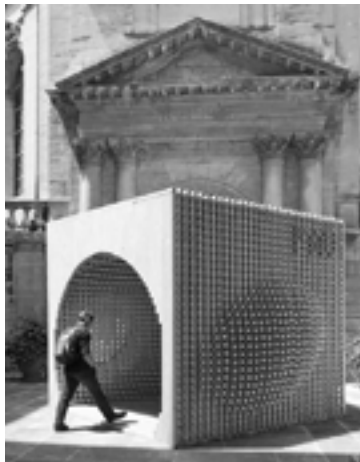
The infobox is the first product of this new series of architectures, which is born from the new global dynamics, where new connections and new transport services allow an increasing tourist presence, and the need for guidance devices for its visitors becomes essential. The volume of the infobox, as can be seen in many examples and case studies, comes from the principle of the box, which can take various forms, from simple expansion or extension, to the addition of new portions, to its section with new geometric shapes. The project proposal, which does not want to aspire to any compositional quality but rather to act as a tool for experimentation, takes up exactly this initial concept, developing from the pure form of a cube, and opening, like two doors, on two sides.

The final result is an environment that allows both stopping and crossing, a gate but also a room that anticipates and directs individuals to discover the city. It is a construction, a small architectural cell where everyone can contribute to its life, to its preservation, to its lively and multiform entity. It is a place, above all, where the exchange of ideas represents its deepest reason for being.

The idealisation of the infobox as a flexible object, mobile in its configuration and adaptable to circumstances, confirms its multifaceted value, making it a dynamic object, capable of being designed and shaped by its explorers. Its functions condense information and entertainment, aggregation and orientation. Hence also the idea of recalling traditional information devices, re-proposing them in a modern key. The skin of the object becomes a blackboard where people are encouraged to leave messages, to sketch and represent their own idea of city and architecture, expressing their thoughts and transforming the infobox into a giant mailbox.

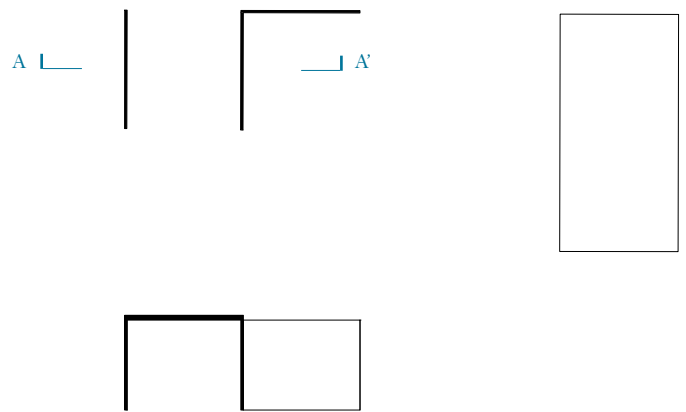


The urban device as a set of values
and needs

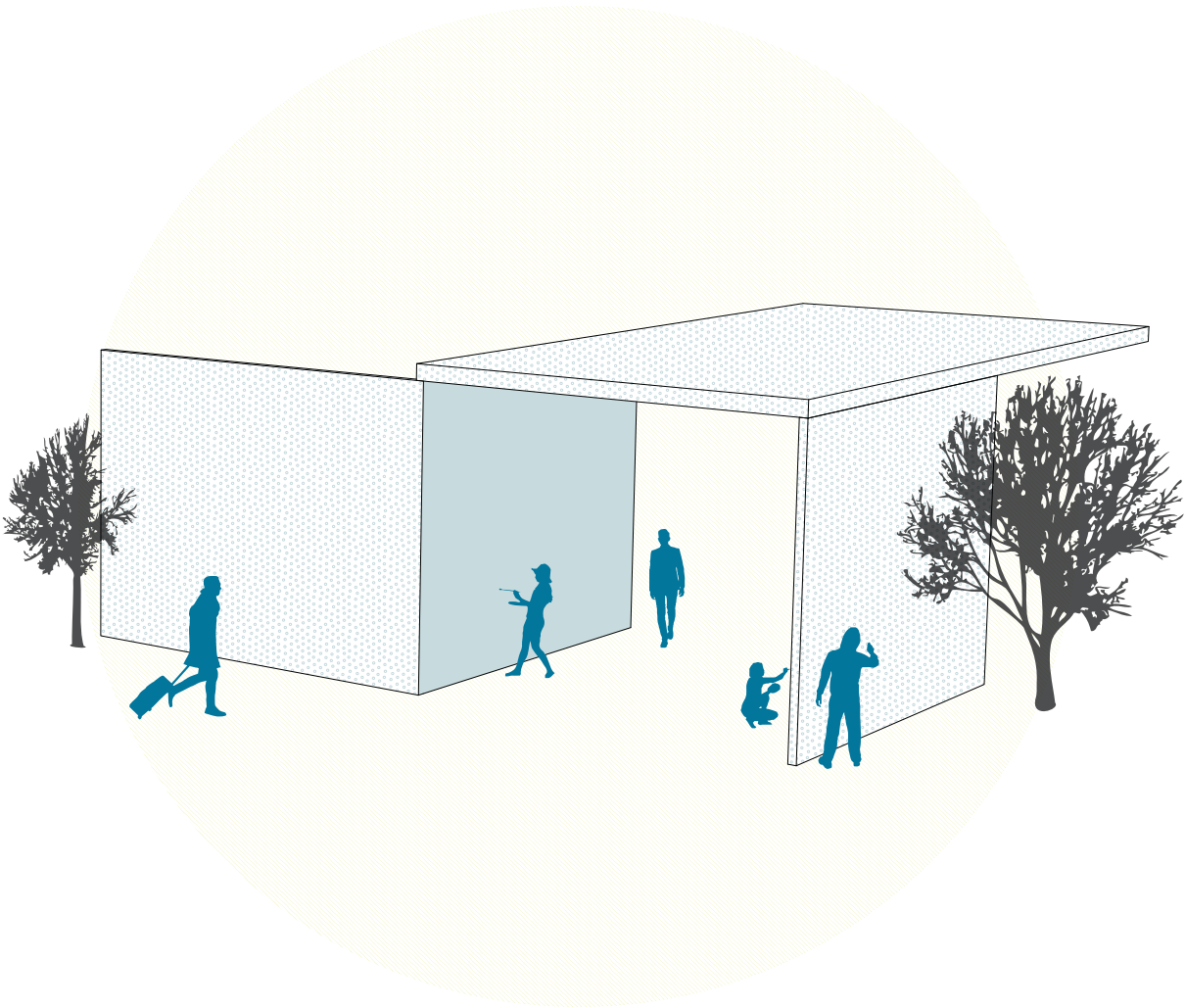


The Infobox and its potential evolutions

Infobox
Groundfloor Plan and Top Plan
Scale 1:500



Infobox
Section A-A'
Scale 1:500



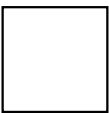
Conceptual view of the infobox

The sharing experience: Cohousing and Coworking

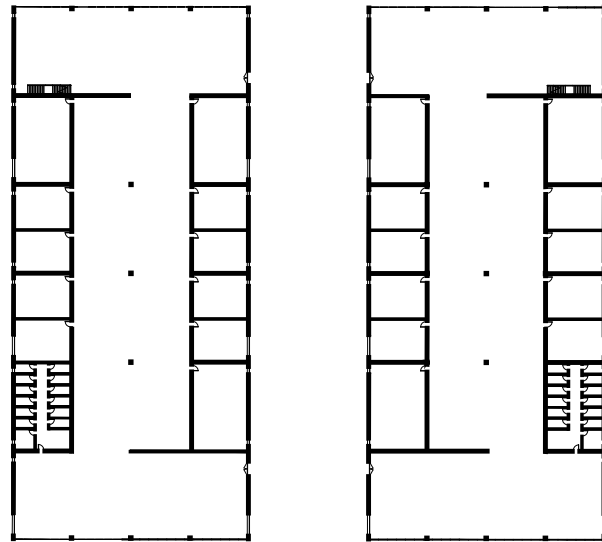
Public places, private places, shared places

The experience of living and working together is also one of the hybrid types of the new millennium. It conceives new forms of human action and relationship, whereby the integration of several individuals and the consolidation of a collective entity take place at every opportunity in life. The house is no longer the home of a small and related nucleus, but it breaks with the previous meanings to become the place of shared living, together. A small reality of citizens inside the house, which materializes as a normal microcosm of values and rules, reproducible on an urban scale. Even the work spaces escape from the ordinary perimeters and seal new environments in which to operate. They deprive themselves of any classification of users and every type of individual is admitted and hosted. The variability of people who can live, work and coexist in a given place defines its peculiar hybrid, dynamic form, activated by continuous stimuli and cultural exchanges.

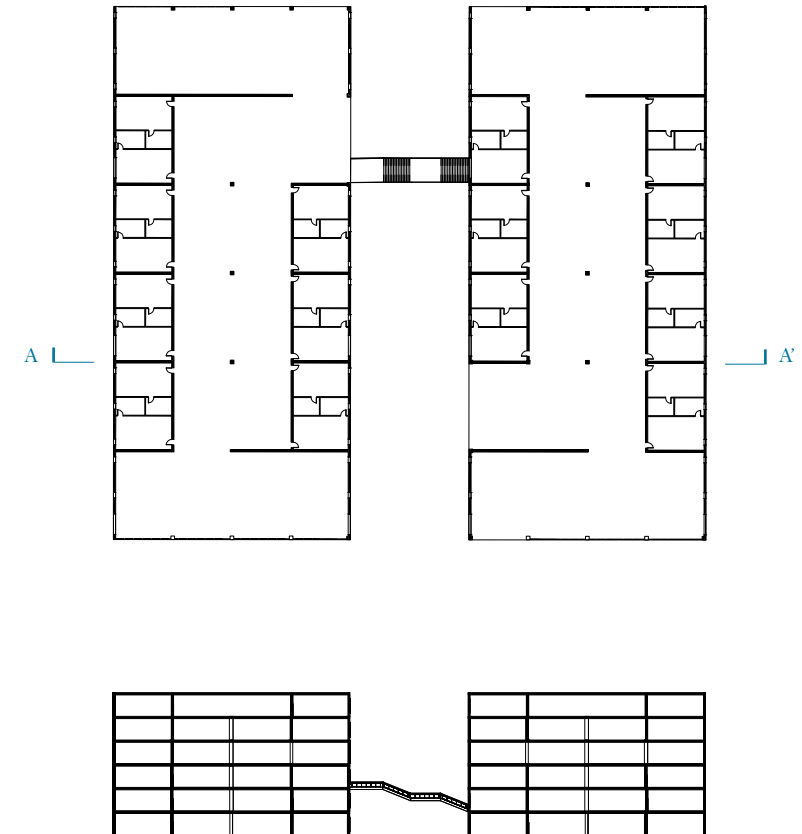
In the direct observation of the existing examples we do not perceive a univocal typological language, but rather an approach of organic identification, of integration in the existing. The structures of cohousing and coworking are born for the majority of cases inside buildings of similar destination, where the same needs of spatial distribution and related services are maintained. This is the case, above all, of coworking, whose shared environments are often obtained inside offices or building complexes destined for the tertiary sector. As far as cohousing is concerned, which in recent years has often been the subject of a new design subject, the proposals produced have always supported the lines of existing residential buildings, keeping the limits and the perimeter unaltered, and exerting greater variation inside, with cavities, diaphragms and central patios.



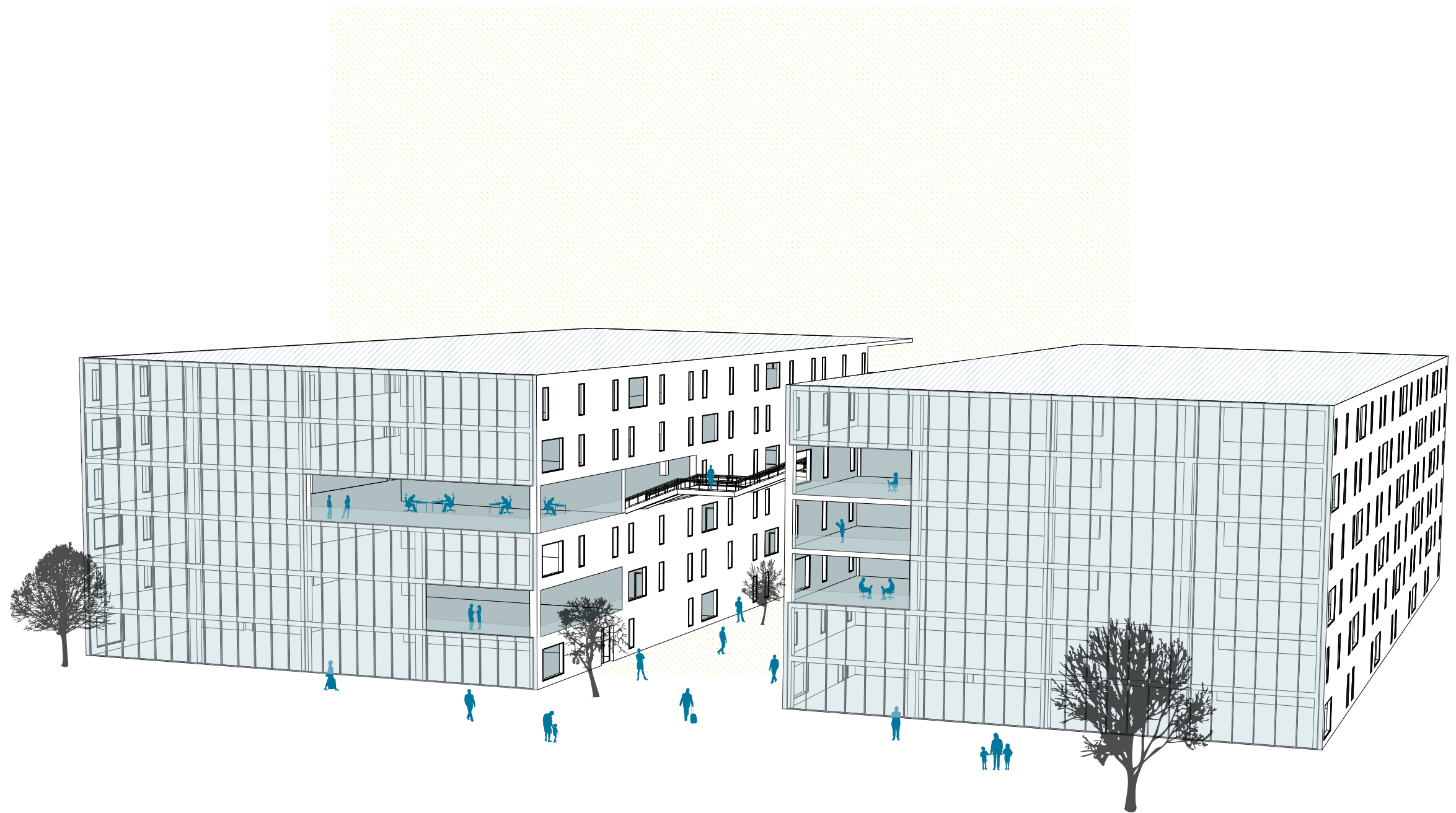
Many configurations of the shared experience



Cohousing-Coworking
Groundfloor Plan
Scale 1:1000



Cohousing-Coworking
Type Plan and Section A-A'
Scale 1:1000



Cohousing-Coworking
Conceptual view

From the market hall to the shopping mall

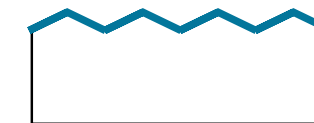
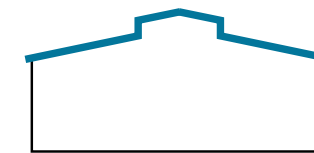
Variations and identity of the metropolitan market.

A typology that draws its architectural origins directly from the past is that of the commercial platform that in some situations, still today, plays the role of covered market. The typical fluid spatial distribution of the interior is a distinctive sign, while there are more variations in the envelope, sometimes materialized by a simple floor resting. The commercial activities that take place within this, we could say, covered square, have over time triggered transformations of stratification, accumulation and thickening. The formal derivations that meet in the contemporary panorama include both variables, from the open and dynamic system, to the skin that becomes wall, thickness, enclave. The peculiarity of this system consists precisely in the possibility of multiple hybridizations, which admit a flexibility and a functional adaptability, incessant, in accordance with the demands of a globalized society.

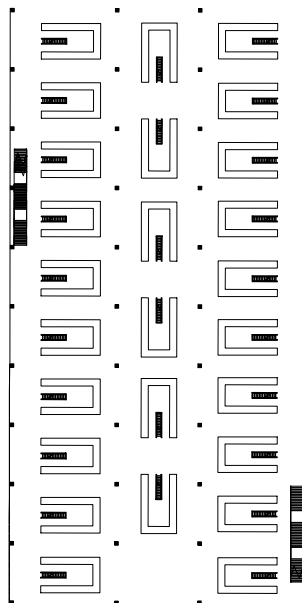
The commercial device, as can be seen today, is a kaleidoscopic object, inclined to different forms of commerce and consumption, which have changed its original structure. Especially in large cities, where digital transformations have swallowed up the old urban structures, the local market, the stand, gives way to the mega-structure, the shopping center, over-saturated with services and functionality.

It represents the maximization of the globalized personality, and continues to be an element of social condensation, a crowded place, dispersive, almost alienating in the advertising overload of sounds, images, messages. The architecture of the market is simply the stage for this fascinating drama of today's city, whose commodification is only one of the proofs.

The typological configuration proposed as a means of globalization maintains all the recognizable characteristics of the market. The fluid structure is made possible by a load-bearing skeleton left exposed, with pillars that mark the length of the building and the distances. A second level contains two floors that can be used for various purposes, while remaining substantially flexible to any activity, commercial, entertainment, leisure. The side galleries emphasize the sense of emptiness and volume of the building. The semi-opaque envelope allows a glimpse of the silhouettes of passers-by that circulate inside, mitigating the light, which appears soft and soft. On the ground floor there are a series of pavilions on two levels, designed to accommodate the sales activities, at the base, and consumption of products, in the upper floor.

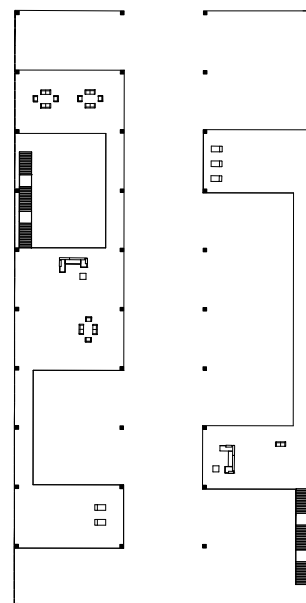


The market hall and the covering transformation

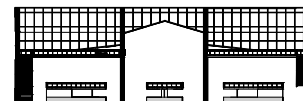


Market Hall
Groundfloor Plan
Scale 1:1000

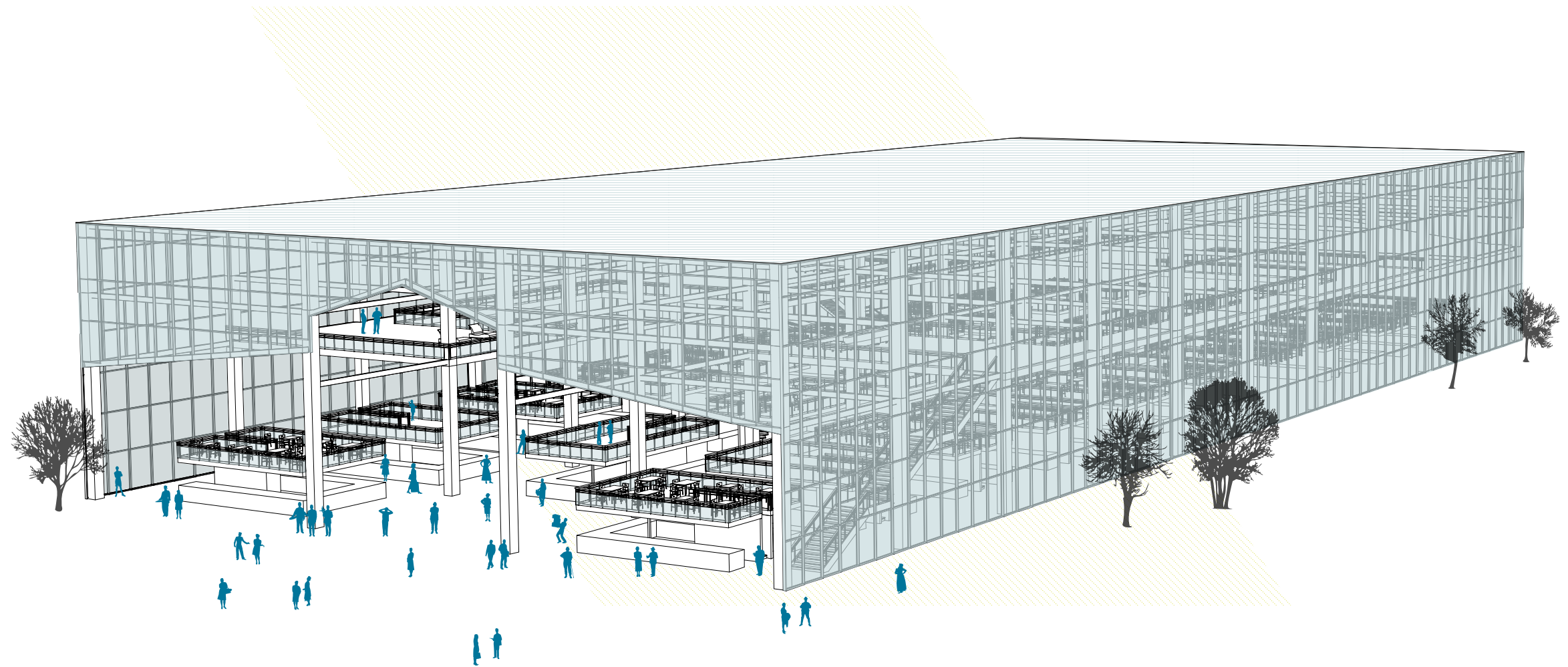
A



A'



Market Hall
Type Plan and Section A-A'
Scale 1:1000



Conceptual view of the Market Hall

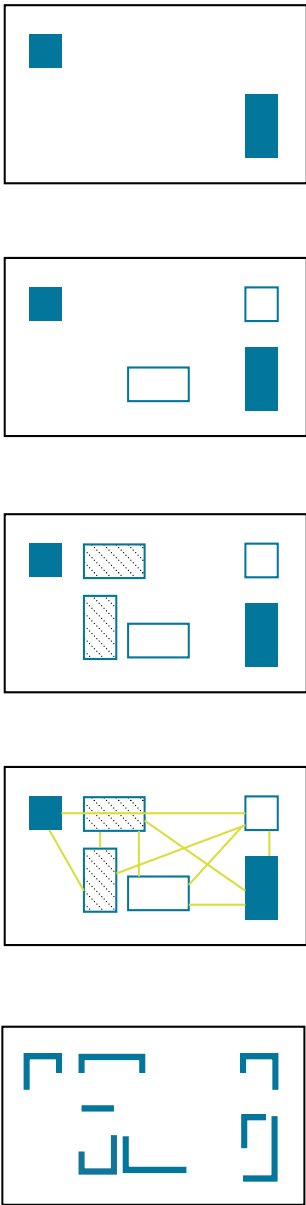
The fablab: modern digital factory

Small manufacturing business
for new contemporary needs

The latest architecture of the globalized city is represented by FabLab. It can be described as a modern workshop, a small-scale digital manufacturing laboratory, intended for the production of objects that are part of manufacturing, from electronics to carpentry. It is a space open to innovation, learning, invention and prototyping. A place that stimulates local entrepreneurship and at the same time acts as a link in a global community made up of students, educators, craftsmen, technicians and researchers.

The first FabLab was born within the Massachusetts Institute of Technology (MIT) as a collateral project of the CBA (Center for Bits and Atoms) directed by Neil Gershenfeld. The idea was born by putting together machinery for research in the field of digital manufacturing with the aim of developing programmable assemblers capable of producing objects and prototypes even at low cost.

The workshop bases its principles on the systematic nature of production processes and on the reproducibility of methodologies and results. Generally, the equipment of a FabLab includes machines for laser cutting, engraving and marking, numerical control milling machines, 3D printers, electronic workbenches. While these workshops still have to compete with mass production and the associated economies of scale in the manufacture of mass distribution products, they have already demonstrated the ability to customize products, allowing individual users to create intelligent devices for themselves. The tools can be adapted to local or personal needs in ways not found in mass production.



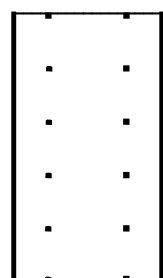
Dynamism, functionality and the needs
of an open space



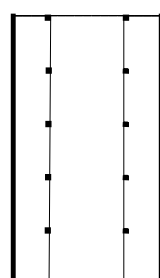
Its architectural composition in most cases is reminiscent of traditional industrial installations: the main criterion is to ensure the constant interaction of the various tools that are often needed in a single production process. As in the case of the commercial platform, FabLab's activities are arranged on the various levels of a load-bearing skeleton made up of pillars, which preserve the overall vision of the environment and make it easier to communicate in all directions. In fact, this constant need for dialogue and movement between the various users of the laboratory determines the conservation of open space that constitutes the focal point of the building. All the fulcrum of its functionality is concentrated inside it, thus maintaining an introverted stylistic language, made of opaque walls and with only a central skylight on the roof. The relationship with the context is thus null and void, without apparently allowing any form of interaction.



On the left,
above: Fab Lab in Turin city, Open
House Torino
below: FabLab of Politecnico di Milano,
Polifactory Polimi



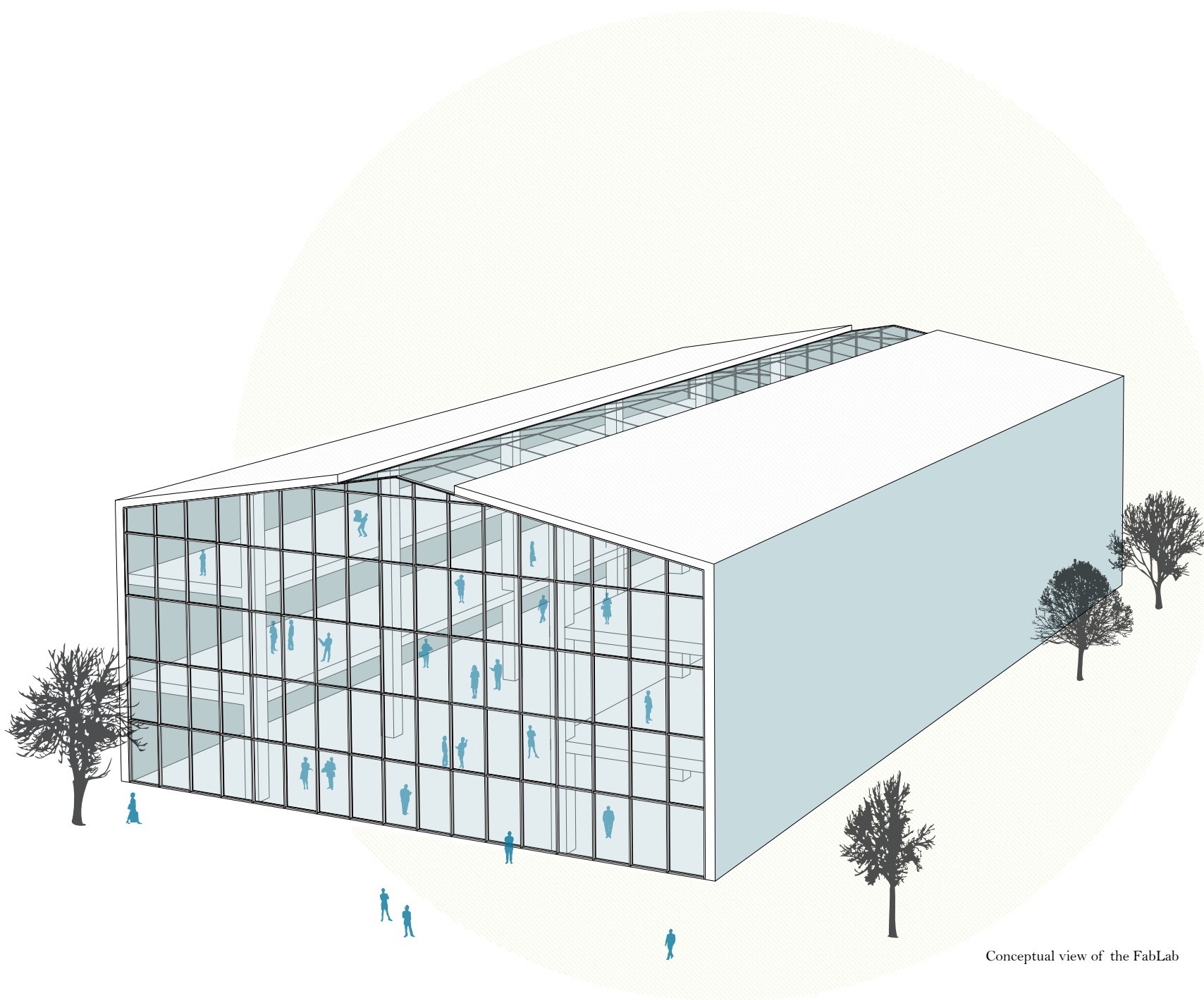
A



A'



FabLab
Groundfloor Plan, First Floor and
Section A-A'
Scale 1:1000



Conceptual view of the FabLab

4. From one project to many realities

4.1

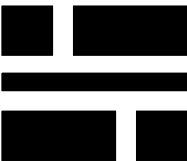
Coherence

The reflection is based on the re-proposition of architectural terms on the urban scale, introducing a design theme that in the architectural field is a substantial index of organicity and correspondence in all its intentions. This is the role of coherence, which literally incorporates the meaning of congruence in all its forms, from intellectual to physical, from thought to action. A coherent city is a city that is not disturbed by the economic and political dynamics and by the instinctive and personal impulses of its citizens, but respects its initial stylistic elements in a manner that externates that globalized conceptualization of the metropolis of the future without ever betraying its norms of reference. The urban system is validated and authenticated by all the paradigms of its versatility, asserting that universal image, that idealized model towards which it exerts its constant tension and incorruptibility.

Confirming the rules

Set, play, respect. The game of the global reality is a scheme with rules, codes and ways of interacting with the environment and its actors.

A first scenario of experimentation, which is proposed as an exercise in design reasoning, confirms the rules of the game, contemplating the reciprocal arrangement of global typologies, which are grafted onto the two urban fabrics of Turin and Lyon, compatibly with the pre-existing building. The acquisition of a rental connotation, of a georeferencing by the four categories, as well as the interface with the actors of the city reality, determines mechanisms of relationship with the context, for which the previous conditions are changed. New margins, new delimitations, new polarizations in the area pertaining to the stations, as well as new social spaces, are born. Although as far as the perceptual system is concerned, related to the image of the city proposed by Lynch, something has certainly taken on new aspects, the principles of its global entity are instead deliberately respected, and none of the global typologies is influenced or altered. This vision is in line with the idea of universalizing urban centers, invested by the preponderant contemporary movement. The urban complex is preserved in its purest, aseptic, incorruptible form, in relation to the homologated panorama towards which future evolutions are expected. It is the scenario of coherence, of uncontaminated reality, of the idealised and idealised city, that is, one that meets the requirements of metropolitan uniformity. Turin and Lyon respect a configuration in which the parallel *balance* of the known elements and their spatial occupation is preserved, then the reciprocal *hierarchy* between the polarizing centralities and the secondary, marginal objects, and the *symmetry* of each insertion of globalization in all its parts. No conclusions can be drawn in this regard, nor can adjectives of value be declared, positive or negative, since this is not the intention of the research, but rather to offer an invitation for reflection on the transformations taking place and on the potential intrinsic of an urban framework that is anything but utopian, but probably close to existing everyday life.



Balance



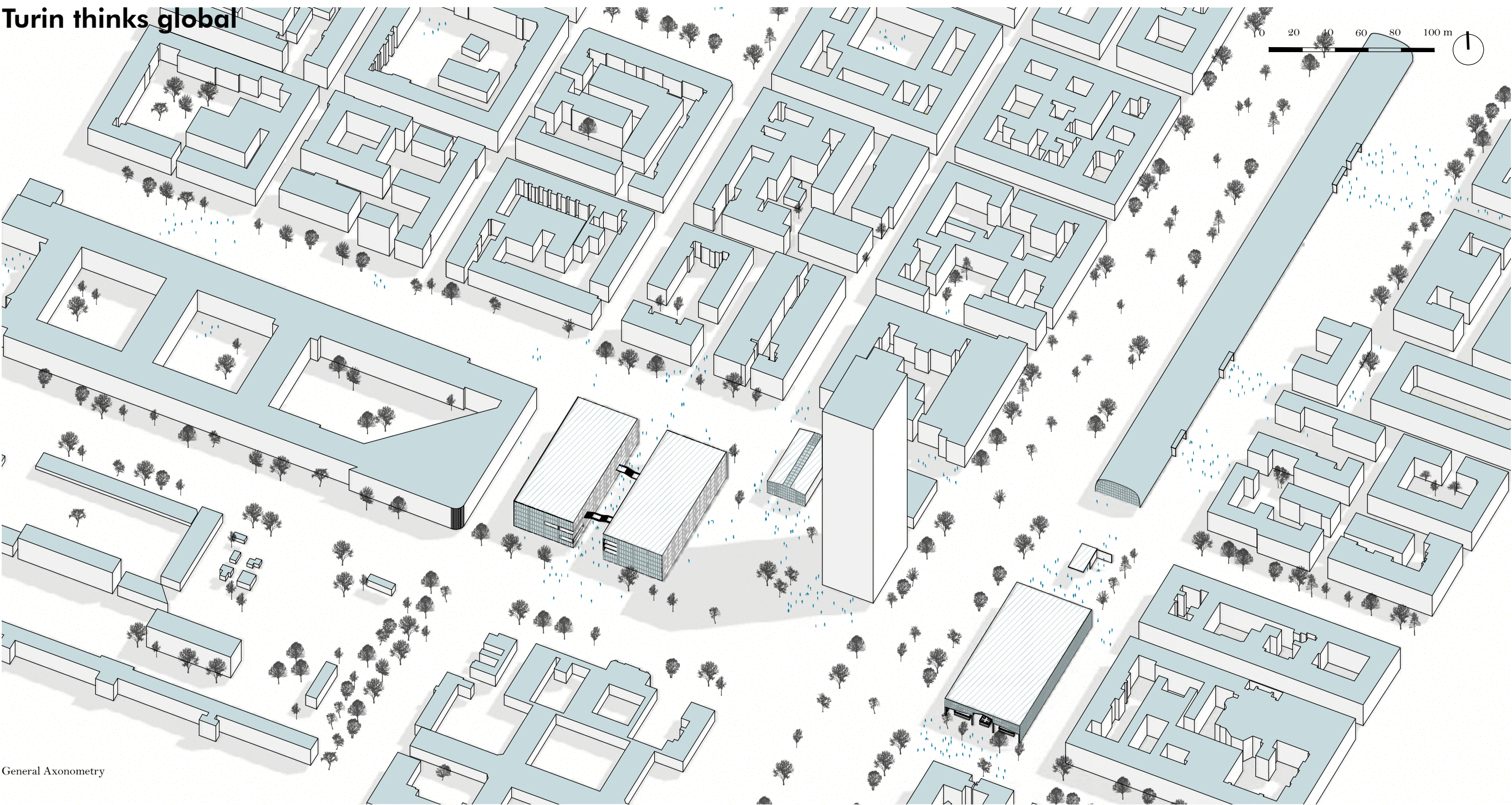
Hierarchy



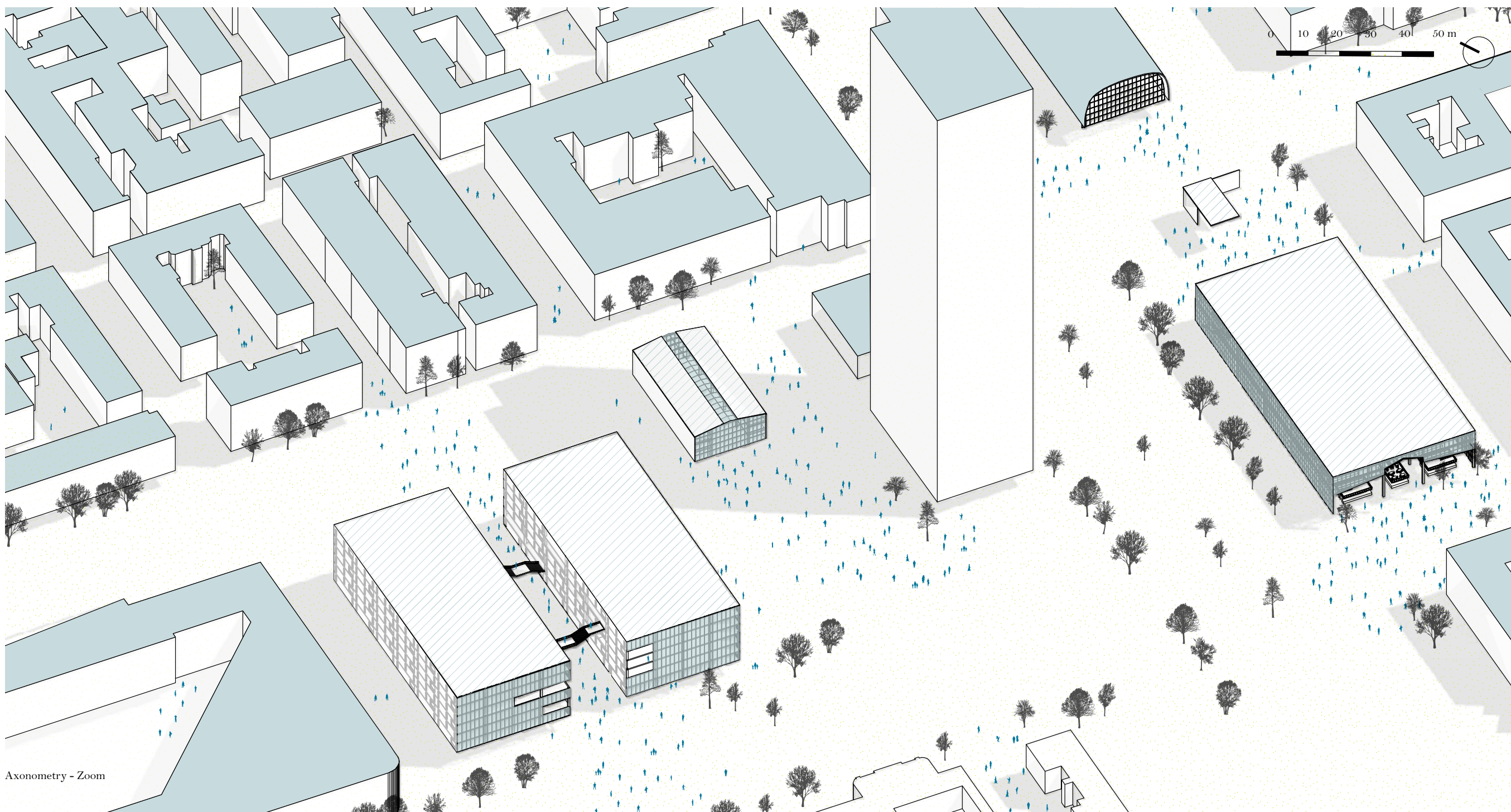
Symmetry

Design parallelism criteria

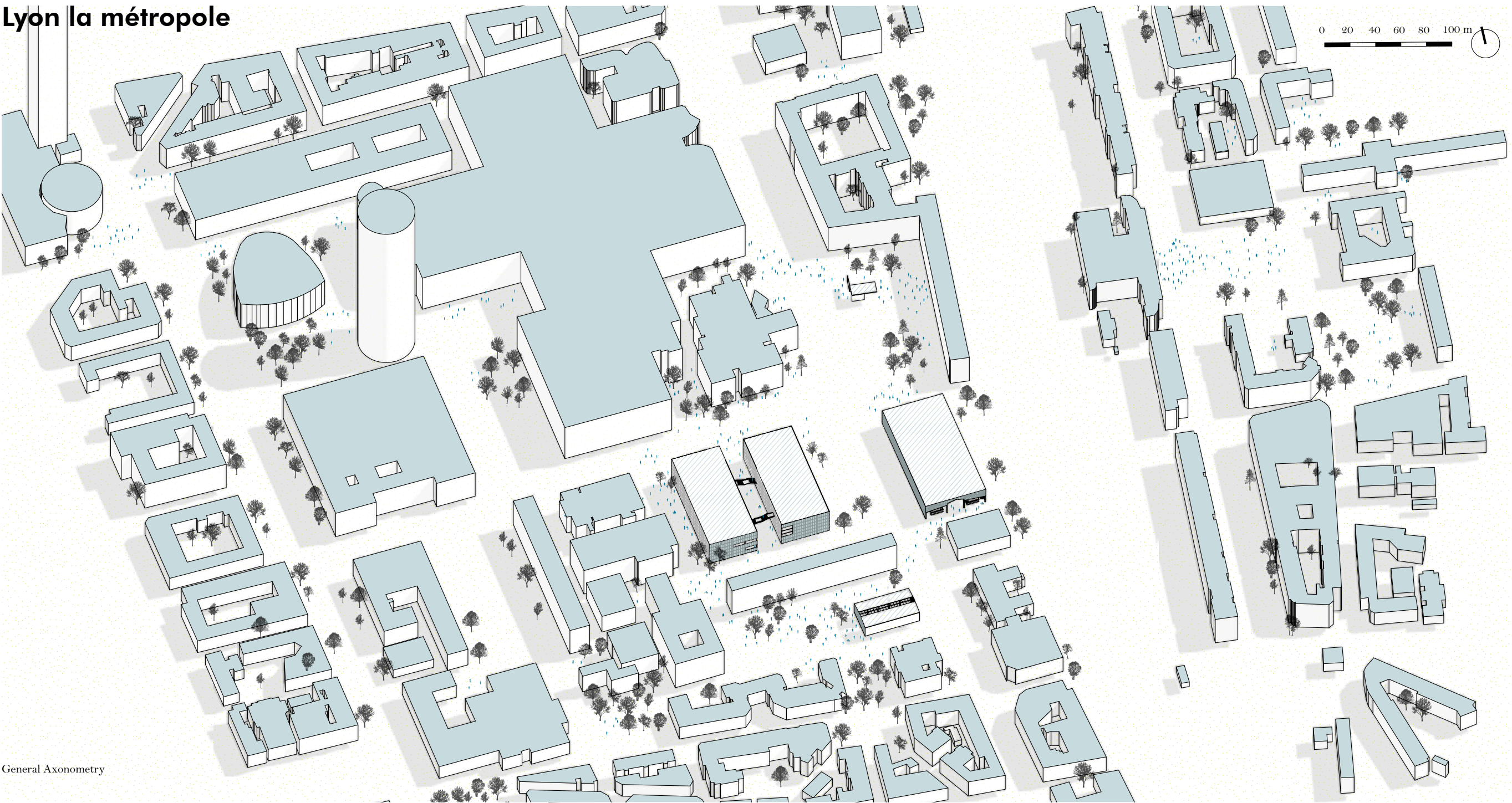
Turin thinks global



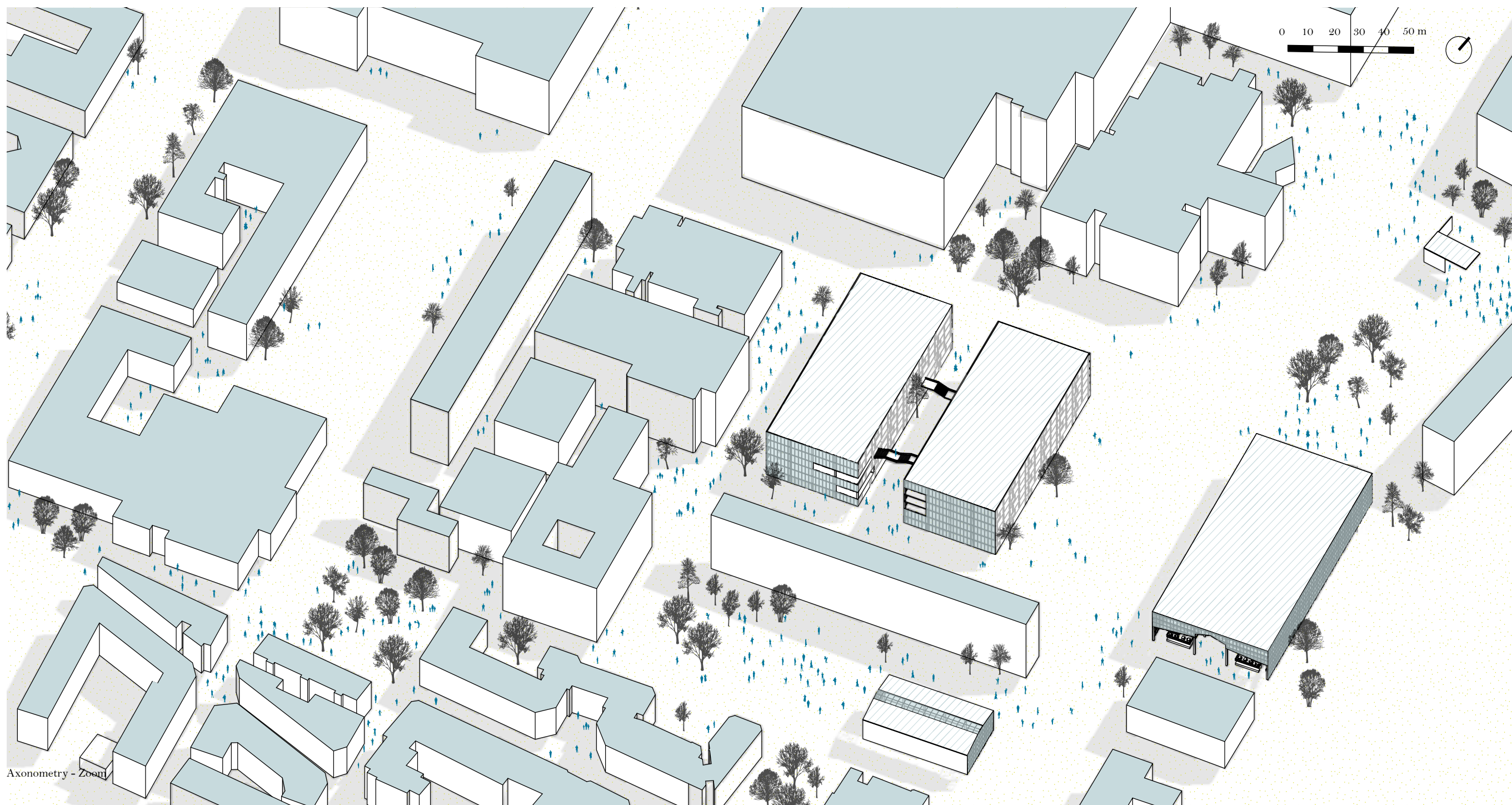
General Axonometry



Lyon la métropole



General Axonometry



4.2

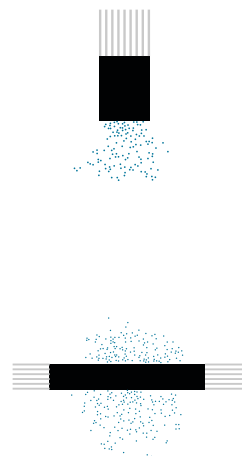
Perception

The term perception identifies a process by which individuals recognize sensations, organize them, schematize them and interpret the stimuli and sensory data in order to give them meaning. This operation makes it possible to attribute a value and a translation to the inputs coming from the external environment. Many scholars have always dealt with perception and, even today, it is a central and topical subject in the urban sphere and in design.

What is perceived constitutes a direct representation of reality, a material projection of it, reformulated and filtered by the bias and prejudices that the plurality of individuals reconstructs in every historical and cultural age. Perception gives rise to the functioning of each social system, which defines the respective ways of inhabiting places and consolidating the relationships that are established with them

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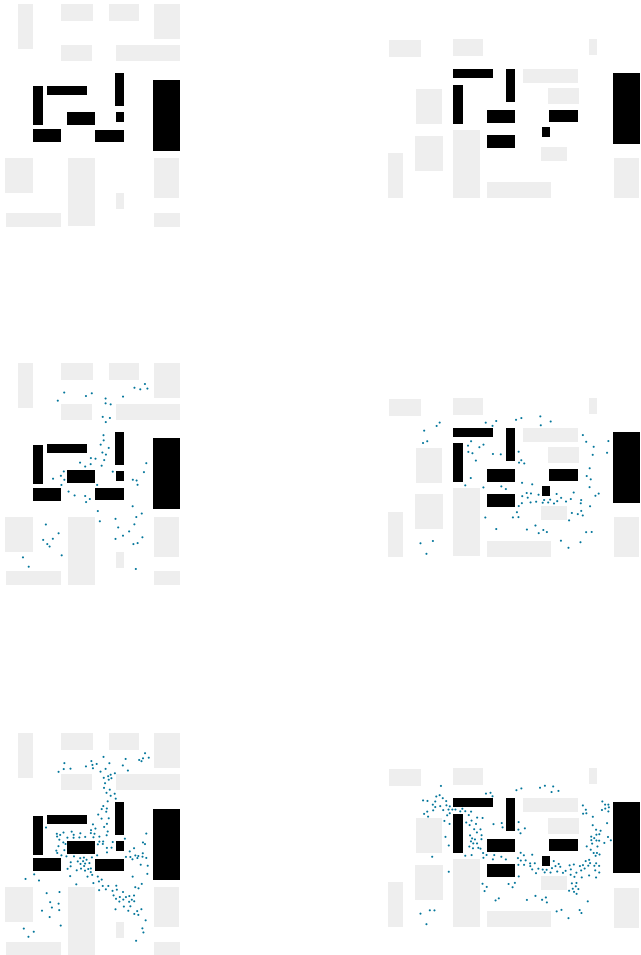
How people occupy the space



Above: people and space in Part-Dieu, Lyon
Below: Concept diagram of the flows depending on the stations

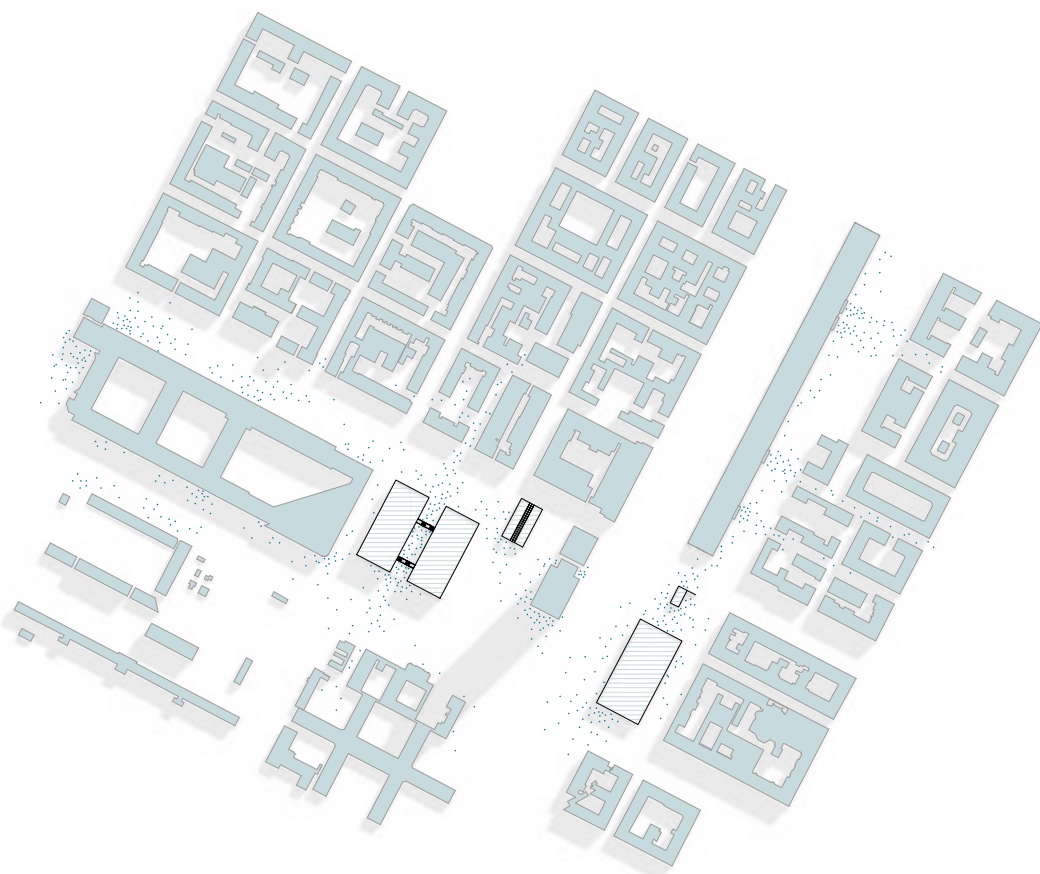
The question starts from the assumption that buildings of different types will be occupied spatially and crossed in different ways. This statement comes from reasons not only urbanistic, but also strictly related to the structure of the building, which imposes bound routes for access and accessibility, according to the perimeter, the arrangement in the context, the internal distribution, the volumetric configuration.

Thus, taking into consideration two different typological systems of the railway stations - head station and line station - although they share the same intended use, the modes of travel are dissimilar and specific. The Turin station, Porta Susa, and the Lyon station, Part-Dieu, are part of the characteristics of the second urban situation, which involves the orthogonal crossing of the railway line, generating spaces and collective occasions not on the front of the building, but in its length, along the sides.



And so, if this theory is valid for every single building, as well as for a neighbourhood, an inhabited centre, the question to be asked is: what could be the effects, the ways of aggregation, penetration and dispersion in space, given a series of identical models, repeated in two different urban contexts?

Graphic concepts of movement and the relation with space and buildings



Turin Masterplan 1:5000

The parameters to be taken into consideration are crucial: the relationship between full and empty, the sense of space, the social value of a given place, the functional opportunities and its potential forms of change. The masterplan highlights the type of spatial occupation that the community develops within the urban fabric. The relationship with global typologies is highlighted by the mechanisms with which individuals pervade certain places of globalization. It is interesting to see the way in which inhabitants permeate space, generating main flow chan-



Lyon Masterplan 1:5000

nels, marked directions and establishing new links between global typologies and surrounding buildings. What results and probably constitutes the most interesting fact is that, despite the fact that the social thickening is visible in the new and existing urban poles and in the centres of reference, responding to the criteria of globalization set out above, the modes of travel, longitudinal and transversal, by contraction and dilation, are different between Turin and Lyon.

Routes define relations



rush ———

walk - - - - -

The perceptive analysis is further developed through the identification of routes and main routes that mark the mobility and movements of the place. Not only are the routes taken into account, but also their frequency and speed, which leads them to be broken down into rapid routes, running, frenetic and slow movements, walking. The quality of the passage and the length of time it takes for it affect urban perception and the collection of data,



rush ———

walk - - - - -

actors and characteristics of the places. The type of routes defines the type of experiences that individuals undertake when crossing a place. Buildings, details, parts of the context are noticed or left out, and this alters not only the relationship between inhabitants and place, but also the meaning and value of individual artifacts, as emerging or marginal buildings, shared or isolated.

Multiple



Reading the transformations of public space is one of the most effective perspectives to focus on the theme of the development of the city. The proposed elaboration is based on the overlapping of several terms of reflection, which invites us to think about the possible solutions of an urban image that considers three important morphological indexes: the grafting of new global elements, the diversification of paths that involves a hierarchy of circu-

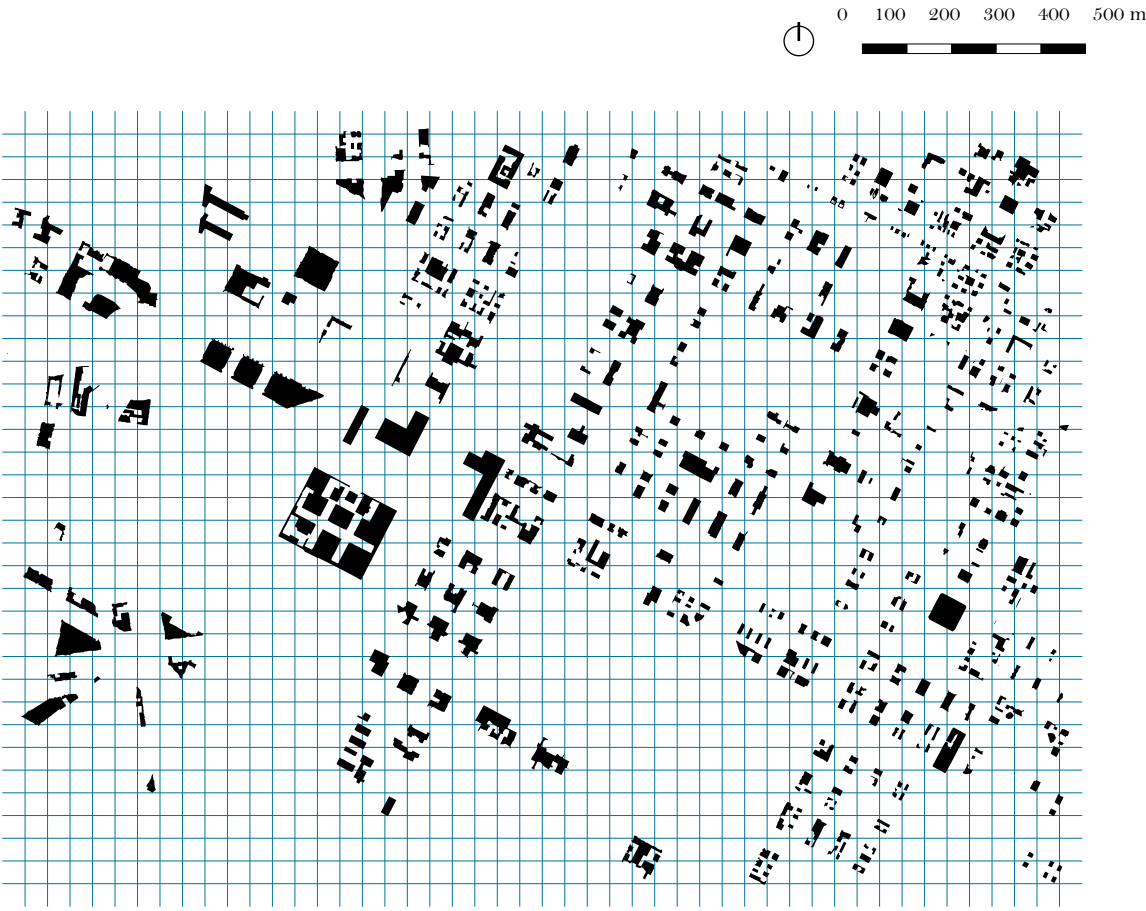
Criteria



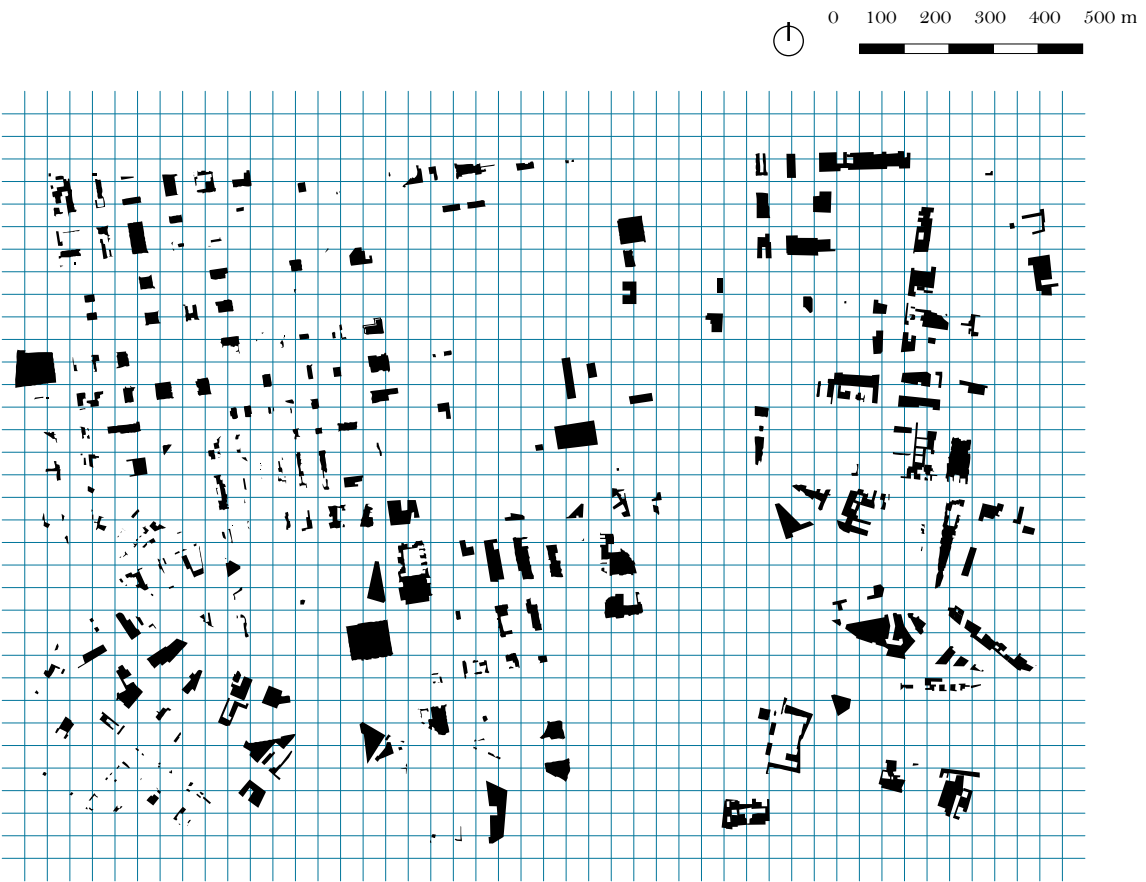
lation, the definition of shared places. How do these three measures relate to each other and what weight do they have, what influence do they have on each other?

In this paper the intention is to reflect on the possibilities of contamination generated by new conceptual paradigms. Movement and social space, the presence of homologation systems, the perception of loneliness or of the crowd.

New faces of the void



Just as the starting conditions have changed, establishing a framework of rigid connections and pre-established ways of relating, the new urban criteria have sanctioned the alteration of the voids, and also the ambiguous spaces, partially public or semi-private in their sphere of individuals involved, as well as the interstices, are shaped and conformed to new forms of integration with the hybrid



types. The transformations, even if visually minimal, constitute a significant impact on the level of the community. The perceptual metamorphosis determines the consolidation of new metropolitan symbols and all the analyses previously carried out lose value in their continuous redefinition.

It is clear the process of new weighting and metabolisation to which we are led, at a time when it is essential to think about the efficient agents of this unstoppable paradigm shift.

Within the limits within which it is legitimate to outline a historical-critical process, facing an era that is becoming increasingly well defined and self-referential, it seems fundamental to take into account first of all a series of data that provide completeness to our vision of the whole. To begin with, we must consider what are the social assumptions of a specific context. Each building, and each urban aggregate, is the result of a previously formulated building program. This is based on the economic situation of the country and of the individuals who promote construction, and on the way of life, on class relations and on the resulting consumption. Intellectual assumptions are also clearly indispensable, which differ from the former in that they include not only what the community and the individual are as human entities, but also what they want to be, what they aspire to, the world of their social myths, aspirations and religious beliefs. There are also the technical prerequisites, namely the progress of the sciences and their craft and industrial applications, with particular regard to the technology of the construction industry and the organization of the construction workforce.

Finally, the figurative and aesthetic world, the set of concepts and interpretations of art and the figurative vocabulary are not negligible³⁶. In addition to this, as already noted in previous elaborations, there is also the spatial interpretation of an urban center, which can be broken down and evaluated according to its content translations content, the physical-psychological manifestations, according to which even an urban organism is able to express feelings, moods, tragedy, and the most formal interpretations.

Having to draw new conclusions about the capacity of the void to self-determine itself in the urban complex and to declare renewed social values, the void is undoubtedly an element with a strong speculative potential, where the opportunities of new mechanisms of life and human expression are enclosed. It is in the void that the movement and interpenetration of its inhabitants is exercised. It is an environment crossed, ploughed by directions and by polarizing calamities, which is realized as a living and active place, inborn by messages, communications, by the extreme dynamism and fluid flow of contemporary society, which manifests its spatial criteria in the moment of its movement, wandering, moving. And if emptiness and individuals are part of a link now obvious and irrefutable, in the urban metamorphosis are identified principles setting: customization is also a spatial conquest, inevitable, unplanned, but absolutely genuine.

³⁶ Maretti M., *Saverio Muratori: il progetto della città = a legacy in urban design*, 2015

4.3

Personal spaces

Personal spaces conceive of a spontaneous and unregulated use of architecture, understood as free of all the rules and conventions imposed by the globalized system that marks orders, sequences, modes of action. This scenario is undoubtedly an anthropological factor, or perhaps we should say anthropocentric, substantial. Independent personalities, as attested by the thoughts of Muratori, who had elaborated more than one reasoning on the subject, redeem their autonomy in acquiring a more open attitude towards the procedures of spontaneous culture. Living on this more legitimate and ample capacity for exchange and exchange with the real values of society and history, they are in fact able to elaborate a more self-sufficient and more convincing personal production, which becomes at a given moment, a determining element for the collapse of functionalism.

How people use the space

Why do we have a mind, if not to get our own way?

³⁷ Koolhaas R., *Life in the Metropolis or The culture of congestion*, in Architectural Design, 1977

In the last chapter of the discussion we can find the upheaval of the theme. The scenario of personalisation outlines the mechanisms of an opposite situation, in which instead a potential influence of the historical and identity component on the new products of globalisation is taken into account. The way in which a space is designed and conceived in its intended use, in its functional sequences, in its schematization of the elements, does not always coincide with the way in which this same space is exploited. The target group of users on the basis of which a building is designed is essential for its realization as a functional entity, active and reactive towards its public. People as well as the surrounding urban reality are able to destabilize the meaning and intentions previously attributed, and to deform the initial prescriptions to give new arrangements³⁷. It is the people who educate the space that surrounds them, live in it and domesticate it; it is a heritage of knowledge, cultures, experiences, traditions, at the same time providing the people who live in a certain place with the directions to take for growth, for their continuous enrichment over time. They build an anthropized, personal place and make it part of their daily life, therefore in a certain way private, identity and therefore different. In this way we could reintroduce the strongly social theme of individuals and the production of places, for which the anthropic and identity factor returns to be understood as a matrix and connective tissue of the ways of living space and living in the city in all its forms and mutations.

³⁸ Koolhaas R., Mau B., *S, M, L, XL*, 1995

These considerations derive from the awareness that our current idea of *home* is continually adapting in the different temporal junctures that mark our existence. We need places. We spend most of our time, so to speak, making room, precisely because as human beings we need to relate, to bond with others. Every day we create sketches of places, although they can be ephemeral and superficial³⁸.

Places of habits. Places of a routine that nowadays becomes more and more necessary and sought after. New rules, new social codes are being established. And not only is the hybridization of globalization being encouraged to the fullest extent of its capacity, but new practices of use are being misrepresented and introduced. We can speak of characterization of architecture, or rather, processes of individualization, which characterize it with new identity traits, related to the single social recipient to whom it addresses and interfaces. These mechanisms reformulate identity traits through processes of *contrast*, isolating peculiar aspects, as well as through the accentuation of a *rhythm*, a variation of the building template, and the *emphasis* of singularity on mass. When forms of appropriation of space are admitted, new scenarios can be glimpsed, new urban perspectives, perhaps unattainable, perhaps extremely concrete.

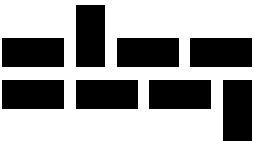
How is all this translated into the realities of Turin and Lyon? The effort that is made is to imagine a new form of home, a new conception of feeling at home but within the city. Probably there would be those manifestations of humanization, appropriation, typical of human nature that lead us to identify something as familiar, just, close. If in Turin we identify crucial paths, lines of passage, paths of social activities, and fulcrums of greater human interaction, it is not so difficult to hypothesize devices or expedients that accentuate or simply better justify these inertial implications. So why not fantasize, in the central court of Cohousing and Coworking, on a large neighborhood pool, a hybrid form where the public and the private mix in the complicity of the participants. A place of leisure but also of paradox, an object apparently foreign and far from the initial urban context, but after the possible weightings, never so apt, true, authentic. The same result could be verified in the commercial platform, where the routine needs of the day give way to the mo-

ods and impulses of the night, and the large pavilion is transformed into an immense musical square, a place for concerts, exhibitions, theatrical performances, but also a place where to express oneself in dances in the most instinctive way.

Even Lyon, in these exercises of paradox and absurd truth, can transform itself and rediscover its truest sense of home. Lyon the house, understood as an environment of extreme representation, exact reflection of its inhabitants, who identify and recognize an innate sense of belonging, of identity precisely. The conventional box of the infobox is broken down into its infinite possibilities, which as a hybrid object confirm its functional versatility. From a simple hub, or if you like, an access gate to the city, the cube turns into a street library, open, accessible, free. The location in front of the authentic and imposing municipal library not only recalls the idea of a service extended to the urban form, extended to the public space, but could perhaps suggest new forms of place-making, new tools, plug-ins to create the dynamics of neighborhoods, neighborhoods, which today seem to dissolve on a large scale of the metropolis. And what else about FabLab? Why not imagine a reality in which the digital takes possession of architecture, approaches it, in the most spontaneous and allusive way of the domestic environment: the opaque envelope becomes a large white sheet, in which to project the desires and uncertainties of a society that still today, is not fully realized, if not by inhabiting its time, present or future.



Contrast



Rhythm



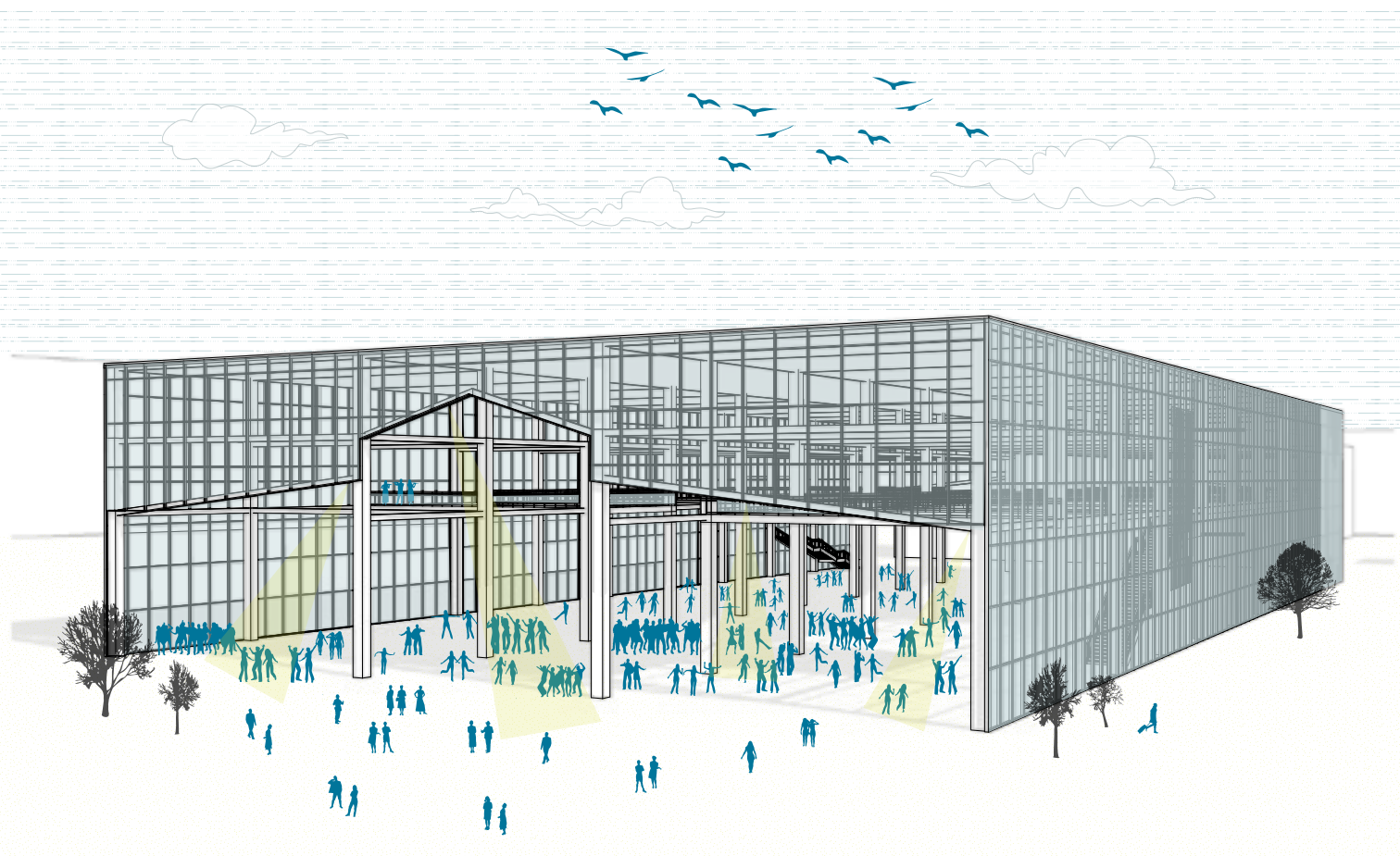
Emphasis

Diversification expedients

Turin acts local

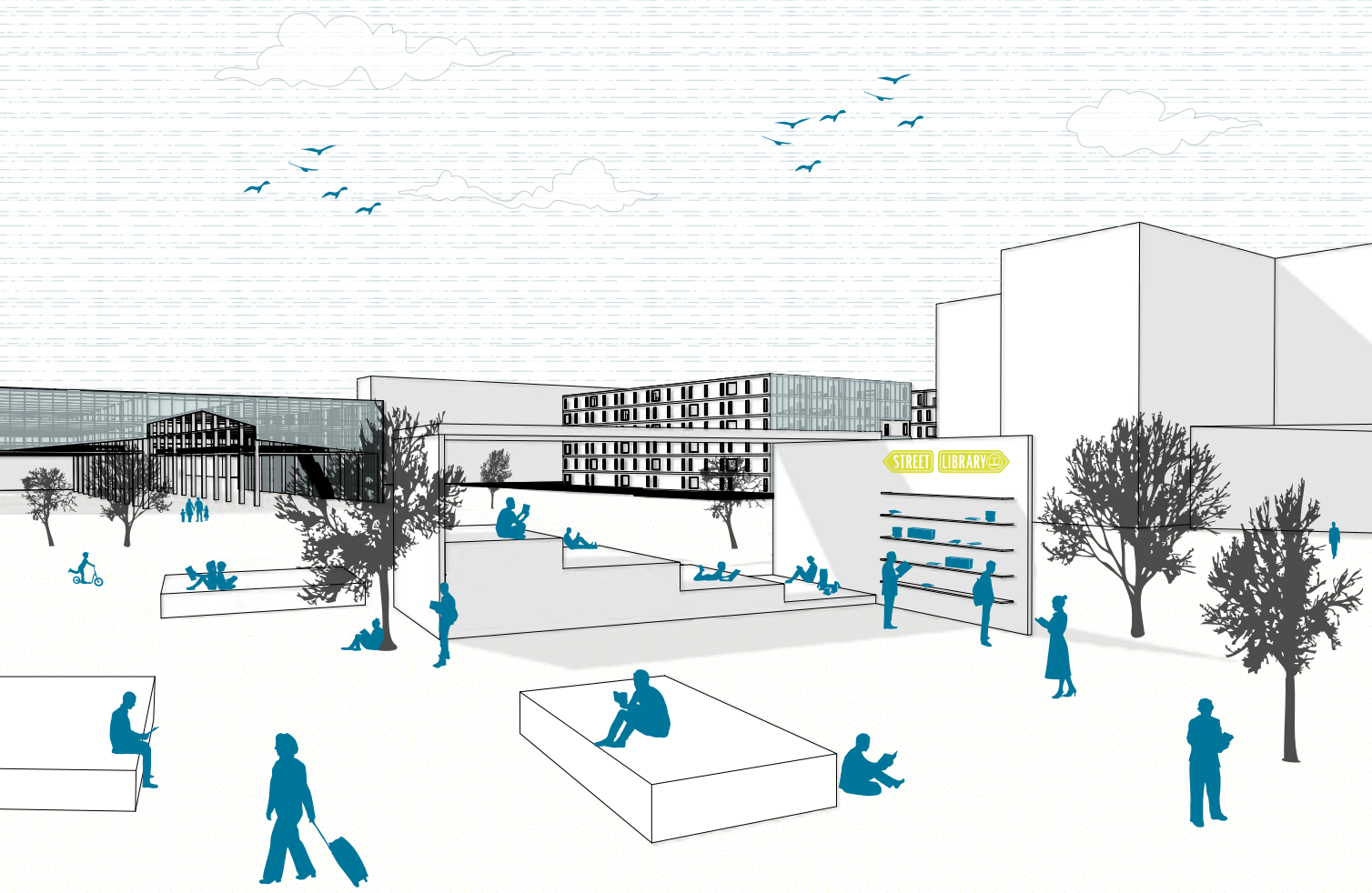


Cohousing - Coworking view



Market hall view

Lyon la maison



Infobox view



FabLab view

Towards a new awareness

The phenomenon of globalization establishes new urban canons, new tools of dialogue in the city and new social processes. The drastic transition to the contemporary metropolitan condition is determined by the fluidification, the disconnection of two categories that until then had always been linked: those of space and time. Everything looks directed towards a standard language, satisfied by recognizable elements that make up the space, and make it safe, familiar in its sameness. In the contemporary city, monotony, or rather the ordinary, is a reassuring thing. This researched feeling of comfort in rediscovering the genericities of our daily sphere seems to contribute to the erosion of the urban image itself. It happens by streamlining and synthesizing the urbanity formal aspects, generating increasingly similar, homologated built environments.

Metropolitan areas are configured as drivers of this historical passage, which is conceived as radical transition era, even for the plan-

ning dimension. The effects on the urban fabric are significant and they involve the birth of new actors in the city. New communication spaces are generated, and others are suppressed. This is something in constant motion, about which the infrastructure systems control the boundaries and directions.

Turin and Lyon prove that: not only the big capitals, economic hubs, but also the medium-sized cities, are facing the competitive market of the idealization - in terms of branding - as well as the opportunities, the experiences that the city can offer. The local, identity and cultural aspect represents the most profitable resource of metropolitan growth and, at the same time, the negation of its global concept. The idea of identity is crucial for us as individuals and as citizens. The same applies to cities and the architecture that is part of them. The identity of a city comes out as a very big output that confirms a history, a personal face. The challenge that contemporary design must deal with is to achieve a balance, harmony, between urban development, the future, and individuality.

Urban morphology conditions architecture and its city, as well as the relationship with its inhabitants. Its connotations change, its perception, permeable and opaque, introverted and inclusive, integrated and detached. The direction, order and hierarchy change. The ways of living it. The intrinsic link that a type of inhabited settlement establishes with the place can never be denied. As the form of the city loses its established statutes of recognizability, the subsequent dissolution of the specific form of traditional public places is evident.

A city can be considered unitary in its conception, but infinitely plural in its phenomenal manifestations. Its stories, its identities, are the product of the territorial readings implemented by different human civilizations. Stories and identities of which it is possible, however, to rediscover and interpret as a new reconsideration, the traces.

These signs constitute the latent substratum of every urban adventure. They tell of the civilization that inhabits the place, of their culture of settlement, of the territory. The semantic value constitutes a vehicle of knowledge of the anthropic landscape. In fact, social phenomena are capable of influencing the perceptive modes of the places and consequently their very physicality. The coagulation of new modes of collective expression that are revealed on the urban context also generates the construction of new models of shared places, which the citizens of the new era live or would like to live. The continuous regeneration of these spaces is aimed at achieving a new sense of living, more current and personalized with today's society, where the terms of hybridization and contamination are outlined as the most promising combination.

The load of values, criteria of judgement, and meanings that the urban entity leaves us once we have understood it has a depth and depth that cannot leave us indifferent and unchanged. They are concepts that are consistent in their relevance and concrete in their manifestation, still extremely present, but at the same time extremely difficult to metabolize, at a time when urban entities are constantly changing, and with them we also change ourselves. The spirit that can be sought most with each new and inevitable alteration of urban space is the one that most involves and belongs to the profession of those who design the city, live it and codify it: being an architect means exploring the complexities of the world, trying relentlessly to understand it, to give it a sense and a meaning.

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