

# **DE INFRAESTRUCTURA VIAL A ESPACIO URBANO. TRANSFORMACIÓN DE VIA FLAMINIA EN UN NUEVO EJE CULTURAL DE ROMA**

## **FROM ROAD INFRASTRUCTURE TO URBAN SPACE. TRANSFORMING VIA FLAMINIA INTO A NEW CULTURAL AXIS OF ROME**

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### **RESUMEN**

La calle es el espacio exterior que configura la vida cotidiana. Su estudio significa entender el espacio público más importante de la ciudad. El proyecto de investigación aquí descrito intenta comprender cómo la calle se convierte en un espacio urbano -un espacio habitable-, su importancia como ámbito social y en los elementos de diseño que lo convierten en un área exitosa en la ciudad. El alcance va desde una visión general de la calle hasta el estudio del caso específico representado por Vía Flaminia, uno de los ejes históricos más importantes de Roma. Primeramente, la investigación es teórica, histórica y referencial; y segundo incluye un análisis enfocado de Via Flaminia, concluyendo con la aplicación de éste análisis al diseño de un proyecto urbano y arquitectónico. El plan maestro propuesto busca resolver la permeabilidad limitada de la calle, e intenta dar continuidad a su imagen. Explora la reutilización de las tipologías de edificios existentes con nuevas funciones sociales, culturales y recreativas. Uno de los objetivos principales de este master plan es convertir esta calle en un nodo cultural revitalizado de la ciudad para transformar Via Flaminia de una infraestructura vial a un espacio urbano de calidad en la Ciudad de Roma, buscando que se convierta en un nuevo eje cultural. El proyecto arquitectónico se centra en un punto crítico, abordando la conexión de la ciudad con la naturaleza circundante, planteando el desarrollo de un Centro Cultural y Educativo.

**Palabras clave:** *La calle, ámbito social, eje cultural, Via Flaminia, Roma*

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## ABSTRACT

The street is the outside space that shapes our daily life. Its study means to understand the most important public space of the city. The research project described herein attempts to understand how the street becomes an urban space -a livable space-, its importance as a social realm and the design elements that make it a successful space in the city. The scope of the research goes from a general overview of the street to the study of the specific case represented by Via Flaminia, one of the most important historical axes of Rome. The approach to the research is divided into two parts; first a theoretical, historical and referential investigation; and a second part that includes a focused analysis of Via Flaminia and concludes with the application of this analysis to the design of an urban and an architectural project for this chosen street. The proposed project seeks to solve the limited permeability of the street and attempts to provide continuity to its image. It explores the repurposing the existing building typologies with new social, cultural and recreational functions. One of the main goals is to transform this street into a revitalized cultural node of the city, to transform Via Flaminia from a road infrastructure to a quality urban space of the City of Rome, seeking that it becomes the new cultural axis of the city. The architectural project focuses on a critical point of the street, addressing the connection of the city with the surrounding nature, developing a Cultural and Educational Center.

**Keywords:** *The Street, Social Realm, Cultural Axis, Via Flaminia, Rome*

## 1. INTRODUCTION

If one thinks about the notion of the street in the city, is that space that shapes the environment in which the people live [1]. This can be translated as the prime public infrastructure of the city, but beyond comprising a space that allows one to move from one point to another, it represents the place that sustains the social characteristics of the city. As Moughtin stated: “the conception of the street as a product of urban functions dominated by transport deprives the street of its role, or meaning, and such functional analysis leave the urban street without an existence or a reason for being” [2]. The street can shape society, it allows human encounter and engaging of new persons, it allows freedom of expression, is a multifunctional space; it allows perceiving the outside world. It can also be seen as platform for social behavior and experiences; Allan Jacobs said “Cities have the capability of providing something for everybody, only because, and only when, they are created by everybody” [3]. And it can become great when places for social encounters are created and because the street is the primary social realm of it, it means is the way for pedestrians to perceive it.

The social meaning of the street is one of the most important concepts that must be understood [4]. One of the aims of the research described herein is to find the true social meaning of the street, in particular Via Flaminia, in Rome by experiencing it personally; it was clear what a great space this street was. Yet it had so many urban issues that it seemed relevant to try to understand the origin of the problems and how to address them. A broad question underlying the research described here is: What makes an infrastructural road an

urban space of the city? As the question is applied to the study case, the focus of this research becomes the identification of the presence, or absence, of aspects that make this street more than a two dimensional ribbon connecting spaces but a quality urban space.

## 2. SITE ANALYSIS

Prior to the beginning of this dissertation, eight important streets of Rome were studied and analyzed for the Graduation Project: “Le Città di Roma” (as part of a macro study of the city), one of them being Via Flaminia. What is most striking about this street is the way it developed through the years. is an interesting case because, it changed from being one of the “Consular roads” of the Roman Empire, to being the most important access route to the north part of city, to being a street that has lost its historical value in the current times. As an urban space of the city of Rome, it possesses many qualities that merit exploration and that reflect whether or not the street evolved from a road infrastructure to a quality urban space. The street length is 2,50 km from Piazzale Flaminio until Ponte Milvio, which is urban fragment of the street. (see Figure 1).



**Figure 1.** Location of Via Flaminia in relation with important points of Rome. Source: The authors.

### 2.1. Urban Growth

Via's Flaminia urban tissue is a continuation of the Historic City, late 800, as shown on the growth maps, growing towards the north; it begins to adopt to the modern types, with urban episodes from the 20's and 60's. In 1911, the year that the International Expo was held in celebration of the 50 years of the unification of Italy, major changes in the urban context had taken place. On the South part, in Valle Giulia, Via delle Belle Arti was extended toward the Tiber River and connected with Ponti del Risorgimento. This modification caused mobility and traffic problems, but also meant a fracture in the continuity of The Street; the plan also

foresaw the development of recreational facilities on the right side of it. The 1931 Regulatory plan proposed the urban development of the area of Via Flaminia, divided the area between the left side and the right side. A trident shape was defined for the urban fabric on the left side of Via Flaminia, in order to continue with the already existing residential tissue. It was also determined the duplication of it with a parallel road, Viale Tiziano.

In 1960 Rome was chosen to be the host of the Olympic Games, the Villaggio Olimpico was built on the right side of the context under a modernist design. Furthermore, the functions that were placed on the surroundings of the Street were too ambitious; warehouses for tramway mixed with the residential tissue, railroad stations, stadiums, and ministries. Other significant contrast in the urban tissue that arose in from the 1960's was the development of Palazzinas in the north part. The consequence of this mix of morphological structures and functions brought to this day the urban degradation of the area, besides the demands of traffic and mobility and The booming industrial construction in the area began at the end of World War I and continued with the Piano Regolatore Generale (PRG) of 1931, becoming a clear example of intensive construction, in complete opposition to the former purpose of the area [5] (see Figure 2).

Artículo de Investigación

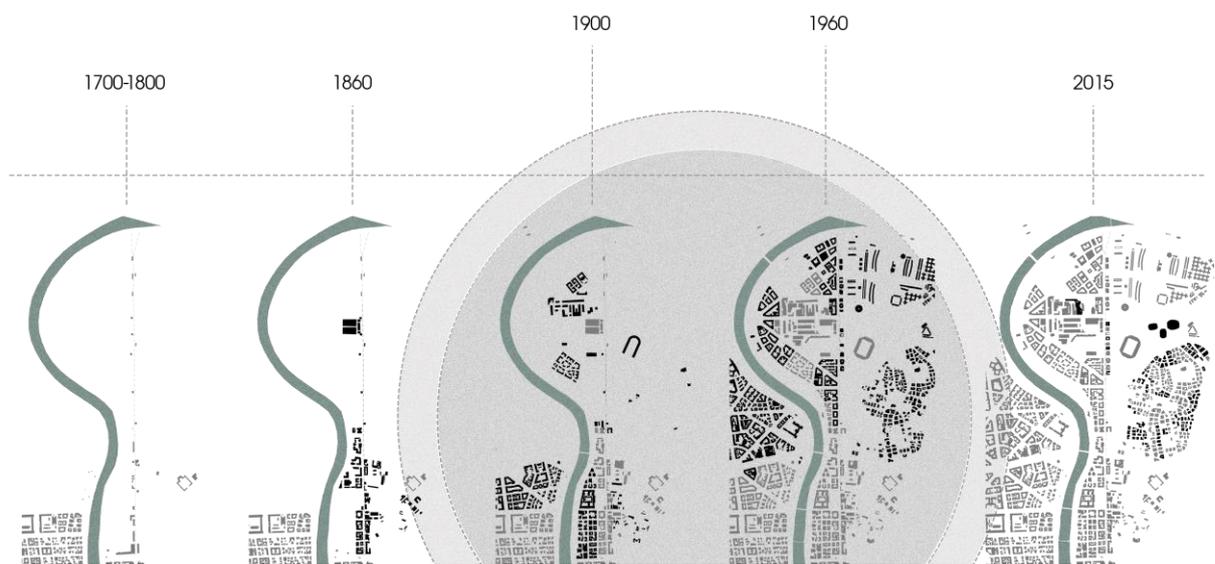
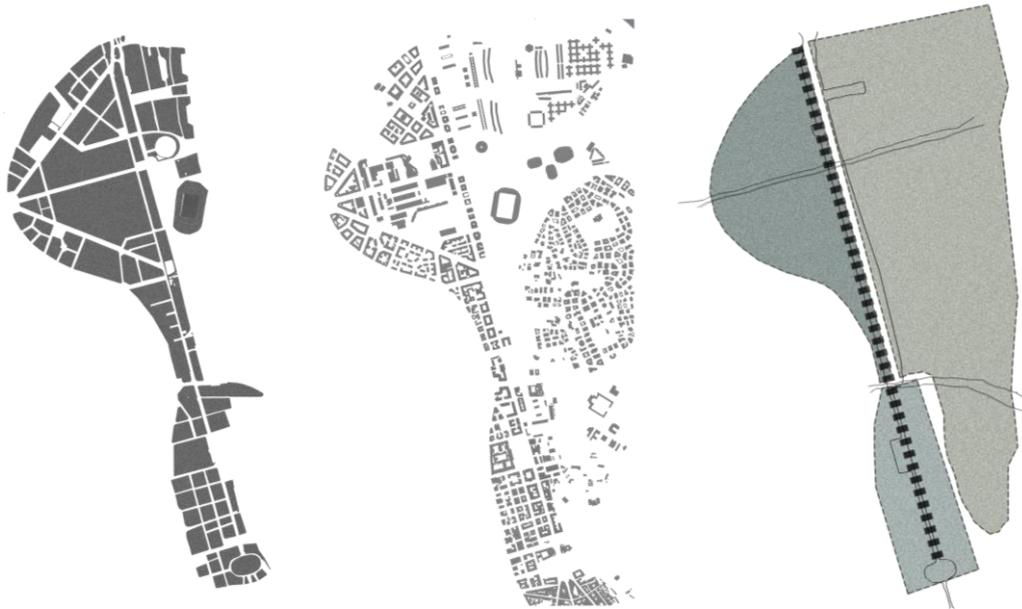


Figure 2. Urban Growth of Via Flaminia from the expansion of the 800 until present day. Source: The author's

## 2.2. Urban Structure: “The compact city vs. the dispersed city: Via Flaminia as a transition space”

Currently, Via Flaminia can be also subdivided in three parts (as shown in Figure 3), according to the urban fabric; starting from the south part and the left side of it, the compact layout is a way of continuation of the historic city. On the right side, which was designed to

be an extensive green area, a disperse type of city follows. On this side, buildings from the modernism end up becoming isolated monuments from the rest, due to the heavy road infrastructure fragmentation, lack of accessibility and connectivity, and improper use of land. For these reasons, Via Flaminia is a transition space between two types of cities, it is not only a road infrastructure that connects the city with the north part but also works as a boundary between the two described situations because, over the time, it was not able to develop a coherent response towards the two types of city. (see Figure 3).



**Figure 3.** a) *Urban Tissue*, b) *Solid/Void*, c) *Via Flaminia as transition space between the compact and the disperse city*. Source: *The author's*

### 2.3. Typo-morphological Analysis

The morphological analysis shows the different relations between the Street and the built. As Via Flaminia progresses, its section changes, with the addition of Viale Tiziano, also shows the different situations that occur when piazzas or green areas appear, in terms of the urban design each typological building shares different characteristics, but there are dimensions that continue throughout the street, the height of the buildings vary from 6 to 8 stories on the left side of it, then on the right side lower buildings, from 3 to 7 stories are placed, most of the buildings have commercial ground floor, but each typology has a different rapport with the street, as will be shown in the next point. The sections also show the front continuity from both sides of the street. However, in many points of the street the ratio between built and void is not balanced, and the appearance of continues open spaces weakness the sensation of a define space (see Figure 4).



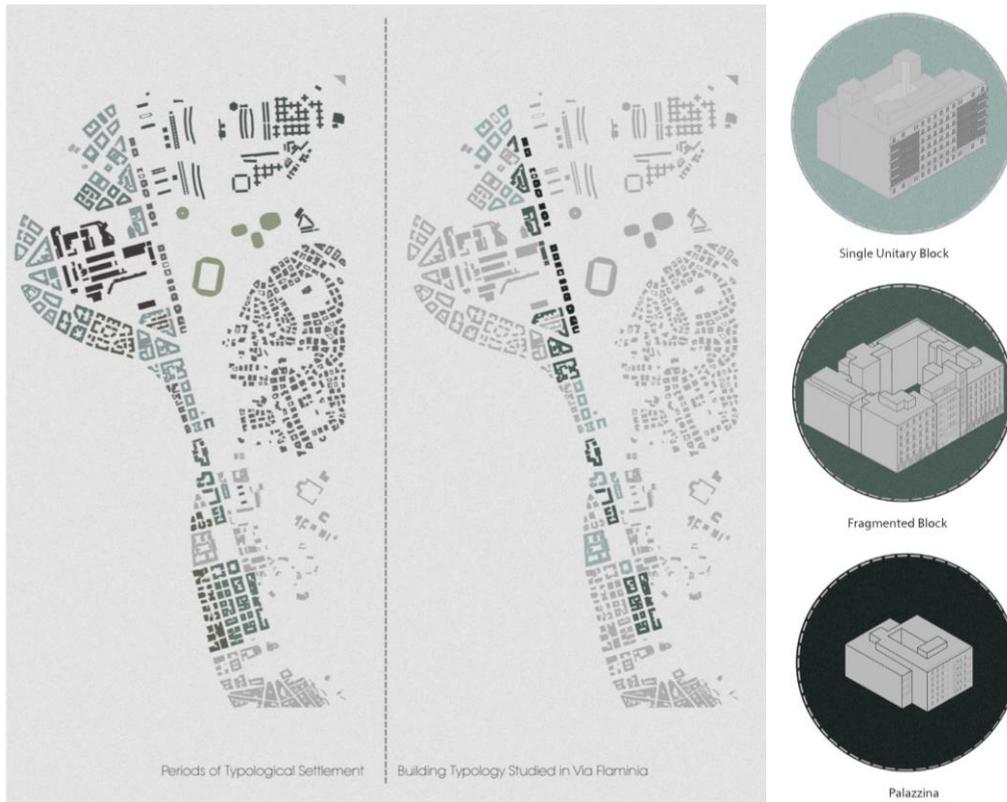


Figure 5. Via Flaminia Building Typologies. Source The author's

## 2.4. Current Situation: Fragment Analysis

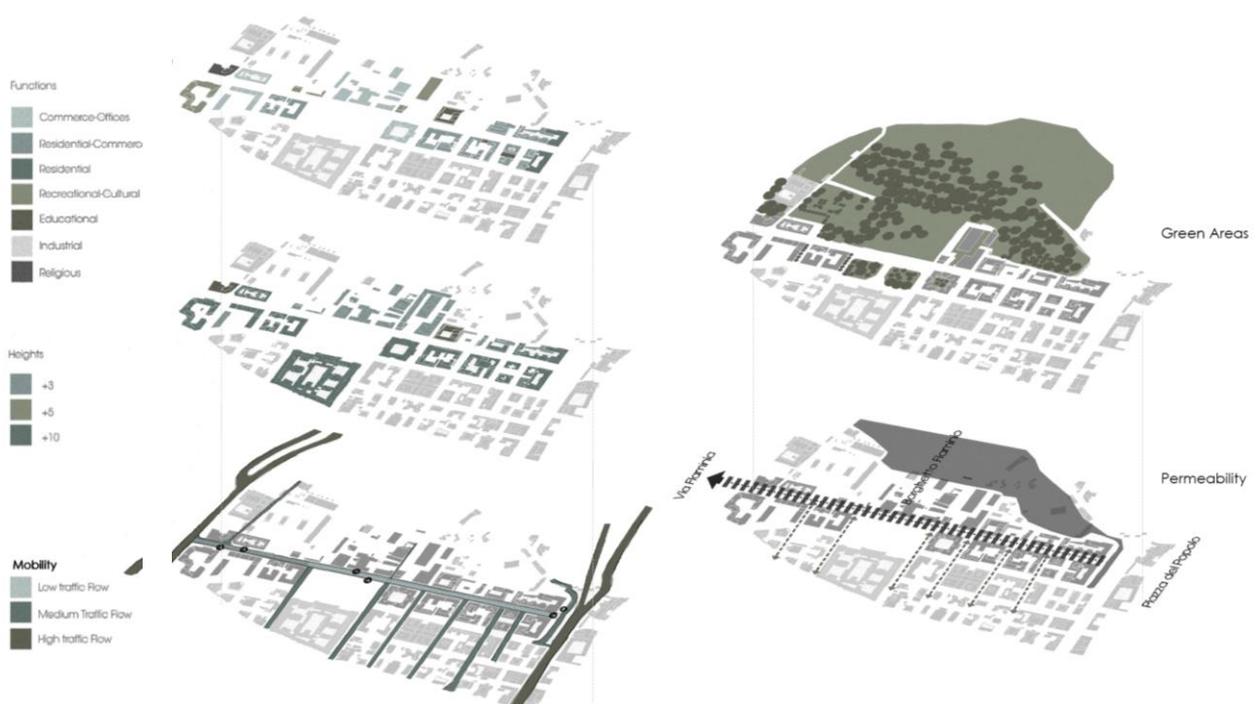
A second type of analysis shows that Via Flaminia can also be divided in fragments from south to north. This fragmentation has been defined by the functions that gather in each fragment, the width of the street, building typology, and green areas. The first fragment, (from Piazza del Popolo until Via delle Belle Arti) is characterized for maintaining the original section of the street, the second and third fragment are characterized for the addition of Viale Tiziano, large sports infrastructures and a new building typology; the Palazzinas (see Figure 6).



Figure 6. Fragment Analysis. Source: The author's

*Fragment #1: From Piazzale Flaminio to Via delle Belle Arti*

This fragment is characterized for maintaining the original section of Via Flaminia, the right side is defined by Villa Borghese, is very particular because right in the middle of this section, a specific episode occurs, The Ministero della Marina, which is not directly connected to the street, instead is separated from it by a piazza. In addition to this on the opposite side, where Borghetto Flaminio is, a large urban void disrupts the continuity of the street. The main building typology is the urban block, with buildings from the late eight hundreds, as mention before. Other particularity is that the use of this part is almost if not completely pedestrian, but much part of the street is used as parking lot (see Figure 7)



**Figure 7.** a) Land use, b) Heights, c) Mobility, d) Vegetation, e) Permeability and Continuity.  
Source: The author's

## 2.5. Strengths and Weaknesses

### Strengths

- Context: One of the most important features of Via Flaminia is, the context where is located; is rich and full of a variety of functions that attract people from all over the city. In addition, is surrounded by two natural limits, the Tiver and Villa Borghese; they represent the most important natural elements of the city (see Figure 8a).
- Mix-typological evolution/ Mix-functions: Even if in the development over the years, Via Flaminia got stock in a fast urban growing that did not foresaw the evolution of the street

in parallel, there are great buildings that represent their time and typology (see Figure 8b).

- **Linkage:** Via Flaminia, even if not being the best urban space for pedestrians is use as a transitioning space; it connects with a variety of public transportation, meaning that people needs to use Via Flaminia for connection to other parts of the city (see Figure 8c).



**Figure 8.** Strengths of the street: a) Context, b) Mix-typological evolution/ Mix-functions, c) Linkage. Source: The author's

### Weaknesses

- **Street design:** Via Flaminia, as seen in its evolution, was not design as an urban space for pedestrians. In terms of street landscape, Via Flaminia lacks: pedestrian amenities; urban furniture, presence of green. From the beginning was a street design as a road infrastructure; it was overtaken by tram lines, as it was developing it mixed with vehicle transit but the qualities to fulfil pedestrian needs where not taken under consideration (see Figure 9a).
- **Continuity:** The lack of continuity is shown in a few levels on the street; firstly, the change of section from Via delle Belle Arti to Ponte Milvio with the addition of Viale Tiziano. Secondly the entire street proportion between built and void is not balance; therefore, the street loses the sense of containment and definition (see Figure 9b).
- **Accessibility:** Accessibility, in terms of connections from Piazza del Popolo and Ponte Milvio, is not an issue. But when it comes to transversal connections, Via Flaminia only allows transit connections, therefore the points, for pedestrians, to be able to cross the street are very apart from each other. In addition, the density in vehicle traffic and the tram lines makes the accessibility harder (see Figure 9c).
- **Image:** Via Flaminia is a historic landmark, but in the present this image has been lost due to all the different changes and miss practice on urban planning that suffer over the years. In the present, the image of Via Flaminia is discontinuous and over the entire length the sense of placement and location gets lost, because the image changes very often (see Figure 9d).



Figure 9. Weaknesses of the street: a) Street Design, b) Front Continuity, c) Accessibility, d) Image.  
Source: The author's

### 3. PROPOSED MASTERPLAN FOR VIA FLAMINIA

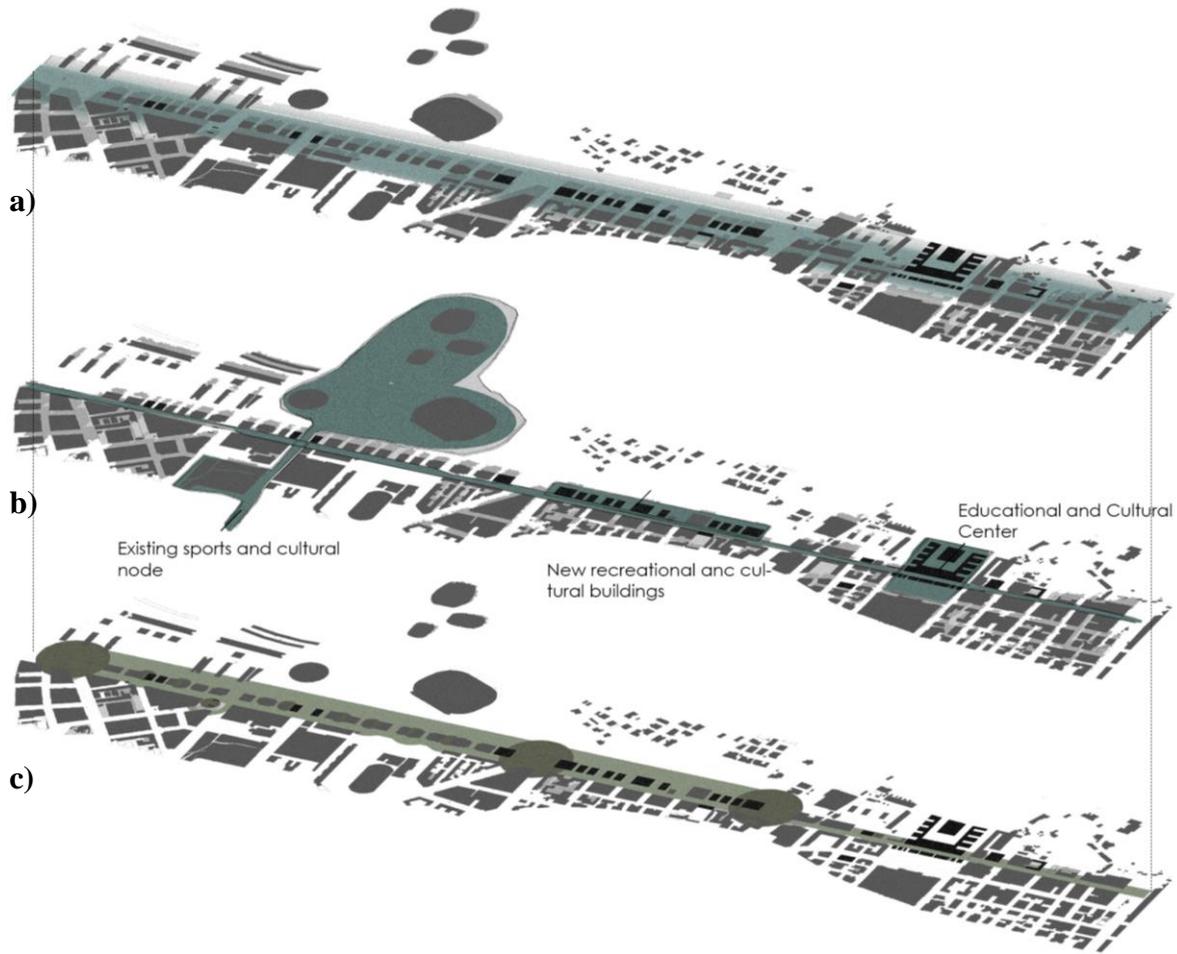
#### 3.1. Masterplan Concept: Permeability and Continuity

Via Flaminia is in need of an urban Masterplan that can restore historical importance but looking towards a contemporary image that considers a diversity of users. The main idea of the proposed Masterplan is to build up on the strengths of the street, acknowledging that it connects a series of cultural and recreational spaces and transforming it into a new cultural axis of Rome. The new proposed public functions support the existing cultural functions of the street. It seeks to transform via Flaminia into a connecting catalyst, enhance street life, and create experiences. The street landscape aims to place the pedestrian as the most important user of the street and furthermore to re-sew the street into the existing urban fabric and design the street as a quality urban space.

#### 3.2. Intentions and Strategies

The masterplan for the street is divided in four strategies; the first is to improve permeability by opening wasted empty private spaces between Palazzinas and give front continuity building on empty spaces that are opportunity interventions (Permeability+Continuity). The second and third is the addition of new cultural, recreational and social functions and at the same time continuing with the existing building typology with an contemporary image, the program for the new functions are community centers, libraries, gymnasiums, educational facilities, galleries, places for exhibition, is also considered the addition of more residential buildings and commerce is very important in order to improve local commerce (Mixed Functions and re-use of existing building typology: Urban Catalysts and Cultural Nodes).

The fourth strategy is the Green Pockets; Via Flaminia has a series of open public spaces that are not in use, the aim is to transform these spaces giving them a new image, using green; and provide Via Flaminia with green lines along the entire street, to also give a sense of continuity and place. The green pockets are a series of open spaces that are focus on bring more green to the street, but also are spaces where community can be developed (Green Pockets) (see Figure 10).



**Figure 10.** Strategies for Via Flaminia:

a) Permeability, b) Mixed Functions and Re-use of existing building typology: Urban Catalysts and Cultural Node, c) Green Pockets. Source: The author's

### 3.3. The Masterplan

Each fragment of the Masterplan was design with and specific concept, in order to provide a more coherent image and idea. Following the analysis where the street is divided into three segments; the Masterplan will also have this focus, the reason why is simple, the street is very long, and focusing on particular strategies in addition to the generals can help achieving the goals.

Each segment has considerable different issues, but they are all connecting by Via Flaminia which is a system that is in need of homogeneity and continuity. The first segment is defined between Piazzale Flaminio and Via delle Belle Arti; the design concept for it is: “The Pedestrian Boulevard”. The second fragment goes from Via delle Belle Arti until Piazza Manila, where we have the “Urban Catalysts”. Finally, the third fragment from Piazza Manila until Ponte Milvio, is called “Green Passages” (see Figure 11).



Figure 11. Proposed Masterplan for Via Flaminia. Source: The author's

Fragment #1: "Pedestrian Boulevard"

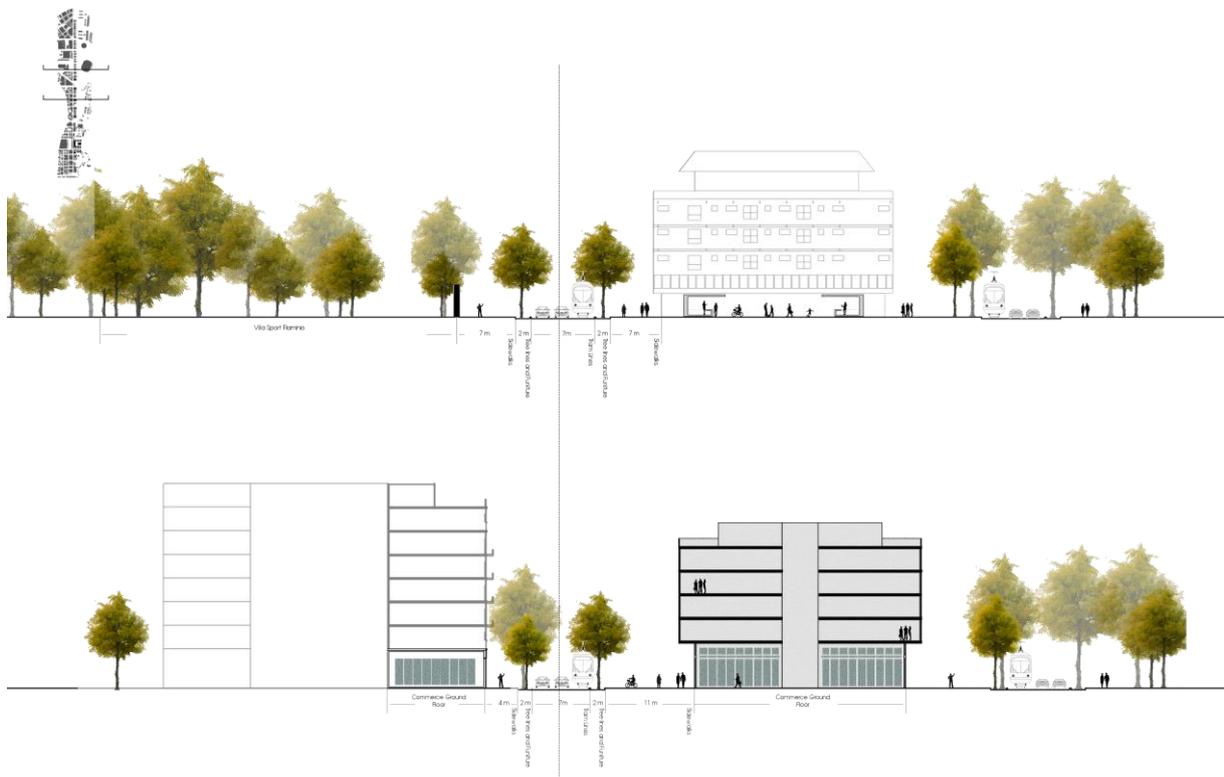
This fragment is characterized for maintaining the original section of Via Flaminia; the idea is to transform it into a Pedestrian Boulevard, and a first cultural urban node, supporting the already existing cultural functions (see Figure 12).



Figure 12. Proposed sections for fragment #1. Source: The author's

*Fragment #2: “Urban Catalyst”*

This fragment is a complete different situation from the first one, firstly there is a change of section with the addition of Viale Tiziano, and secondly the east part of the street is defined by a large open space, which is a long shape piazza. The issue with this factor is that Via Flaminia loses continuity and definition. The proposed plan is to continue the Palazzina typology with new recreational and cultural functions, this typology will allow the permeability and the dissipation of the compact city into the nature, which is on the east part with Villa Borghese; the idea is to use this natural scenery and complement it with this new urban catalyst. This fragment can generate a mix between two types of built front, generating a more dynamic profile with the use of Palazzinas, but still continuing the building front (see Figure 13).

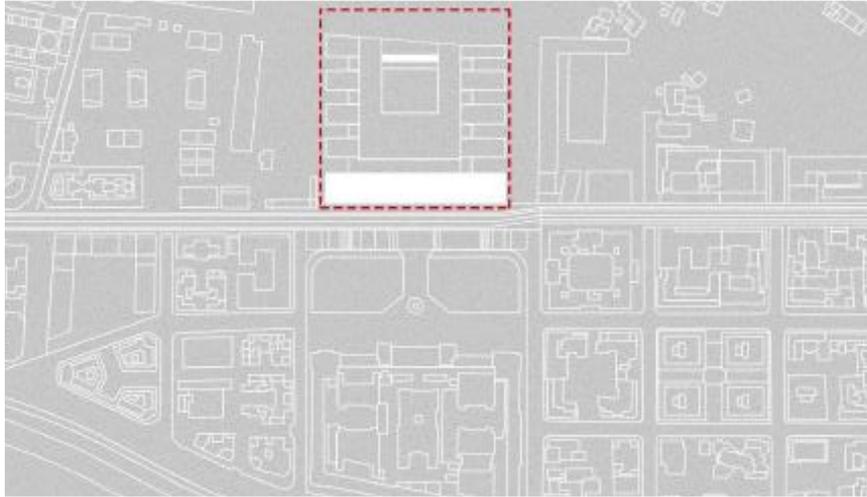


**Figure 13.** Proposed sections for fragment #2. Source: The author's

*Fragment #3: “Green Passages”*

The idea is to reuse the spaces between the Palazzinas; open these semi-private spaces and transform them into public passages. Incorporating the green factor, this spaces can be used for any kind of public activity, contributing to developing community and to give comfort to the pedestrian and allow them to use it as spaces where any kind of social activity can be performed instead of only looking at it as connecting point to point space (see Figure 14)

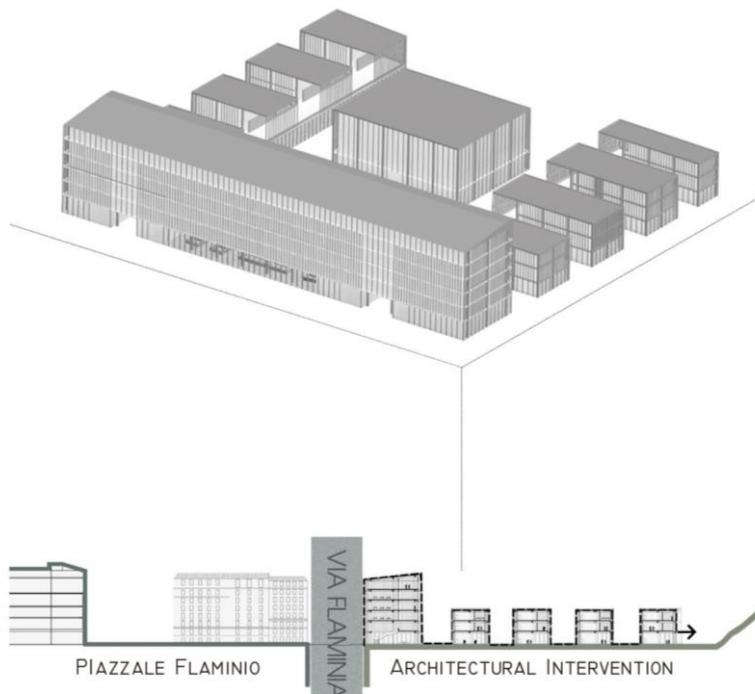




**Figure 15.** Site. Source: The author's

### *The project*

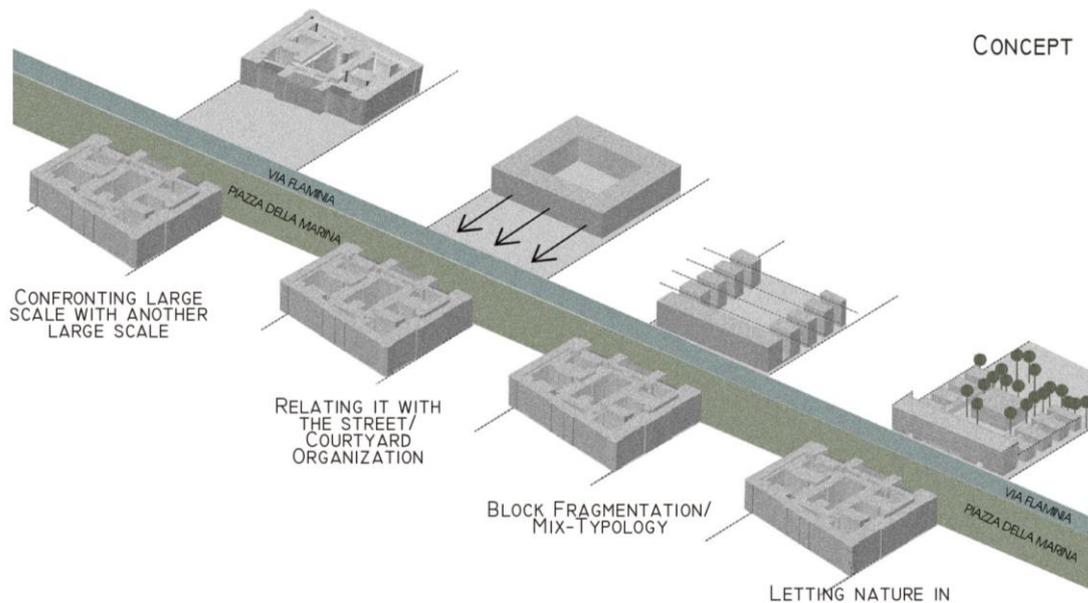
The Complex main goal is to become an intermediary space between the city and the nature. Taking the main characteristics of Via Flaminia and enhancing them into a project that can harbor social exchange. The function of the building is to be a dialog between two situations that are currently deteriorated. This particular site faces a monumental building that is not in direct relation with Via Flaminia (Ministero della Marina), instead the street is surrounded by two large open areas that are not defining the void. There are not constructions that can qualify to be the street definers as a volume (see Figure 16).



**Figure 16.** Relations. Source: The author's

### *The Concept*

The Ministero della Marina is such a unique situation in the entire street that the logical way to confront the situation was to create an equal situation but on the chosen plot and relating it to the street. In this way a major cultural node can be created as part of the masterplan. In this line of course the idea was to mirror the scale of Ministero della Marina, and start from the block and courtyard typology and mixing it with the Palazzina typology, in this way the big block can be fragmented. When is fragmented two situations happen, first a front is created to define the physical space of Via Flaminia and the second situation is that the Palazzinas or fragmented volumes respond to the nature, allowing it to enter the complex and have a direct relation with it (see Figure 17).

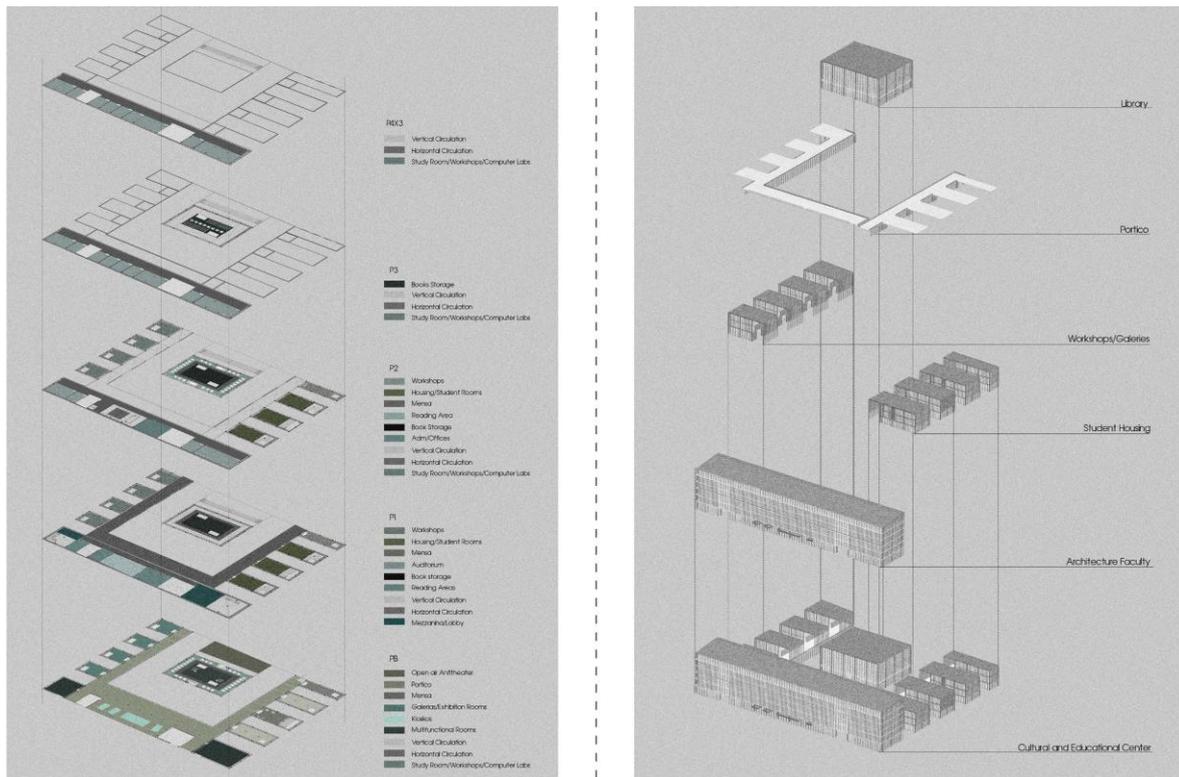


**Figure 17.** *Concept of the Cultural and Educational Center. Source: The author's*

### *The program and Architectural Elements*

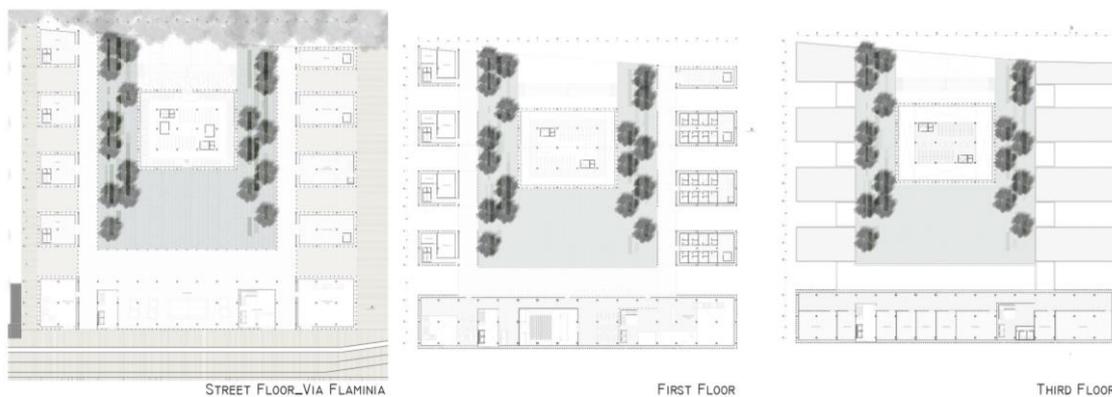
The proposed architectural project is The New Cultural and Educational Center of Via Flaminia. The idea with this project is to provide spaces that can foster social activities and cultural activities to enhance the sense of community, as mentioned before. This cultural center works as a support space for the already existing cultural facilities of the area; it intends to provide additional work space for the Architecture Faculty of la Sapienza University. With a multifunctional program, that involves a main building for the architecture faculty, with workshops, study rooms, offices, auditorium, and multifunctional areas, followed by a program of student housing and a cultural program with galleries, exhibition rooms, workshops. In addition, a central building that foster the library for the complex. The complex is design based on the typical courtyard block mixed with the Palazzina typology,

creating a central piazza that can foster any kind of public and social activity (see Figure 18).



**Figure 18.** Program and Architectural Elements of the Cultural and Educational Center. Source: The author's Architectural Drawings

The floor plans showcase the concept of permeability which has been one of the main strategies and focuses of the Masterplan. Ground Floor allows a direct connection between the different situations of the context, having a free floor scheme. On the following floor plans the educational, cultural and housing programs developed separating the private program from the public program. The organizational scheme is based on the distribution of secondary spaces surrounding the main central piazza, generating visual connections and different spatial situations that change the dynamics of the spaces (see Figure 19 and 20).



**Figure 19.** Floor Plans. Source: The author's



**Figure 20.** a) Longitudinal Section showing court yard, b) Interior Court Façade. Source: The author's

#### 4. CONCLUSIONS

Via Flaminia was a Street that served primarily as access and for movement, it evolved into a degraded urban space due to the lack of diligent urban planning. However, Via Flaminia is a street that has many key features that can be guided into the transformation of being more than just a pathway. It already connects a series of public spaces of the Public network of Rome, but is in need of an urban design that creates a series of activities and spaces that can give more to the citizen. The street, as an urban space, most endorse the community life; in order to be more than just a pathway, needs to secure a place for any activity that could happen in any social context. It most allow the growth of local economy, social and cultural exchange, political talks, room for children, room for everybody and anybody.

The street has to offer everybody something that can make them relate to it, something that can make them return. The design of the street is linked to the social behavior of the street; a well design street is mostly to succeed at providing amenities for the pedestrian, therefore improving social exchange. Furthermore, it should be able to play a balance proportion between its players, the pedestrian, the cyclist, the public transportation, and the private vehicle.

However, if there is a balanced proportion of space for each one, a good sustainable street

should be more people oriented; the vehicle traffic factor is very important in order to make a street more visited by pedestrians, safety and amenities, such as urban furniture, lights, cycle lines, green areas, image, are necessary in order to fulfil the needs of its users. In addition, streets should be flexible spaces, in order to allow all this social interaction, but also, because flexibility and adaptability are keys in a natural urban growth. As seen in Via Flaminia's urban growth, it was absorbed by its own context because it was not able to adapt to the needs of the present time; making it unable to become a quality urban space.

The people are the ones that will make a street, a successful street; if Via Flaminia allows the interaction of a broad range of activities then it will provide room for different spatial functions and expressions. This is important in order to shape the image and identity of the place. The street design is very important, but is an ingredient, the physical design; the functions and people must be part of a plan that has a view into the future; if these ingredients have a long-term vision, then the sense of place for the individuals and for the community can evolve consequently. Ultimately, the design of Via Flaminia needs to consider the local context and its social values; is not only about a street design that provides green areas and cycle lines, it needs to deal with the local issues and have a design that can manage to solve those local issues. In this path, the street image and identity will be reflected in the local community

## 5. REFERENCES

- [1] M. Southworth, E. Ben-Joseph, "Streets and the Shaping of towns and cities" Island Press, USA, 2003
- [2] C. Moughtin, "Urban Design: Street and Square", Architectural Press, London, 1992
- [3] A. Jacobs, "Great Streets" Massachusetts Institute of Technology, USA, 1993.
- [4] J- Jacobs. "The Death and Life of Great American Cities", Vintage Books, New York, 1961.
- [5] F. Lucchini. "La Villa Poniatowski e la Via Flaminia. Edizioni Kappa, Italy, 1981.
- [6] R. Morassut, V. Proverbio, D. Modigliani, F. Giordano, Piano Regolatore Generale. Norme Tecniche di Attuazione Comune di Roma, Dipartimento VI Politiche della Programmazione e Pianificazione del Territorio – Roma Capitale, [https://carteinregola.files.wordpress.com/2013/12/prg\\_nta.pdf](https://carteinregola.files.wordpress.com/2013/12/prg_nta.pdf), 2008.