Visible Cities:

Methodology Studies on the Strategy of Analyzing Cities Graphically

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Presentation:

And Polo answers, "Traveling, you realize that differences are lost: each city takes to resembling all cities, places exchange their form, order, distances, a shapeless dust cloud invades the continents. Your atlas preserves the differences intact: that assortment of qualities which are like the letters in a name."

--Italo Calvino,*Invisible Cities*

Cities may look very dissimilar to a generational monarch and a dusty traveler. The monarch who has reigned for many years sees the city as an ever-expanding frontier, though perhaps eventually it will dissolve into nothingness. And in the description of the foreign ambassador he sent out, it seemed like a collection of unrealistic contradictions. Even for a monarch like Kublai, who had already seen plenty, we are not sure that he could read these invisible cities in his mind. In the final chapter of the story, Marco Polo gives the king this answer about the atlas. The importance of using atlas to read the city is, like Marco Polo elaborates here," the letters in a name(Calvino 1978, 138)." [1] Therefore, in the ever-flowing river of the times, when people are engulfed and constantly moving towards, there may be some possibility to find certain pristine but effective visual methods to record the cities in the era

1. Calvino, Italo. 1978. *Invisible Cities.* Translated by William Weaver. New York: Houghton Mifflin Harcourt.

we live in. Perhaps the "city built on a spider's web" or "the city where people go crazy every day" in Marco Polo's mouth can actually find some resemblance in these specific atlases.

The research began with a novel about 50 fictional cities, but it also led me to think about something that is not fictional. If cities can one day be designed outside of the physical realm, how can we build blueprints for urban design in the virtual world just as effectively? Designers will always need to have a way to paint the city in our minds, as important as each letter in a name.The definition here of an atlas is not only maps, but also manually drawn sketches, mechanically drawn axonometric drawings and various forms of analytical drawings. There are concrete and abstract ones, as well as collections derived from different architectural theories at different times. Even at the end of the case studies part, I tried to create an original map of the city, based on the representation of a city from the story but doesn't necessarily exist in reality, meanwhile using very realistic information that I gathered from the city I live in currently. This may be a tentative experiment, but at the same time it can be a relative proof that maps can be helpful in proving the readability of a city. In other words, atlas is a vital form of interpreting cities, together with all the possible activities that might be happening there. By analyzing and studying them, we are trying to proof here that with the help of atlases, all these tangible "streets, piers, tiles and walls" and the invisible "desires, death, smallness and memory" of Marco Polo`s description may become visible.

PART 1: SETTING THE SCENE

Chapter 1: Introduction

When we explore the concept of the city in the present, we may get different statements from the inhabitant and the designers. For the inhabitant, the city is the highway and the green space on the outskirts of the city, or the square for the after-dinner walk and the elevator to the door. For the designer, the city is the enlarged building, and we explore the mobility and accessibility of space, and the collaboration of different parts of function and form. But whatever the form of the statement, we need to visualize it as much as possible. In the present time, there has been a series of studies of the contemporary city through maps that emphasize the possibilities that maps can offer to reveal the spatial logic of the contemporary city. So what I intended to do here is to summarize some of the contemporary research cases, which in turn leads to the creation of as many forms of atlases as possible, so that there are more ways of interpreting the city. And in the case of Turin, where I live, it is not only the academic atlas that is used to observe the trajectory of the urban development of Turin, but also the artistic atlas that expresses all the activities that can take place in the city.

1.1 Research Aim

In this research, I hope to investigate the possibilities of the atlas in an attempt

to shed light on how urban space can be interpreted. The inspiration is the fictionalized city of the novel, but also the history of Turin's urban development from the post-World War II period to the present day, as well as the current state of the city's development.

1.2 Setting the Scene

The motivation for the atlas research came from the trying of interpretation of urban morphology, specifically from the existing literature on urban morphology. In this context, the research report starts with the existing case studies. Five case studies of atlases are presented: Beijing, Tokyo, Hong Kong, Rome, and Aldo Rossi's theory of the analogical city. Through these five case studies of urban atlases derived from different cities and academic theories, it seeks to illustrate how visualized atlases can contribute to the perception of the city, and the corresponding critical reflections they bring. Summarizing and disseminating the resulting original atlas design project in an attempt to visually translate the city of Octavia from Italo Calvino's novel Invisible Cities. Which means that at the end of the case study part, I tried to create an original city map based on one of the fictional cities in the novel, with some analysis and summarization in order to establish a framework for the research methodology. Subsequently, based on this framework, Turin was chosen as a case study, where four neighborhoods (Mirafiori Nord, Vanchiglietta, and two neighborhoods of Lucento and Vallette) were selected to be mapped and the

actual results produced in order to echo the academic research. Starting with a brief history of the development of Turin's urban form after World War II, let's slow down and look at the atlas of these four neighborhoods. I then tried to take a broader view of the city of Turin by drawing atlases with a larger perspective. It seems to me that making the atlas studies of individual areas are more reflective of their relative historical context and development, while the broader maps of the city will be my observations of everyday life, perhaps through the lens of architecture but in a more artistic way.

In general, this would tend to be more like an observational report of the city, within the framework of the research methodology. I hope that these atlases will lead to some new interpretations and critical reflections on the continuous urban forms in which we live today, and that they may also be used later for some broader studies on the representation of urban forms in different contexts.

PART 2: CASE STUDIES

Chapter 2: Bei Jing: A Little Bit of Bei Jing

In the context of rapid urbanization, Chinese architect and artist Li Han has created a series of drawings with this theme. Here we prefer to call them drawings rather than maps, because the series shows not only the city, but also the activities of people in the urban space in the form of axonometric

drawings and the interrelationship between these activities and the urban landscape. The series is rooted in Beijing, with locations such as Sanlitun, 798, and Xizhimen, which are very characteristic of the city, and in this chapter we choose this drawing of the 798 area for analysis.

Indeed, Beijing, as perhaps the most well-known city in China, has many other cases to choose from. From the author's point of view, the city of Beijing has a strong historical heritage that cannot be ignored, a fascinating part of its rapidly evolving modern and contemporary architectural process. This series of works by the pioneering artist and architect Li Han shows a powerful combination of order and disorder. It is interesting to note the relative disorder of the human activities contained in the millennia of history, such as the humanistic feelings in the hutongs, the mutual care between neighbors in the traditional courtyard Siheyuan, and the changes in the lives of the common people at the foot of the solemn imperial city. However, the location of these humanistic activities is organized. For example, the development history of 798, formerly known as the Arsenal, is an extremely organized architectural sequence. And looking at the atlas itself, the human activity reflected in its intricate details is admittedly disorderly, but the axonometric form it takes is extremely orderly. With this awareness, I would consider this a case worth examining.

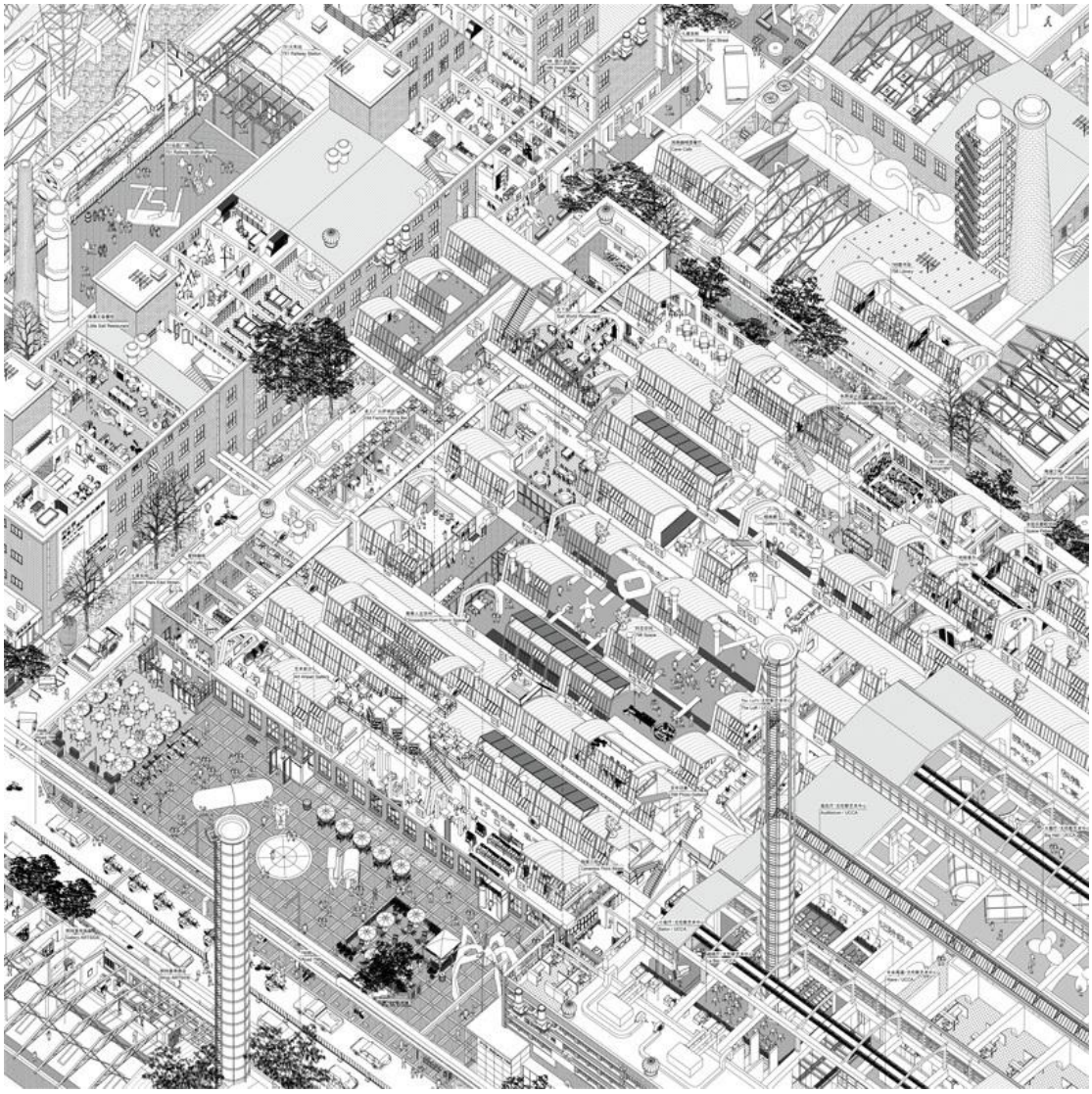

Fig2.1 The drawing from *A Little Bit of Beijing: 798 area.* Li, Han. 2018. *A Little Bit of Beijing.* China: Tongji University Press. pp. 8-9.

2.1 Brief Background of 798 Area

The 798 area was once the setting for a busy group of military production complexes, which began in the 1950s with Soviet assistance. However, due to a lack of necessary construction electronics at the time, the construction program was shifted to East Germany. The building plans were left to the Germans, who chose a practical Bauhaus-style design over a more decorative

Soviet style, causing the first of many disputes between German and Russian consultants about the project. The form follows function plan required large interior spaces designed to allow the greatest amount of natural light into the workplace. The arched support sections of the ceiling would curve upward and then descend diagonally along highly sloped banks or windows; this pattern would be repeated several times in larger rooms, giving the roof its characteristic jagged appearance. Despite Beijing's northern location, the windows all face north because the light coming from that direction casts fewer shadows(Wikipedia 2023).[2]

After nearly 50 years of rise and fall evolution, this huge factory system ushered in a disintegration in the early 1990s due to changes in national policies and industrial restructuring. Although the 798 factory has been decayed as a factory, it has created historical conditions for the art" 798" area and lit the fire for the art scene. In 2000, the Central Academy of Fine Arts officially moved to a new location, requiring all faculty studios to be eliminated. Reluctant to close his studio, Professor Sui Jianguo rented a room of 80 square meters at his own expense and continued to create work(Yang 2016).[3] Up to this point, this can be seen as the beginning of the influx of artists into this abandoned factory area. And the huge complex of buildings

2. Wikipedia. 2023. "798 Art Zone." last edited April 15. Accessed April 23, 2023. https://en.wikipedia.org/wiki/798_Art_Zone.

3. Yang, JianFei (杨剑飞). 2016. *A Study on the Life Cycle of Cultural Industry Parks - A Comparison Based on Chinese and Korean Parks (文化产业园区生命周期研究--基于中韩园区的对比).* China: Social Science Documents.

in strong Bauhaus style created a unique and controversial art space in the context of such times. At the same time, Beijing is a city where it is impossible to ignore the richness of its history. So when we try to read through this part of the city, you will also find that it contains traces of history, such as the exposed sky-high chimneys and the slogans on the walls that say "Hail to Chairman Mao" and "Run to Communism".

2.2 Axonometric Drawing

Axonometric is a parallel view, originally a type of engineering drawing, characterized by the absence of a vanishing point, which means that the longitudinal projection does not shrink as it converges towards the vanishing point, but remains parallel. Theoretically, we can draw endlessly. It is this endless possibility of "big" that is particularly appropriate for the 798 Art District. What we may see is this limited square of this drawing, but there is no sense of boundary. This not only includes the "bigness" of the old factory complex, but also the "bigness" of the bustling people and various activities in this art space.

At the same time, as mentioned at the beginning, the axonometric drawing provides a strong sense of order, which contrasts with the complex disorder of human activities in the drawing, and somehow mirrors the historical character of the 798 area. The concrete forest with its historical scent is still there, but the new buildings and the possibilities of human activities they

bring will grow freely in it.

2.3 A Closer Look

Moving elements in a city, and in particular the people and their activities, are as important as the starionary physical parts. We are not simply observers of this spectacle, but are ourselves a part of it, on the stage with the other participants(Lynch 1960, 2).[4] When we look back at the history of the 798 neighborhood, when these huge factory buildings ended their original work and what brought them back to life, was the influx of artists and the ensuing artistic activity and collision of ideas and all the possible things that were brought by the people. When we read the area more closely with a bird's eye view, these tangled little details are not overlooked, but with the help of the infinite possibilities of axonometry, they are all included as much as possible. As Lynch elaborates here, these are the "moving elements" that we cannot ignore, and are even key factors in understanding the area. We can see that the drawings unapologetically show the bare steel frame of the factory, even the forklifts still working on the street, the neatly and solemnly arranged semi-circular roofs, a complete display of an industrial framework with the mark of history fifty years ago, and what fills this framework is the people who freely walk through the factory that has been turned into an art exhibition area after fifty years, people who stop in front of a painting, people who sit in

4. Lynch, Kevin. 1960. *The Image of the City.* United States of America: The MIT Press.

a small garde converted from old concrete floor and drinking coffee. All these rich information that need to be described in words are shown in the picture. Admittedly, in the end it inevitably developed a more commercial nature, and we can see that the art district has spawned restaurants, cafes, bookstores that are sparing no effort to encroach on the public space, building more street-side tables and gazebos. And these are also recorded.

The creator Li Han mentions: "The method used here is dissection and parallel sliding, which is an invisible knife that opens a hole in the occlusion to reveal the space behind... parallel sliding allows the axonometric map to bring together images that would otherwise be observed through different viewpoints into the same spatio-temporal relationship, thus completely eliminating the problem of occlusion and allowing the complex full view of the city to be presented with ease(Li 2018, 17)." [5] Perhaps it is through such a method that all the details that can not be ignored jump out on the paper, we can perhaps call it "maximalism" here. While the impression of a certain area of a city no longer exists only in cold, independent buildings, we still have the architect observing the importance of human interaction with space. The creator is really piling up all the details he observes as much as possible, but somehow presenting a complex sense of order. We can see the history and the present and maybe even the future, the interaction between the cold architecture and the "moving elements" within it.

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5. Li, Han. 2018. *A Little Bit of Beijing*. China: Tongji University Press.

Chapter 3: Tokyo: Made in Tokyo

The second case comes from several atlases extracted from Made in Tokyo created by Atelier Bow-Wow. In fact, this case also gave the first artist, Li Han, some initial inspiration to adopt the axonometric approach to documenting the story of what happened in Beijing. But we have chosen him here as the second case because, although the same axonometric interpretation of the city is used, *Made in Tokyo* presents a very different effect. In this book, these architects have selected seventy "Da-me architecture" s, which translate directly to bad architecture, and presented them one by one through the straightforward way of axonometric drawings.

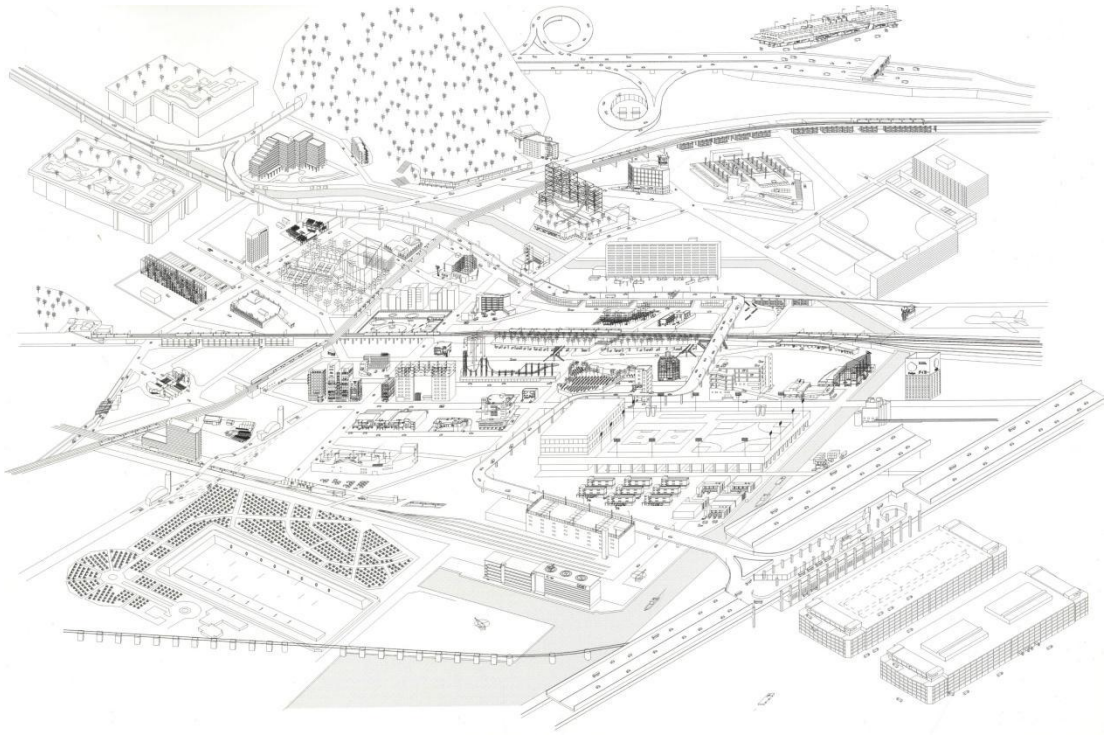

Fig3.1 *Made in Tokyo*, cover. Kaijima, Momoyo, Junzo Kuroda, and Yoshiharu Tsukamoto. 2010. *Made in Tokyo*. Japan: Kajima Institute Publishing.

3.1 “Da-me” Architecture

No famous metropolis in the world is lacking in large and prestigious buildings, magnificent skyscrapers, exquisite art galleries and masterpieces left by countless famous architects. But there is no doubt that cities cannot exist only on top of these huge masses. Before the “Da-me” architecture was introduced, the architect wrote :” If our footsteps are actually embedded in a pitiful urban landscape, the idea of using famous architecture as a criteria base seems to be just an attempt to express good taste(Kaijima, Kuroda, and Tsukamoto 2010, 8).” [6] With a giant population by 2021, in an era of explosive population and building growth, we still need ways to read the city through the cracks in the architecture while trying to sound less one-sided in describing the famous buildings that exist in Tokyo. Here we find a simple and even detached way to describe the buildings that survive the gaps and thus enrich the city, the silent majority, the "bad buildings" that live in precariousness and anonymity. The definition given by the book is:” The buildings we were attracted to were ones giving a priority to stubborn honesty in response to their surroundings and programmatic requirements, without insisting on architectural aesthetic and form. We decided to call them <Da-me Architectur> (no-good architecture), with all our love and disdain.” [7]

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6. Kaijima, Momoyo, Junzo Kuroda, and Yoshiharu Tsukamoto. 2010. *Made in Tokyo*. Japan: Kajima Institute Publishing.

7. ibid.

3.2 City Fragments

Tokyo is officially the most populous city in the world now, which means that in addition to the enormous urban density, we cannot ignore the fact that after the large buildings have cut up the city, those urban fragments fill the city as well. It is the sheer size of the population and the diverse and even slightly bizarre needs of the people in the city that make these buildings possible. Here we observe a warehouse that uses its roof as a tennis court(Figure3.2), a restaurant with a roller coaster growing out of its roof(Figure3.3), a massive supermarket and a driving school on its roof(Figure3.4), a sewage treatment plant and an open baseball field on its roof(Figure3.5), etc. Steel and glass may make up skyscrapers, while fragmented buildings make up life.

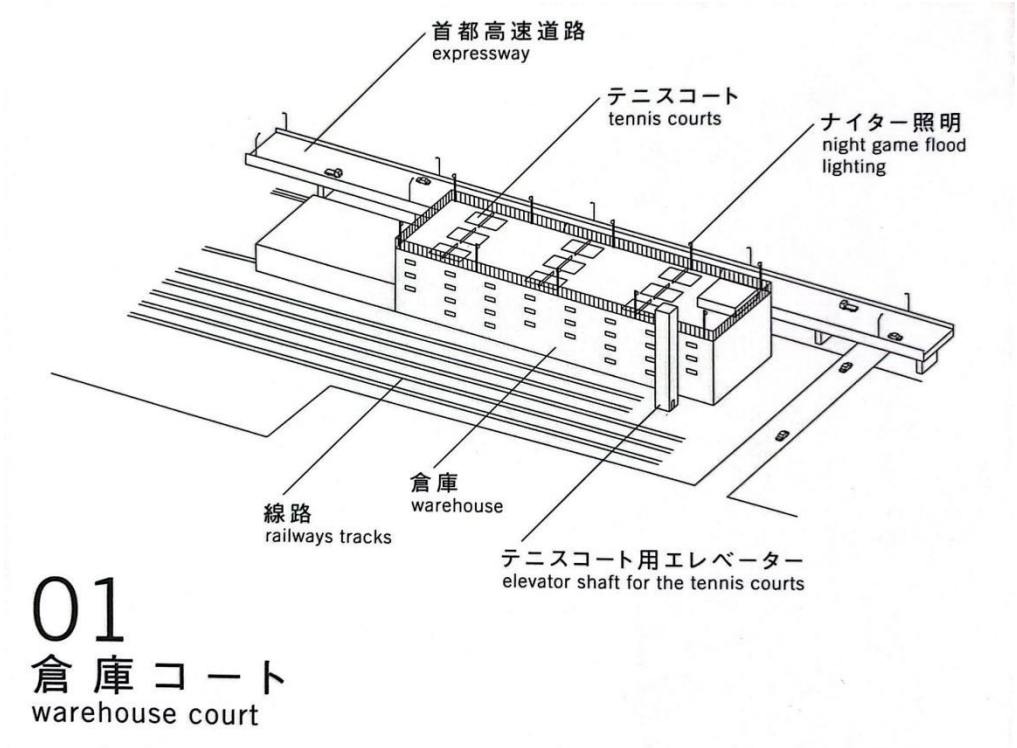

Fig3.2 Warehouse court. ibid. pp.42.

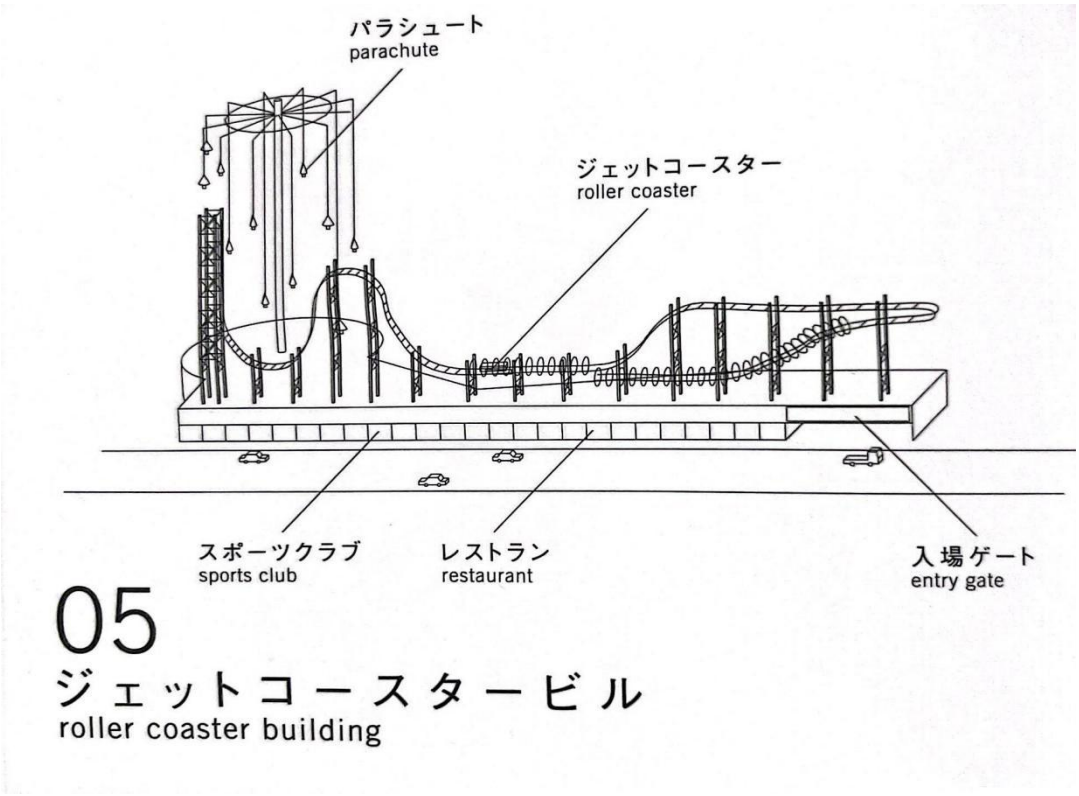

Fig3.3 Roller coaster building. ibid. pp.50.

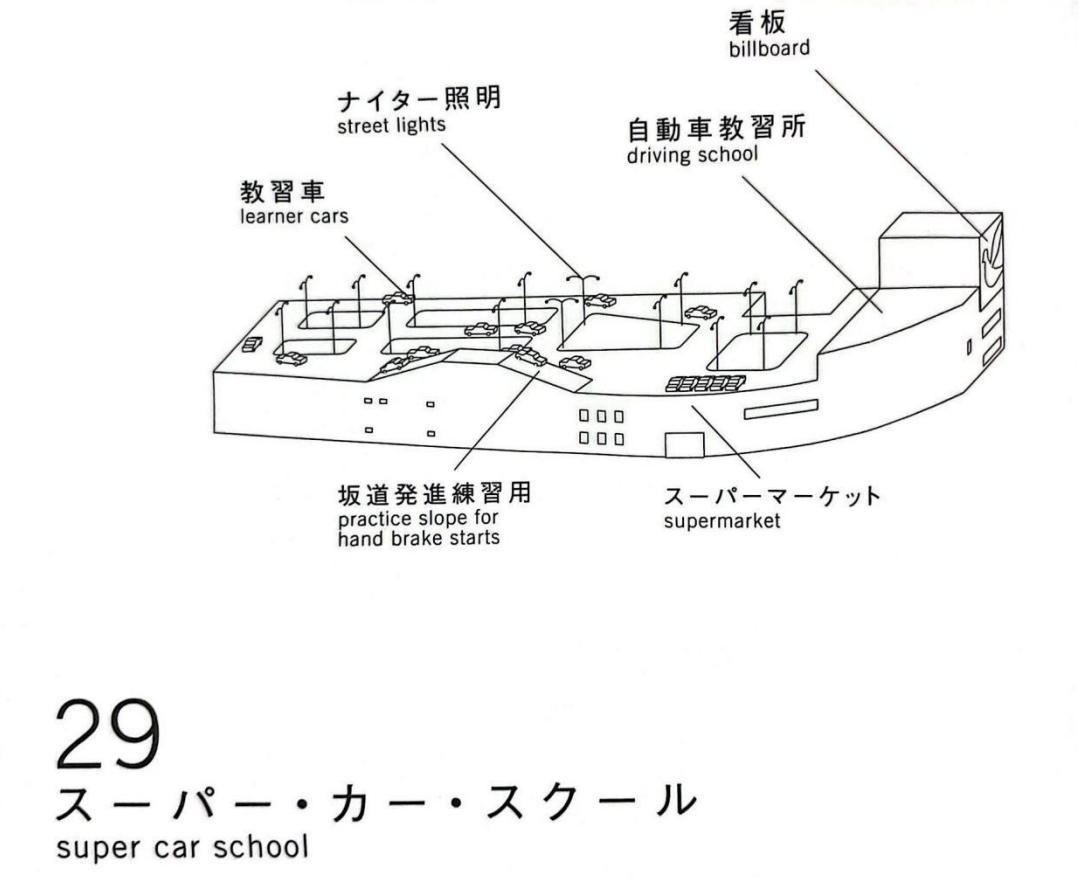

Fig3.4 Super car school. ibid. pp.99.

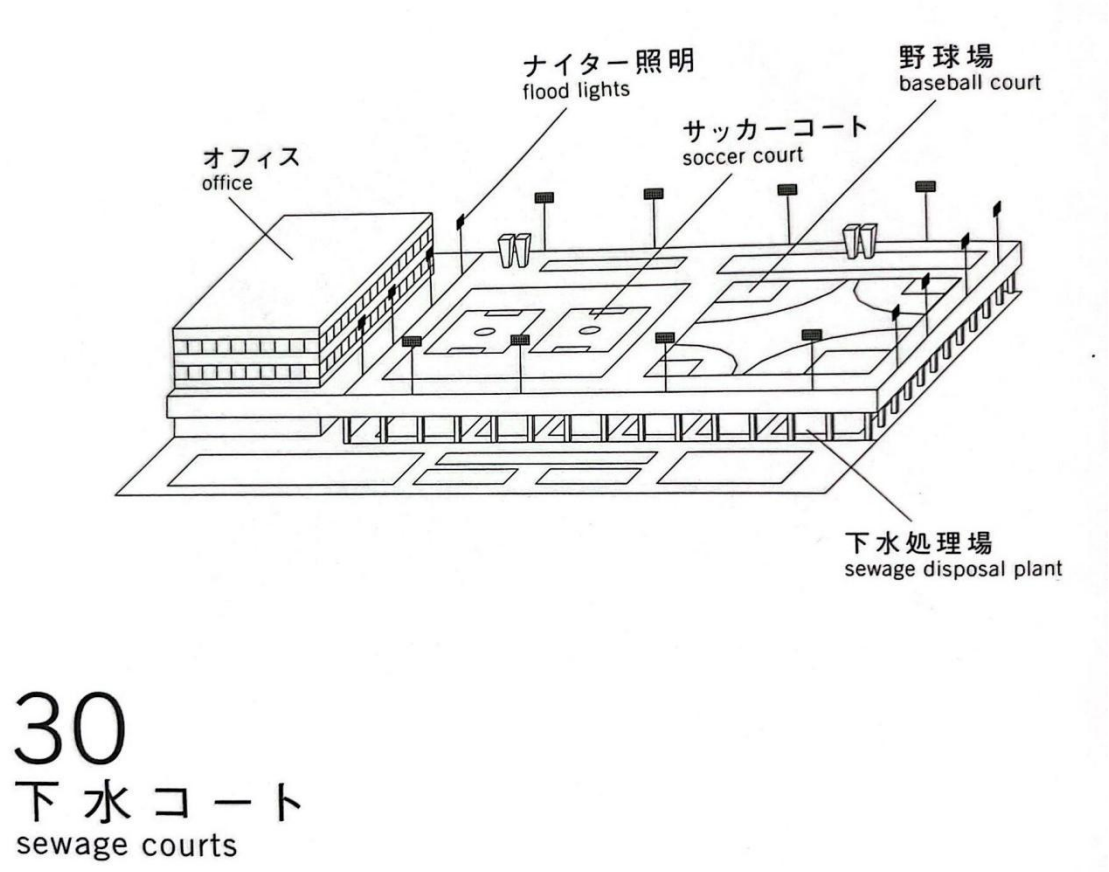

Fig3.5 Sewage court. ibid. pp.100.

3.3 A Closer Look

In the same way as the previous case, the atlases here also make use of the same axonometric representation, but on the contrary, we can clearly see that it is a completely uncluttered drawing. Each building is expressed in its block by the simplest perimeter lines, and its function is expressed through the assistance of roads, transportation and public facilities. Here, the function of axonometry is not invoked as in the previous case, nor is there both a complex display of environmental and human activities. I think this should be the meaning of the urban fragment architecture, whose functionality is more

than how he fits in with the surrounding environment. The unique but easily ignored functionality of these buildings is formally generated by the needs of people, it does not need a strong decorative façade or a strange entrance design, it needs to meet people's common living needs in this metropolis in a simple way.

Compared to the previous case, we can perhaps call the interpretation method of this case "minimalism". Perhaps at first glance the way these small da-me buildings are presented in books is "interesting", but it is more worthwhile to study the integration of this extremely pure and straightforward way of presentation with these urban fragments. These "da-me" buildings, which have survived the urban debris, are also an important part of Tokyo's urban landscape. The city's high population and building density has largely shaped the city's character, and these "da-me" buildings are one of the few parts of the city's character that still has a sensibility.

Chapter 4: Hong Kong: Cities Without Ground

The third case comes from this Hong Kong guidebook called *Cities Without Ground*. Again, this is an interesting case that continues to trace back to the axonometric form. In these first three cases I have tried to draw analogies between them, as they all share similarities in the use of axonometric maps, but also, as these atlases show, the results are very dissimilar. And in each

case the texture of the city itself is closely related. It's actually quite an interesting tangent, under the same form, the parts of the city that we can interpret are full of diversity.

4.1 Vertical Labyrinth in Hong Kong

On the premise that the special character of the city cannot be bypassed, we cannot directly begin to analyze the role of the atlas here. The same high density of buildings and people, the same complexity and variety of human activities exist between the tall buildings. However, unlike the previous two cases, in such an urban context, human activities are more easily submerged between the vast structures, and there are fewer eyes to look at the fragmented buildings in the city. In some way, the extreme evolution of the city has blurred many boundaries. Perfect public facilities and the continuity of public transportation space also blur people's perception of space and form. "Today, Hong Kong is penetrated by a vast system of connected lobbys, walkways, and tunnels that rise and fall without any apparent relationship to ground level(Rackard 2013)." [8] Eventually, when the city evolves into a vertical labyrinth, those blurred boundaries will gradually infiltrate the boundaries of people's intellectual activities. "Art exhibitions and

8. Rackard, Nicky. 2013. "Cities Without Ground: A Guide to Hong Kong's Elevated Walkways." Archdaily, 28 Mar 2013. Accessed 6 Sep 2023. <https://www.archdaily.com/352543/cities-without-ground-a-hong-kong-guidebook> ISSN 0719-8884.

political protests occur in shopping malls, domestic workers gather on footbridges on their day off, sidewalks become restaurants or dance halls……At the same time, due to high levels of redundancy in the network, all these activities and more seem to be occurring anyway just above, below, or beside an interdiction(Frampton, Solomon, and Wong 2012, 30)." [9]

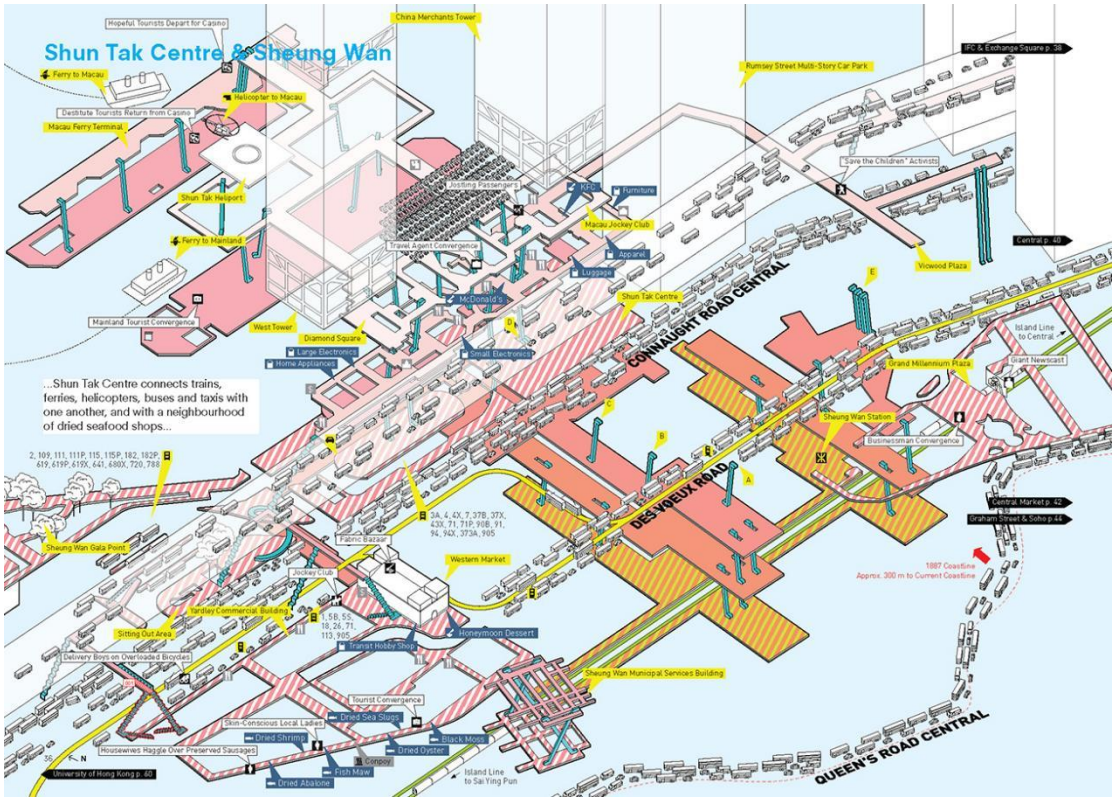

Fig4.1 Shun Tak Center & Sheung Wan. Frampton, Adam, Jonathan D. Solomon, and Clara Wong. 2012. *Cities Without Ground: A Hong Kong Guidebook*. San Francisco USA: ORO Editions. pp.36.

9. Frampton, Adam, Jonathan D. Solomon, and Clara Wong. 2012. *Cities Without Ground: A Hong Kong Guidebook*. San Francisco USA: ORO Editions.

4.2 A Closer Look

Now if we can go back to the atlas itself, the ingestion of information becomes somehow more effective. When the whole city seems to become a vertical myth, such a vertical view of the axonometric map becomes a proper fit. Figure 4.1 shows the condition of the Shun Tak Center & Sheung Wan area in Hong Kong. First of all it tries to differentiate the hierarchical level of the road with different colors, while its relative position to the building itself does not change, but it splits and reorganizes the road itself to better explain the relationship between the road and the building itself, and it provides a clearer perspective to translate the accessibility and enclosure between the road and the building. Taking a closer look we can see that the flow of vehicles marks out the obvious driving sections, while the other transportation spaces are interconnected by a considerable number of straight stairs and escalators. There is also text, of course, but this provides an interesting chaos in that the text identifies not only the building itself, but also the activities that take place there. It is as if the building itself, as an inherent element of the city, must exist in its own right. But being trapped in this maze-like dilemma is related to the uncertain factors within it. The information provided by the atlas may seem complex and disorderly, but it provides another perspective on the city. The city may also be seen as a fixed whole in itself, but all the uncertainties that exist in the city change from time to time. This can be seen as a critical reflection on the city itself, and the atlas also provides a visual context for this

reflection.

Chapter 5: Rome: Nolli Map

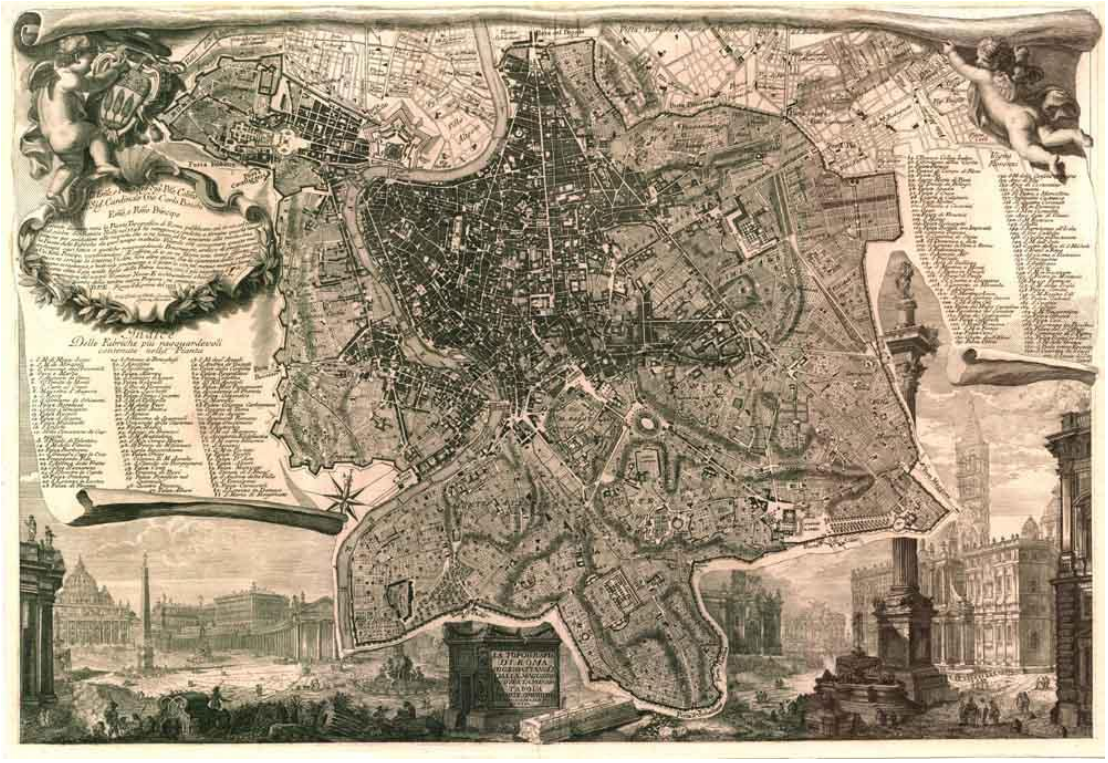

Fig5.1 Nolli map, data from Wikipedia "Giambattista Nolli", accessed September 11, 2023. https://en.wikipedia.org/wiki/Giambattista_Nolli.

The fourth case is the iconographic plan of Rome, the *Pianta Grande di Roma*, completed by the Italian architect and surveyor Giambattista Nolli, who began surveying in 1736, engraved in 1748, and is now universally known as the Nolli Map.[10] The map illustrates the city plan of 18th-century Rome in full

10. Wikipedia. 2023. "Giambattista Nolli." last edited April 20, 2023. Accessed September 11, 2023. https://en.wikipedia.org/wiki/Giambattista_Nolli.

detail, including the exact layout of streets, squares, and landmarks, as well as the delineation of private and public spaces.

5.1 Figure-ground Relationship

In the field of psychology, the figure-ground relationship is perceived as the relationship between the subject figure and the salient or non-salient background it is set against, and how we perceive and distinguish between discrete things. In an architectural context, this might be better explained by figure-ground diagram. Figure-ground diagram is a two-dimensional map of a city showing the relationship between entities and spaces. Similar but not identical to Nolli map. Here we can set it as background knowledge for better understanding of Nolli map.

5.2 Entity and Void

What the Nolli map creates is a system of well-defined architectural solids and spatial voids. But Nolli opened up closed public spaces as well, which means redefining public and private spaces on the map. This can be expressed simply as the white areas incorporating public spaces (such as the Pantheon) that citizens can freely access, in addition to open outdoor spaces. This changes the mobility and accessibility of the city on the map. All white spaces are linked by roads, squares and churches, interiors and atriums of public buildings. The urban open space originally used as the "bottom" has become

a flowing space and an autonomous main element. He shaded the neighborhoods and buildings in dark "Pochés".These are, in simple terms, groups of structures. A poché helps to define the voids between the buildings, and to emphasize their existence as defined objects in their own rights: spaces that are as much a part of the design as the buildings whose exteriors define them(Trancik 1986).[11] In *Collage City*, Colin Row also argued this thought: as an occupier of urban space, architectural entities should also serve as definers of urban space(Rowe and Koetter 1984).[12] As the space covered by the architectural entities is denser, this outlines the form of the void space, meaning that we can visualize the outlined space as a container with a material form. Space, as a carved object, becomes a communication carrier connecting the inside and the outside. At the same time, it also echoes with the ancient Chinese document Lao Tzu(老子)'s *Tao Te Ching(《道德经》)*, which says, "埏埴以为器，当其无，有器之." The meaning is that a vessel is only useful because of the hollowed out part in the center. This can be seen as an interesting extension of the argument from two-dimensional graphics to the relationship between existence and nothingness.

5.3 A Closer Look

There have been several versions of the Nolli map so far, and for the sake of a

11. Trancik, Roger. 1986. "Three Theories of Urban Spatial Design". *Finding Lost Space: Theories of Urban Design*. USA: John Wiley and Sons.

12. Rowe, Colin, and Fred Coetter. 1984. *Collage City.* Cambridge MA: The MIT Press.

better view in this chapter, another clearer version is chosen here in an attempt to categorize and then analyze the various types of information elements in the map.

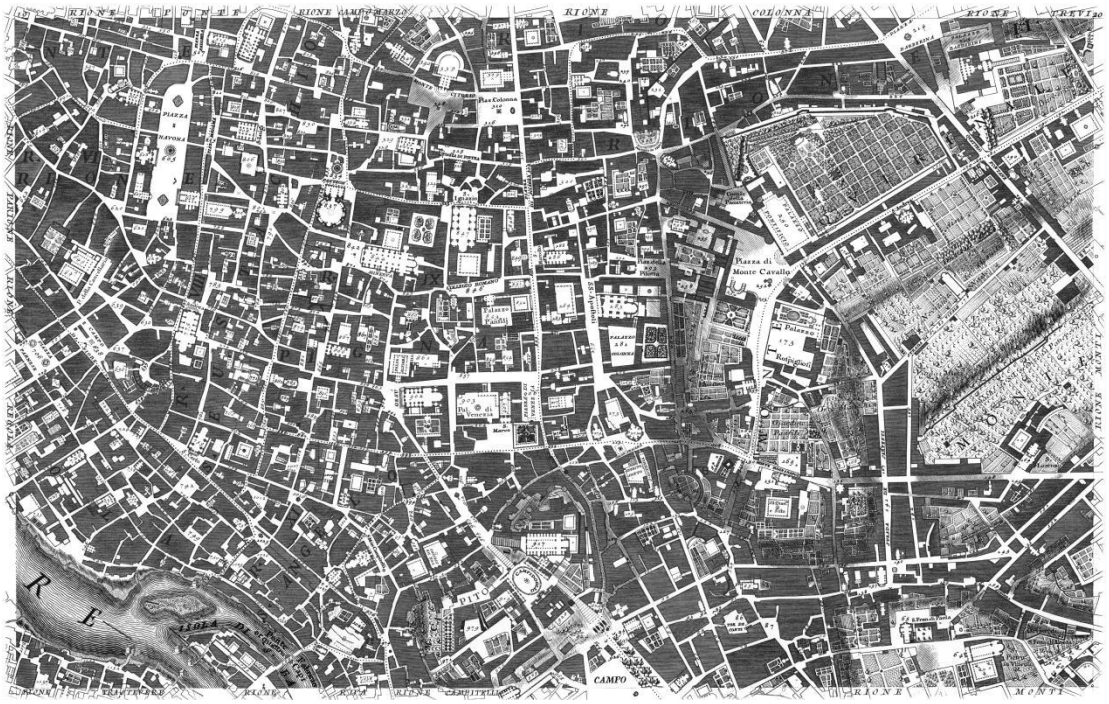

Fig5.2 Data from "The New Plan of Rome by Giambattista Nolli part 5/12", accessed September 11, 2023. https://commons.wikimedia.org/wiki/File:Giovanni_Battista_Nolli-Nuova_Pianta_di_Roma_(1748)_05-12.JPG.

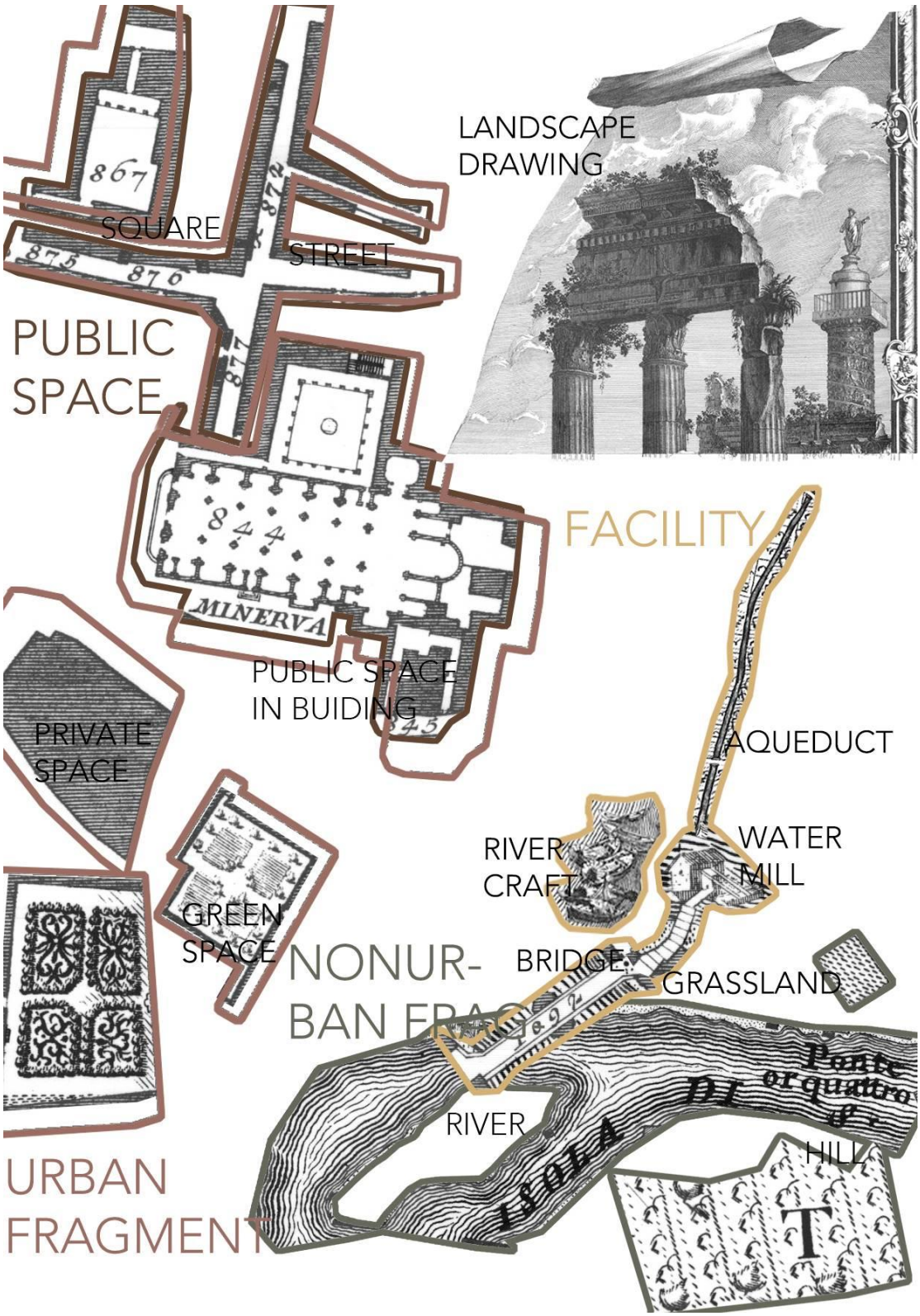

Fig5.3 Nolli map partial legend. Made by author.

Chapter 6: Analogical City, 1976

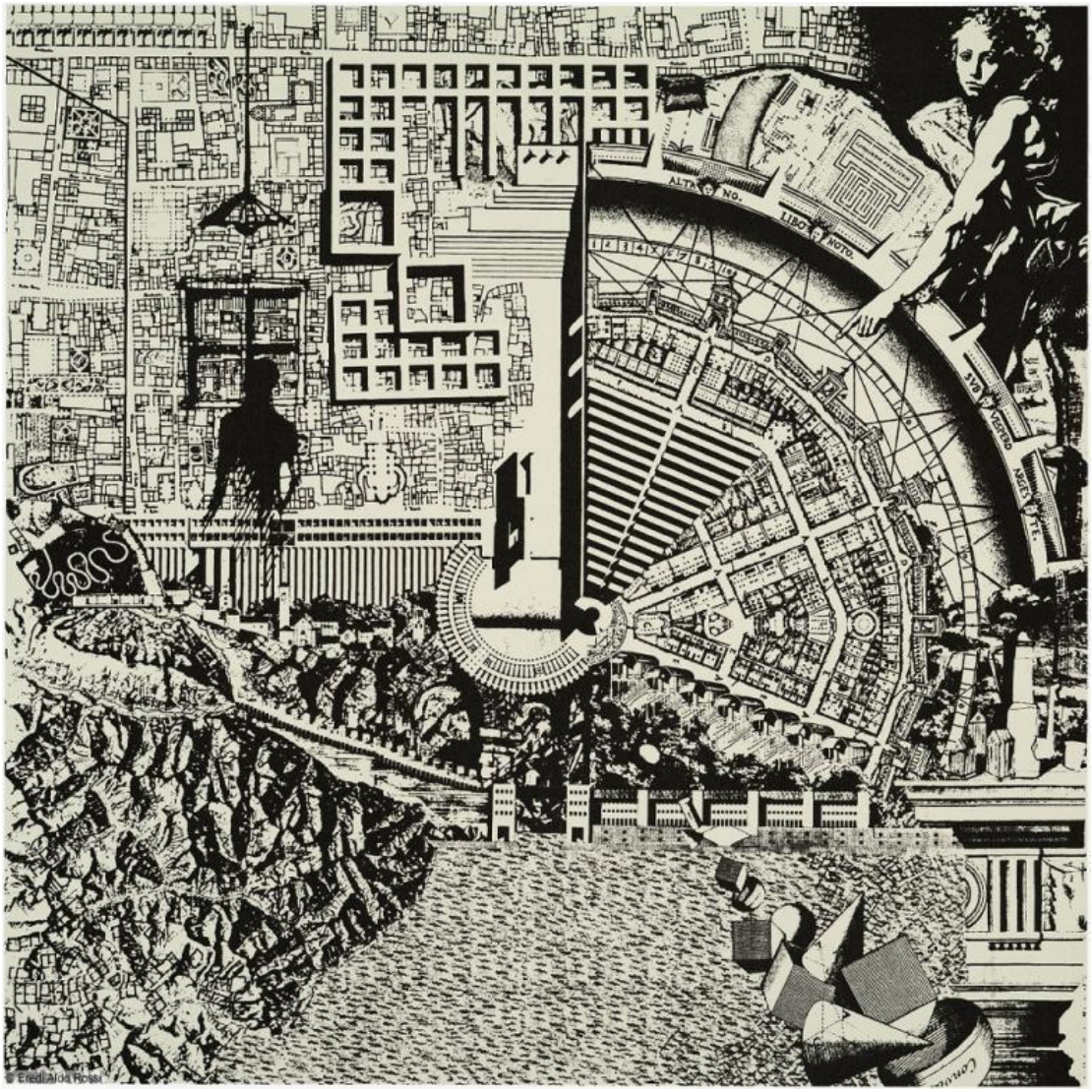

Fig6.1 Aldo Rossi, E. Consolascio, B. Reichlin, F. Reinhart, Analogical City collage created for a Venice Biannale, 1976. Data from "The Analogous City — — The Map", accessed September 14, 2023. https://www.epfl.ch/campus/art-culture/museum-exhibitions/archizoom-en/exhibitions/aldo_rossi/analogouscity_1/.

The fifth case is this montage of analogical city created by Italian architect

Aldo Rossi and his colleagues for the Venice Biennale in 1976. In fact, when it comes to this creation, it is completely different from each of the previous four cases. First of all, the difference in the form of the painting is self-evident. And its combination and mutual translation with the city itself is not the same, we can't attribute this collage to summarize the appearance of a certain city, like the previous three cases. Returning to the painting itself, the method of representation of the pictorial information here is not straightforward and cannot simply be categorized as a map of the city or of any perspective. Rossi uses a collage of historical features of architectural forms and maps of urban texture to reorganize and compose a possible impression of a city. It can be intuitive, as it does contain drawings of Rossi's own projects, city maps and classical architectural projections, all of which can be seen as intuitively transmitted information. And it can be obscure and insubstantial, because each part can be regarded as an autonomous element and has the function of carrying urban memory. In addition to intuitive information transmission, for urban interpreters, pictures at this time also contain multi-dimensional information about history and modernity, memory and reality.

6.1 Collective Memory in Architecture Context

As a pioneer of Neo Rationalism (or the Tendenza as it was originally named), Rossi's identity is not limited to architects. Early experience as editor of the architectural magazine *Casabella* started his architectural career with writing,

and later the completion of his famous masterpiece San Cataldo Cemetry became an important opportunity to promote his shift from text to painting. With this theme, he has repeatedly experimented with analogical design and the reproduction of "collective memory" in a large number of paintings(Zhang and Kong 2020, 7).[13] Here we attempt to draw a brief background from the architect's rich and vast body of theory, which is of course difficult to summarize in a single sentence. Collective memory refers to complex social process in which a society or social group constructs and reproduces its relation to the past.[14] The proposer of collective memory, French philosopher and sociologist Maurice Halbwachs argues in his book that societies can have a collective memory. This memory depends on the "cadre" or framework in which a group is situated within society. At the same time, he has also begun to realize the carrier of memory, and wrote in the article: "Collective memory has a dual nature - it is a material object, a material reality, such as a statue, a monument, a place in space, and a symbol, or something with spiritual meaning, something attached to the object. imposing upon this physical reality what is shared by the group." [15] Within such a generalized framework, Rossi's architectural drawings make sense on a

13. Zhang, Nan(张楠), and Yuhang Kong(孔宇航). 2020. "Collage and Reconstruction——City and Architecture in Aldo Rossi`s Paintings," *建筑学报(Architectural Journal)* 7, no. 628 (February).

14. Ijabs, I. 2014. Collective Memory. In: Michalos, A.C. (eds) Encyclopedia of Quality of Life and Well-Being Research. Springer, Dordrecht. https://doi.org/10.1007/978-94-007-0753-5_436.

15. Halbwachs, Maurice. 2002. *On collective memory*. Translated by Bi Ran and Guo Jinhua. Shanghai: Shanghai People's Publishing House.

methodological level: it establishes object-to-city connections, traces conformational rules of universal significance, and correlates the combination of forms in a scene with perceptual factors such as memory and intuition, in an attempt to form a trigger mechanism for collective memory.

"One can say that the city itself is the collective memory of its people, and like memory it is associated with objects and places. The city is the locus of the collective memory. This between the locus[16] and the citizenry then becomes the city' s predominant image, both of architecture and of landscape, and as certain artifacts become part of its memory, new ones emerge. In this entirely positive sense great ideas flow through the history of the city and give shape to it(Rossi 1982, 130)." [17]

Rossi emphasizes the importance of historical continuity in architecture, which should be rooted in the collective memory of the urban area, preserving and transmitting history and tradition, and integrating them with the built environment. The material structure and presence of the city's character is the collective experience of its inhabitants in history and cultural change, so the city itself is a reflection of collective memory. The design of the building should resonate with the history and culture of the city neighborhood, thus

16. "I have already used the term locus several times in this book. The locus is a relationship between a certain specific location and the buildings that are in it. It is at once singular and universal." Rossi's own explanation of the term in chapter 3 of the book.

17. Rossi, Aldo. 1982. *The Architecture of the City.* Translated by Diane Ghirardo and Joan Ockman. Cambridge, MA: MIT Press.

strengthening the collective memory of the residents. In this context, the study of single pictures extends to the study of the mapping in psychology and sociology.

6.2 A Closer Look

The above description of Rossi's theory is just a summary of a drop in the ocean. The purpose is to try to establish a background that can better understand the analysis of paintings. The material in the images is divided into drawings of Rossi's own designs, projections of classical buildings, city maps, and painted elements. In the following I attempt to deconstruct elements with known information[18] and present a relative analytical narrative about Rossi-related work.

18. For access to partial information see the section: Rodighiero, Dario. 2015. *The Analogous City, the Map*. Lausanne: EPFL Archizoom.

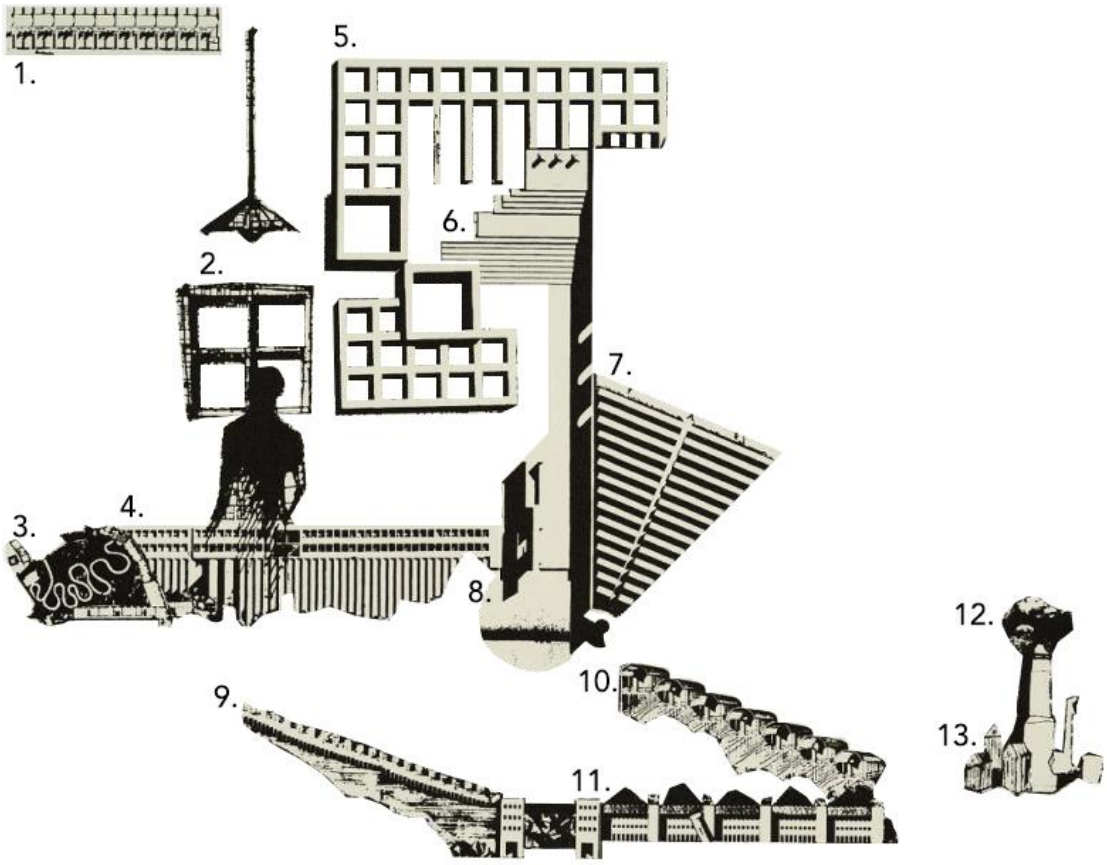

Fig6.2 Collection of fragments of Rossi and colleagues ' works from Analogical City. Made by author.

1. Aldo Rossi, Gianni Braghieri, Single-family houses, Broni (PV), 1973.

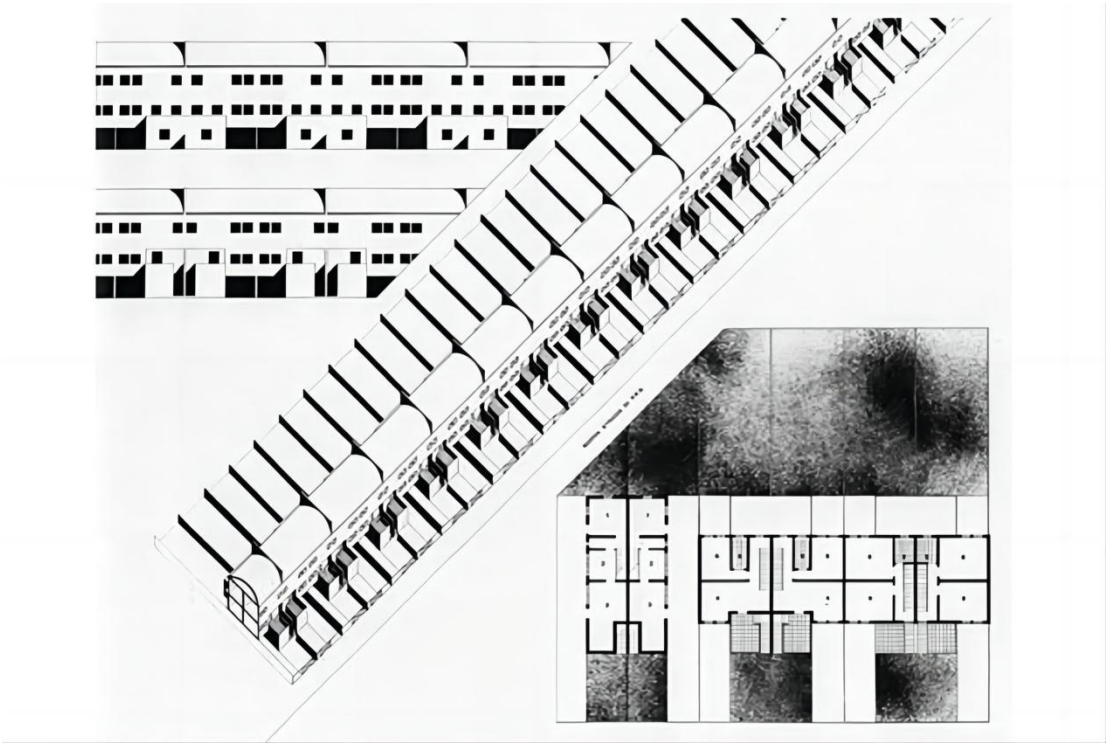

Fig6.3 Casas unifamiliares en Broni, data from "WEARCH: 15 Aldo Rossi, Case unifamiliari a schiera (con Gianni Braghieri), 1972" , accessed September 12, 2023. https://www.wearch.eu/15-aldo-rossi-case-unifamiliari-a-schiera-con-gianni-braghieri-1972/.

Fig6.4 ibid.

2. Aldo Rossi, Spazio Chiuso, interno, 1974.

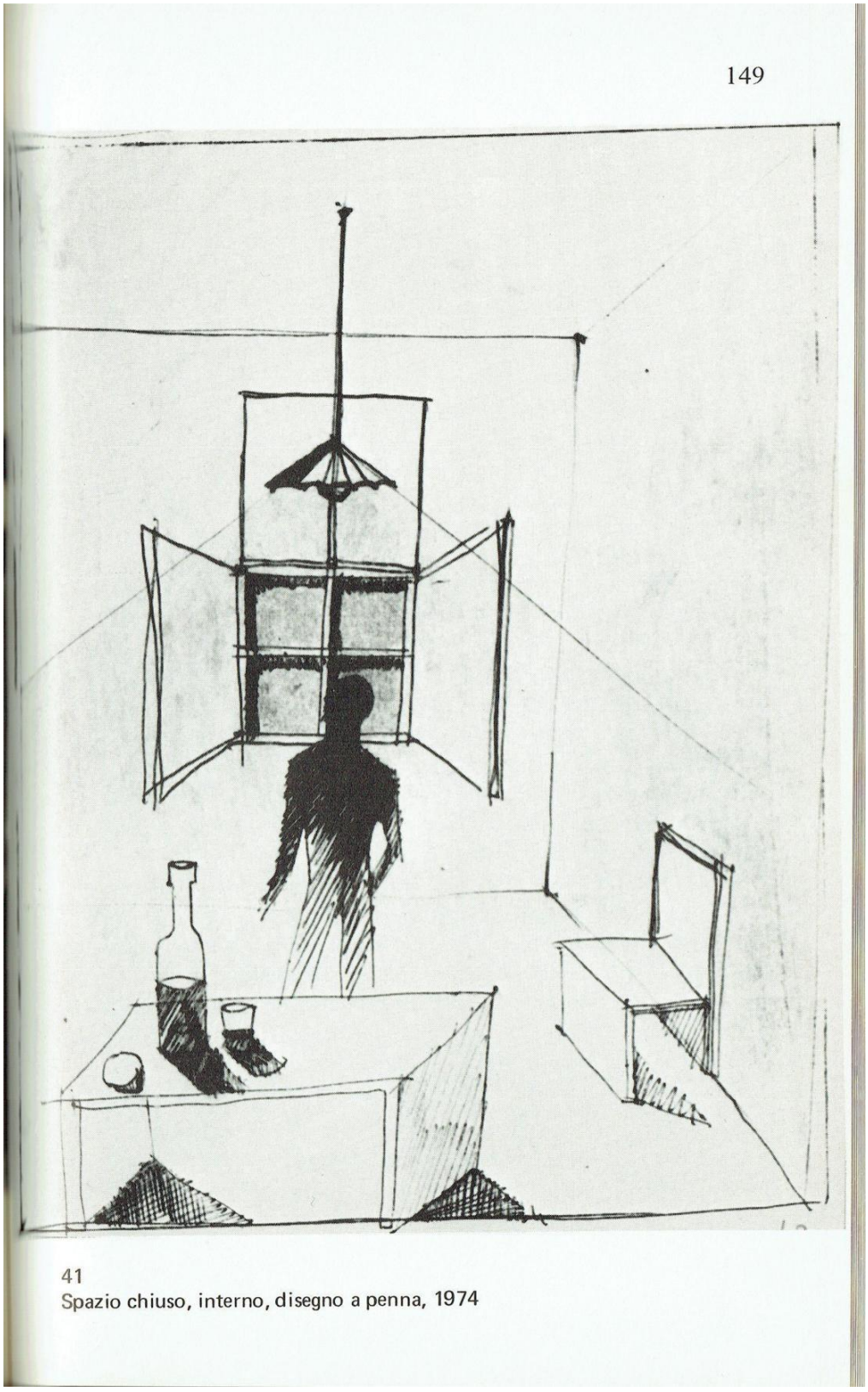

Fig6.5 Savi, Vittorio. 1976. *L' architettura di Aldo Rossi*. Milano: Franco Angeli. pp. 149.

3. Aldo Rossi, Massimo Fortis, Massimo Scolari, Project of the town hall, Scandicci (FI), 1968.

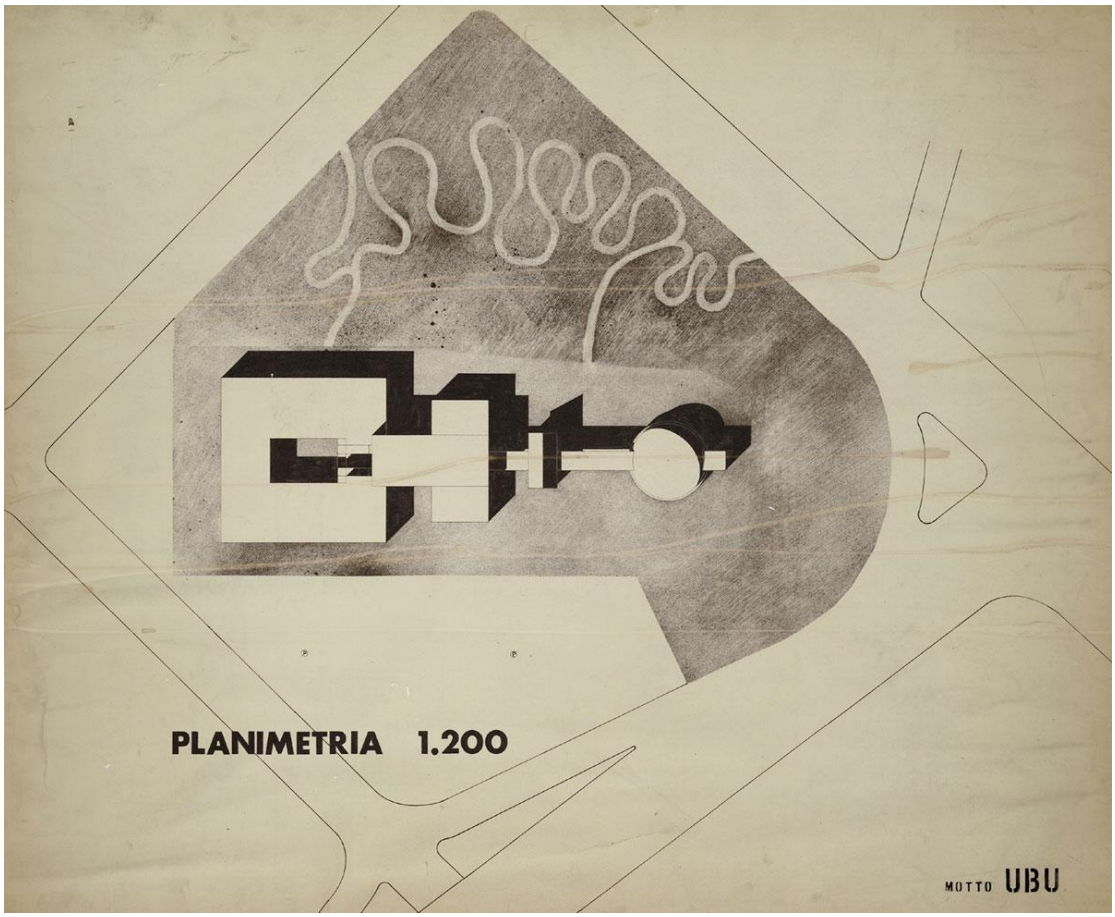

Fig6.6 Museo Nazionale delle Arti del XXI Secolo MAXXI, Rome. © Aldo Rossi Heirs, © Massimo Fortis, © Massimo Scolari. Data from Lampariello, Beatrice. 2023. "The Architecture and the City of Aldo Rossi, 1955–69: The Analogical Locus vs Ambientalismo of the Building Fabric". *Architectural Histories 11(1)*. doi: https://doi.org/10.16995/ah.8278.

4. Aldo Rossi, Gallaratese housing unit, Milano, 1969-70.

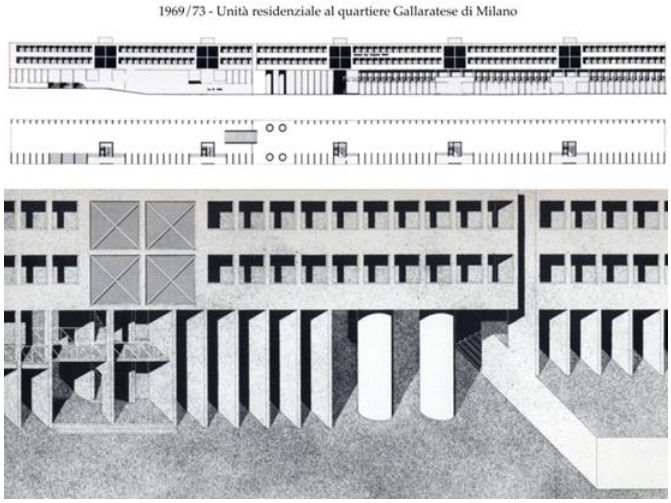

Fig6.7 Data from Lecture by Luca Ortelli on Rossi:“阿尔多·罗西：游荡城市间的双面灵魂”. accessed September 13, 2023. https://zhuanlan.zhihu.com/p/141364237.

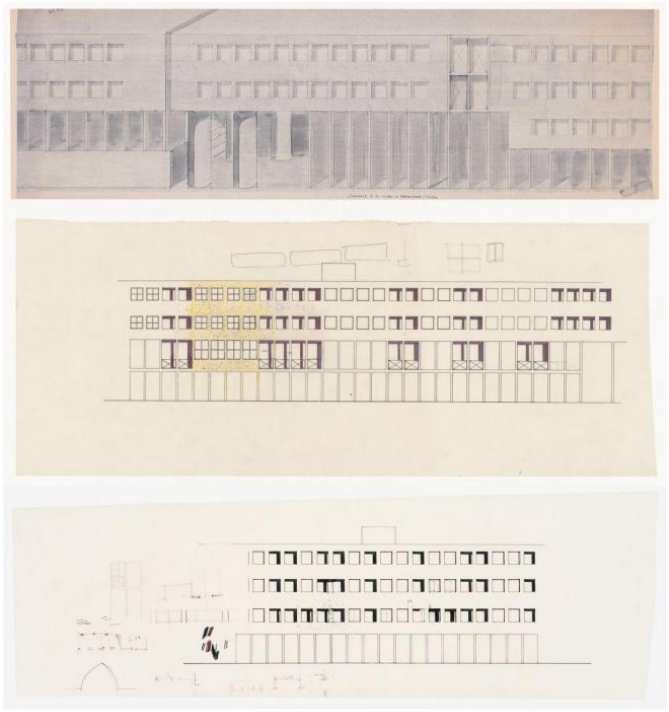

Fig6.8 Data from “Quartiere Gallaratese 2”, accessed September 13, 2023. https://www.cca.qc.ca/en/archives/379606/aldo-rossi-fonds/379618/projects/381324/quartiere-gallaratese-2.

Rossi later discussed in *A scientific autobiography*: "I could speak in this sense of still other projects which I have so far barely touched upon, projects like the housing block at San Rocco and that for the Gallaratese quarter in Milan. The first dates back to 1966; the second to 1969-1970. Concerning the former I have mentioned only the superimposition of the Roman grid and the subsequent shifting of this grid, creating an effect like the accidental crack in a mirror. Concerning the latter, I have mentioned its size and simplicity, in the sense of a rigorous technology." [19]

At the same time, when talking about the manifestation of human life, he likewise narrates that more structural interpretations should be included, which are closely related to his life. These residential forms, along with the villa form, are stored in human history to such an extent that they belong to both anthropology and architecture.[20]

From these narratives, it is possible to try to imagine that specific buildings, when transformed into part of the elements of montage, carry the memories of the architect as an individual, and that his thinking about the transmission of these memories is aligned with the historical development of the city and even of mankind and its contemplation.

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19. Rossi, Aldo. 1981. *A scientific autobiography.* Cambridge, London: The MIT Press.

20. ibid.

Fig6.9 Photographs: Gili Merin, data from Archdaily "Architecture Classics: Gallaratese Quarter / Aldo Rossi + Carlo Aymonino", accessed September 13, 2023. https://www.archdaily.com/867165/ad-classics-gallaratese-quarter-milan-aldo-rossi-carlo-aymonino.

5. Giorgio Grassi, Aldo Rossi, Project of San Rocco housing unit, Monza (MB), 1966.

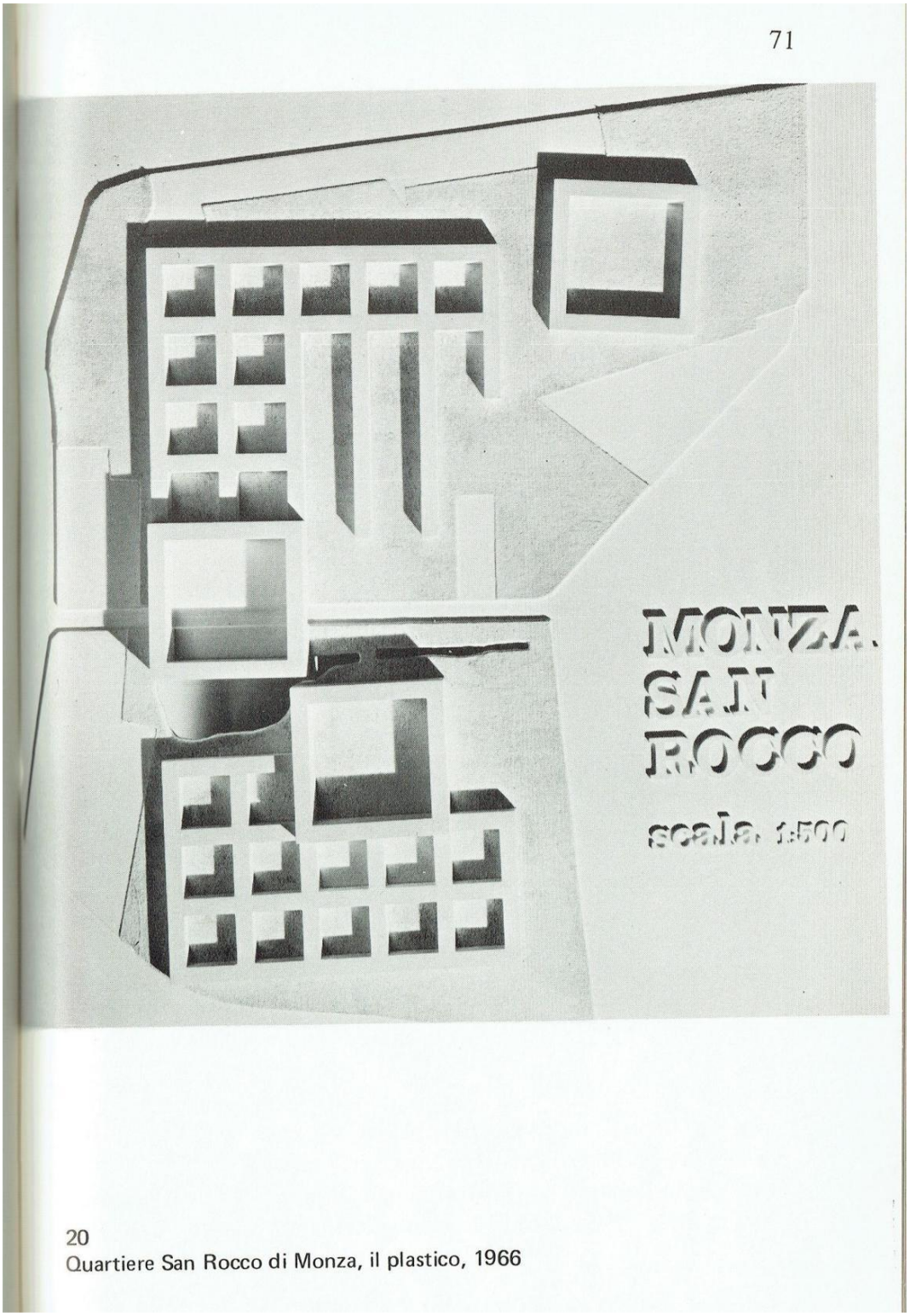

Fig6.10 Savi, Vittorio. 1976. *L' architettura di Aldo Rossi*. Milano: Franco Angeli. pp. 71.

6. Aldo Rossi, Town hall square and the monument to the partisans, Segrate (MI), 1965.

Fig6.11 Data from Fondazione Aldo Rossi "PIAZZA DEL MUNICIPIO E MONUMENTO AI PARTIGIANI " , accessed September 13, 2023. https://www.fondazionealdorossi.org/opere/1965-2/piazza-del-municipio-e-monumento-ai-partigiani/.

7. Aldo Rossi, Gianni Braghieri, Cemetery of San Cataldo, Modena, 1971.

Fig6.12 Studies for the San Cataldo cemetery, Aldo Rossi (1975). Celant, Germano, Diane Ghirardo, and Luca Molinari. 2008. *Aldo Rossi: Drawings*. New York: Rizzoli. pp. 46.

Rossi outlines in *A scientific autobiography* that this may be what the dead see, that objects and structures are no different. The collective memory that the city holds should not be dissipated with the end of the lives of the dead.Rossi tries to create a kind of eternity by looking at the cemetery as the house of the dead, set in the city where they belonged, and proposes a sad analogy of the cemetery as if it were an amalgamation of abandoned buildings, houses, chimneys, and a few porches. The design of a cemetery

can even be seen as just a shell with openings, some just for light, others for the living to observe and the dead to be cremated. Rightly so, there are many who do not appreciate this, who see it as sad and insufficiently respectful, while Rossi conceived of this skeletal structure without window panes, doors or roofs as a city of the dead, because death is eternal and irreversible, and that has to be a way of perceiving it.

8. Aldo Rossi, Project of the square, Sannazzaro de Burgondi (PV), 1967.

Fig6.13 Data from "WEARCH: 13 Aldo Rossi, Concorso per una piazza, 1967 (non realizzato)" , accessed September 12, 2023. https://www.wearch.eu/13-aldo-rossi-concorso-per-una-piazza-1967-non-realizzato/.

9. Aldo Rossi, Gianni Braghieri, Bruno Reichlin, Fabio Reinhart, Project for connecting the walls to the main door of Castel Grande, 1974.

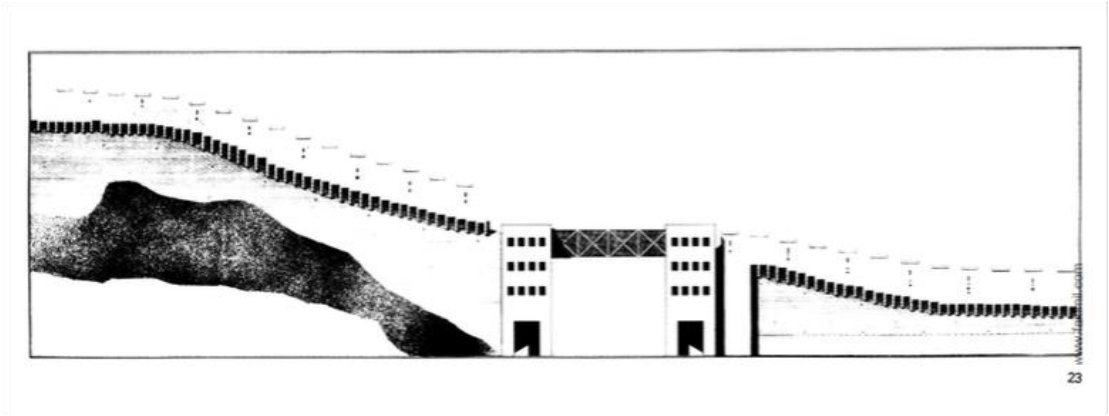

Fig6.14 Restauración del Castillo de Bellinzona, *2c: Construccion de la ciudad, Barcelona*, Grupo 2c, 1975, n. 5, pp. 23.

10. Aldo Rossi, Gianni Braghieri, Villa, Borgo Ticino, 1973.

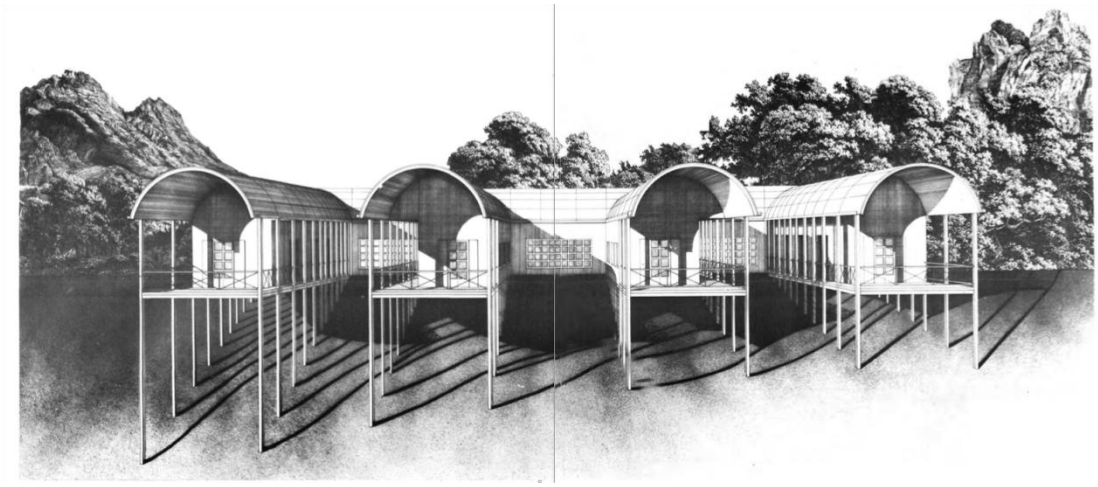

Fig6.15 Casa en Borgo Ticino, *2c: Construccion de la ciudad, Barcelona*, Grupo 2c, 1975, n. 2, pp. 20-21.

11. Aldo Rossi, Max Bosshard, Gianni Braghieri, Project for the regional administrative center, Trieste, 1974.

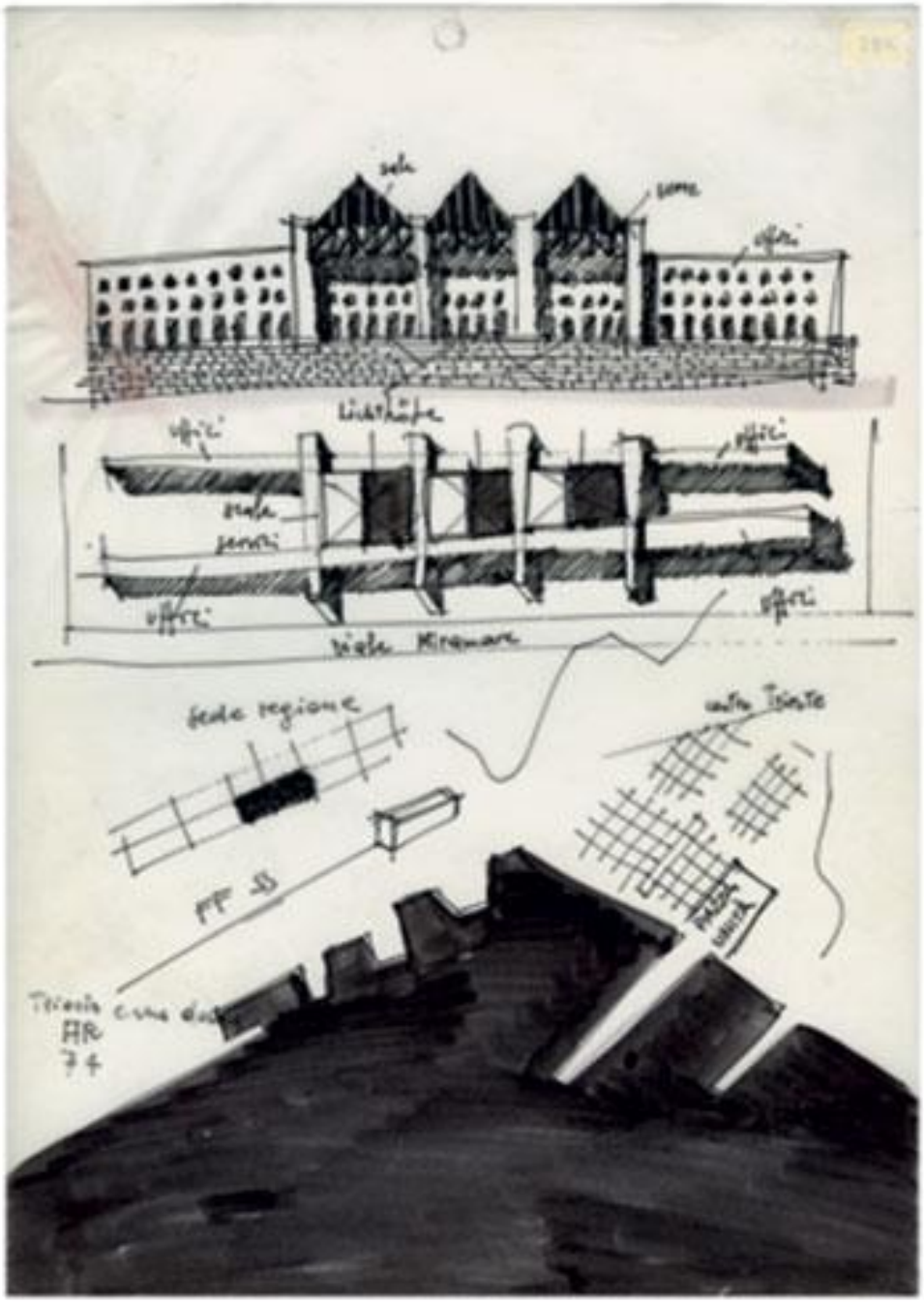

Fig6.16 Data from Fondazione Aldo Rossi "PROGETTO DI CONCORSO PER GLI UFFICI DELLA REGIONE", accessed September 13, 2023. https://www.fondazionealdorossi.org/opere/1970-1979-3/progetto-di-concorso-per-uffici-della-regione-trieste-1974/.

12. Aldo Rossi, Moka Coffee Maker, 1975.

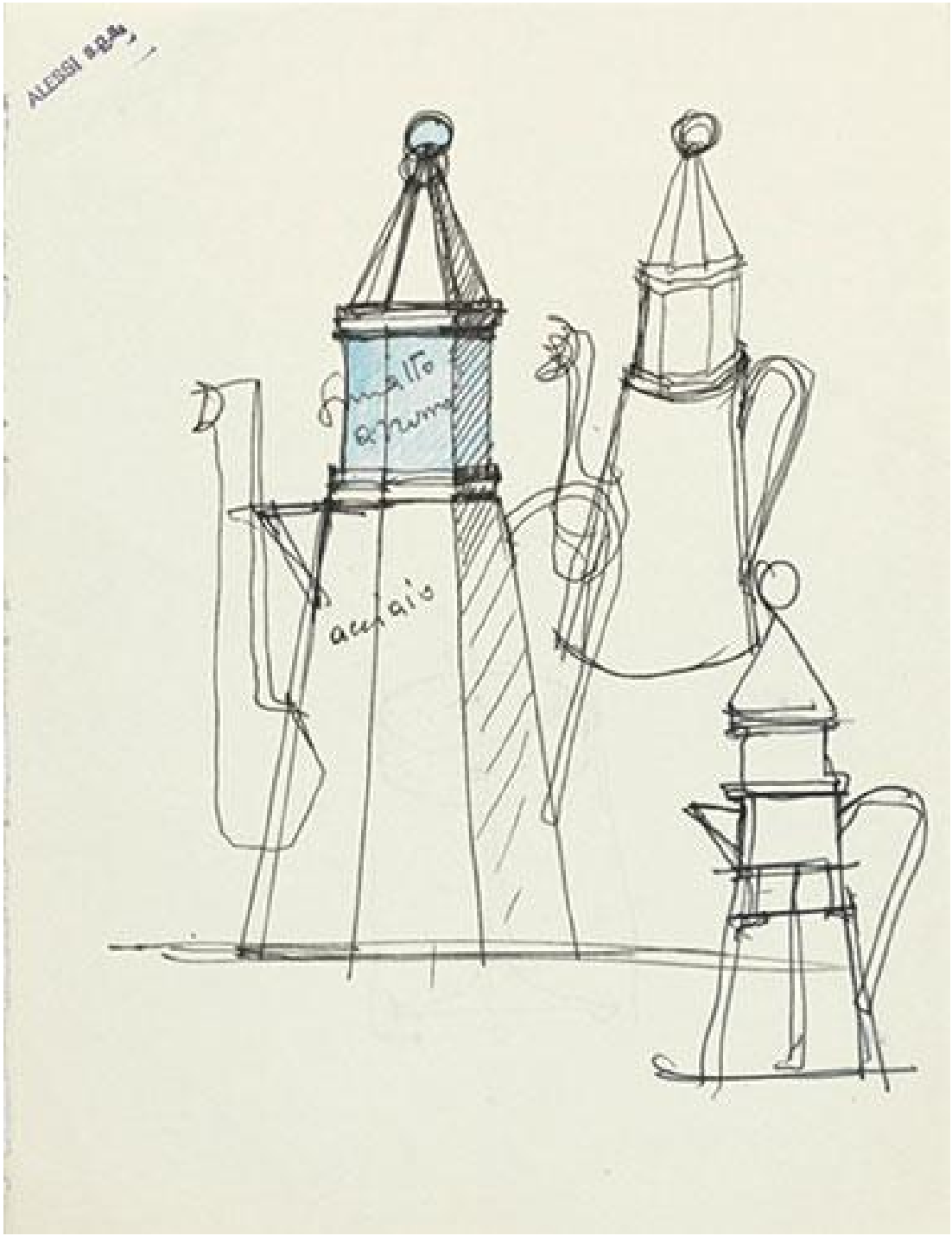

Fig6.17 Data from Fondazione Aldo Rossi "SERVIZIO DA TÈ E CAFFÈ 'TEA AND COFFEE PIAZZA" , accessed September 13, 2023. https://www.fondazionealdorossi.org/opere/1980-1989/servizio-da-te-e-caffe-tea-and-coffee-piazza/.

13. Aldo Rossi, Beach huts, 1970.

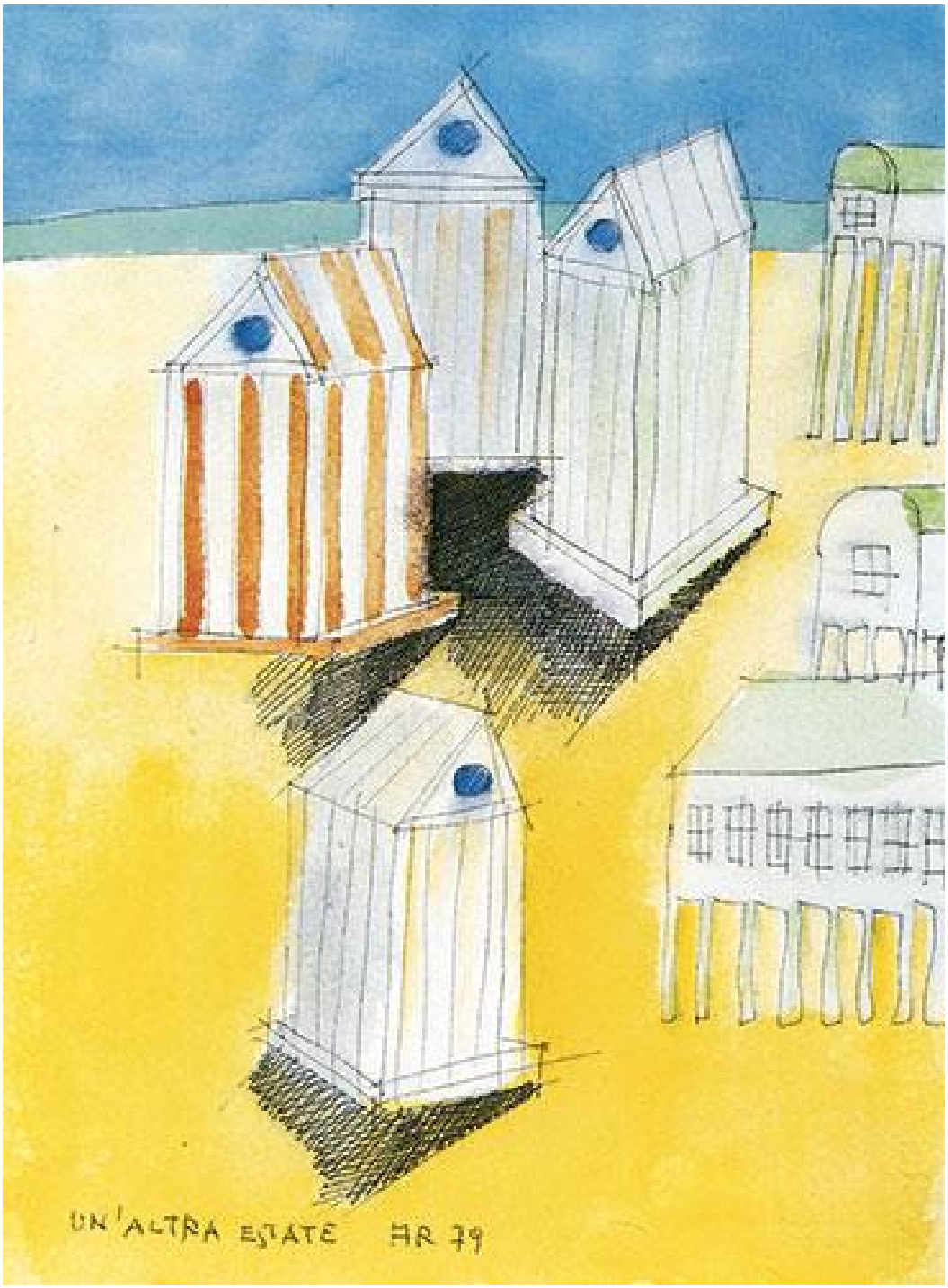

Fig6.18 Data from Fondazione Aldo Rossi "ARMADIO 'CABINA DELL' ELBA' " , accessed September 13, 2023. https://www.fondazionealdorossi.org/opere/1980-1989/armadio-cabina-dell elba/.

The above is a separable body of work that can be traced back to Rossi and colleagues in the present. In fact we can develop an interesting idea based on this. Part of the history is transplanted to create a virtual city of contrasts, each fragment retaining its own identity, authentic on the level of memory. Rossi, however, fills in additional elements, even more than those listed above, with the intention of illustrating that we should also pay attention to the relationship between the real and the imagined, and that through the dialog between the present and the past, we can show how the city is constructed in history in a fictional way. This may be an interpretative attempt of the projections of classical buildings, city maps and landscape elements in the images.

Fig6.19 Combined collage of individual elements and original documents. Made by author.

The rest of the work consists of projections of classical architecture and drawings of city maps and landscape elements. The interweaving and merging of classical buildings and city maps represent historical information and monuments, mapping the recurring theme of *The Architecture of the City.* Rossi has accomplished the reconstruction of the "past" through collages that are more than mere restorations of historical essence.

The final part of the discussion is a reflection on the picture as a whole. The original document in the upper right corner of the image is Tanzio da Varallo's painting David e Golia, in which Golia's severed head is replaced by Davide's hand pointing toward the center of the image, which also consists of a large arc in the right half (Giovanni Battista Caporali, Drawing of Vitruvius 'city, 1536)[21] and the small arc in the center (Giuseppe Pistocchi, Project for a monument-barrack on Mont Cenis, 1813) [22]make a strong visual centerpiece. The passage from the center through Rossi's town hall square project can be attempted to be seen as an entrance and opens up to the left half of the picture, then enters the urban area with its numerous classical buildings which is surrounded by two major housing projects (the San Rocco housing unit and the Gallaratese housing unit). The human figure stands in the center. In the following comes up with the project for connecting the walls to the main door of Castel Grande. The bottom of the picture to the second entrance can be

21. Rodighiero, Dario. 2015. *The Analogous City, the Map.* Lausanne: EPFL Archizoom.

22. ibid.

seen as the connection between the sea and the land. It is as if the city itself is a fiction, and the ocean that reaches the gates of the city is also a void carrier that connects all directions.

Fig6.20 Davide e Golia, data from "Tanzio da Varallo, Davide e Golia, ca.1625(Museo civico, Varallo)", accessed September 14, 2023. https://commons.wikimedia.org/wiki/File:Tanzio_da_Varallo,_Davide_e_Golia,_ca._1625_(Museo_civico,_Varallo).jpg.

Chapter 7: Atlas Experiment: Octavia

“If you choose to believe me, good. Now I will tell how Octavia, the spider-web city, is made. There is a precipice between two steep mountains: the city is over the void, bound to the two crests with ropes and chains and catwalks. You walk on the little wooden ties, careful not to set your foot in the open spaces, or you cling to the hempen strands. Below there is nothing for hundreds and hundreds of feet: a few clouds glide past; farther down you can glimpse the chasm's bed.

This is the foundation of the city: a net which serves as passage and as support. All the rest, instead of rising up, is hung below: rope ladders, hammocks, houses made like sacks, clothes hangers, terraces like gondolas, skins of water, gas jets, spits, baskets on strings, dumb-waiters, showers, trapezes and rings for children's games, cable cars, chandeliers, pots with trailing plants.

Suspended over the abyss, the life of Octavia's inhabitants is less uncertain than in other cities. They know the net will last only so long.”

--Italo Calvino,*Invisible Cities*

Calvino's narration of Octavia in *Invisible Cities* goes something like this. It seems like an obvious and vague proposition: Octavia's geography, its construction methods, and even all the minutiae of objects that make up the city are detailed and enumerated. But it is equally vague in its boundaries,

with no representations about the buildings or detailed information about road plans or anything else. In the eyes of the dusty traveler, the city and their inhabitants, whose lives hang in the balance every day, experience the same great unknown. No real resident's life is "suspended over the abyss" like life in Octavia, but the upside-down intention of the city does make us think. Cities are becoming fragile, and that precarious thread can be a reflection of any number of factors.

In the last part of the essay, I attempt to respond to the opening scenario. After summarizing and learning from the previous five cases, I try to build five atlases to try to bring Octavia to life, using the theme of Octavia as a clue to what is known from the book's descriptions, with each atlas trying to echo the form of each case as much as possible, as well as dispersing as much as can be attempted at the methodological level. This may show some critical thinking or it may produce some novel insights. The information contained in an atlas should be a clear presentation of the information that has been provided, while at the same time interpreting the perceptual factors behind the buried information. This should be a proper time for the presentation and interpretation of urban atlases to be used as tools that do not provide answers, but endless perspective.

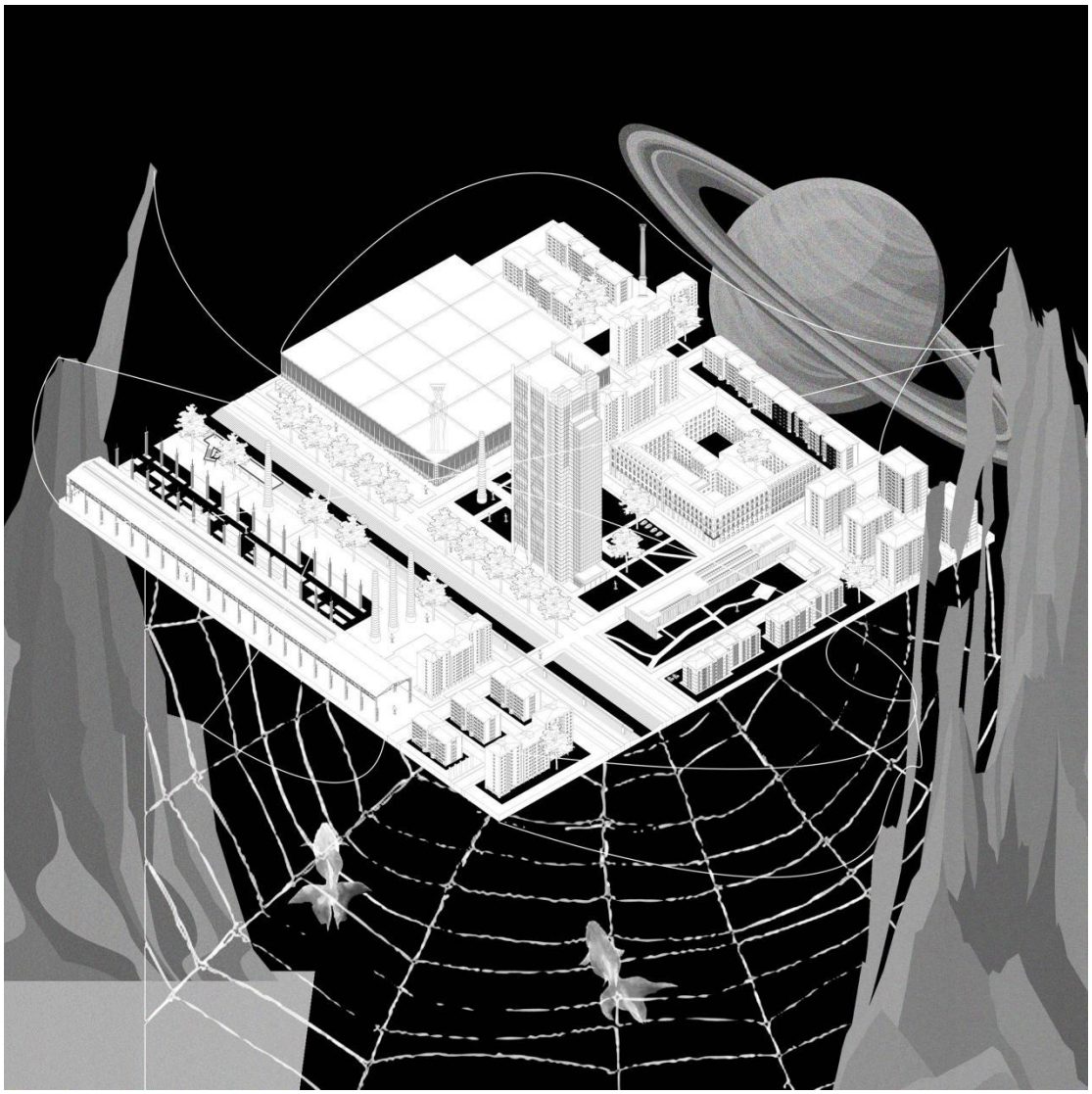

Fig7.1 Octavia Intention. Made by author.

The city-related visualizations are taken from the real city of Turin, except for the information, which comes from a summary of the text and an attempt at visualization. I have tried to draw elements of very real urban fragments from the city I live in, collaging them into a fictional city set in Octavia, which can be seen as a dystopian urban entity in nothingness because it doesn't actually exist, but the invisible city can become visible through the methods already summarized for reading the city in pictures.

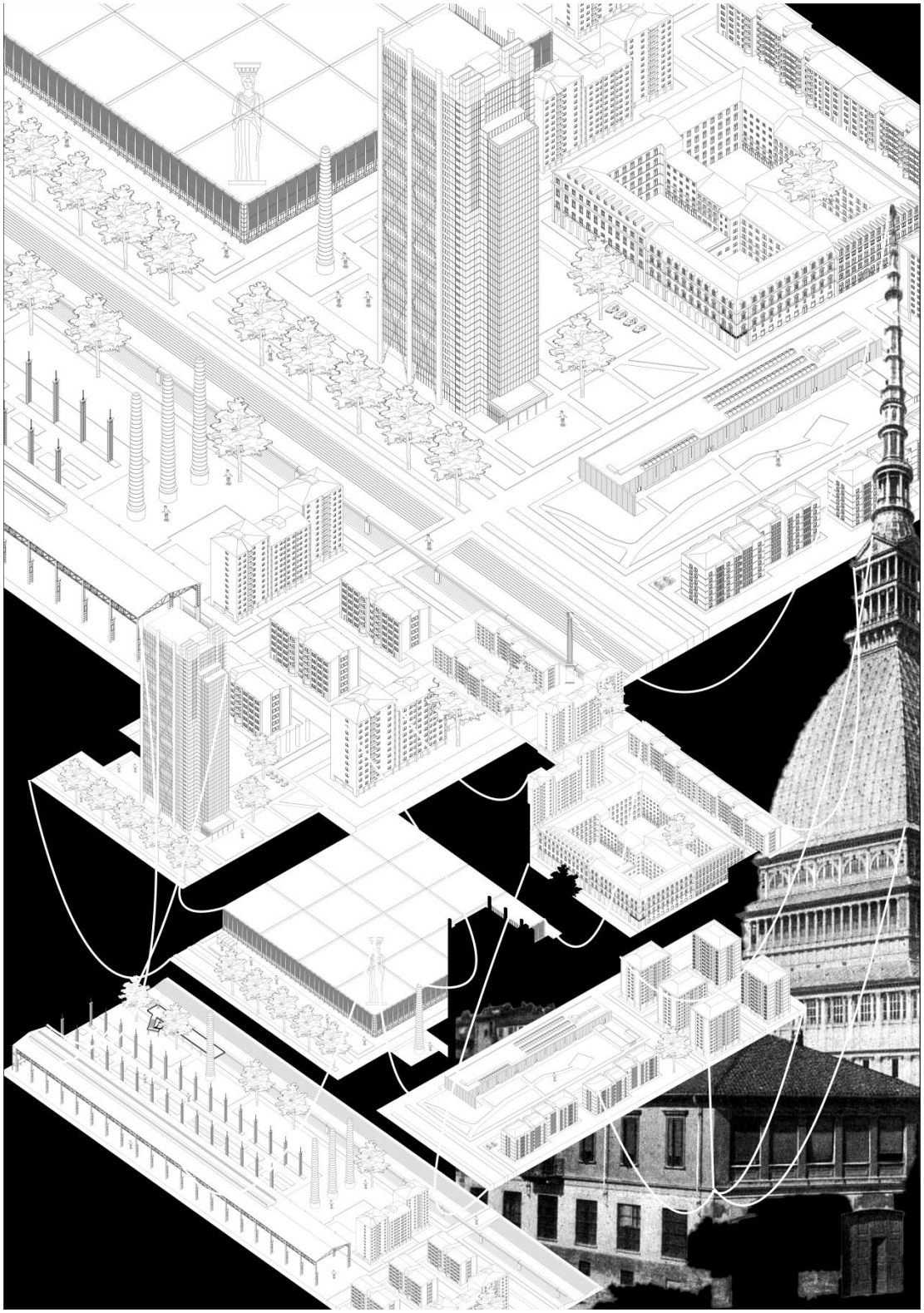

Fig7.2 Octavia Intention: “Maximalism”. Made by author.

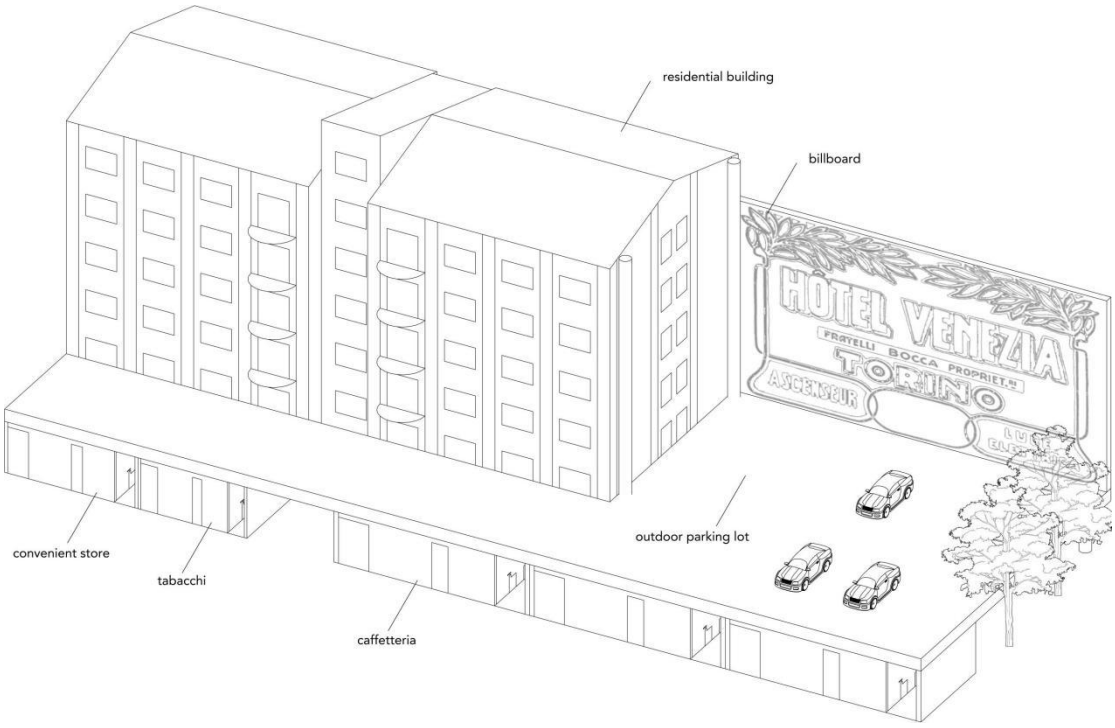

Fig7.3 Octavia Intention: "Da-me Architecture". Made by author.

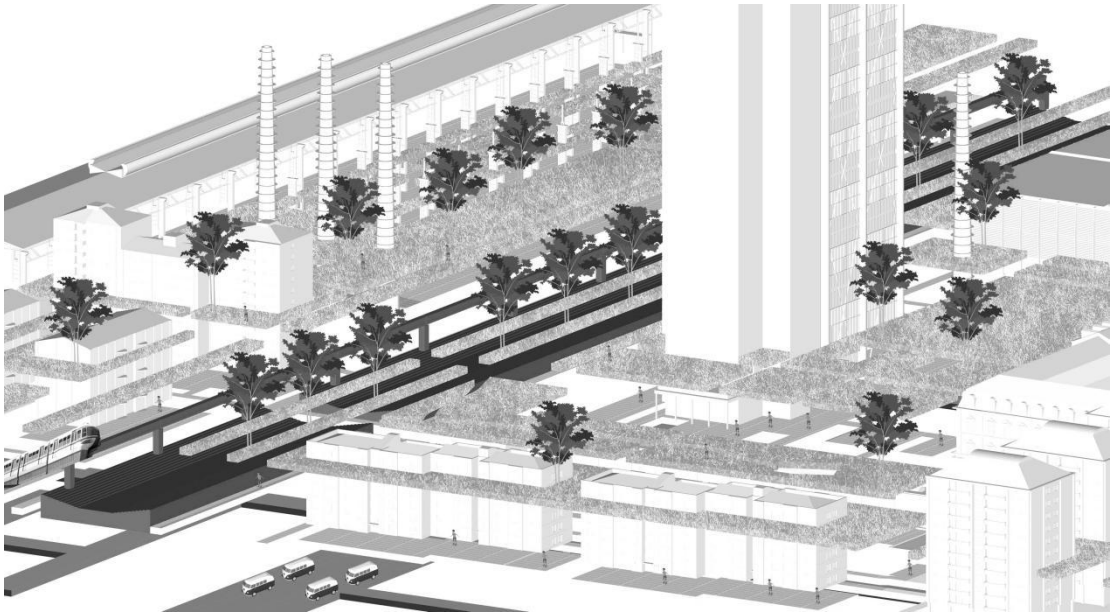

Fig7.4 Octavia Intention: "Transportation". Made by author.

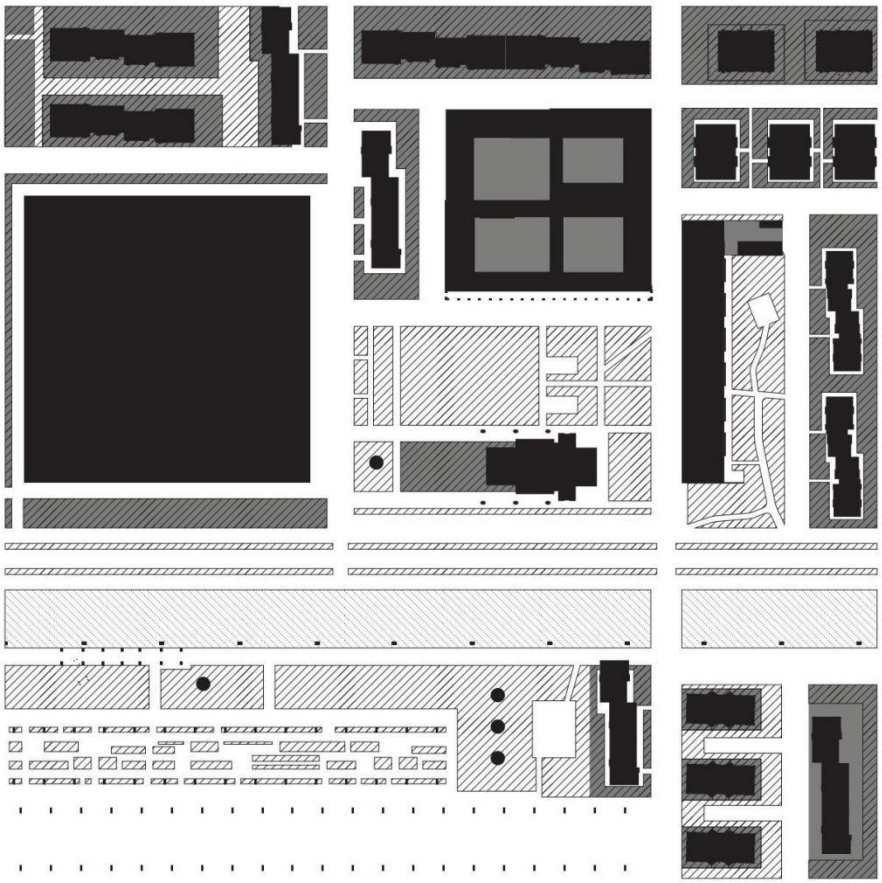

Fig7.5 Octavia Intention: “Nolli Map”. Made by author.

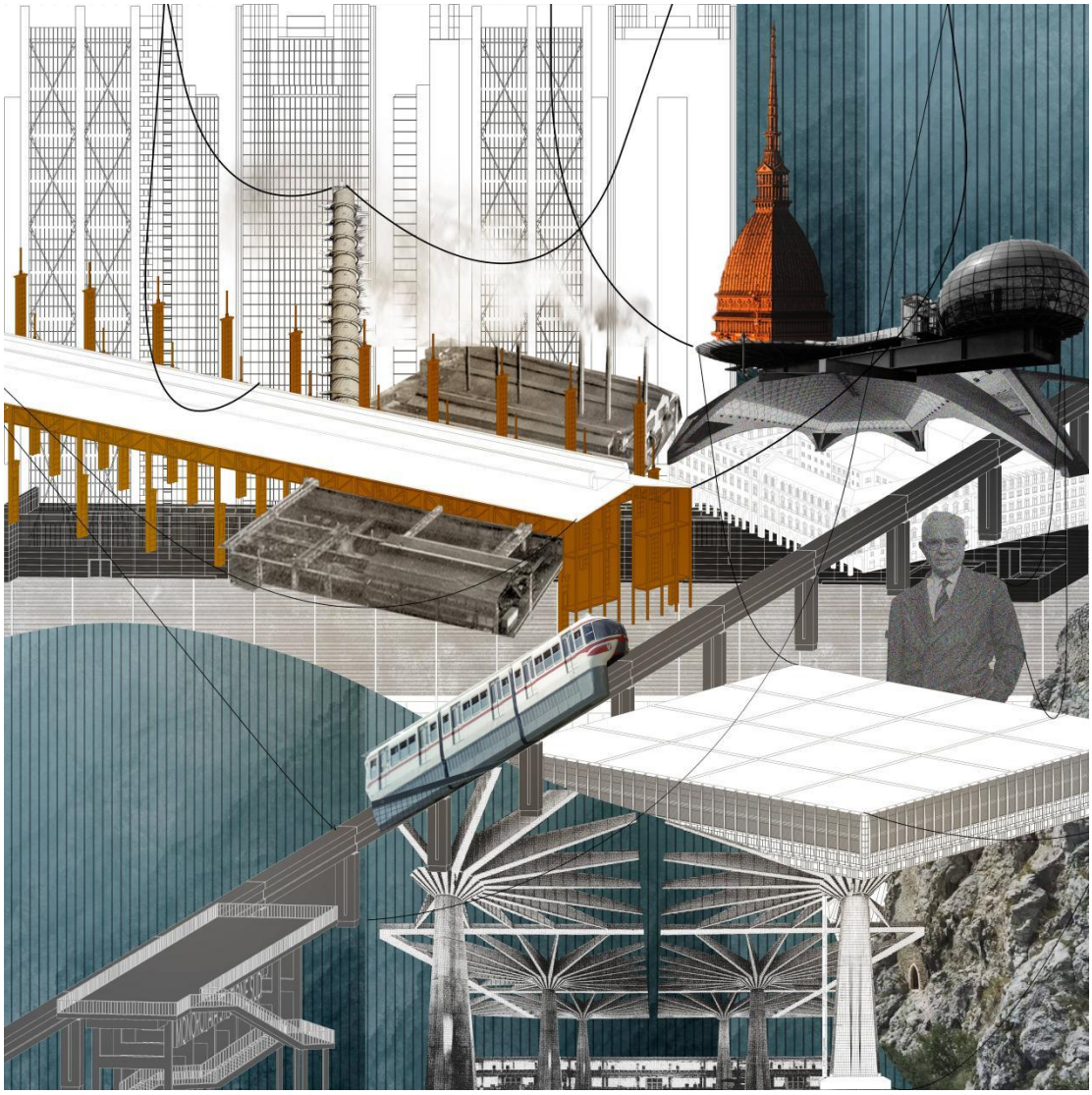

Fig7.6 Octavia Intention: “Montage”. Made by author.

Chapter 8: Preliminary summary of case studies

The case studies are sequenced from the relatively concrete to the relatively abstract, and the potential research methodology is to first bring in background information about the historical development of the case city, subsequently bring in information to interpret the content of the atlas, and

finally to disperse critical thinking. This is an interesting but also serious process. If the initial case (a bit of Beijing) can be seen as a maximized representation of a figurative city, the final case (Rossi's analogous city) can be seen as the end of a more abstract theorizing. This is also more in line with the path of studying atlases for the perception of the city; after the atlas has accomplished its main job of conveying direct information, what is more important is how we study the character of the city itself and how we can see its essence through the phenomenon. In the final original design case, I did not add too much narrative, but strictly followed the path of the research method already paved, trying to create a completely fictional but very real city based on the textual information as a base for the creation of the atlas, and then created a series of intention drawings in order to echo and then spread out more thoughts.

Through the case studies, a broad framework for the research methodology has been set up, and the experiment on Octavia was a preliminary test of this framework. I used a lot of information extracted from the actual city of Turin, which actually broadened the idea. Therefore, if we think of the experiment as Turin in miniature, we can continue this idea by enlarging the perspective to the city of Turin. So I chose four neighborhoods in the city, followed the same framework of research methodology, tried to create more atlases to fill the framework, and tried to finalize this report with the help of these atlases.

PART 3: A CLOSER LOOK AT TORINO

Chapter 9: Brief History

9.1 Brief History

After the Second World War, Turin was in a state of flux. The suffering of the people had during the war not yet fully restored their determination to bring life back to the city. What they don't even foresee is the impact that the rise of intense and rapid industry, led by Fiat, will have on the city's planned revitalization in the near future. "By the late 1940s, the largest local firms, Fiat and Olivetti in nearby Ivrea, were especially well-situated to capitalize on these favorable circumstances. These companies had recovered from the war and either had reached or surpassed their pre-war levels of production(Cardoza and Symcox 2006, 245)." [23] With the unprecedented development of industry, Turin came to the era of economic miracle. The era of the economic miracle also coincided with a period of population mobility in Italy, which, together with a surge in the demand for labor after the expansion of industry, triggered a huge wave of immigration and cultural diversity.

The obvious consequence of the population boom is a shortage of human habitat, made worse by the indifference of Fiat's management and the

23. Cardoza, Anthony L., and Geoffrey W. Symcox. 2006. *A History of Turin*. Turin: Einaudi.

inaction of the municipal authorities. "The delayed passage of an urban regulatory plan and its subsequent non-enforcement meant that private developers and speculators had a relatively free rein in the real estate market(Cardoza and Symcox 2006, 251)." [24]

Against this backdrop of turbulent times, Turin moved into the 1960s. The economic background is always the most significant part of the history of an era, and all the social changes generated in the context of the era are more or less economy-led, including of course a series of policies that will affect the development of urban planning in the future. " After World War II, the creation and expansion of the urban middle class was a clearly stated political goal in Italy, as in many Western societies, and housing policies had a central role in these agendas(De Pieri and Caramellino 2015, 48)" [25] "Law 167 of 1962 played an important role in the process of expansion of big Italian cities between the 60s and 70s and is often remembered as the provision behind the construction of some of the big public housing estates, some of which were soon criticised for their physical and social aspects(Caramellino, De Pieri,and Renzoni 2015, 17)." [26] This law, which is usually associated with large social housing complexes, aims, among other things, to consolidate the

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24. ibid.

25. De Pieri, Filippo, and Gaia Caramellino. 2015. "Domestic Italy After World War II: Collecting Stories from Middle-Class Houses." *Candide*, no.9 (June): pp. 48.

26. Caramellino, Gaia, Filippo De Pieri, and Cristina Renzoni. 2015. *EXPLORATIONS IN THE MIDDLE-CLASS CITY, TORINO 1945-1980.* Italia: LETTERAVENTIDUE.

middle class and simplify access to housing for a large part of the public. " Torino was the first city in Italy to apply Law no.167. The law, which was introduced to select building areas for economic and low-income housing, was passed on 18 April 1962 and in September that year a commission had already been set up in Turin to choose the areas(Di Biagi 2008, 60)." [27] 167 law cannot be ignored in the context of the historical development of the four neighborhoods discussed here. "Se da un lato la 167 è un provvedimento settoriale, il cui obiettivo immediato è quello di favorire l' acquisizione di aree fabbricabili per l' edilizia economica e popolare, da un altro essa risponde, almeno nelle aspettative iniziali, a un obiettivo più ampio, che consiste nel restituire ai comuni un ruolo di protagonisti nel controllo dell' attività edilizia e nella sua programmazione nel tempo e nello spazio, dotandoli di strumenti efficaci per la lotta alla rendita fondiaria (Ripamonti, 1965)." [28] And this echoes, on the one hand, the relatively egregious situation mentioned in the previous paragraph, where private developers and speculators have relatively free or even too much freedom to control the real estate market. "È la prima volta che viene resa possibile l'espropriazione per pubblica utilità non solo per opere pubbliche ma anche per residenze. L' obiettivo era quello di rendere possibile l' acquisto di aree centrali a prezzo contenuto, evitando così di ghettizzare gli interventi di edilizia

27. Di Piagi, Paola. 2008. *The public city. Social housing and redevelopment in Turin*. Turin: Umberto Allemandi.

28. Ripamonti C. 1965. "Le prospettive urbanistiche aperte dalla 167." *Edilizia Popolare*, n. 63: pp. 3-4.

popolare in zone estremamente periferiche dove i servizi arrivavano molto in ritardo." [29]

9.2 The Intervention of 167 Law

The main method of implementation of the law is PEEP(Piano di edilizia economica e popolare). "The plan for economic and social housing approved in 1963 identified twenty-four zones intended for the application of the law, numbered from E1 to E24(De Pieri 2015, 25)." [30] These areas are distributed in a discrete pattern around the perimeter of the city and are surrounded by appropriate amenities, and are intended to be designed as a self-sufficient urban island model. These twenty-four areas have five types in total, they are public housing、cooperatives、private developers、zones never built and zones not assigned or assigned until 1977. But it is worth noting that not all areas are composed of a single type, and there may be a combination of various residential forms in the same area. The process of completing these 24 areas was lengthy, and at the same time" The story of the 167 did not end with the story of the first Peep but continued also after the substantial exhaustion of the areas identified in the 1960s(De Pieri 2015, 29).[31] "This part

29. Frisa A. (1974), Rapporto impresa privata- potere pubblico nel settore delle abitazioni: edilizia agevolata ed edilizia. Torino: Cooperativa libraria universitaria torinese.

30. Caramellino, Gaia, Filippo De Pieri, and Cristina Renzoni. 2015. *EXPLORATIONS IN THE MIDDLE-CLASS CITY, TORINO 1945-1980.* Italia: LETTERAVENTIDUE.

31. ibid.

selects four zones (E11, E22, E6 and E15) to try to analyze and create atlases, which will start from the next chapter.

Turin's urban development is still going on, here is just a historical summary of a small stage. The aim is to explain the historical context of the area chosen for map generation, and this will go some way to deciphering and translating the form of particular dwellings within the area, thus helping us to translate more of what is shown in the atlas.

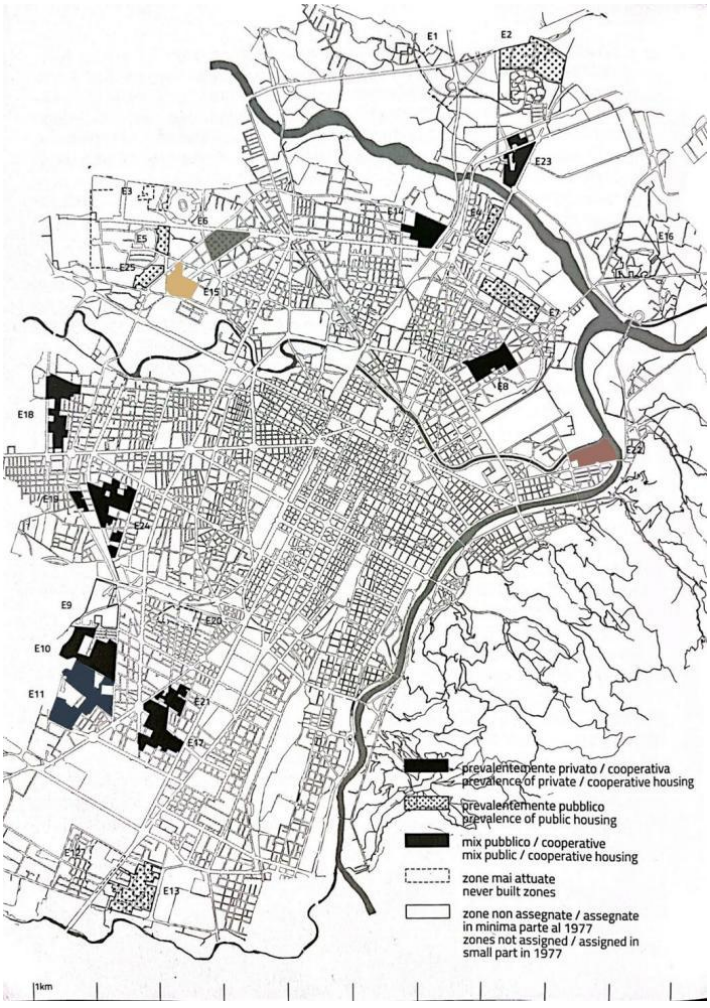

Fig9.1 Location of the 24 neighborhoods included in Law 167 and directions to the four neighborhoods selected herein. Caramellino, Gaia, Filippo De Pieri,

and Cristina Renzoni. 2015. *EXPLORATIONS IN THE MIDDLE-CLASS CITY, TORINO 1945-1980*. Italia: LETTERAVENTIDUE. pp. 24.

Chapter 10: Zone Atlas Report: E11

Fig10.1 Photography: residential elevation and the elderly in Zone E11. Made by author.

10.1 Brief Background

Fig10.2 Instructions of zone E11. Caramellino, Gaia, Filippo De Pieri, and Cristina Renzoni. 2015. *EXPLORATIONS IN THE MIDDLE-CLASS CITY, TORINO 1945-1980.* Italia: LETTERAVENTIDUE. pp. 26-27.

The E11 zone is located in the Mirafiori Nord area, the center of the area is approximately an educational complex, with three more concentrated residential areas radiating out from it, but in different forms depending on the development context of the location. Within the residential neighborhoods there are amenities such as stores linked by green spaces and some corridors (mainly in the CRE[32] area). And as can be seen in figure10.2, the building type consists of three parts, namely public housing, cooperatives and private developers, of which they account for 22%, 29% and 49%, completed and fully built out in 1977. In fact, the E11 zone is the only one of the twenty-four zones that contains all three types of buildings, and it does not contain a section that was never built. Therefore this zone can be seen as a good case study of how the design and construction of middle-class housing was negotiated between public agencies, private developers and professionals at the time. And the funding phase of the zone is 1965-68. "In 1966, the Upir firm from Cuneo, owned by surveyor Mario Chesta, offered the municipality of Torino an arrangement over certain parcels of land in area E11 which were bought by the firm only in later years(1966-68)(De Pieri 2015, 31)." [33] In some ways this also illustrates the history of the 49% "private developer" segment.

32. CRE (IL CENTRO RESIDENZIALE EUROPA).

33. Caramellino, Gaia, Filippo De Pieri, and Cristina Renzoni. 2015. *EXPLORATIONS IN THE MIDDLE-CLASS CITY, TORINO 1945-1980.* Italia: LETTERAVENTIDUE.

10.2 CRE Area

The CRE (IL CENTRO RESIDENZIALE EUROPA) residential area is located in the southwestern part of the E11 zone and is in fact the only intervention entirely dominated by private developers(De Pieri 2015, 31).[34] As a matter of fact, in the case of the city of Turin, the study for the CRE center is a unique example for its typology. "Il quartiere di edilizia convenzionata Centro Europa nasce sul finire degli anni sessanta ai confini sud occidentali della città, fra gli assi di corso Tazzoli e via Rubino, non lontano dagli stabilimenti Fiat Mirafiori. Il progetto è elaborato dall ' architetto Adolfo Balma (1936), impegnato in questi anni sul fronte dell' organizzazione degli spazi urbani. L' intervento è attuato in un periodo in cui l ' elevata domanda di abitazioni innescata dal boom economico induce diverse imprese a definire nuovi sistemi di prefabbricazione, allo scopo di individuare metodi congeniali a essere adottati nell ' ambito di programmi da sviluppare su ampia scala. I componenti edilizi appositamente prodotti dagli stabilimenti UPIR consentono la realizzazione del quartiere, composto da blocchi di grandi caseggiati a undici piani fuori terra disposti a U lungo il perimetro dell' area interessata quasi senza soluzione di continuità, schermando singoli edifici di uguale altezza dislocati fra l ' alternanza di ampi spazi verdi. La tecnica costruttiva utilizzata garantisce una significativa riduzione dei costi, tanto da rendere disponibili appartamenti di tipo signorile a prezzi decisamente

34. ibid.

inferiori in confronto a quelli della coeva edilizia privata. La fiducia nella possibilità di una costruzione seriale da utilizzare poi su vasta scala a costi contenuti è riposta nell' impiego di nuovi metodi di prefabbricazione pesante, da sostituire a quelli di importazione francese ormai superati. Nonostante i vantaggi dimostrati ai fini di un' applicazione intensiva, questa esperienza sarà però destinata a rimanere pressoché isolata, senza diventare un modello da iterare in altri punti della maglia viaria urbana come invece avevano lasciato presagire gli auspici posti a battesimo dell ' intera operazione(MuseoTorino 1999)." [35] As we can see from Figure10.2, the 49% of its area labeled as private developer, almost the entire southwestern portion is CRE, while the other remaining private developer portion is the school complex in the center of the E11 district and another residential collection of subdivisions to the southeast.

35. MuseoTorino. 1999. "Centro Europa." Accessed August 7, 2023. https://www.museotorino.it/view/s/a91de61aa415480bb4b07165b5e4c9cc.

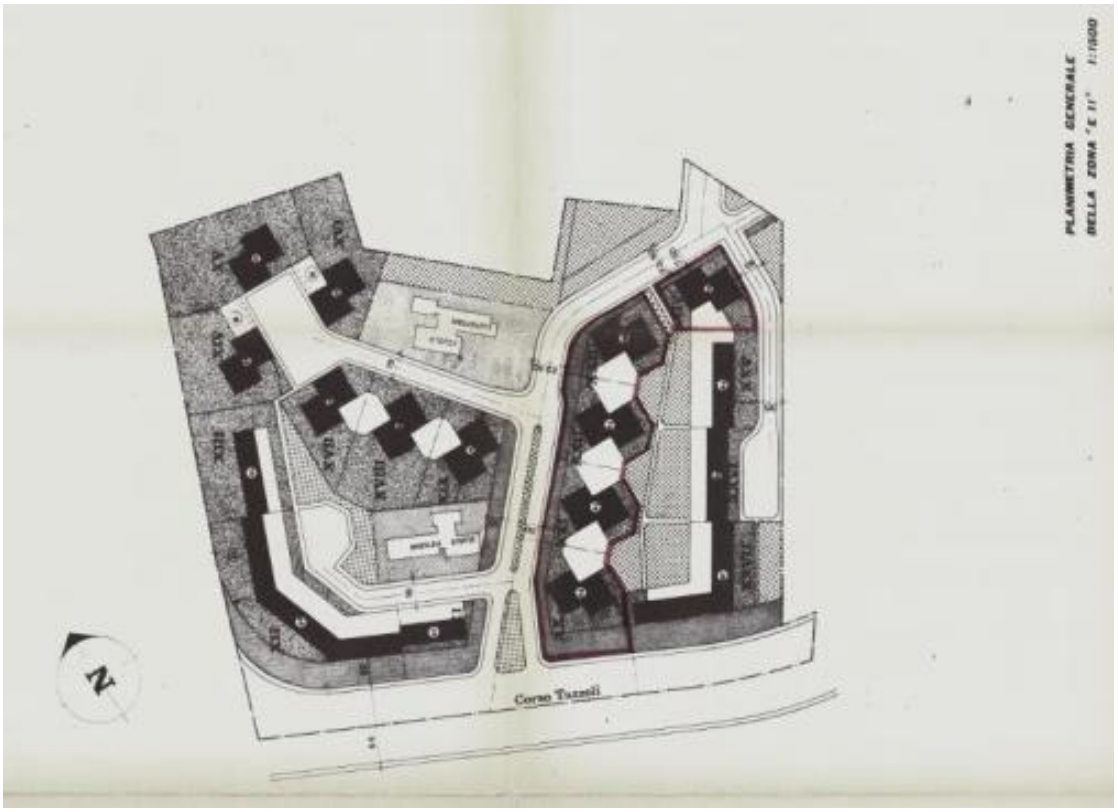

Fig10.3 CRE area. Planimetria generale del CRE _ Fonte: A.E.C.T., protocollo 1967 1 80009. Quoted in Mana, Giulia. 2021. "Architettura residenziale a Torino negli anni del boom La 167 e i piani di zona E10 e E11 di Mirafiori Nord" Master`s thesis, Politecnico di Torino.

Fig10.4 The《Centro Europa》(Zone E11) in a newspaper advertising (《La Stampa》,21 November 1971). Quoted in Caramellino, Gaia, Filippo De Pieri, and Cristina Renzoni. 2015. *EXPLORATIONS IN THE MIDDLE-CLASS CITY, TORINO 1945-1980*. Italia: LETTERAVENTIDUE. pp. 16.

Looking back at figure10.2, we can see that the" private developers" area,

dominated by CRE, is in the southwestern part of E11, while the "public housing" area is to the north. Meanwhile, the central region is in the form of cooperatives. In the latter part of this chapter we will summarize my observations in the form of an atlas, which will allow me to cross-analyze the similarities and differences in the form of housing and other landscape features.

10.3 Atlases and Observations

10.3.1 Overview of Building Types

Fig10.5 General illustration of zone E11. Made by author.

As we can see from here the zone approximates the center of a school complex, while dispersing in all directions into three more dominant residential neighborhoods with corresponding infrastructure. I will attempt to lay out each of the different types, in order from private developers to

cooperatives and finally to public housing, basically demonstrating the observation notes one by one in order from south to north. The order of creation of the atlas will be an axonometric view of the whole, interspersed with original photographs and illustrations to explain specific details mentioned in the narrative in accordance with the established order. Finally, after the basic observations have been described, an additional gallery based on the same background but with a different creative approach will be presented.

In the CRE community that has been introduced above, there are mainly two types of large-scale residential buildings, namely the long strip-shaped compound residential buildings located on the edge and the single residential buildings surrounded in the middle, with two educational facilities in the relative center of the area. And the overall style of the building is relatively uniform in this area, the structure is reinforced concrete, and the facade is made of prefabricated sandstone, natural stone and concrete. Based on the current author's observations, the state of maintenance of the façade is consistent with the overall level of restoration of the building, and even provides the opportunity to present good photographs of the façade complementing the balcony greenery.

Fig10.6 CRE area in zone E11. Made by author.

Fig10.7 Photography: elevation and resident in zone E11. Made by author.

In fact, when the author visited the community, except for the main body of the building, the large area of greenery and the equipment of the private underground garage made the layout of the whole community clear and luminous. As the author observes more, there is no large planned market or commercial area nearby, so in order to meet the daily needs of the residents, the form of the residential buildings in the northern part of the CRE area has been changed a little bit, with small stores on the ground floor connected to outdoor corridors, and the parking lot in the center of the building, which creates outdoor space for the convenience of the people. This type of 'first floor stores and high rise housing' is relatively unique to the whole of the E11 area. The same type of housing is found in the north-eastern part of the E11 zone, also under the category of "private developer", but not exactly the same.

Fig10.8 Elevation collage of stores in zone E11. Made by author.

Fig10.9 Axonometric illustration of stores in zone E11. Made by author.

Fig10.10 Zone E11 remainder. Made by author.

What is left in the private developer's portion is the school complex at the center of the dispersal and another residential community to the southeast. The school complex is in fact the relative center of the E11 area, and in terms of planning history, the current scuola Modigliani is the same as the schools designed in the E10 area. ” Nella zona di espansione E11 in una Torino che aveva conosciuto la forte immigrazione dal sud, la trasformazione in città-industria, il sorgere di case popolari e il bisogno di servizi nuovi, negli anni Settanta si rende necessaria una struttura che accorpi i servizi scolastici di quartiere e funga da centro di aggregazione. Proprio come già avvenuto nelle zone E12 ed E10 con le scuole Castello di Mirafiori e Gobetti, si pensa allora a una struttura prefabbricata, dagli spazi flessibili, con attrezzature sportive. Su queste basi viene aperta nel 1978 la scuola intitolata alla maestra Franca Mazzarello. Essa ospita un asilo nido, una materna, una elementare e

una media (la Modigliani) e, unica nel quartiere, nasce già con il tempo pieno statale. Alcune classi invece vivono quella commistione di insegnanti statali e comunali che portano al "tempo lungo". Il numero degli alunni supera le 500 unità, cui si sommano gli iscritti nelle succursali di via Gaidano e via Cimabue. Nata in pieno periodo di sperimentazione del tempo pieno, la scuola vive quelle tipiche contraddizioni degli anni di cambiamento, aggravata dalle condizioni non sempre semplici di integrazione e di superamento (con la legge 517 del 1977) della suddivisione in classi speciali e differenziali dei bambini in difficoltà. I locali seminterrati ospitano luoghi di aggregazione del quartiere, tra cui la redazione del giornalino "Quartiere 12" nato nel 1977 ed emanazione dei Comitati spontanei dei quartieri Mirafiori Nord-Ovest, Città Giardino e Santa Rita. Laboratori, progetti e ricerche, oltre all' attiva partecipazione del Comitato dei genitori, hanno consentito alla scuola di arricchire la qualità dell' offerta formativa e potenziare l' integrazione. Attualmente l' istituto è sede centrale dell' omonimo circolo didattico, ha una popolazione scolastica di circa 450 alunni (di cui il 10% stranieri) ed è composto da 24 aule, 9 laboratori, aula pre e post-scuola, 3 uffici, 1 sala medica, 1 sala mensa, magazzini e archivi, palestra e cortile esterno. Fanno capo al circolo didattico Mazzarello anche la scuola elementare Vidari e le scuole per l' infanzia di via D' Arborea e via Montenovegno." [36]

36. MuseoTorino. 1999. "Scuole elementare Franca Mazzarello." Accessed August 12, 2023. https://www.museotorino.it/view/s/89f1d40387b94ef587b37e477ab625b0.

In addition to its social role as an integral part of a functional community, in the E11 area the school also serves to harmonize green spaces and roads within the urban context.

Fig10.11 Photography: entrance to the elementary school Franca Mazzarello in zone E11. Made by author.

The final part of the "private developer" is located in the south-east corner of the E11 area and again comprises a residential neighborhood of six relatively detached dwellings and two long joint dwellings. The structure is also reinforced concrete, the facades are varied but not that much, and the main materials continue to be brick and concrete. It is also worth noting that the structural design of the ground floor as a commercial space is also present on the street façade of this area, but the observation reveals that

there is only one post office at the moment, and a connecting corridor with columns has also been established to connect the commercial space on the first floor, creating a typical zone of urban gray space.

Fig10.12 Photography: outdoor corridor with columns in zone E11. Made by author.

The next area is in the central region, characterized by an abundance of urban green space resources, low building density, and a concentration and variety of freestanding stores. Residential housing is simpler, mostly detached. There are also plenty of public facilities, including soccer and basketball courts. The centerpiece is the Istituto Enzo Ferrari, a scientific high school.

Fig10.13 Photography: green space and the elderly in zone E11. Made by author.

At last, in the northwestern part of the area, six buildings were constructed,

arranged in such a way as to form a kind of curtain over the Corso Salvemini. Inside, however, there should have been 8 towers, but were not built (replaced by soccer and basketball courts). These huge residential complexes exist on the fringe of the E11 area, and somehow serve the function of zoning well. The structure is still reinforced concrete and the façade is mostly of brick type.

Fig10.14 Photography: soccer game and huge facade in zone E11. Made by author.

As an echo of the research methodology mentioned earlier, I tried to select a certain area in zone E11 for the creation of the " Maximalism " atlas. As we have mentioned, the use of the axonometric view eliminates to the greatest extent possible the limitations of the vanishing point of the map, i.e., it is

theoretically possible to extend and represent infinitely all the necessary elements of the area. In addition to buildings, terrain, the planning of the area, even all possible activities should be included. Within the framework of a static and limited drawing, it serves as a vehicle for jumping and moving elements.

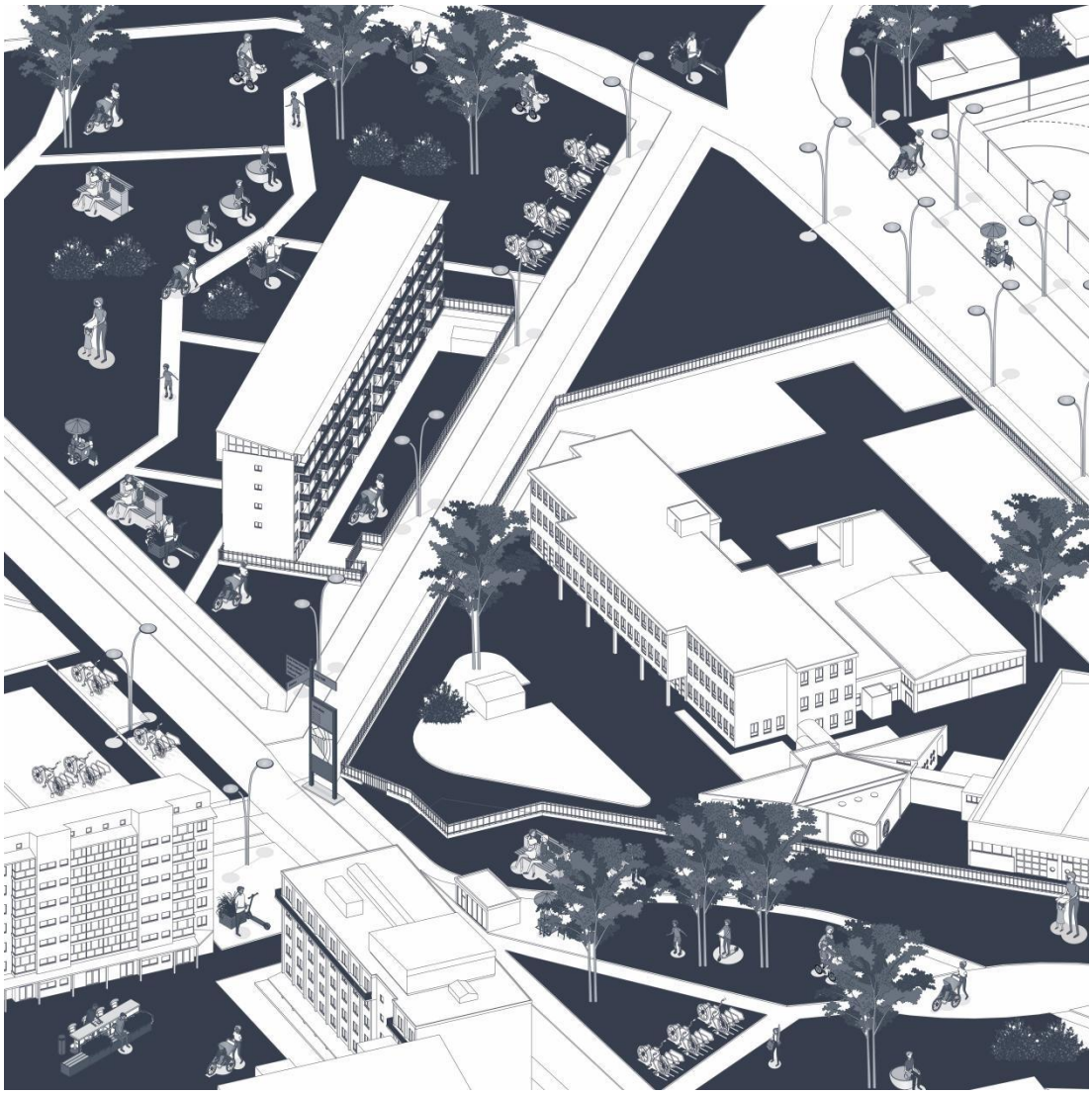

Fig10.15 Axonometric representation "maximalism " of zone E11. Made by author.

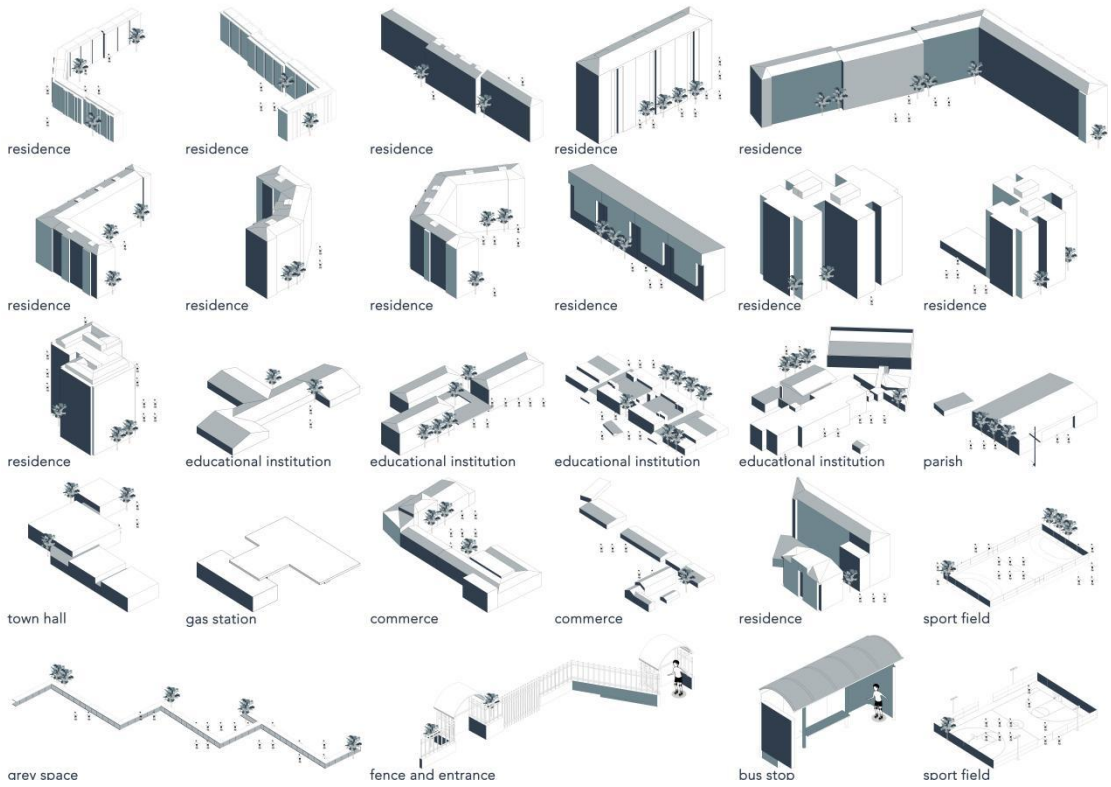

Fig10.16 Illustrations of building typology of zone E11. Made by author.

Building types can be very specific. By thinking about typology, we deconstruct, categorize and then design the city. By analogizing, analyzing, deconstructing and ultimately reorganizing salient building types, we can also try to interpret city types by drawing maps in the form of collages. In the case of the "Da-me" building mentioned earlier, it would be difficult to find a similar example here. Because of the different architectural contexts, when using this form of presentation, relatively interesting buildings in the neighborhood are presented, but not necessarily "Da-me" buildings in the context of Tokyo.

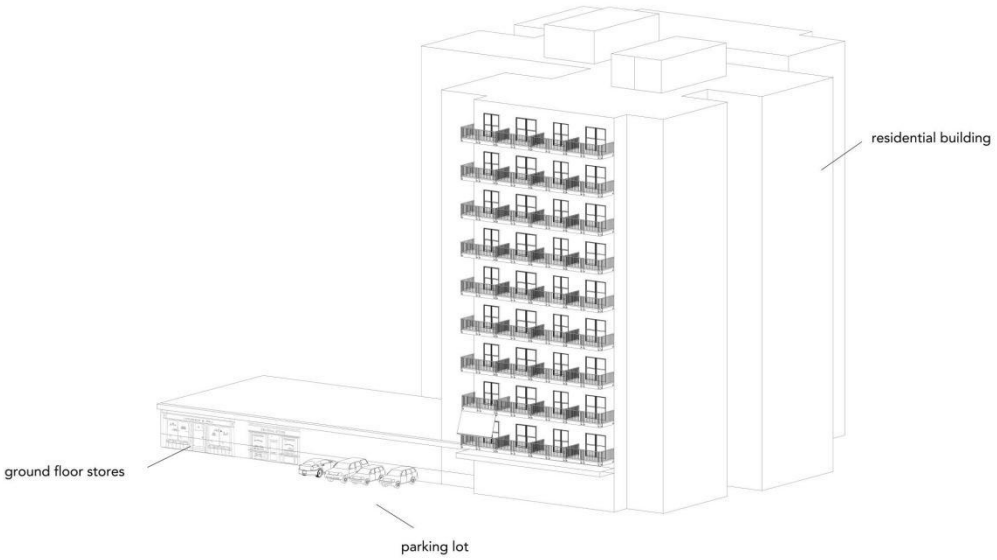

Fig10.17 Illustrations of “Da-me” building of zone E11. Made by author.

Fig10.18 Collage map of the E11 zone. Made by author.

10.3.2 Overview of Public Spaces

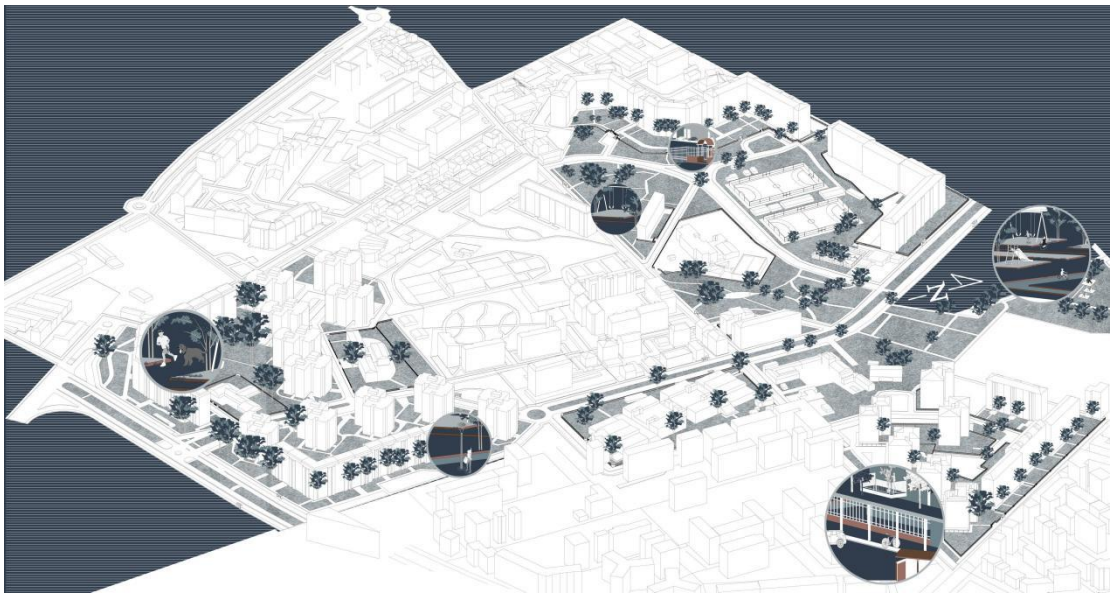

Fig10.19 Illustrations of public space facilities and the use of green space of zone E11. Made by author.

Figure10.19 shows the green status of the E11 zone and the treatment of public spaces. And with enlarged detailing of public facilities. Public green areas and public space areas account for a significant proportion of the entire E11 zone. In addition to the fully planned parks, the green areas interspersed between the residences provide a good ecological environment and an atmosphere of social activities for the residents in the neighborhood. By using the axonometric map of the green space, we can better observe the proportionality between the building and the green space, which makes it easier to recognize the larger space. In fact, in spite of the narrative nature of the objective facts, such an axonometric map allows for a better perception of

the urban space and thus translates the relationship between the urban space and the green space. For users, green space is the park where they run in the morning or the grass where they walk their dogs after dinner. For observers and planners, green space is the carrier of accessibility and extensibility in the planned space. Apart from physical buildings, green space and other public spaces are indispensable parts of a complete humanistic community. In other contexts, or in other design circumstances, diagrams of the relationship between urban green space and buildings like this could be helpful.

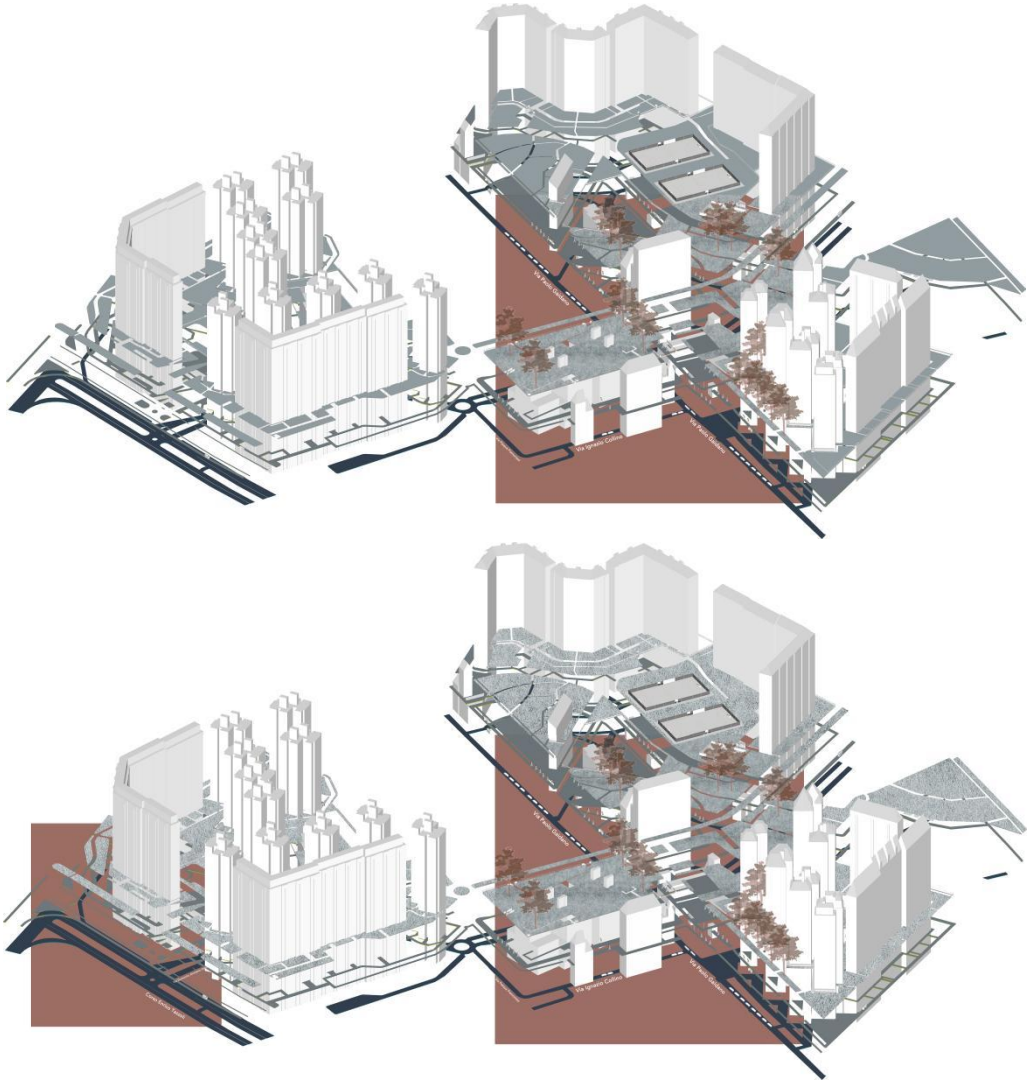

Fig10.20 Illustrations of transportation system of zone E11. Made by author.

The diagram above attempts to explain the relationship between the roads and the buildings themselves by using a hierarchical approach at different levels. At the ground level, there are motorized roads, including bus lanes, interspersed throughout the community, and then up one level, there are sidewalks, which also serve as public activity areas, including a limited number of bicycle lanes, but only in the public green space areas. The lack of planning for bike lanes is actually a more general problem, specifically in the E11 zone, which is more restrictive, with little to no planning for bike lanes in the general public transportation space. Bike lanes exist almost exclusively in public green space areas. At the top, they are covered with greenery and partly integrated behind the motorway, e.g. safety islands[37] in the middle of open roads. My attempt here to utilize an axonometric perspective rather than a pure plan view is to provide a more vertical perspective that not only articulates the hierarchical relationship of the roadways, but at the same time can provide a particular perspective to translate the accessibility and encirclement between the transportation roadway system and the buildings in the E11 zone.At the meantime for the different nature of the building's identification is at the top, through which we can see that, for schools and other educational institutions, the road almost to do all sides encirclement, to ensure access to public buildings. For relatively private residential neighborhoods, the road usually

37. Safety island, also known as traffic island, division island, separation island, demarcation embankment, is a road divider, located in the middle of the road or between the fast lane and the slow lane, separating two-way lanes or fast and slow lanes, but also for pedestrians to avoid vehicles.

only reaches its entrance side, and fences to ensure more privacy and security.

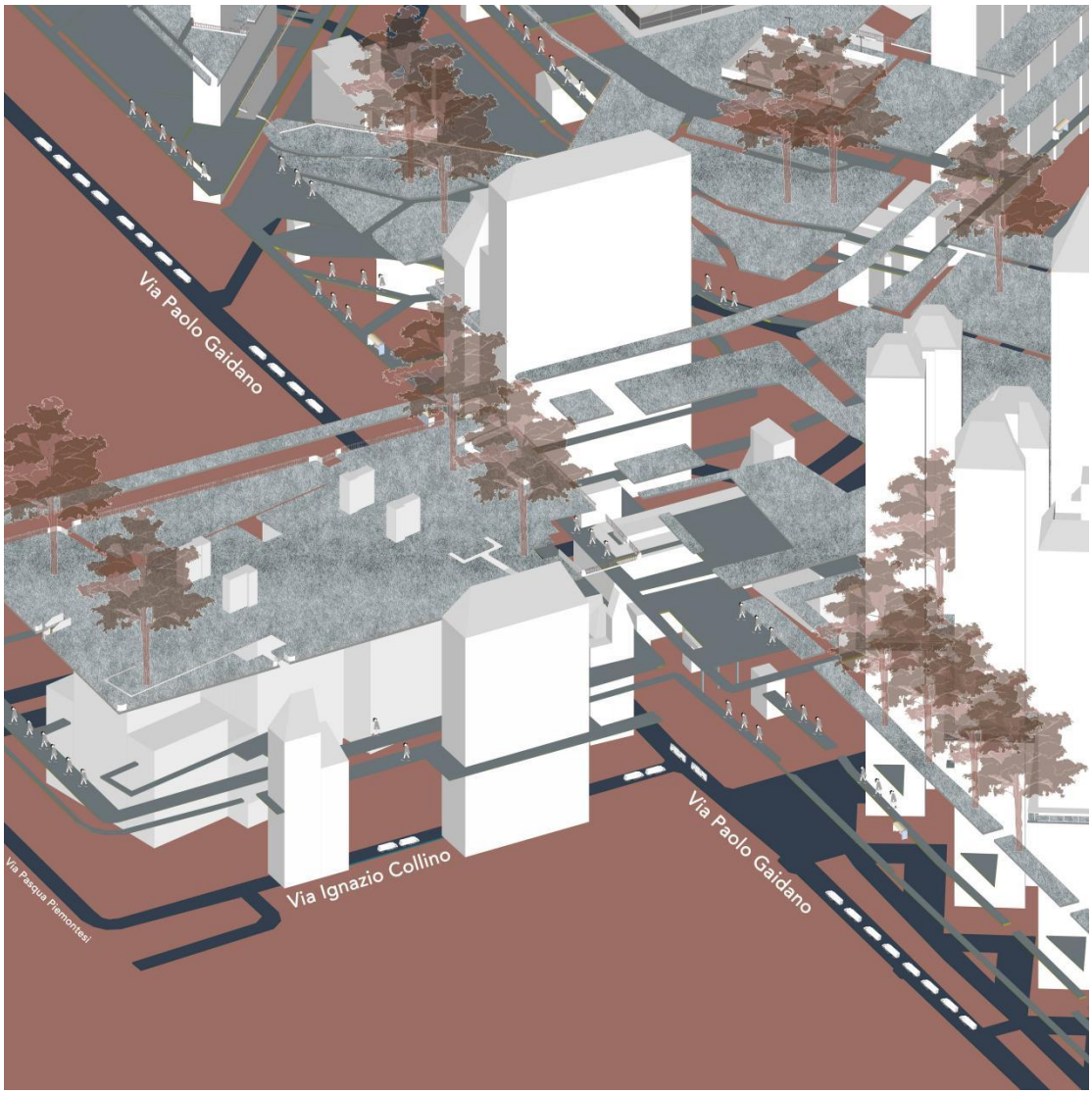

Fig10.21 Illustrations of detailed transportation system of zone E11. Made by author.

Up to this point, the attempts of the atlas are all centered around the same axonometric perspective. Based on the same perspective but with different themes, I have tried to present the whole zone map, the green space use map and the transportation system map in the axonometric perspective. One

of the characteristics of the axonometric perspective is that it does not have a point of extinction within a limited drawing area, which adds almost unlimited possibilities to its content. Apart from the academic purpose, I hope to re-translate the urban space through the characteristics of the axonometric map, and to show the various activities that may be happening in the urban space.

10.3.3 Overview of Cross-comparisons of Similarities and Differences of Zone E11

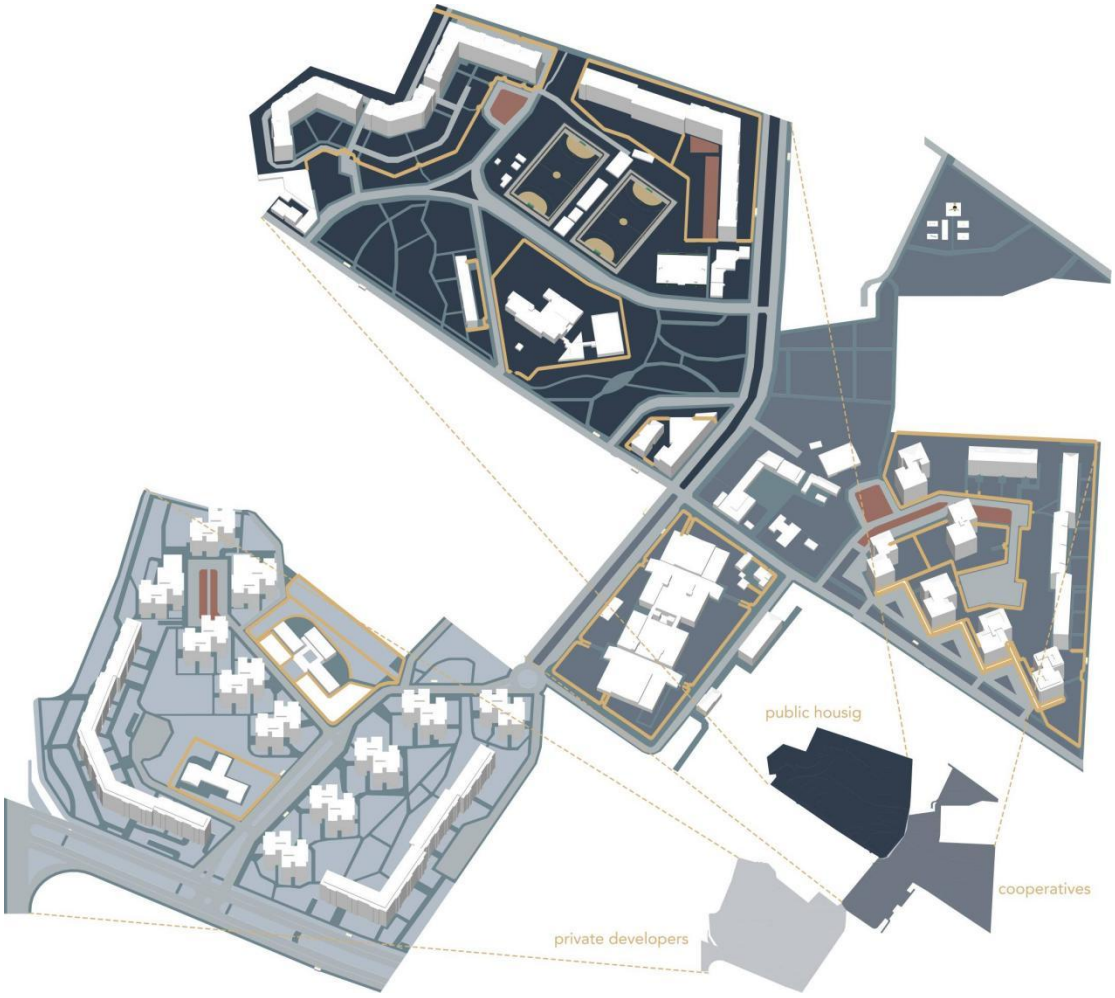

Fig10.22 Plan of zone E11. Made by author.

Looking back at the entire E11 zone, in terms of the historical development context, the difference in building types is that in the "private developer" area, the main type of building is basically residential. In the CRE area, there is no fully planned commercial neighborhood, but rather the previously mentioned "ground floor retail and high rise residential" type. There are also two smaller educational institutions in the relative center and a larger educational complex in the relative center of the entire E11 zone. In the remaining 'private developer' area to the south-east, this is land owned by the municipality and transferred to the relevant cooperative,[38] there is no major difference in the type of housing. The use of public space in the CRE area is overwhelmingly dominated by the use of green space, with the placement of underground garages, which provide better views of the green space above ground. However, it is worth noting that in the south-eastern part of the residential area the entrance to the underground garage is observed, but is not in use, and in comparison there is more parking space above ground than in the CRE area, and the greenery is relatively poor and inconsistent. The roadway system is slightly less organized than in the CRE area, and the boundary between sidewalks and surface parking lots is not very distinct. There are also observations about the boundary setting (yellow highlighted portion of the diagram). There is little to no fencing of residences in this area, with only long

38. Mana, Giulia. 2021. "Architettura residenziale a Torino negli anni del boom La 167 e i piani di zona E10 e E11 di Mirafiori Nord" Master`s thesis, Politecnico di Torino.

sections of continuous rows of fencing along the street elevation in the southeast, and the only fenced areas in the center of the CRE are the two educational institutions.

The central area is a " cooperative " area, with the main buildings consisting of two detached houses and a small planned commercial area with restaurants and gas stations. With the exception of the last school on E11 in the center, the relatively large area is entirely public green space, including two gardens in the center and Nicholas Green Park in the northeast corner in memory of the little boy Nicholas Green. The building types are varied and functional.

Finally the public housing area, located in the far north, consists of six huge residential buildings in the form of strips, originally planned as eight tower-type residential buildings at the location of the soccer field in the picture. The entrances and exits to the residences are also very private and fenced, unlike the other two areas. There are also no stores on the ground floor, unlike in the CRE area.

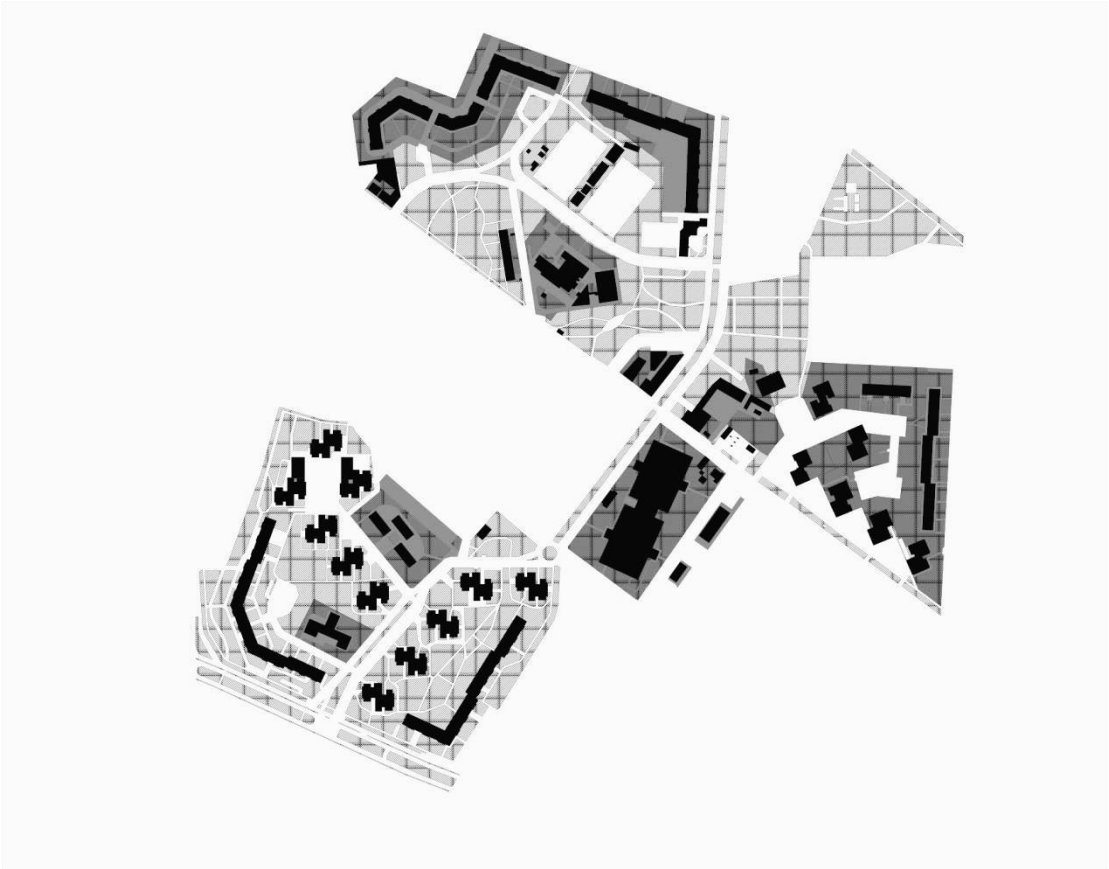

Fig10.23 Nolli Map of zone E11. Made by author.

10.3.4 Divergent Thinking on the Zone E11

Because of the historical background related to the Law 167, the interpretation of the observations in the E11 zone needed to be as objective and more academic as possible in order to facilitate future research as a serious text. Therefore, in all the atlases presented in the previous section, the requirement was to make as much objective information as possible readable in the pictures.

However cities can be figurative or abstract in the eyes of the observer. While the figurative information of a building is memorized, there may be another abstract way of looking at the city. The atlas can be a rigorous topographical,

axonometric or even technical drawing, but it can also be a collage with no edges, a flattened perspective drawing with a heavily fictionalized space. Although this is only an irrational thought put forward by the author here as a most common city observer, all the elements inherent in the city itself can be split, disrupted, deconstructed and then reorganized in another way of thinking. So visualizing all the observations of the city is a valuable way to understand the city, regardless of whether it is a rigorous academic image or a radical "kaleidoscope of chaos". Thus at the end, some illustrations of what might be called the radical method of observation will be presented, and they should, in spite of presenting all the necessary information about the zone, also present the state of life here, the spiritual atmosphere here, the human activities that may or may not take place here. And it's just as likely that this is the new thinking that people will generate about this area.

Fig10.24 Daily life scene collage of zone E11. Made by author.

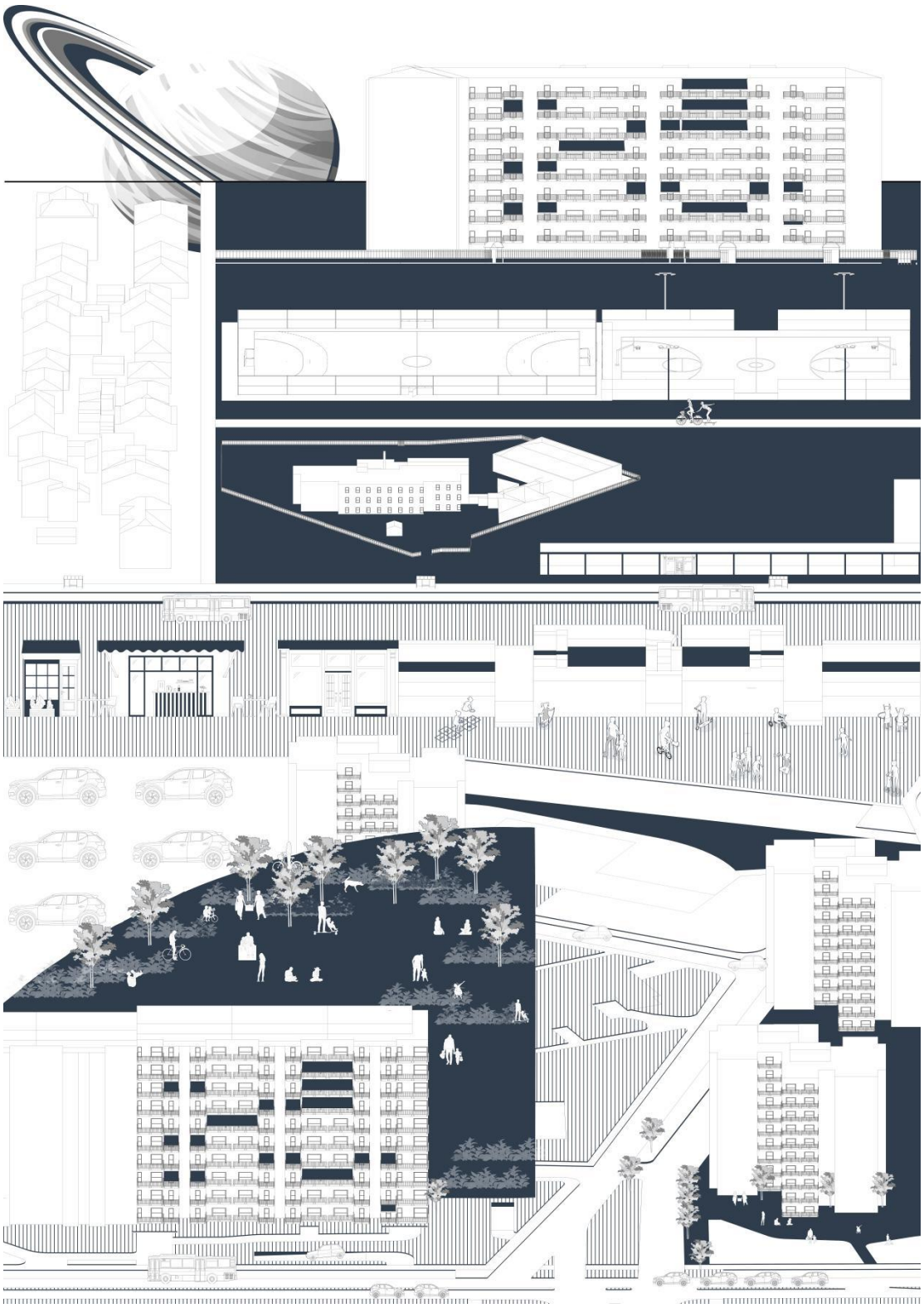

Fig10.25 Additional illustration of zone E11. Made by author.

Chapter 11: Zone Atlas Report: E22

Fig11.1 Collage of zone E22. Made by author.

11.1 Brief Background

Fig11.2 Instructions of zone E22. Caramellino, Gaia, Filippo De Pieri, and Cristina Renzoni. 2015. *EXPLORATIONS IN THE MIDDLE-CLASS CITY, TORINO 1945-1980.* Italia: LETTERAVENTIDUE. pp. 26-27.

The E22 zone is located at the confluence of river Dora Riparia and Po in the Vanchiglietta area, and its southern border is the 2.1-kilometer-long Corso Belgio, which begins at Ponte di Sassi and ends at the Corso Luigi Carlo Farini intersection. The beginning of the street, Largo Rosario Berardi, is dedicated to the memory of Rosario Berardi, a policeman assassinated on March 10, 1978 by the Red Brigades.39 The buildings on both sides of the Corso Belgio are characterized by small houses and many stores, which is typical for this street and for the entire Vanchiglietta area. A speculative reflection on this characteristic is that in the current observation, the building types along the street in the entire E22 area are all "stores on the ground floor and houses on the upper floors", which is supposed to be the result of the evolution of this characteristic in the course of the historical development. If compared to the previous E11 zone, these dwellings with this characteristic have significantly more openness and at the same time are more numerous. As can be seen from the figure above, the E22 zone has a relatively simple composition of types, all of which are cooperative types. The very small portion located in the north is zone not assigned. With regard to buildings designated as cooperative types, they were cursorily mentioned in the previous chapter of the report. "The resulting neighbourhood lacked unity in its design but was characterised by an interesting mix of private and public interventions,

39. Wikipedia Vanchiglietta. 2023. Accessed August 25, 2023. https://it.wikipedia.org/wiki/Vanchiglietta.

subsidised and market buildings(De Pieri 2015, 33)." [40] It's the author's narrative about the buildings on the other E21 zone in the context of the cooperative. In fact cooperatives were created to oppose the capitalist model of production consumption and attempted to eliminate the role of speculative intermediaries.

11.2 Atlases and Observations

11.2.1 Overview of Building Types

Fig11.3 General illustration of zone E22. Made by author.

Zone E22 has, first of all, a stronger sense of enclosure throughout the neighborhood compared to Zone E11. A strong boundary formed by the main Corso Belgio road plans the southern part, while the remaining part is enclosed by the river Dora Riparia and Po. On this basis, it is easier for the whole neighborhood to relate to itself as a fully functional but relatively private zone. Consequently, there is a greater diversity of building types

40. Caramellino, Gaia, Filippo De Pieri, and Cristina Renzoni. 2015. *EXPLORATIONS IN THE MIDDLE-CLASS CITY, TORINO 1945-1980.* Italia: LETTERAVENTIDUE.

throughout the neighborhood.

Corso Belgio is like a strict ruler that divides the different types of buildings on both sides of the road. Although, as mentioned earlier, the building types along the street are all similar, with residential buildings on the upper floors and stores on the lower floors, the layout of the plan, which is centered on the road and extends to both sides of the street, is very diverse. Zone E22 has a considerable number of public buildings of a community-serving nature, such as a community activity center, a kindergarten and the iconic church Parrocchia S. Giulio D'Orta. And the main large-base residential type is high-rise, consisting of seven adjacent river Dora Riparia high-rise residential curtain wall-like. The rest of the housing types are also detached and more modern, in contrast to the traditional forms on the opposite side of the Corso Belgio.

Fig11.4 Comparison of building types from Google Maps.

A more detailed look along Corso Belgio from west to east is interpreted according to Figure 11.3. At the westernmost edge is the community center, with an adapted ball field and sufficient green space, with a clear fence creating a boundary. This is followed by a typical collection of small, enclosed dwellings. But while the houses along the street have a more traditional form, the façades along the river are more varied.

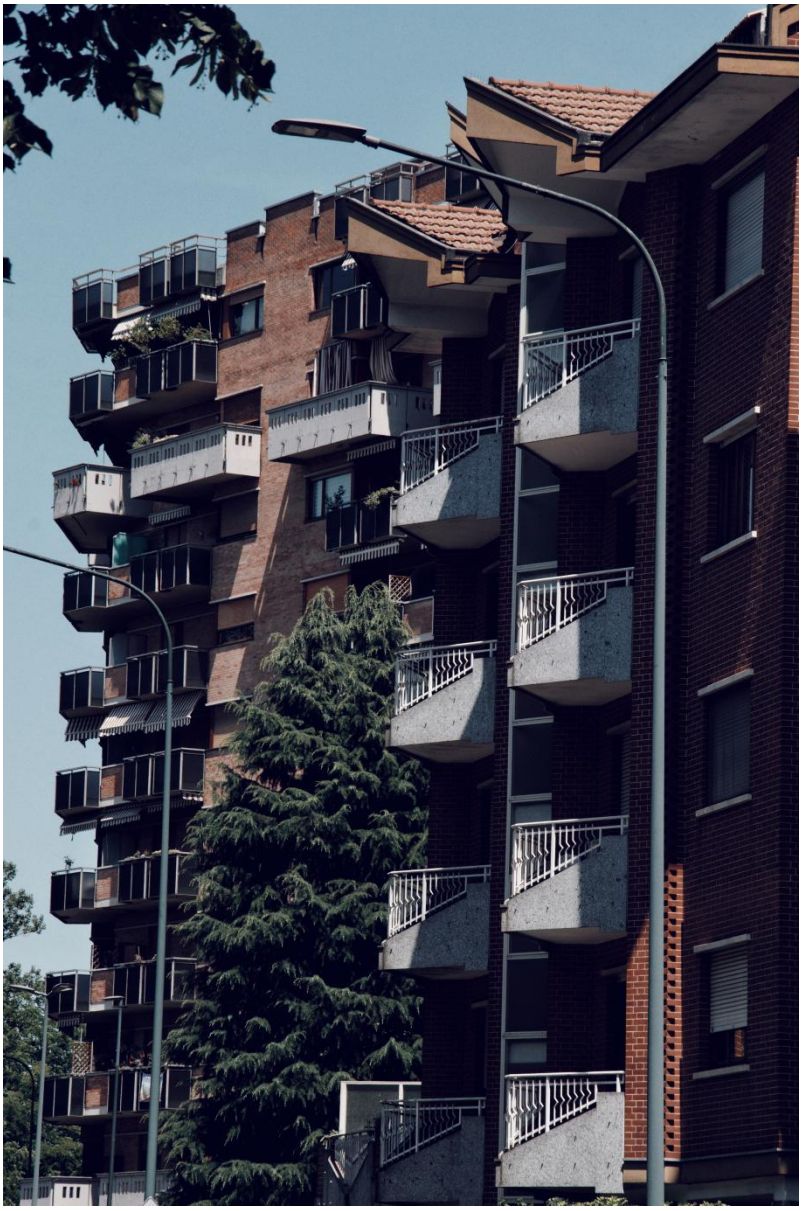

Fig11.5 Photography: elevations of riverfront residences in zone E22. Made by author.

Comparison of residential elevations along the street with residential elevations along the river:

Fig11.6 Photography: elevations of streetfront residences in zone E22. Made by author.

Fig11.7 Photography: elevations of riverfront residences in zone E22. Made by author.

It is followed by seven high-rise residences along the river, forming a huge curtain facing river Dora Riparia. The neighborhood's main residential task is carried to a great extent, while at the same time relatively enclosing the inner private space. An interesting observation is that there is a proper distance between the upper floors which ensures light and at the same time proper permeability. The space between the high rise houses is rationally utilized as a private green space for the residents as well as a parking lot. At the same time, the seven high-rise houses can be regarded as a relatively private neighborhood within the block, in which the internal traffic space is not connected to the main road, and there is only a one-way driveway, which ensures that the residents can drive into the independent parking lot. Fences are also placed to mark the clear boundaries. Immediately adjacent is a large amount of public green space as well as a kindergarten and community activity center with open soccer fields. The final section is the easternmost part of the neighborhood, for evenly spaced single-family high-rise homes and the Parrocchia S. Giulio D'Orta, which is surrounded in the center.

Fig11.8 Photography: a corner of the parish in zone E22. Made by author.

Zone E22 has a variety of building types and is relatively unique. Compared to Zone E11, it is more self-contained, more like a small self-sufficient community, and does not require too much connectivity at the boundaries of the area. The presence of high-rise housing, which carries most of the residents, allows for more space to be planned for public buildings for social services, and even just enough public open space for green spaces as well as parking. There is also much more commercial coverage than in Zone E11, with areas dedicated to shopping malls and supermarkets. Consequently, this gives people in this neighborhood more possibilities to do more social activities within a space that can be walked to.

Fig11.9 Axonometric representation "maximalism " of zone E22. Made by author.

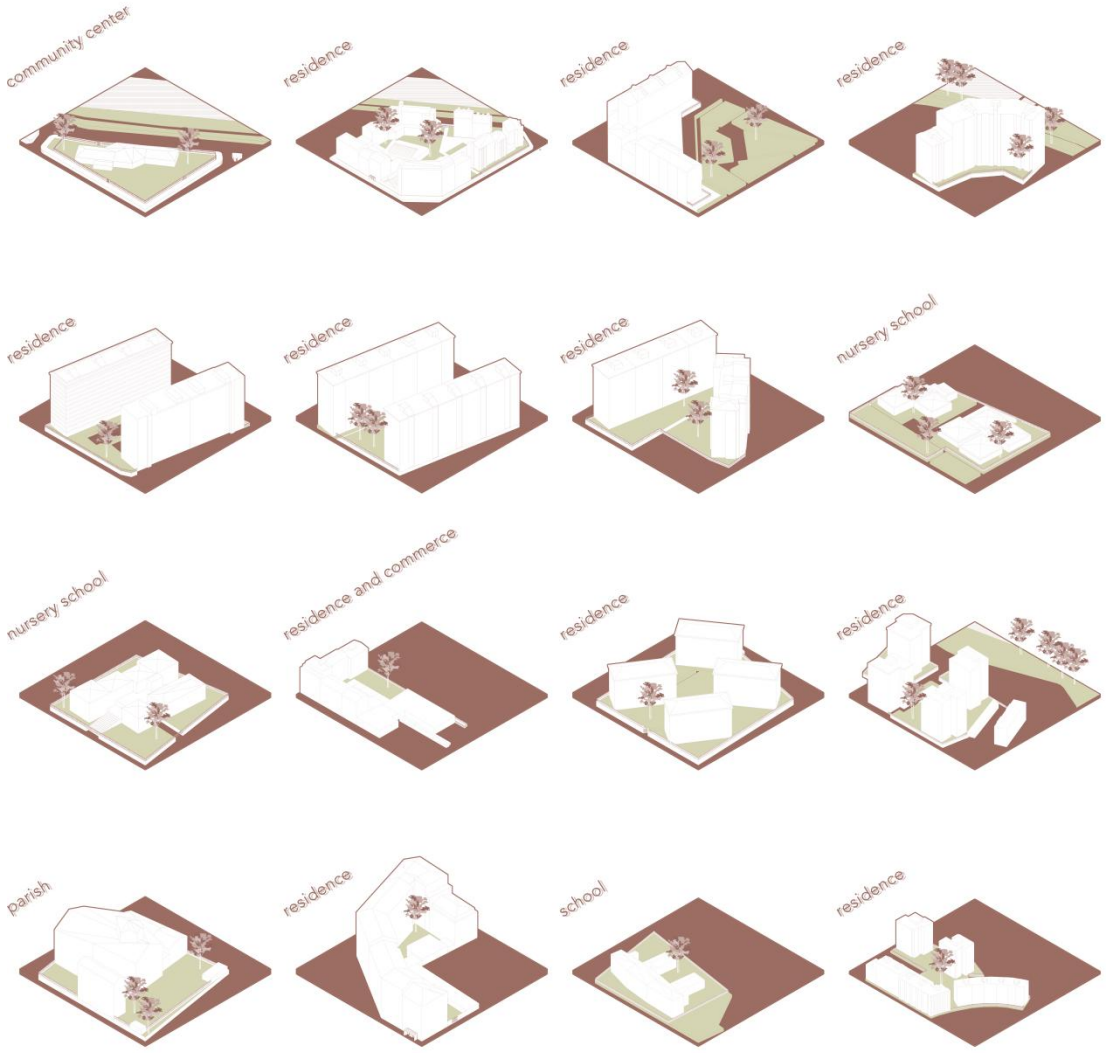

Fig11.10 Illustrations of building typology of zone E22. Made by author.

There is a slight change of form in the building type legend for this neighborhood. More noteworthy than in the previous block is the more pronounced private green coverage of the individual buildings, to the point where each individual building has its own private green area or small private garden. Even the commercial buildings along the street are covered by a large number of street trees, while the private greening of the residential areas with excellent privacy is even more effective. The private landscaping of

each individual building cannot be separated out here, but is closely linked to the building. Therefore the building types are shown in the legend together with the corresponding green areas.

Another notable feature of the building typology in Zone E22 is that almost all the buildings along the main street Corso Belgio are covered with businesses. The vast majority are in the nature of stores on the ground floor of high-rise residential buildings, which is a significant difference compared to Zone E11, firstly the type has a higher density of coverage, while at the same time taking full advantage of the socialization and accessibility of the arterial road, which allows for greater exposure of the commercial area. Secondly distinguishing Zone E11 from Zone E11 is that the commercial areas are geographically located in residential neighborhoods, here they are more centralized and planned. The commercial portion of the remaining buildings along the street are purely commercial buildings with appropriate green space enclosures as well as surface parking areas and underground parking lots. Consequently, the combination of these two commercial building types actually makes the commercial buildings in Zone E22 more planned and larger in scale.

On the other hand, all commercial types are concentrated along the street, with the buildings along the main street Corso Belgio as the southern boundary, and the area to the north is purely on a private mode, with no commercial buildings inserted, but only residential areas and a large amount

of corresponding green space. This feature makes good use of the commercial value of the main road and at the same time guarantees the privacy of the private residential area bounded by the river.

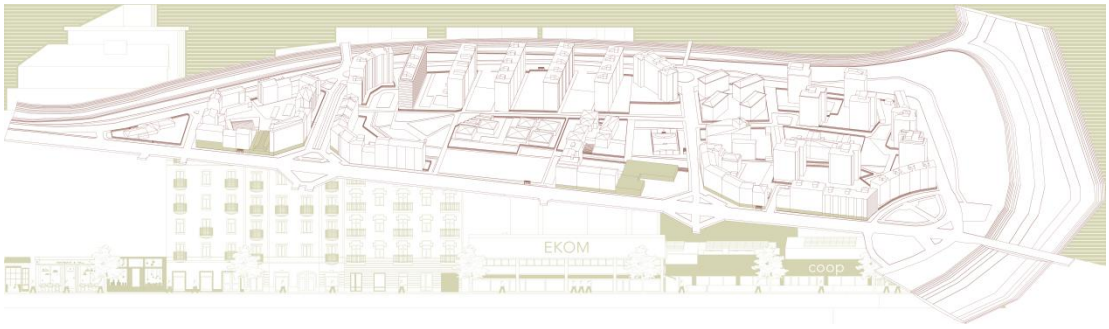

Fig11.11 Illustrations of commercial part of zone E22. Made by author.

11.2.2 Overview of Building Elevations

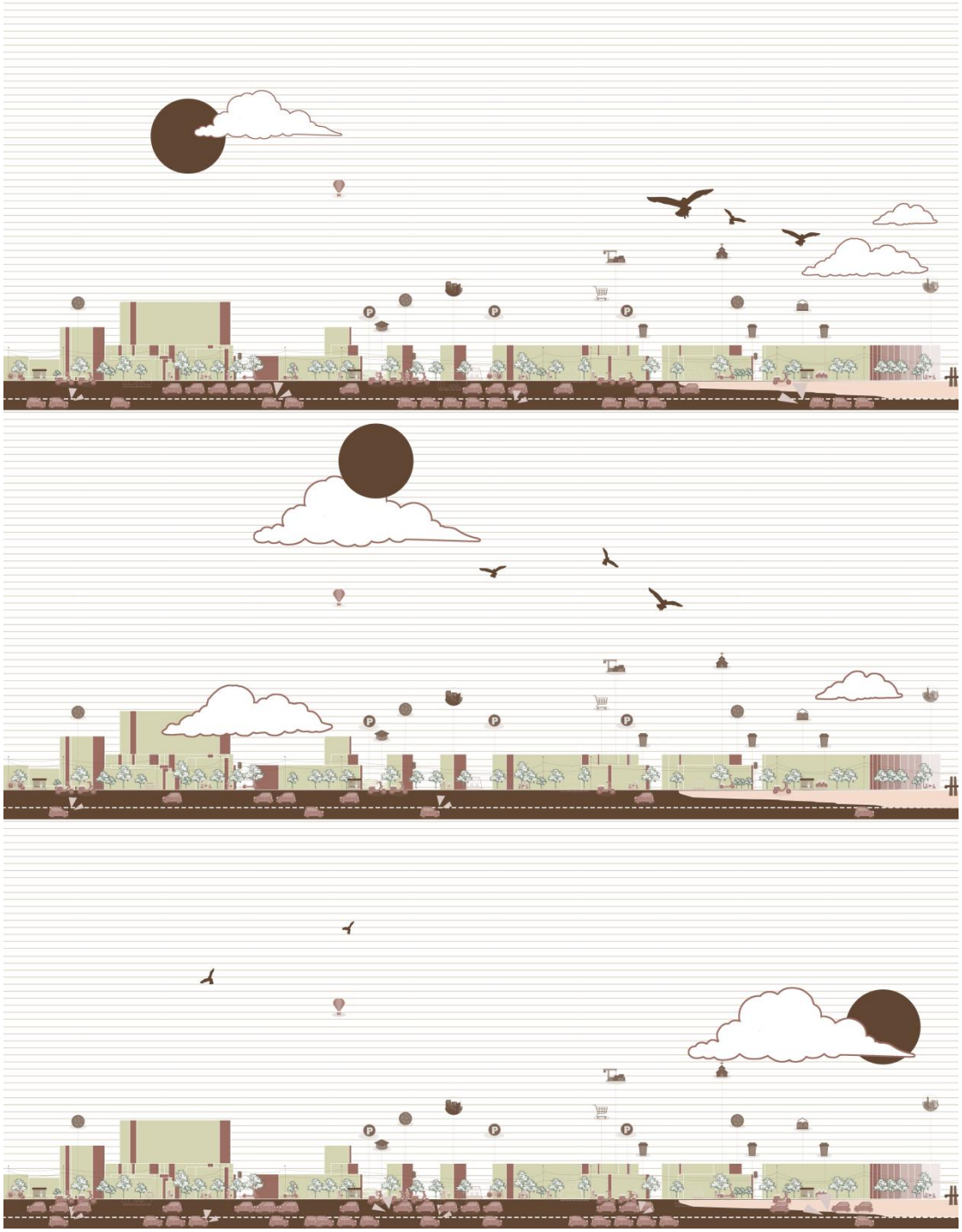

Fig11.12 Illustrations of elevation of a day's change zone E22. Made by author.

When a neighborhood has a distinctly shape-specific demarcation, the

corresponding building façade jumps out as a relative depiction of the character of the neighborhood and the development of the earlier zoning route. Zone E22 is an example worth analyzing for its main façade along the street.Figure 11.12 above shows the street façade along the main Corso Belgio at three different times of the day, morning, noon and night. The fixed elements of the illustration are the composition of the buildings along the façade, including the streetscape, but it is interesting to note that the dynamic elements that change throughout the day also shape the character of the street to some extent. Fixed elements build the shape and diameter of the block, as well as determining the geometric composition of the block, relatively influencing the overall arrangement of other buildings within the block as well as lighting and views. More importantly, street elevations also have a significant impact on the visibility and accessibility of commercial buildings such as stores, restaurants and supermarkets on the street, adding to the vitality of the street and, of course, increasing its commercial value. By extension, elements of mobility also help to shape the character of the neighborhood. As observed from morning to evening, the traffic and pedestrian flow during the morning and evening rush hours, the increased pedestrian flow in the residential areas in the afternoon when kindergarten is dismissed, and the sporadic traffic flow in the evening when the busy streets calm down are all manifestations of the mobility character of the neighborhood.

Fig11.13 Architectural elevation. Made by author.

Fig11.14 Architectural elevation. Made by author.

11.2.3 Overview of Public Spaces

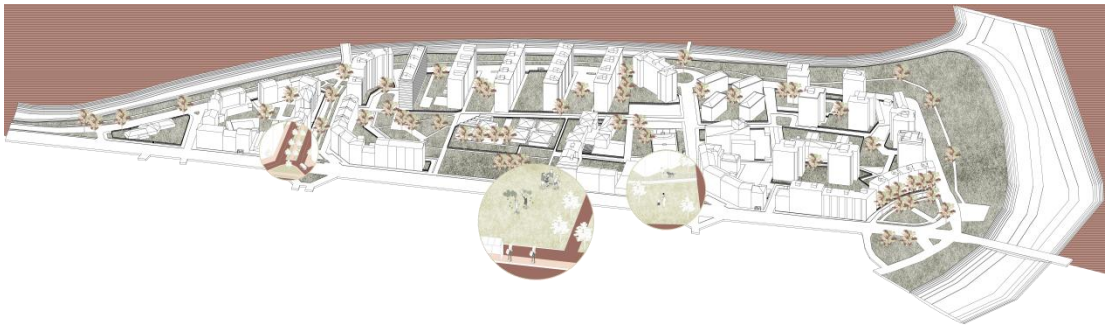

Fig11.15 Illustrations of public space facilities and the use of green space of zone E22. Made by author.

The area of green space in Zone E22 has increased significantly compared to

the previous neighborhood. The overall increase in size is due to the large areas of greenery along the river as well as the lawn coverage, the spaces are spatially pure and simple (see 11.16). The pedestrian paths as well as the bicycle paths are also well planned. At the same time, even in the central areas with a high level of building coverage, there is no relative reduction in green coverage. In the residential areas already briefly mentioned, almost every residential building has a relatively private green belt with well enclosed boundaries and a high degree of privacy combined with exclusive parking areas for each building. The central business area near the main Corso Belgio road is at the same time well covered with green spaces (see small legend).

Fig11.16 Photography: green space area along the river in zone E22. Made by author.

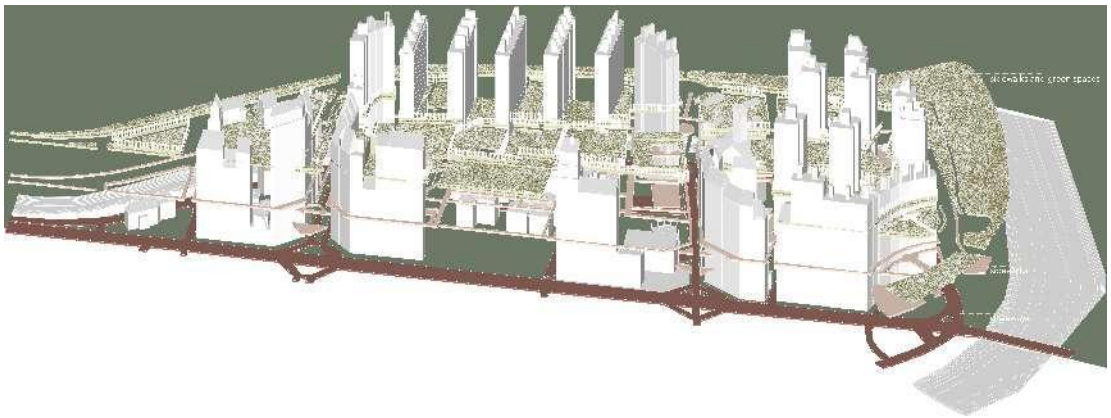

Fig11.17 Illustrations of transportation system of zone E22. Made by author.

Fig11.18 Nolli Map of zone E22. Made by author.

The distribution and use of the public areas of Zone E22 is significantly better in terms of sense of dissonance and self-compatibility compared to the former E11. The close proximity of the river and the main road creates a better private environment inside. The area is also more diverse in terms of building types, with both living and spiritual needs being met. There is sufficient green space to link social buildings with spiritual needs such as churches and schools.

11.2.4 Divergent Thinking on the Zone E22

The process of creating a graphic when doing a summary of thoughts about Zone E22 would have made for a more human-cultural reflection. The process of researching and observing E22 is more thought-provoking when comparing it to Zone E11, which has a more natural and spiritual atmosphere, and a more positive influence on each other as the architectural diversity increases. Thus, when trying to think about and create an atlas of the city, in addition to the fixed expressions, the possible human activities in the area are also an interesting factor.

Fig11.19 Daily life scene collage of zone E22. Made by author.

Chapter 12: Zone Atlas Report: E6

Fig12.1 Photography: a mall gate in enclosed courtyards in zone E6. Made by author.

12.1 Brief Background

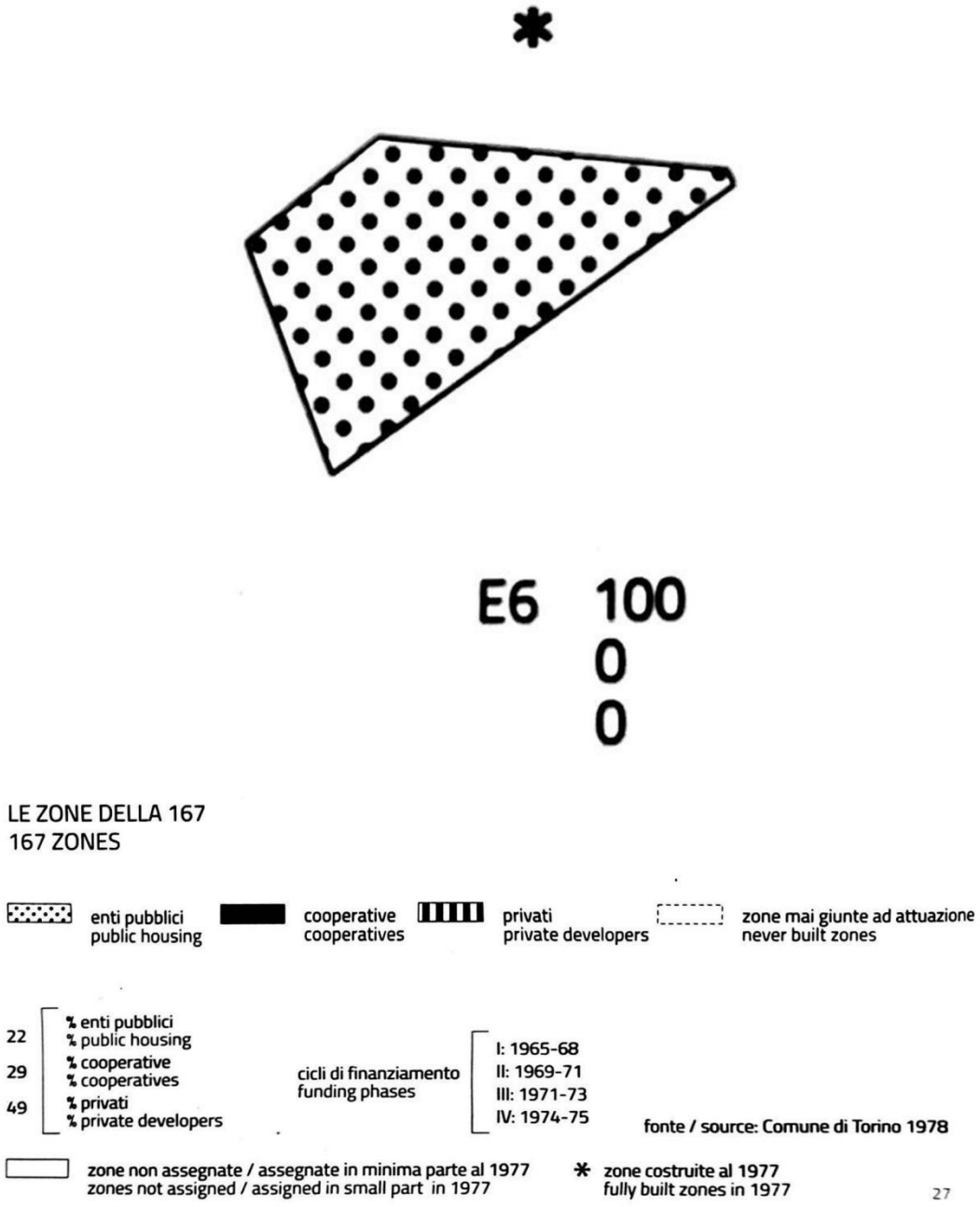

Fig12.2 Instructions of zone E6. Caramellino, Gaia, Filippo De Pieri, and Cristina Renzoni. 2015. *EXPLORATIONS IN THE MIDDLE-CLASS CITY, TORINO 1945-1980.* Italia: LETTERAVENTIDUE. pp. 26-27.

Zone E6 is located in the Lucento area, in the northern part of the city of Turin, as shown on the general map at the beginning of this report. Zone E6, as can be seen on the image above, is all public housing, and was fully built in 1977. Zone E6 as a whole is characterized by a strong sense of enclosure, compared to the first two cases of zones, it can be regarded as a zone with clear boundaries and the most "neighborhood" concept, with neat and distinct borders.

12.2 Atlases and Observations

12.2.1 Overview of Building Types

Fig12.3 General illustration of zone E6. Made by author.

Zone E6 is likewise first and foremost noteworthy for the strong sense of enclosure. Unlike the Zone E22, the apparent sense of enclosure of the area is the absence of natural elements and the replacement of purely man-made roads as the apparent boundaries of the area. The most obvious main road enclosure is the two wide lanes Via Andrea Sansovino and Strada Altessano

that run throughout the northwest and even extend throughout the south. The final eastern diameter boundary is spatially assisted by a highly similar linear arrangement of high-rise residential dwellings, in addition to the roadway, which contributes to the formation of the distinct boundary. Unlike the Zone E22, where the natural elements are the dominant dividing line, the Zone E6 has a more pronounced sense of road enclosure and harmony, giving it a stronger sense of 'community'.

Regarding the distribution of building types. Extending inward from the edges bounded by the two northeastern main roads is an area of linear steam-row high-rise residences. Extending internally to the south is a church and two other side-by-side educational institutions. Extending to the southwest corner is the domed gym and another workplace. Finally at the edge of the southwest corner is the unusually shaped church.

Fig12.4 Photography: dome gym in zone E6. Made by author.

As we can see here, Zone E6 has an appropriate density of residential buildings, but the majority of the buildings are for spiritual needs. The peripheral area extending from the main road has other large supermarkets to address the material needs.

Fig12.5 Axonometric representation "maximalism " of zone E6. Made by author.

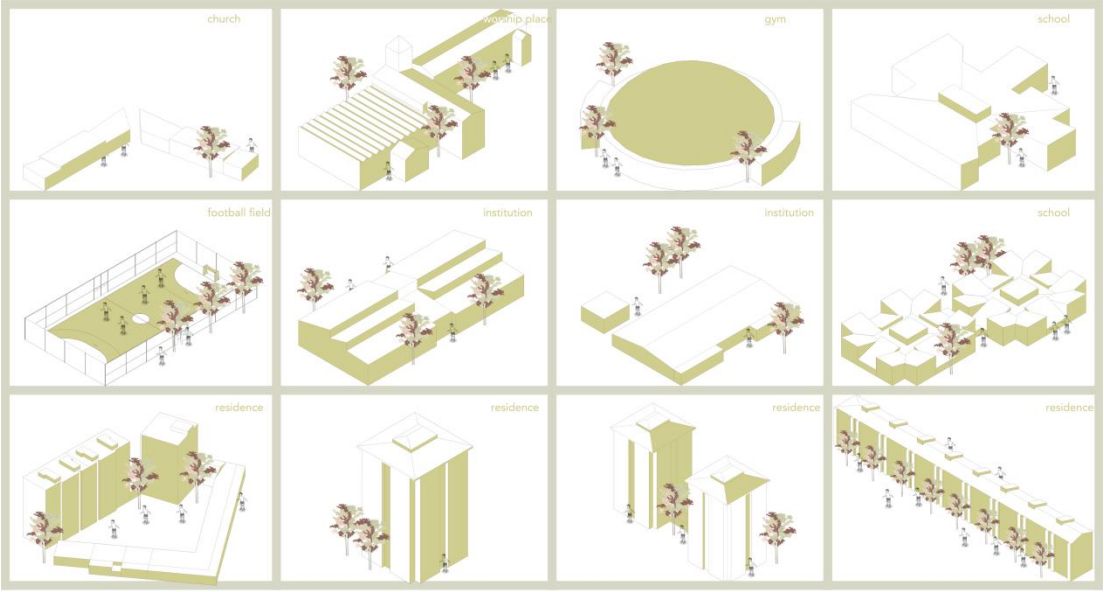

Fig12.6 Illustrations of building typology of zone E6. Made by author.

12.2.2 Overview of the Community Enclosure

The prominent linear arrangement of high-rise residences on the eastern side of Zone E6 can be seen as a prominent "edge" of the neighborhood. "Edges are the linear elements not considered as paths: they are usually, but not quite always, the boundaries between two kinds of areas(Lynch 1960, 63)." [41] In the case of Zone E6, this distinct "edge" element divides the complete private space inside the neighborhood from the broader public space outside. The adjacent roadway can also be seen as a manifestation of this linear element. It is clear from illustration 12.3 that the linear housing is formally uniform and tightly shaped, facing the relatively private use of the green areas and other spaces within the neighborhood. As can also be seen in the

41. Lynch, Kevin. 1960. *The Image of the City.* United States of America: The MIT Press.

opening photograph 12.1, the entrance door to each individual unit has a door facing the street, but guarantees strict privacy, while not creating too many differences in form, and still maintaining the "edginess" of the linear element. Inside the door is another "enclosed" space of relative privacy, see Photograph 12.7.

Fig12.7 Photography: green space within the gate in zone E6. Made by author.

Fig12.8 Illustration of the linear residential elevation in zone E6. Made by author.

12.2.3 Overview of Public Spaces

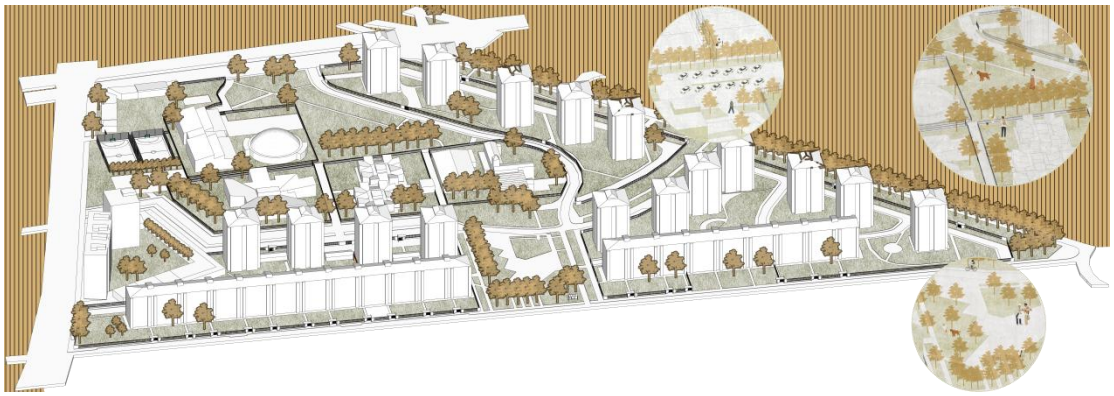

Fig12.9 Illustrations of public space facilities and the use of green space of zone E6. Made by author.

Green space in Zone E6 is relatively abundant. Each individual building in the main residential area has a corresponding amount of green space. At the same time, it can be clearly seen that, in addition to the two sides of the linear residential buildings, the remaining other functional buildings as well as ancillary green space is concentrated in the southwest corner, and the notable feature is that the green space that is linear arrangement of planted trees is also very adequate. The linearly distributed houses can be seen as an edge of this zone, and the planted trees, also linearly distributed, clearly visible in the figure, can also be seen as an edge dividing the residential buildings from the other functional buildings. Specifically, this can be seen as the division of a kindergarten from a residence, the division of a gym from another educational institution and the division of a residential area from a centralized centralized green space.

Fig12.10 Nolli Map of zone E6. Made by author.

12.2.4 Divergent Thinking on the Zone E6

Linear elements are also a topic worth exploring in regional planning and even building design. There are some linear programming elements in Zone E6 that are worth extracting. First of all, the road is the most intuitive straight-line area diameter edge, which itself has been specifically planned. Then there are the straight-line high-rise residential buildings along the main straight-line road direction that have been discussed. In addition, there are clearly distributed linear greening trees. They all act as "edges" as linear elements.

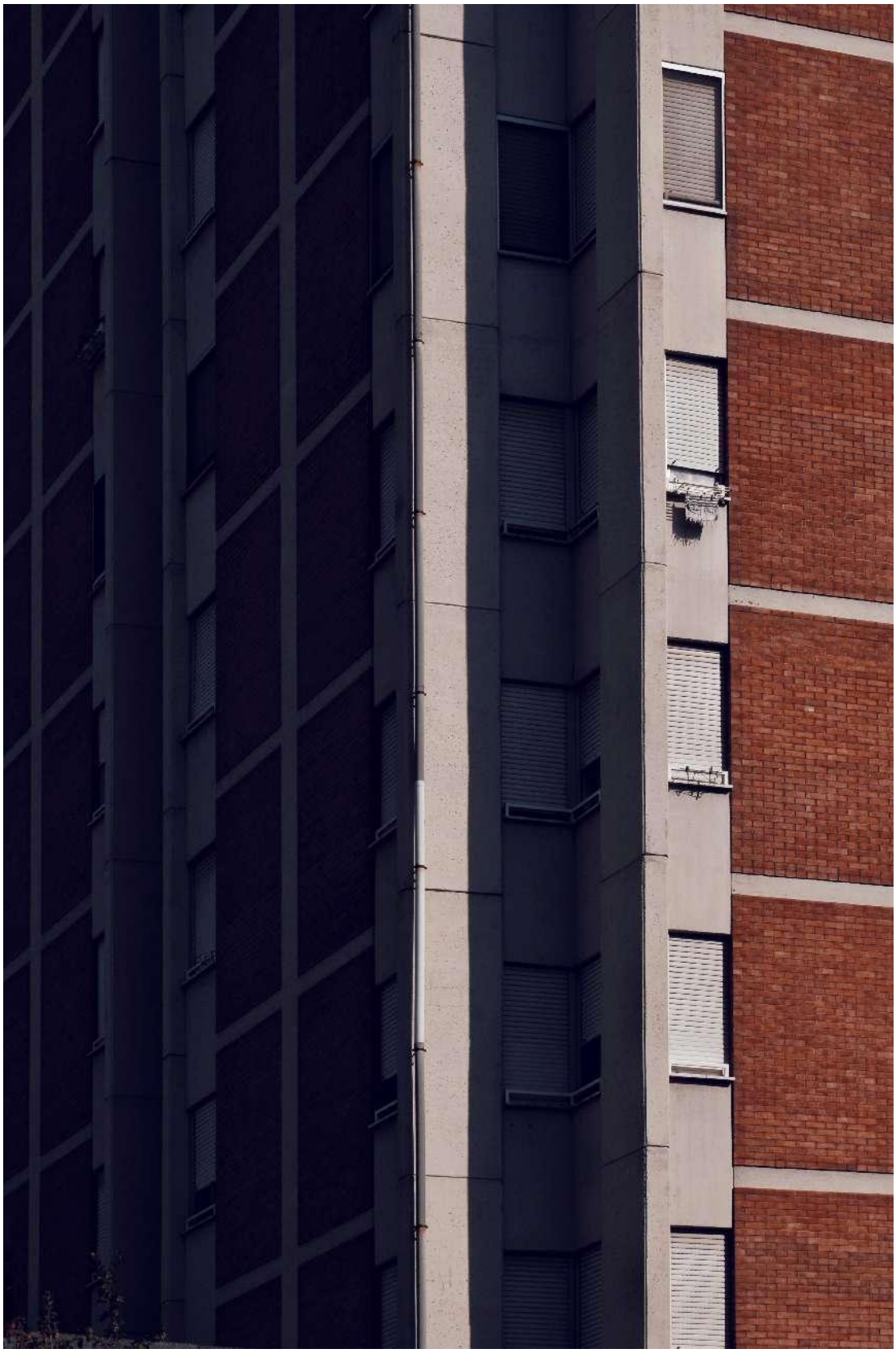

Fig12.11 Photography: residential building facade in zone E6. Made by author.

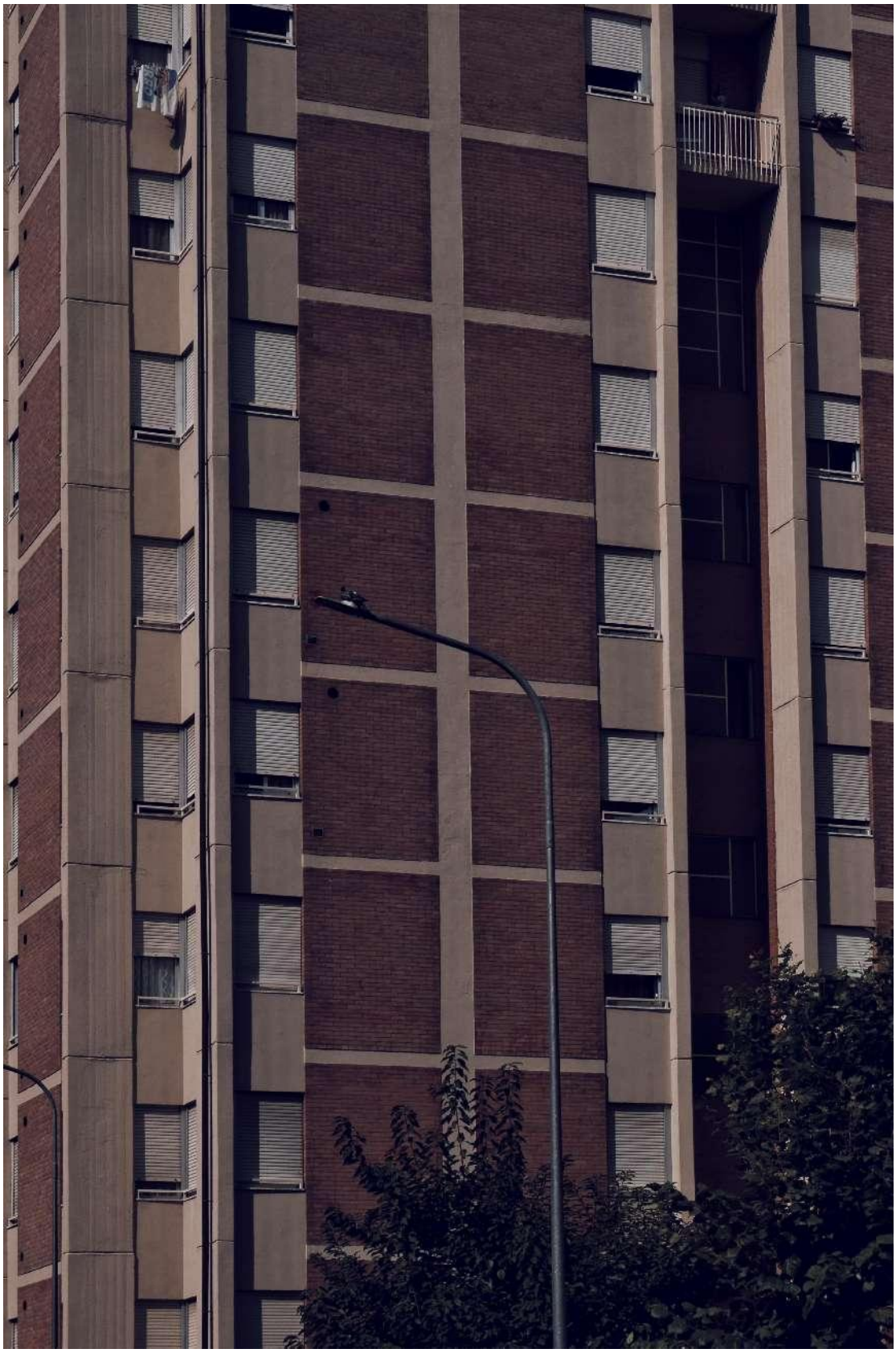

Fig12.12 Photography: residential building facade in zone E6. Made by author.

Chapter 13: Zone Atlas Report: E15

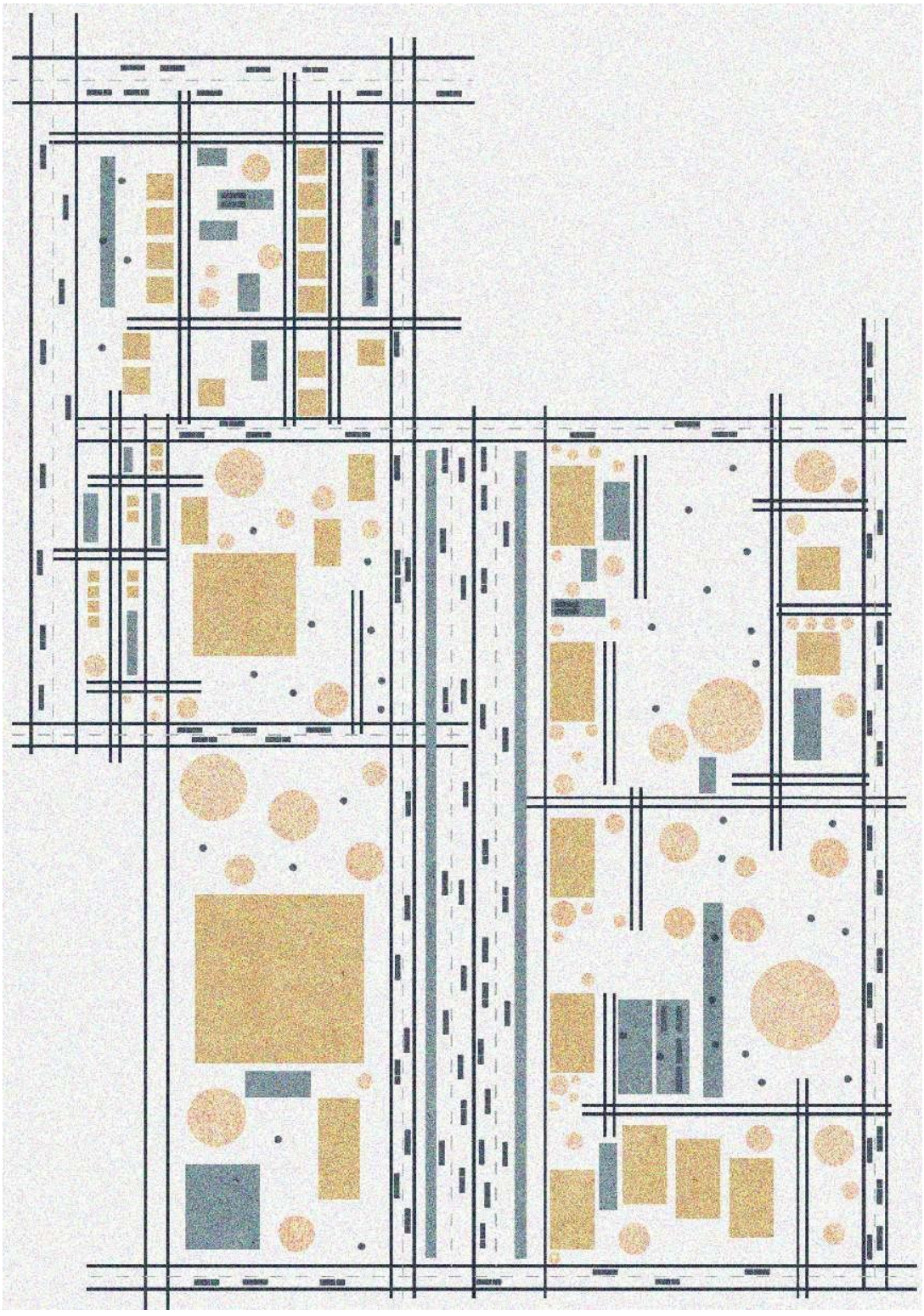

Fig13.1 Illustration of an abstract representation of the E15 map. Made by author.

13.1 Brief Background

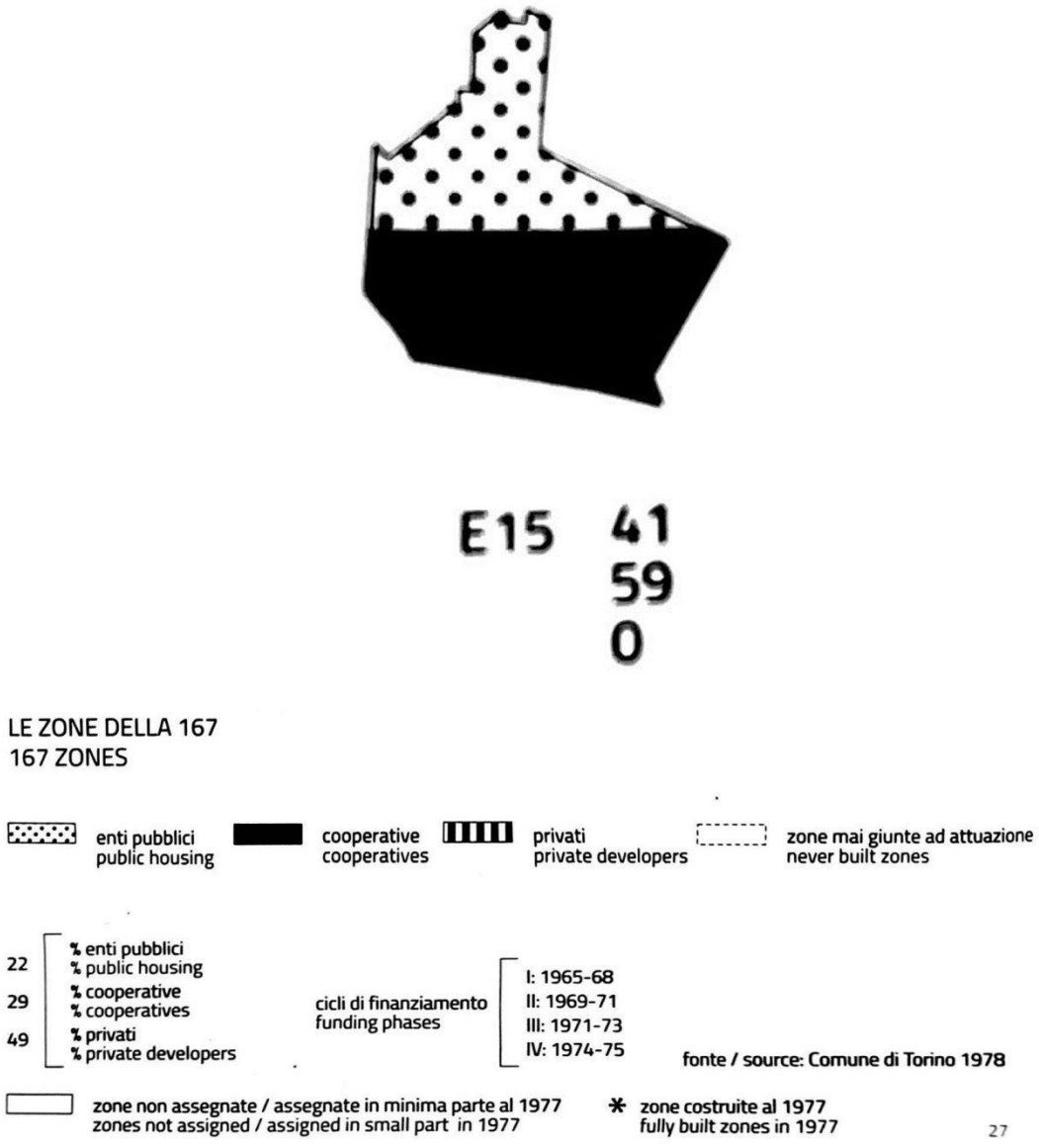

Fig13.2 Instructions of zone E15. Caramellino, Gaia, Filippo De Pieri, and Cristina Renzoni. 2015. *EXPLORATIONS IN THE MIDDLE-CLASS CITY, TORINO 1945-1980.* Italia: LETTERAVENTIDUE. pp. 26-27.

Zone E15 is located in Vallette, also in the north of Turin and not far from E6. As can be seen from the graph above, 41% of the area in the north is planned for public housing, while the remaining 59% is for coopertatives, with no areas for private developers.

Zone E15 has two different zoning contexts, which will continue to be described in the report on field observations. However, it is interesting to note that the building types in this zone are not diverse, with the main body being residential and a large educational institution complex, and no other more general building types. There is a relative diversity of building forms, as if trying to create a sense of order out of disorder. So for the cover illustration, I cautiously tried to innovate by updating the Zone E15's floor plan with a kind of dotted line abstraction. The diagram tries to use the main color yellow face to represent the main body of the building, the blue face to represent planned but not physical areas such as parking lots and sports fields, the circular face for planted trees, the lines for roads, and the dots to represent people who may be in motion.

13.2 Atlases and Observations

13.2.1 Overview of Building Types

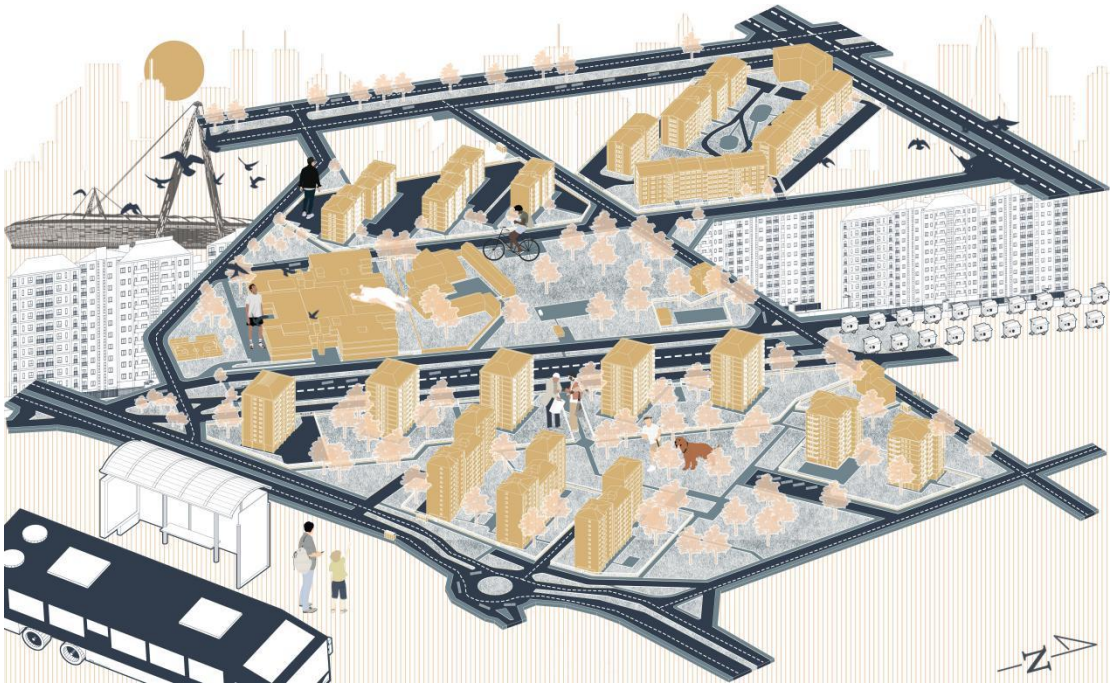

Fig13.3 General illustration of zone E15. Made by author.

The role of buildings in Zone E15 is relatively simple, with regular forms observed in the high-rise collective residential buildings. In the center, there is one large and complex building that is observed to be a kindergarten and community activities. The western part of the area, bounded by the central part, is characterized by a uniform pattern of high-rise residences and relatively new developments. The eastern part of the district is also full of high-rise residential buildings and is relatively self-contained, with strong boundaries and a sense of enclosure. And with very ample green space, it's a well-planned community with natural activity areas(see fig 13.4). It can be

summarized that Zone E15 has a single and more similar building type. However, it is worth noting that in the central area, in addition to the large kindergarten complex, there is also a small distribution of individual dwellings on the ground floor.

Fig13.4 Axonometric representation "maximalism " of zone E15. Made by author.

Fig13.5 Photography: a corner of the nature activity field in zone E15. Made by author.

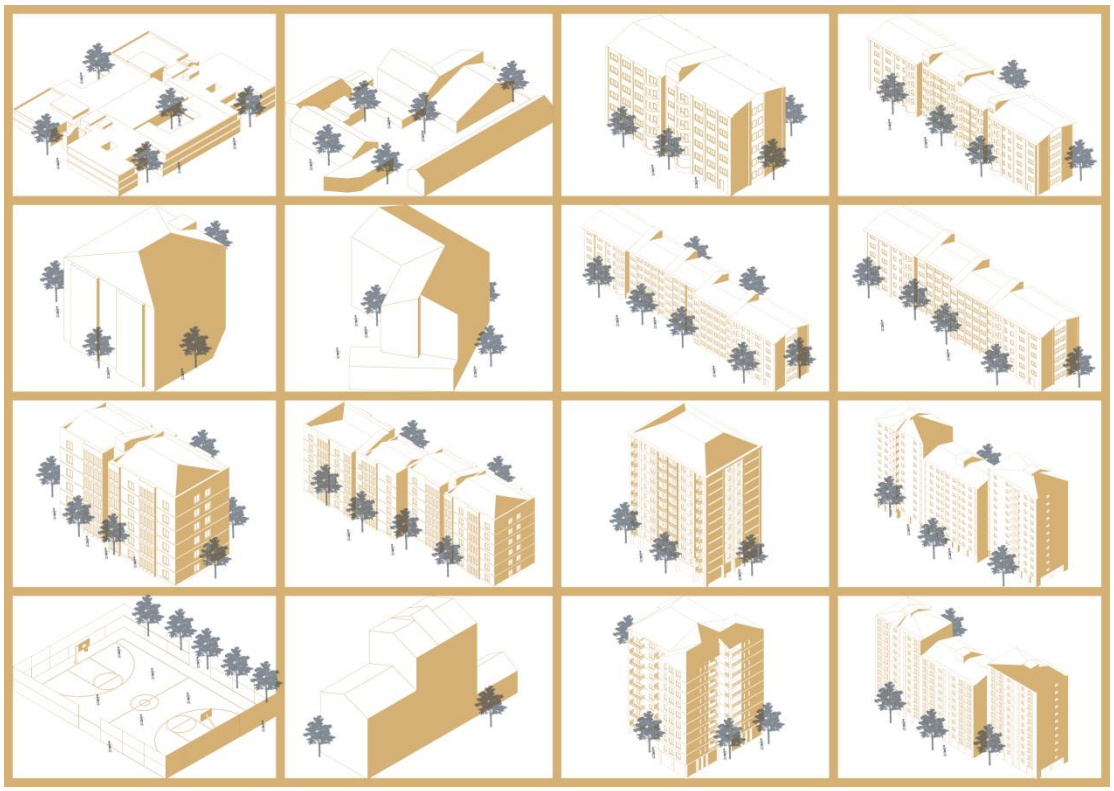

Fig13.6 Illustrations of building typology of zone E15. Made by author.

13.2.2 Overview of Public Spaces

Fig13.7 Photography: a corner of the nature activity field in zone E15. Made by author.

Zone E15 has ample green space. As can be seen in the illustration, the central area is adjacent to the kindergarten and consists of a large green area where activities are concentrated. The green space in the "public housing" planning area to the west is relatively in the form of "green space attached to the building", while the green space in the "cooperatives" planning area to the east is more abundant and has more concentrated natural activity venues, not just around the buildings.

Fig13.8 Illustrations of public space facilities and the use of green space of zone E15. Made by author.

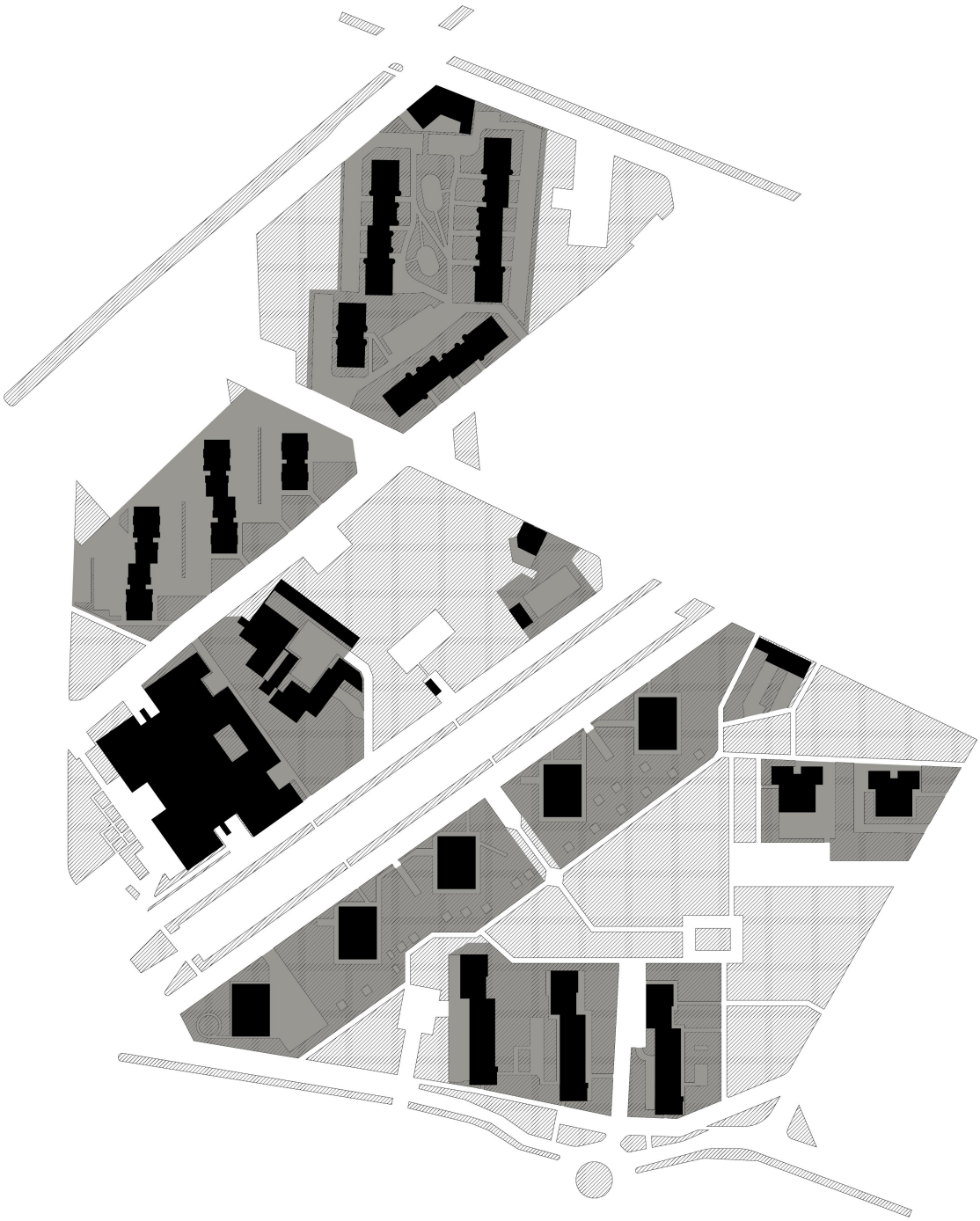

Fig13.9 Nolli Map of zone E15. Made by author.

13.2.3 Divergent Thinking on the Zone E6

The Zone E15 plan is an analytical part of the project. According to the Nolli Map, the distribution of color blocks is relatively unorganized, but at the same

time it is relatively ordered in specific functional areas (e.g., residential areas in the upper and lower halves). Residential buildings reside in orderly and regular rows, and public spaces such as ancillary green areas and parking spaces are planned relatively close to them. If the above-mentioned elements are regarded as individual units, then the orderly residential area planning is to arrange the above-mentioned individual units in a reasonable manner and to flow out the transportation space (blank area) accordingly. The relatively unorganized part of Zone E15 can be assumed to be the middle part, where the building color block is relatively complex, and the most important single large-scale building is an educational complex, whose design form is also relatively complex because of its functions as both a kindergarten and a community activity center. For example, because the roof is also used as an activity area for children, the exterior is designed with a relatively independent staircase as a transportation space (see Fig13.10). When the building itself is relatively complex and is located in a "complex planning" zone that is different from the residential zone, the planner has left enough green space and small sports fields next to it to balance the high-density complex building and the site.

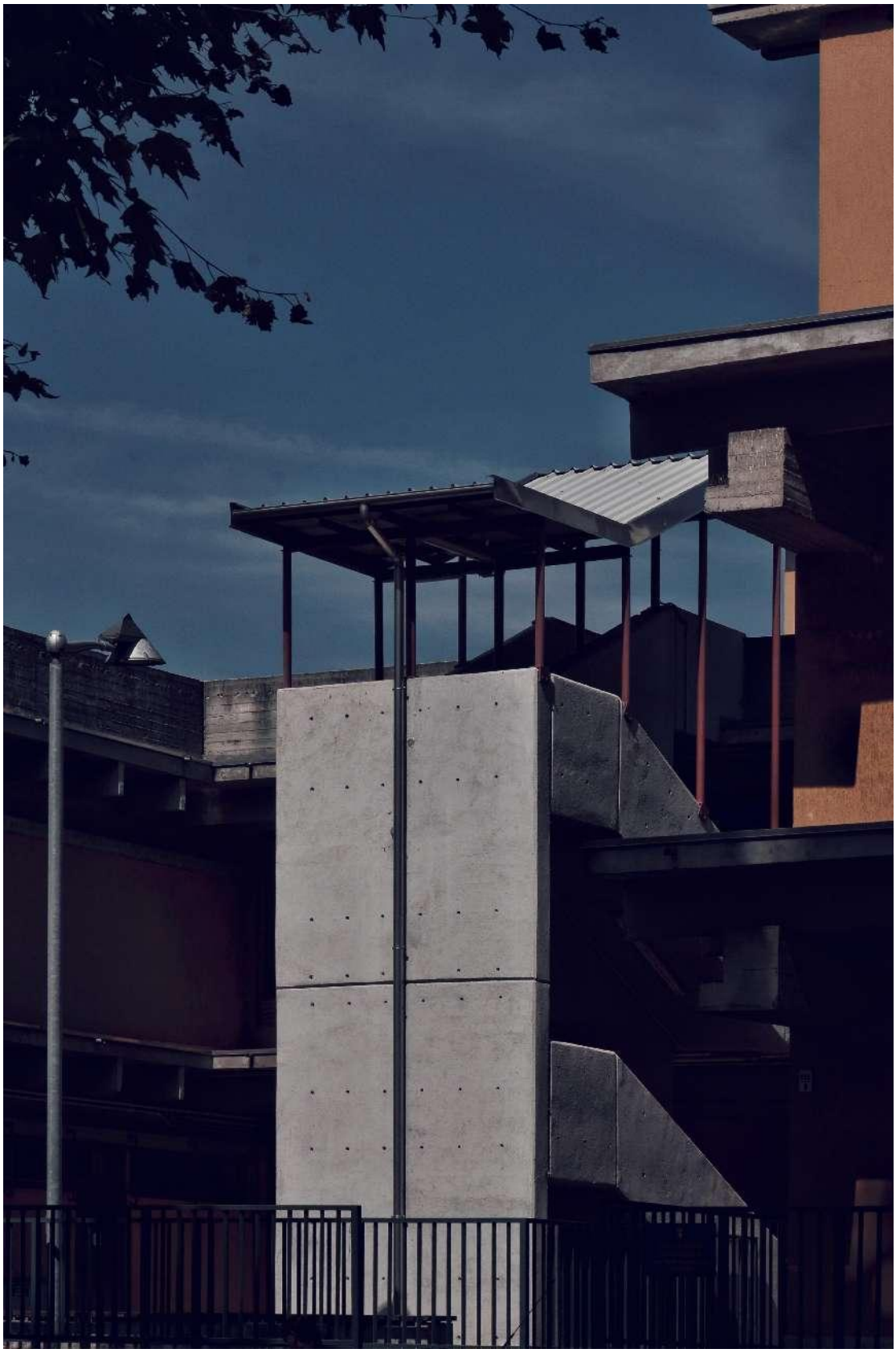

Fig13.10 Photography: an external staircase of the kindergarten in zone E15. Made by author.

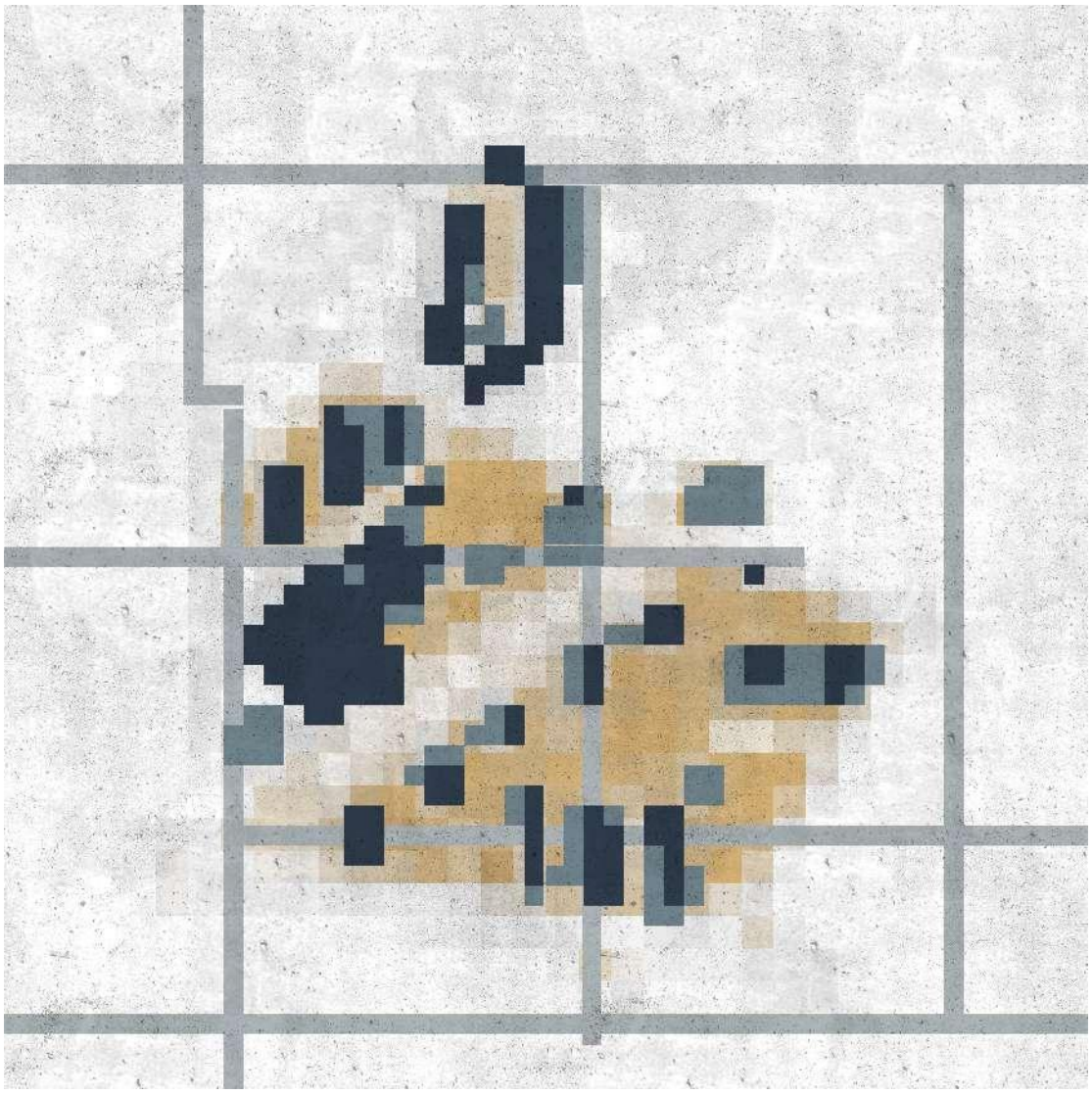

Fig13.11 Illustration of an abstract representation of the E15 map. Made by author.

PART 4: CONCLUSION AND EVALUATION

When talking about cities, different identities and mentalities are involved. I try to cautiously grope for a more universal approach, so that no matter whether one is an urban planner, an urban architect, a hurried tourist, a calm

resident or a writer, one can have a more tangible picture when talking about the city. In the former part I try to summarize the premise of the possibilities of this approach from already existing cases, i.e. to summarize the corresponding methodology, while in the latter part I prefer to see this work as a continuation of the actual methodology. The second half of the work involves not only following in the footsteps and methods of the masters and trying to imitate them, but also more specific physical work, such as numerous field trips, attempts at conversation, and recording of information. Once the methodology was summarized, the city background was replaced with Turin and the same methodology was followed to produce the results of this thesis. I prefer to think of the multitude of photographic information as a summary observation report for each Zone, supplemented by a textual narrative, thus making the city more visible.

Because cities are always evolving and our eyes are always open.

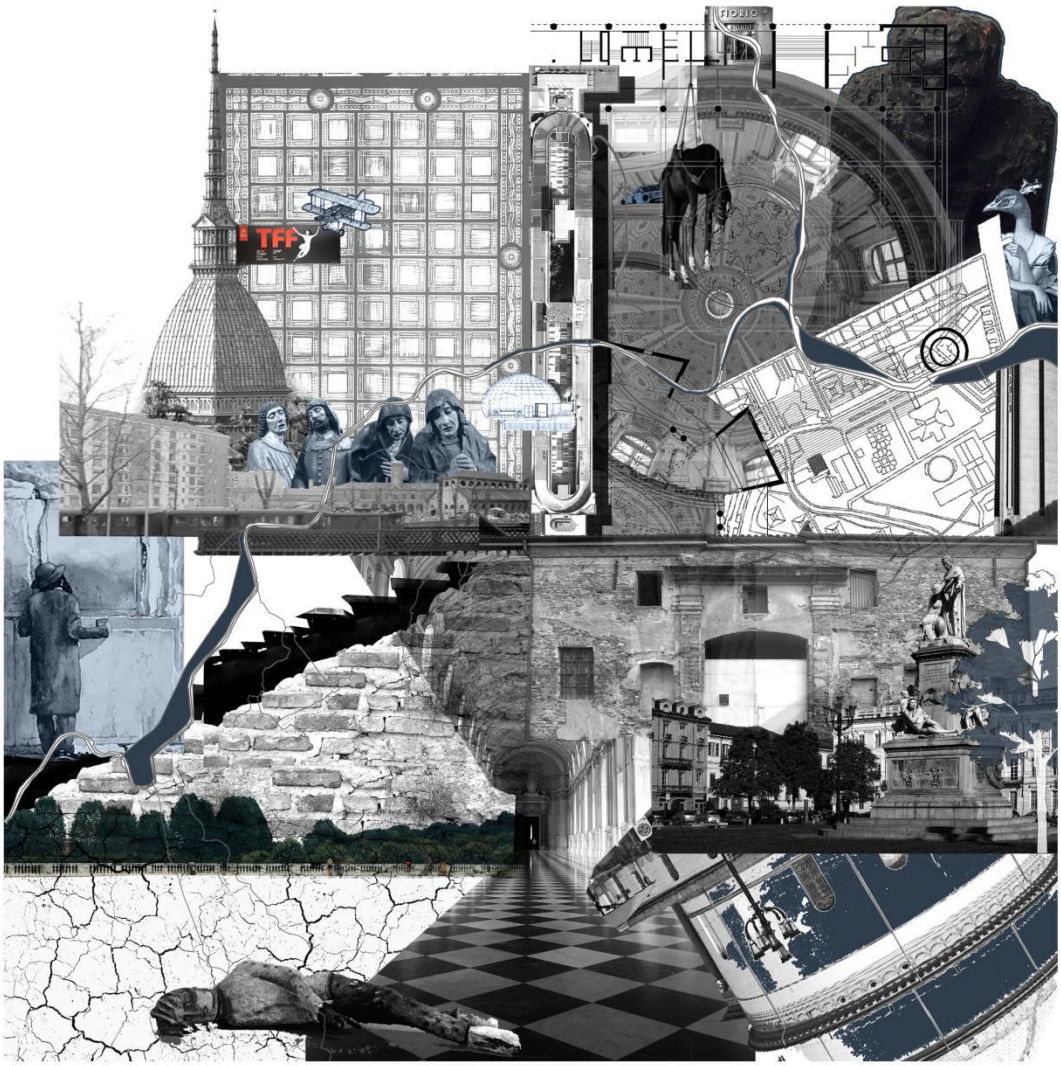

Fig14.1 Torino collage map. Made by author.

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