



PISCINE DI TORRE SPACCATA

BREAKING BARRIERS
CONNECTING COMMUNITIES

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ABSTRACT

This study documents our analysis of a small neighborhood in the Roman periphery, approximately 10 kilometers southwest of the Roman city center, known as Piscine di Torre Spaccata (PTS). PTS's development occurred quite late in the city's history, with most of the construction occurring in the 1980s. However, the lack of funding, crime, and eventual absorption of part of the neighborhood by the government during its development has led to the creation of barriers and divisions within the neighborhood as well as between PTS and its external surroundings. The first part of this book documents our research and analysis of PTS as a team. We gathered information on the physicality of PTS through numerous site-visits and documented these collected information in map form. As for the socioeconomic dimensions, we utilized street surveys, livability audits, and resident interviews to gather a broad understanding of the neighborhood, while extensive demographic statistic research grounded our analysis. These methods resulted in our identification of a key underlying problem of PTS: a disconnect between residents of the public housing and those living in the private housings. This dichotomy between the residents has led to issues such as lack of maintenance of public spaces and thus the lack of public gathering areas, a large amount of physical barriers such as fences, walls, and hedges that isolate different parts of the neighborhood, an aging population as the younger demographics continues to leave PTS, leading to a desolate commercial strip as the already small population of PTS continues to shrink, and ultimately, the lack of cohesive understanding and identity for PTS as a neighborhood. That is not to say that all of the residents have given up on the connecting the neighborhood, however. Our research concludes with a discussion of how the residents have begun to fight for change in PTS in order to break down the barriers that separate them from each other, their government representatives, and the prosperous future their neighborhood has the potential to realize. The second part of this book translates these research into an urban design proposal, as our team works to make the most out of existing opportunities such as established neighborhood initiatives and nearby commercial, historic, and industrial areas while addressing the key concern of barriers that divide our neighborhood.

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CONTEXT



CONTEXT

Our study area of Piscine di Torre Spaccata (PTS) and its greater Torre Spaccata are located in Municipio VII, which was established on the 11th of March, 2013 by Resolution 11 as a consolidation of the former Municipi Roma IX and X (Il Messaggero, 2013). The neighboring communities of PTS include Don Bosco, Centocelle, and Romanina.

MUNICIPIO 7

Area of Study



Figure 1.2. PTS's location in Municipality VII

MUNICIPI

Administrative Subdivisions of Rome

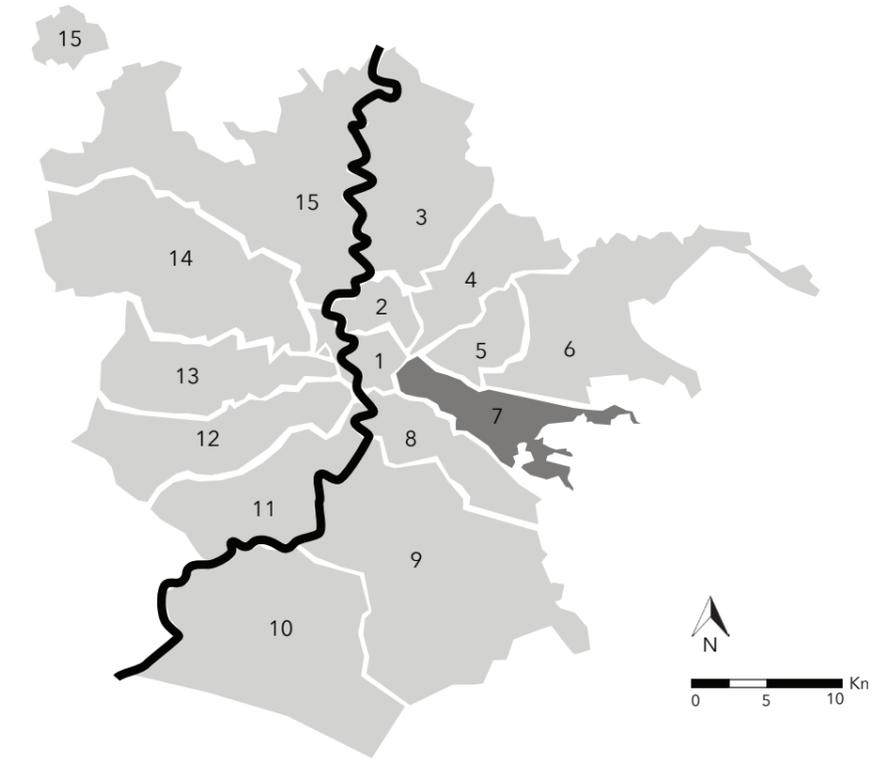


Figure 1.1 Municipality 7's location in Rome

HISTORY

Our study area was established in September of 1961, but the history of its greater Torre Spaccata dates back to the 9th century (Roma Capitale, N.D.). Torre Spaccata, or “the Split Tower” in English, was named after the ancient tower that stands between Via Casilina and Via Tuscolana. This tower is the preserved ruin of a Roman tomb dedicated to the Antonine dynasty, and is now the origin of the name of our study area, a small neighborhood nestled between Cinecittà Studios and vast green lands, Piscine di Torre Spaccata (PTS).



Figure 1.4. Torre Spaccata: Roman tomb of the Antonine Dynasty (Vannozi, 2013)

In 1967, the municipality of Rome approved of the land making up present PTS, which authorized its owner at the time, Maria Gerini, to privately develop it. However, in 1982, Rome established Law 94, which authorized the municipality to use eminent domain on unfinished projects that stood idle for at least a year.



Figure 1.5. Torre Spaccata (Vannozi, 2013)

At this time, only part of PTS had been developed and construction had been dormant for months, so Gerini was forced to give up control of the rest of her development to the city government. In 1983, the government bought the middle strip of PTS along Viale Rolando Vignali with a total of 105 billion lire (i.e. 85 billion lire allocated for construction and 20 billion lire for eminent domain reparations).

The government completed the construction and distribution of public housing units in 1985. These public units contrasted with the private apartment buildings that Gerini had already constructed. This juxtaposition resulted in a highly unique and diverse neighborhood that retains a degree of this tension in the present day.

1982 Rome establishes Law 94, authorizing municipalities to use eminent domain on unfinished projects that stood idle for at least a year

1985 Completion of public housing December 23rd: public housing distributed

1983 Government pays 105 billion lire for Piscine di Torre Spaccata (85 billion for construction & 20 billion for acquisition of land)

1961 Establishment of Piscine di Torre Spaccata

1967 Piscine di Torre Spaccata approved by municipality of Rome

1974 Beginning of Development

1960

1970

1980

1990

Figure 1.3. PTS Historical Timeline



Figure 1.6. Private vs Public Housing Map

METHODOLOGY



METHODOLOGY OVERVIEW

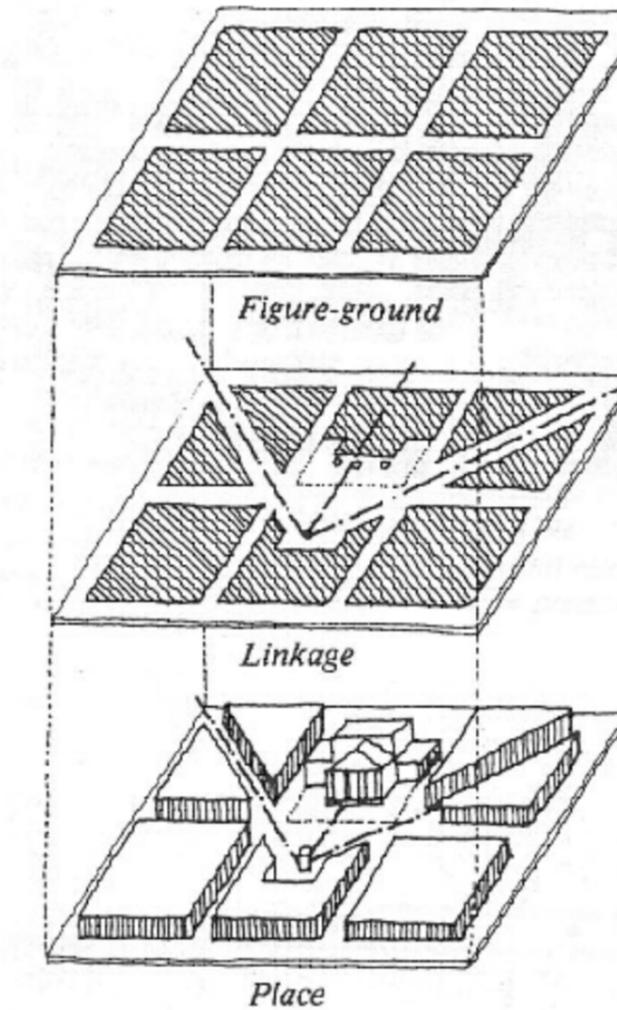


Figure 2.1. Diagram of Urban Design Theories (Trancik, 1986).

Our neighborhood research began with analyzing two main types of space dimensions: physical and socioeconomic. To accurately evaluate the physical dimensions of a space, we studied multiple indicators, including building structure, street structure, land use and topography, and maintenance. As for the socioeconomic dimensions, we explored factors such as resident perception of their space, social activities, and community involvement.

In addition to those dimensions, we utilized the Livability Audit created by Dr. Deni Ruggeri to concisely and efficiently reveal the major issues hindering the livability of Piscine di Torre Spaccata (PTS). This crucial survey tool examines the livability of a space based on six themes: imageability, transparency, safety perceptions and maintenance, enclosure, human experience, vitality, and connectivity.

At the end of our neighborhood analysis, we developed interpretive diagrams. These diagrams display specific features and issues we found in PTS with the aforementioned methods. They will provide guidance in the urban design stage of the neighborhood.

In the rest of this methodology section, we will explain in more detail the physical and socioeconomic dimension methods, the use and interpretation of the Livability Audit, and the significance of interpretive diagramming.

SOCIOECONOMIC DIMENSION METHODS

how sketching can capture what people see in a concrete, visual manner.

PHOTOGRAPHY

Like sketching, photographs are an effective means of human-scale documentation. We took ample photos to document our site visits and findings because photography allows us to catch all the details that sketches cannot capture, but still retains the unique views of the photographers. Therefore, photographs

provide a context for the more detailed analytical designs.

CONTEXT MAPS

The context maps are useful in grounding our study site based on surrounding references, and identifying the physical significance of PTS in larger contexts. We created these maps to show the location of PTS within the greater Torre Spaccata region and Municipality VII, and the location of the municipality within the city of Rome. For our future urban design

proposal, the maps can also help identify opportunities for connections between PTS and its surrounding areas.

GREEN RADIUS MAP

The green radius map displays the walkability of the neighborhood by measuring 5-minute walking distances from different nodes in PTS. The making of this map stemmed from our knowledge that a walkable community is more engaging with its local residents than a non-walkable one. This map would ultimately assist our urban design planning in creating facilities and activities in the green spaces of PTS.

BARRIERS MAP

Barriers are a reoccurring theme in PTS, which makes it a major focus of our analysis. Therefore, we developed a barriers map marking all types of structures that block access around and within the neighborhood. These barriers include fences on the ground floors of residential buildings, hedges in front of or around those buildings, and walls. Access to places such as green spaces and shopping areas within and outside a neighborhood is crucial to the creation of a livable space. As a result, we marked the barriers in PTS in hopes of removing them in our next step of urban design for the neighborhood.

The next dimension we explored is the socioeconomic condition of PTS. The methods used for this dimension helped generate representation of the types of people living in the area and their perceptions of it. To a certain extent, the physical dimension methods may present such information, but they gear more towards physical and spatial perceptions rather than socioeconomic identities of the people in PTS. Therefore, the methods listed in this section allow us to understand further who the people are and how they contribute to the social climate of PTS.

INFORMAL INTERVIEWS

One of the socioeconomic dimension methods that offered us the most information was informal interview. We believe that communicating with people living or working in the neighborhood is the most effective in helping us gain insight into how they perceives PTS. For this reason, we conducted multiple interviews with a variety of people, such as elders and business owners. We asked each of

them a set of standard questions for the purpose of better comparisons among their responses. At the same time, each interview gave us unique information because of the different personalities of interviewees.

LYNCH MAPS

Along with the informal interviews, we also asked residents and other people in the neighborhood to make Lynch Maps (Lynch, 1960) for us. These maps are particularly important for our research as it allows people we interview to visually represent to us how they view, interact with, and interpret PTS. Naturally the maps they draw of PTS are not perfectly accurate in scale and physicality, but we encouraged the people to abstractly display how they see their neighborhood as best as possible in order to capture the identity of the neighborhood.

STATISTICAL DATA ANALYSIS

Grounding our socioeconomic

research is the statistical data we collected and analyzed. The analysis of statistical data includes dividing PTS by census tracts, and comparing different types of neighborhood information such as education, housing, and employment with that of Rome on average. Having statistics as a research tool provides support for other data and information gathered at the site, and helps guide our future planning design proposal.

SURVEYING NEIGHBORHOOD ORGANIZATIONS

We also sought to find out more about how the residents of PTS were involved in shaping their own community, so we surveyed existing neighborhood organizations. We researched about them online, and met some of their leaders in person. Each organization revealed different social issues within the neighborhood that require attention.



Figure 2.4. Photo documentation of a prominent street graffiti upon first visit

LIVABILITY AUDIT METHOD

By gathering information on the physical and socioeconomic dimensions of PTS, we are able form the basis of our neighborhood analysis. To further interpret our space, we utilized Dr. Deni Ruggeri's Livability Audit (2015).

The audit of Ruggeri consists of six important livability dimensions: imageability, transparency, safety perceptions and maintenance (T, SP & M), enclosure, human experience, vitality, and connectivity. These are the components we concentrated on in interpreting the physical issues of our site. Each dimension has aspects that contribute to the score of that dimension. By looking at these aspects, we can make site design interventions to enhance the livability of PTS. Additionally, to unbiasedly determine the livability score of the neighborhood and because a livability score has neither upper nor lower limits, we performed the audit in another place we considered to be more livable than PTS - the area around the Subaugusta metro stop. The summarized results of the audit are shown in Figure 2.6, indicating that PTS is less livable than Subaugusta. In Figures 2.7 - 2.12, we offer the breakdowns of the aspects that contribute to the total livability score of PTS.

Livability Dimension	Subaugusta	PTS
Imagability	39	23
T, SP & M	7	-21
Enclosure	9.8	7.435
Human Experience	26	21
Vitality	6	-12
Connectivity	10	5
Total Livability Score	97.8	25.935

Figure 2.5. Summarized Livability Scores (See Appendix for full livability audit forms)

PTS Imageability	
Parks & Piazzas	4
Large Natural Landmarks	0
Unique Buildings	0
Common-Styled Architecture	2 (76 - 100%)
Wayfinding Elements	6
High Intensity Use Buildings	1
Free Standing Buildings	9
Complex-Shaped Buildings	1
Memorable Buildings	0
Artistic Elements	0
Total	23

Figure 2.6. Imageability Score of PTS

PTS Transparency, Safety Perceptions & Maintenance	
Undesirable Land Use (e.g. liquor stores, pawn shops, abandoned buildings, parking lots)	-16
Buildings with Transparent Facades	-2 (0 - 25%)
Maintenance and Cleaning	-1 (Bad)
Transit Infrastructure	-2
Total	-21

Figure 2.7. Transparency, Safety Perceptions & Maintenance Score of PTS

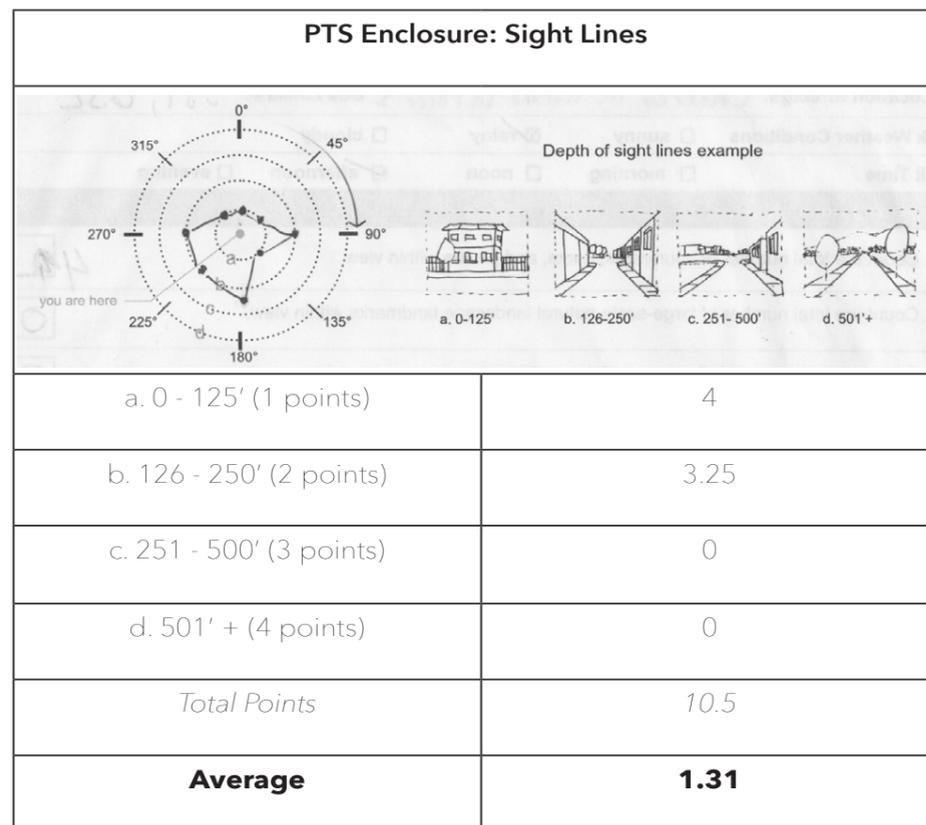


Figure 2.8. Sight Line (Enclosure) Score of PTS

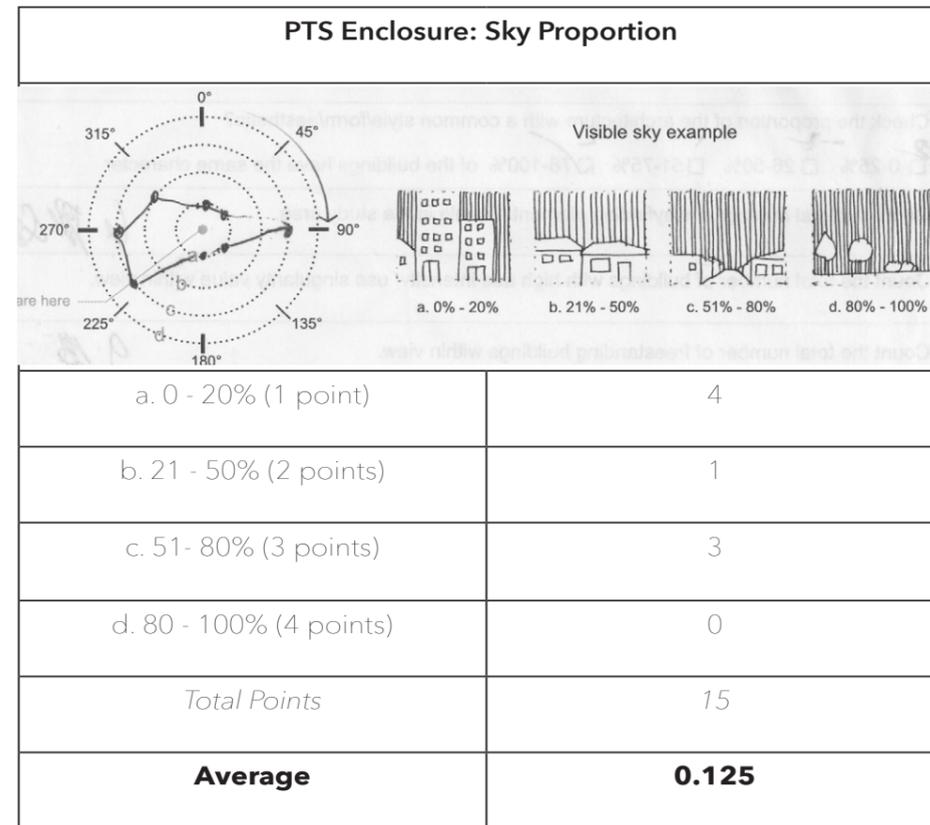


Figure 2.9. Sky Proportion (Enclosure) Score of PTS

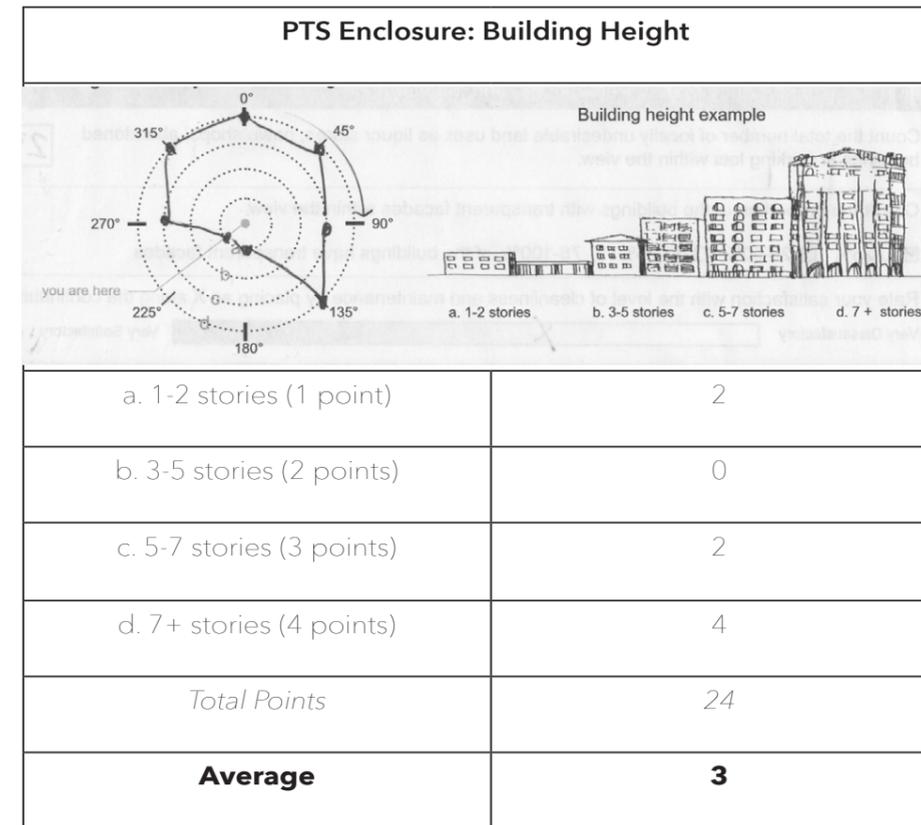


Figure 2.10. Building Height (Enclosure) Score of PTS

PTS Enclosure: Presence of Edges	
Number of Edges (e.g. fences, shrubs, buildings)	3

Figure 2.11. Presence of Edges (Enclosure) Score of PTS

PTS Enclosure: Summary	
Sight Line	1.31
Sky Proportion	0.125
Building Height	3
Edge	3
Total	7.44

Figure 2.12. Enclosure Score of PTS

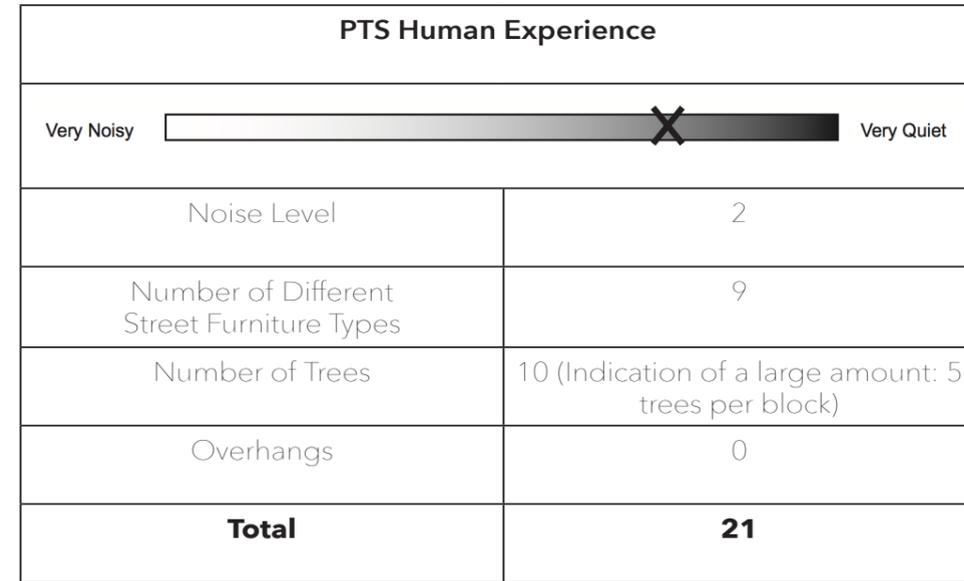


Figure 2.13. Human Experience Score of PTS

PTS Vitality	
Ground Level Vacancies	-20
Signs of New Development	0
Different Land Uses	8
Total	-12

Figure 2.14. Vitality Score of PTS

PTS Connectivity	
Types of Transportation Modes	3
Number of Streets Within View with Heavy Traffic Flow	1
Number of Crosswalks	1
Total	5

Figure 2.15. Connectivity Score of PTS

INTERPRETATION & ANALYSIS METHOD

INTERPRETIVE DIAGRAMMING

To complete the analytical description of PTS and transition into the urban design phase, we developed a series of interpretive diagrams. They visually display some site-specific characteristics identified throughout our research. We found that PTS is a bounded area with various opportunities for developments that would establish its identity and role in a larger regional context consisted of PTS and its nearby neighborhoods.

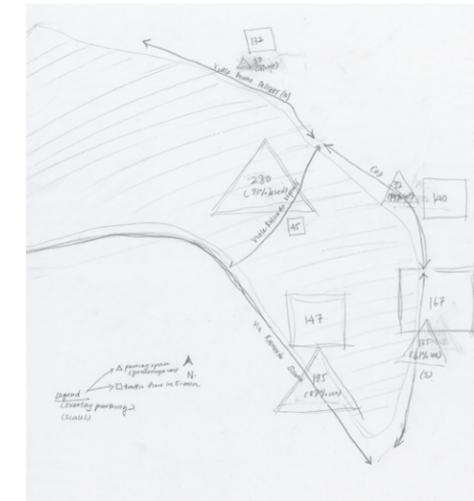
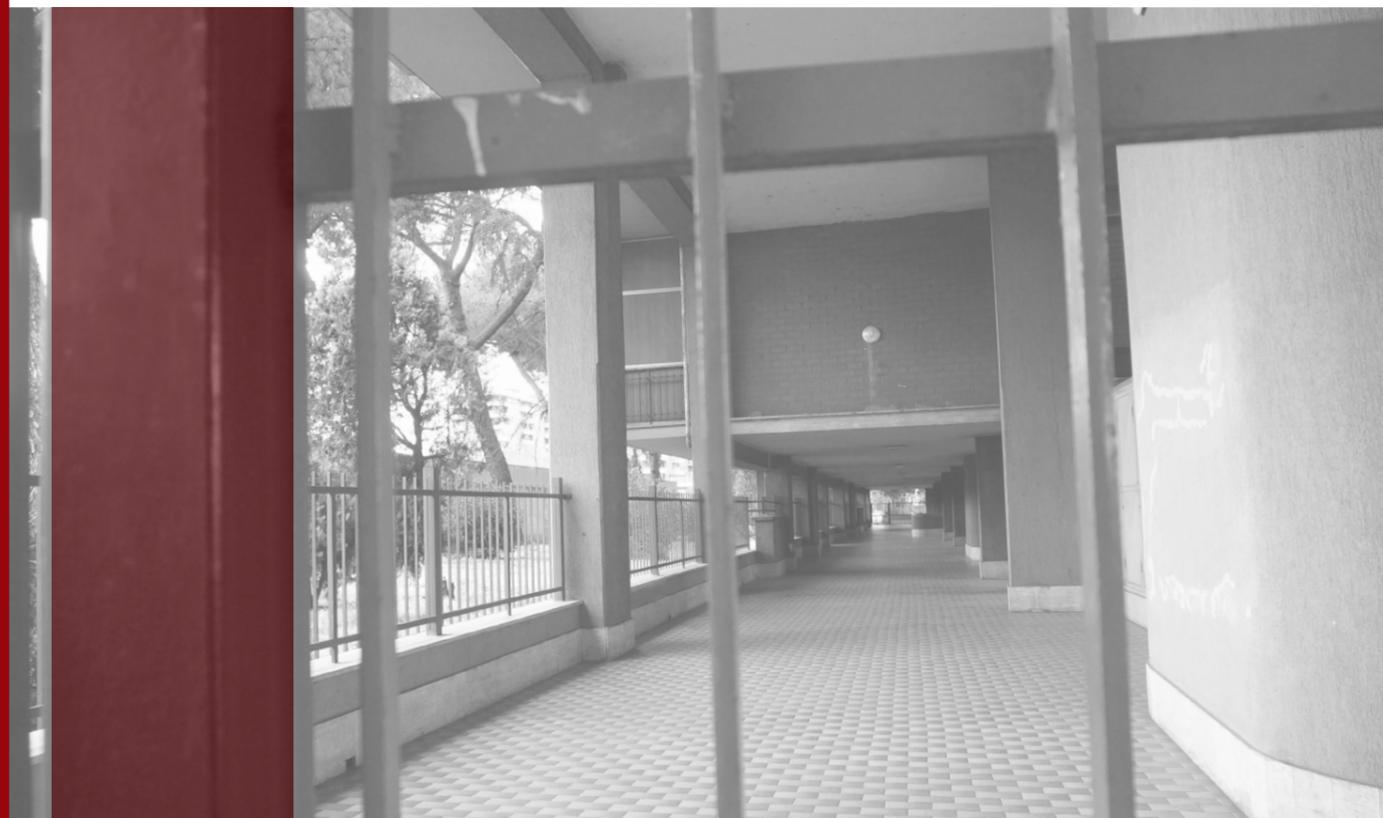


Figure 2.16. From left to right: Hand-drawn preliminary interpretive diagrams by William Wong, Molly Muoio, Cheryl Kuo, Gaylord Minett, Clavin Kuang



PHYSICAL DIMENSIONS



BUILDING TYPOLOGY



Figure 2.1. Building Typology Map

Most buildings in PTS may be divided into four major types: Palazzine, linear housing, Ville Plattenbauten, and Casale. Before describing these buildings in detail particular to the neighborhood, one must first understand the typologies usually associated with some of these names in Italy. Plattenbautens tend to be linear buildings of up to 10 levels high. Two Plattenbautens may be built per hectare, which is associated with Floor Area Ratio (F.A.R.) of 1.92 ($=\text{Floor}/\text{Area} = 960\text{m}^2 \times 2 \times 10 / 100\text{m} \times 100\text{m} = 19,200\text{m}^2 / 10,000\text{m}^2$). Palazzine refers to 5-level, rectangular buildings. Six Palazzine may be built per hectare, which is associated with F.A.R. of 1.77 ($=\text{Floor}/\text{Area} = 590\text{m}^2 \times 5 \times 6 / 100\text{m} \times 100\text{m} = 17,700\text{m}^2 / 10,000\text{m}^2$). As for Villes, they are usually small two-level building structures associated with F.A.R. of 0.15 ($=\text{Floor}/\text{Area} = 250\text{m}^2 \times 6 / 100\text{m} \times 100\text{m} = 1,500\text{m}^2 / 10,000\text{m}^2$) when six are built per hectare (Reale, 2008). Two of the four major building typologies in PTS have been named in accordance with these building codes.

Within the neighborhood, there are 23 Palazzines, 8 linear housing, 5 Ville Plattenbautens, and 2 Casale. Each of these buildings is further divided into sections known as Scalas (i.e. "staircases").

PALAZZINE

The most abundant building type in PTS is the Palazzine. Within this neighborhood are square 5-level residential complexes (i.e. 4 residential floors and 1 ground floor entrance) all in the southern area of the neighborhood. Each Palazzine has 2 scalas, containing 28 private units each.

LINEAR HOUSING

The linear housings are scattered all over the neighborhood of PTS: four are in the orthern area, one crosses the central road Viale Rolando Vignali, and the other three are located in the southern area. The northern ones have six Scalas of 12 private units each, the central ones have five Scalas of 20 private units each, while the southern Plattenbautens - also the largest in scale - have five Scalas of 35 private units each. The northern and southern buildings are nine stories high (i.e. eight residential floors and one ground floor), while the central Plattenbautens have five levels (i.e. four residential floors and one ground floor).

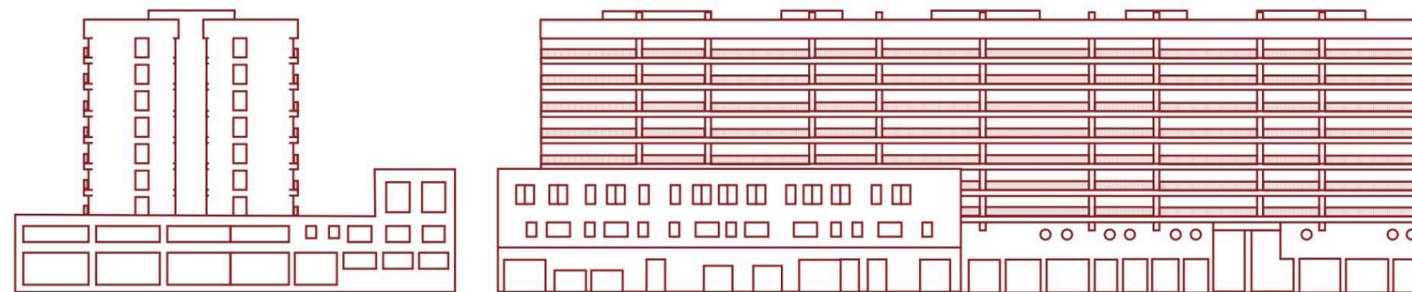


Figure 2.4. Ville Plattenbauten Elevation

VILLE PLATTENBAUTEN

The Ville Plattenbautens in PTS are each nine levels high, with a main linear building structure of nine floors (i.e. eight residential floors and one entrance ground floor) attached to an outer three story rectangular building structure originally designed to house retail stores for the neighborhood. Each Ville Plattenbauten has between three and five Scalas, which each contains 28 units.

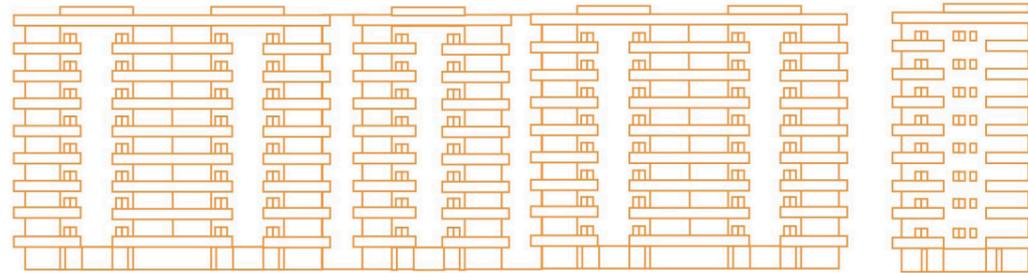


Figure 2.3. Linear Housing Elevation

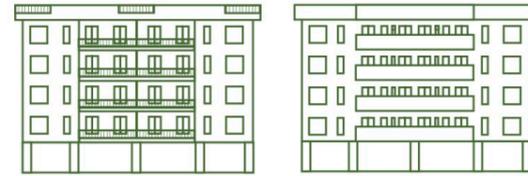


Figure 2.2. Palazzine Elevation

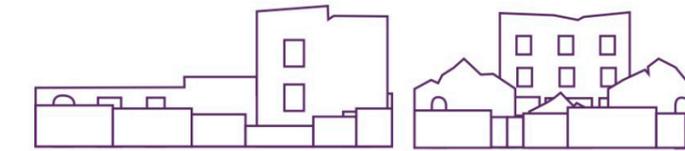


Figure 2.5. Casale Elevation

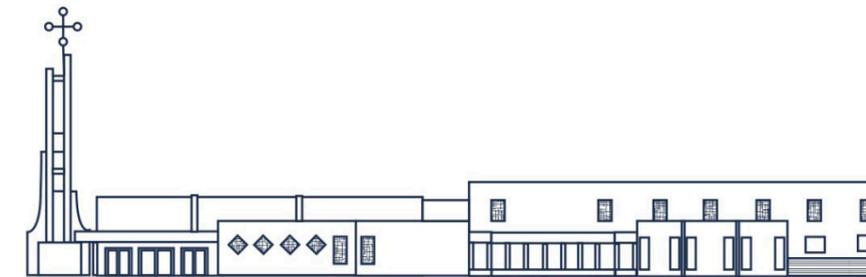


Figure 2.6. Public Building Elevations (top to bottom: church, employment center, neighborhood market)

CASALE

Last but not least are the Casales, which, within this neighborhood, are both informal settlements. They are both at most two levels high, but the interior structures are unclear, as nomads have adjusted the building structures to their needs. These alterations include a self-built extension from the walls and knocked out interior walls, which may or may not have been purposeful because a collapse may have resulted from age and lack of maintenance. The Casale in the west of PTS is built within the ruins of an ancient building, and the other one to the east of PTS is developed out of an abandoned office building.

PUBLIC BUILDINGS

The remaining buildings in PTS are the public buildings, which do not fit into any of the four designated building typologies mentioned above: this includes the church, neighborhood market, and employment center. The church is made up of two connected main chapels and several small rooms around it on ground level. The neighborhood market is made up of 12 single-level buildings each with space for two market stalls. Finally, the employment center is a rectangular 3-story building.



PALAZZINE

Figure 2.7. Palazzine Photos

LINEAR HOUSING



Figure 2.8. Linear Housing Photos (left to right locations: north, central, south)



VILLE PLATTENBAUTEN

Figure 2.9. Ville Plattenbauten Photos

PUBLIC BUILDING



Figure 2.10. Public Building Photos (left to right: church, neighborhood market, employment center)



CASALE

Figure 2.11. Casale Photo

STREET TYPOLOGY

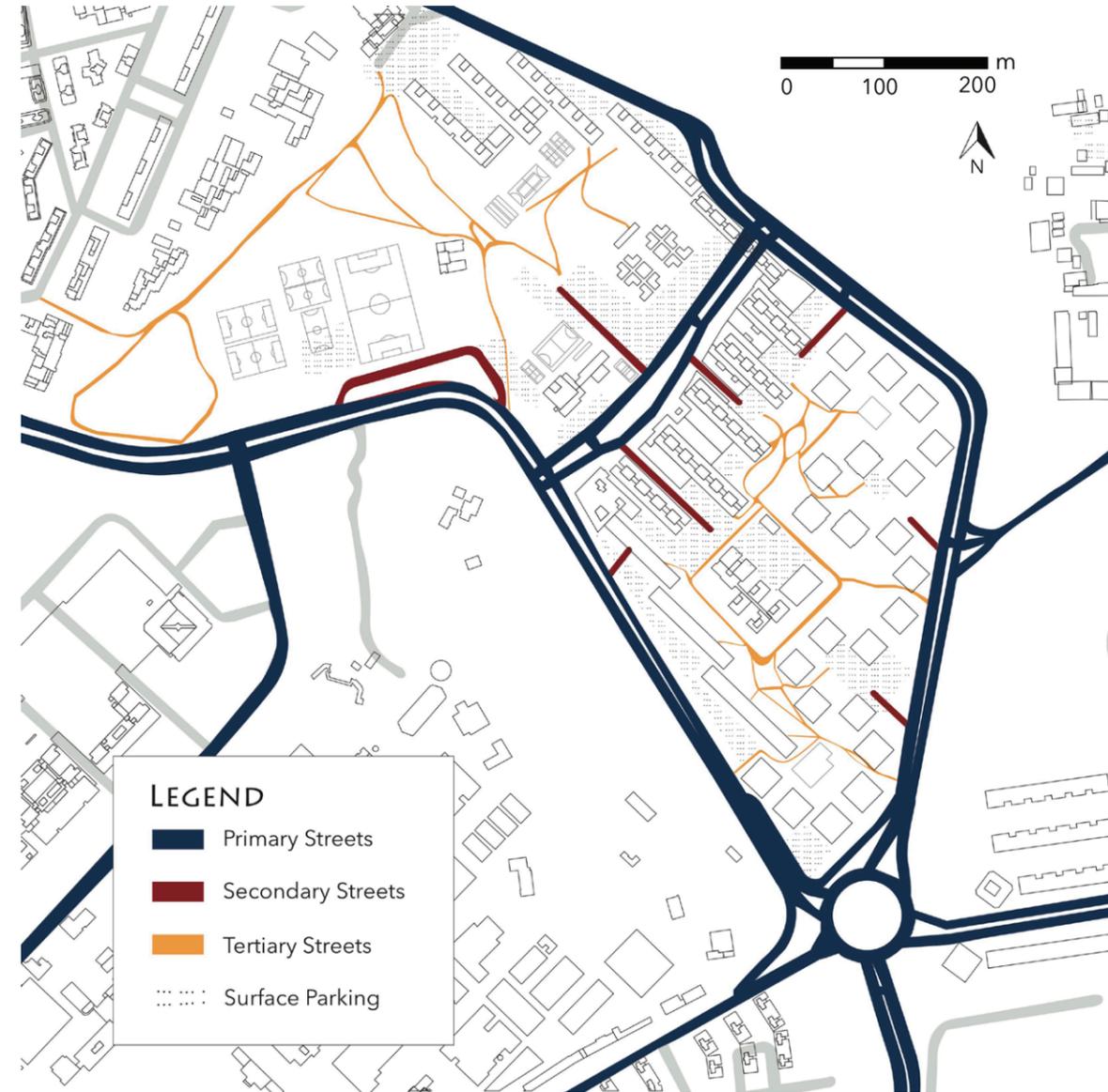


Figure 2.12. Street Typology Map

The streets in PTS can be divided into three main typologies: primary, secondary, and tertiary streets. Primary streets are the main roads that lead out of the neighborhood. They enclose and mark the boundaries of the PTS, and each possesses at least two lanes for two-way traffic. Secondary streets are one-lane roads that lead into and out of the neighborhood only. Tertiary streets are soil pathways for pedestrians that wind through the green spaces in PTS. Tertiary streets are more abundant than secondary streets and serve the important purpose of connecting the interiors of the neighborhood.

PHYSICAL CONNECTIONS & OPPORTUNITIES



Figure 2.13. Primary Street Section

PRIMARY STREET



Figure 2.14. Primary Street Photos

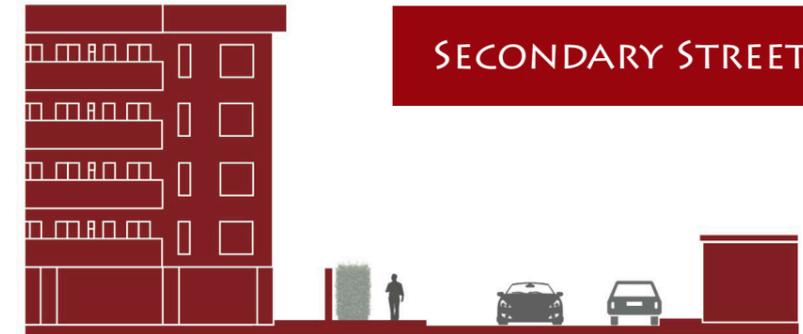


Figure 2.16. Secondary Street Section

SECONDARY STREET



Figure 2.15. Secondary Street Photos



Figure 2.18. Tertiary Street Section

TERTIARY STREET



Figure 2.17. Tertiary Street Photos

SURROUNDING AREAS

Many prominent sites are located near PTS, including the Cinecittà studios and its shopping complex, Cinecittà 2, the Parco degli Acquedotti, and the University of Rome

Tor Vergata. Cinecittà Studios is clearly a landmark - it is currently the largest film studio in Europe. It boasts more than seven decades of history and was the filming location for the movie *Roman Holiday* that

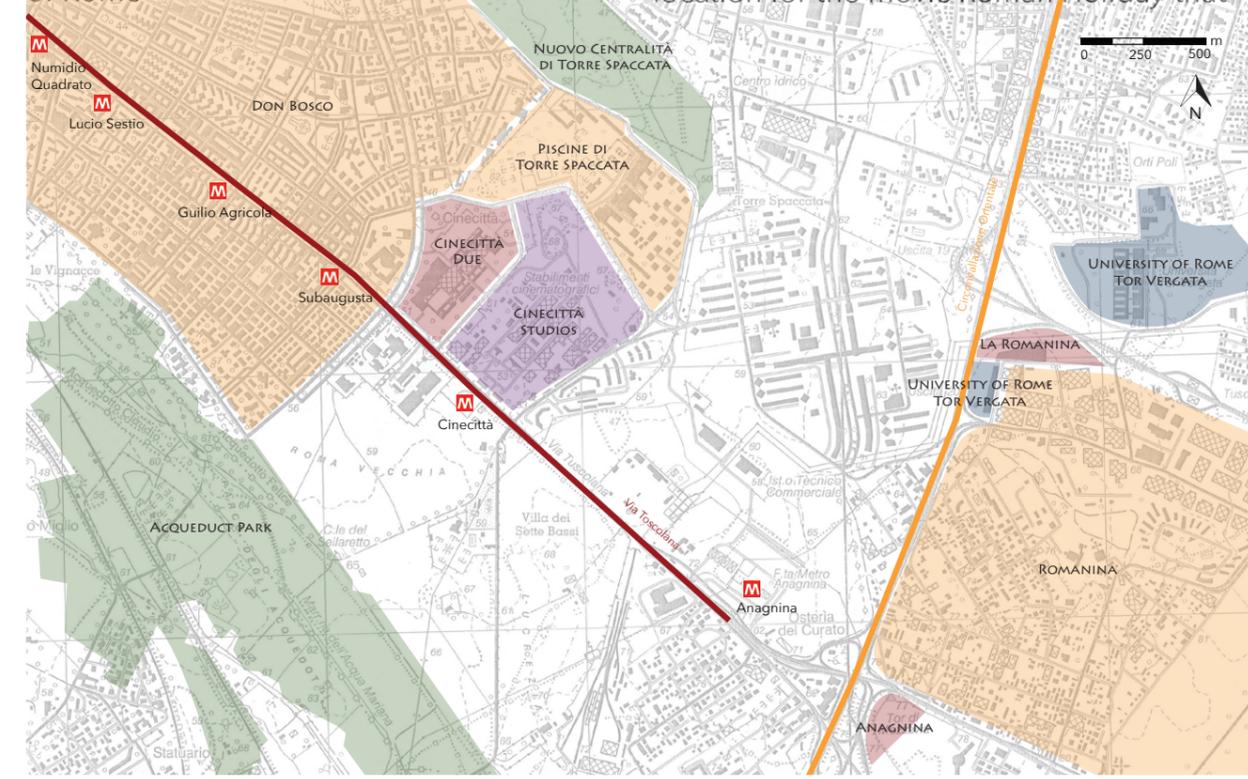


Figure 2.19. Context Map

brought many tourists to Rome (Cinecittà Studios, 2016; Davis & Bridge, 2016). South of these studios is the Parco degli Acquedotti, a significant historical and archaeological site housing the monumental remains of six out of eleven ancient aqueducts that once brought water supply to the city of Rome (Parco degli Acquedotti, 2014). In addition, to the east of the studios is also the University of Rome Tor Vergata, whose utility lies in its addition of educated young demographic in the midst of an overall aging population of Rome (refer to Statistics section of SES Dimensions). Last but not least, extending from the studio is a shopping center Cinecittà Due, which may be the largest shopping mall out of the three near the neighborhood - La Romanina and Anagnina shopping centers lie to the southeast of PTS.



Figure 2.20. Green Radius Map

GREEN SPACES

PTS is designed like a neighborhood out of a garden city. As can be seen through the green radius map, whose circle radius mark the amount of distance an average pedestrian may cover in five minutes, one can easily access greenery from any part of the neighborhood. That is not to say that each green space is pedestrian-friendly, however. A prominent feature of PTS greenery is their lack of maintenance. A prime example of this dilapidation is the large 'green' junkyard just to the north of the neighborhood. Its current state of disrepair is due to the failed execution of a 1962 master plan known as the 'Schema del Sistema Direzionale Orientale', the goal of which was to expand the economic activities of Roman city center and make this site as a retail hub (Archibugi, 2004). There has always been plans by the municipality to redevelop this site, however. Now also known as Centralità Torre Spaccata, Labics, a prominent Rome-based architectural firm, is planning to redevelop the site as Nuova Centralità Urbana (see Socioeconomic Connections and Opportunities in Socioeconomic Dimensions for more info). The most attractive green space around the area of PTS remains the Parco degli Acquedotti to its south, but it does not fall within a five

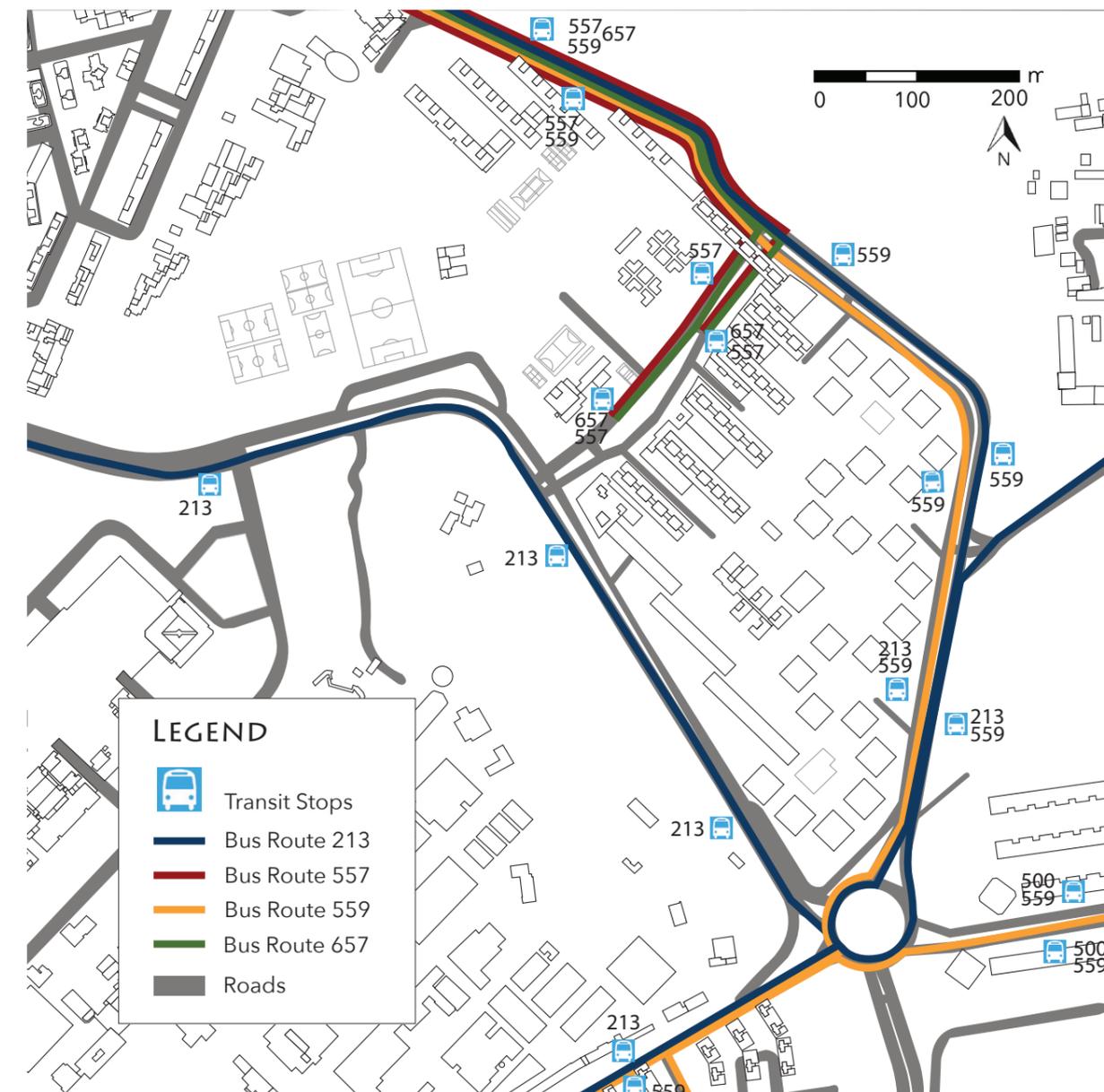


Figure 2.21. Public Transportation Map

PUBLIC TRANSPORTATION

PTS is quite well supplied with public transportation. As shown on this map, four different bus lines run through PTS (i.e. 213, 557, 559, 657). Bus 213 connects PTS to the Cinecittà stop of metro line A in the south and to Largo Preneste in the north. Buses 557 and 657 begin and end their routes in PTS on Viale Rolando Vignali. However, while 557 travels west towards Piazza Cardinali, passing through three metro line A stops of Subaugusta, Numidio Quadrato, and Quadraro-Porta Forba, 657 travels west to Arco di Travertino. PTS is at the center of bus 559's route, beginning and ending near two line A metro stops: Cinecittà in the southwest and Anagnina in the southeast of PTS.

PHYSICAL BARRIERS

BORDERS

Piscine di Torre Spaccata (PTS) possesses clear boundaries: it is a relatively low-density neighborhood between two densely inhabited areas, Don Bosco in the northwest and Romanina in the southeast; flanked by two large green areas, Centralità Torre Spaccata in its north and Parco degli Acquedotti in its south; and, enclosed by roads on all sides then fences from the roads around every building. Each of these clearly identifies the neighborhood, but also disconnect it from surrounding utilities.

There is, for example, a clear lack of connection between each of the mentioned opportunity sites in the previous section with PTS. Cinecittà Studios provides no particular employment opportunities for inhabitants of PTS (refer to Statistics section of SES Dimensions), the Parco degli Acquedotti is of less interest to the neighborhood residents than it would be for the neighborhood's virtually non-existent visitors, and a large percentage of PTS's younger population do not complete university education despite the convenient location of Tor Vergata (see Statistics in Socioeconomic Dimensions for more info).

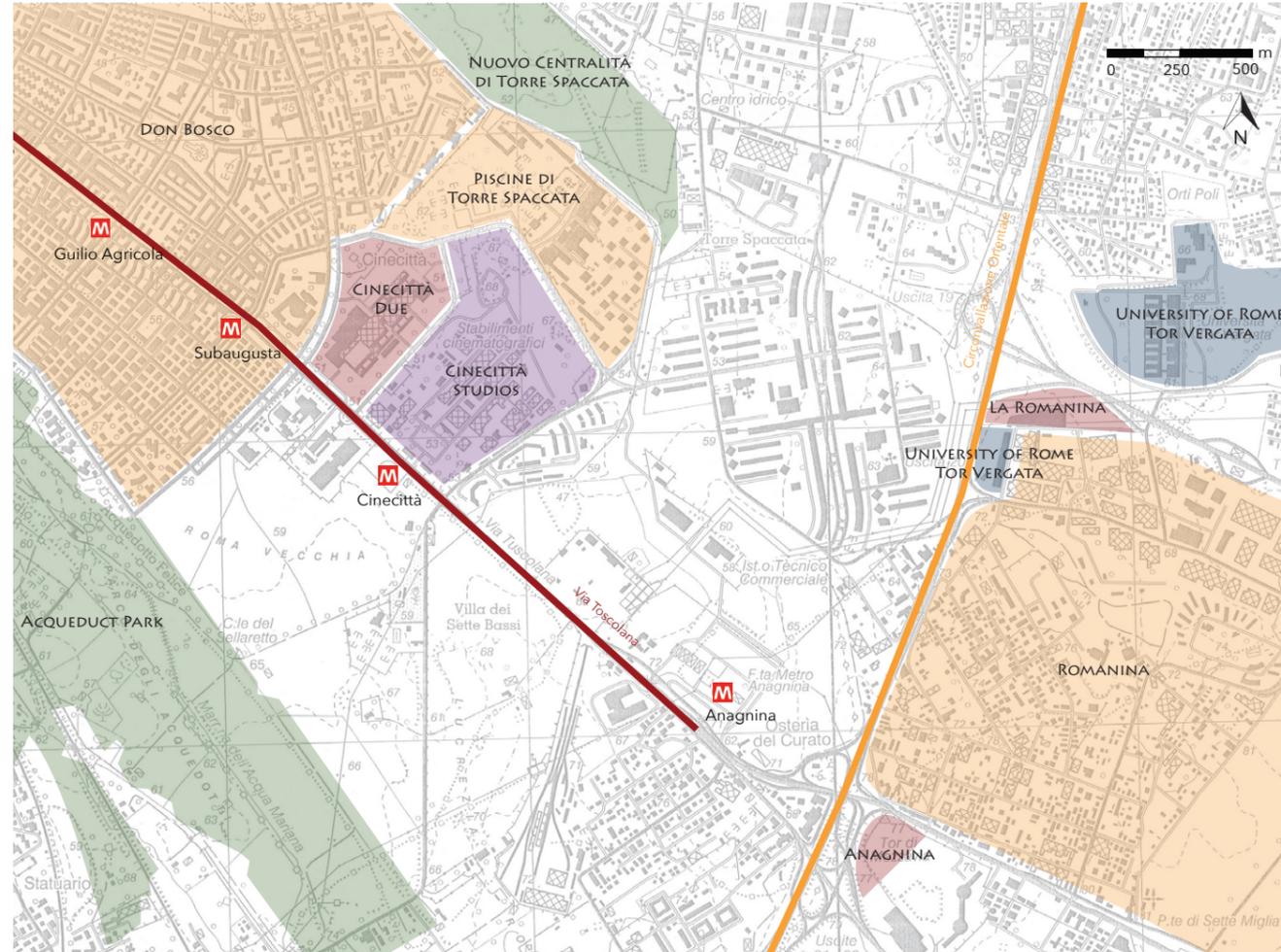


Figure 2.22. Context Map

N-S DIVIDE

Even within the neighborhood, PTS may easily be divided into three sections, northern, central (along Viale Rolando Vignali), and southern. As can be seen from the figure ground map, physically in plan, the northern buildings are distinguished

from the central ones because their orientations are perpendicular to each other, and the southern buildings are distinguished from the other two because they are the only structures that follow a clear curvilinear path with three dips woven with green spaces.

Ownership also plays an important role in creating divisions. The northern and southern sections possess private housing complexes, while the central strip of housing across from the neighborhood market and church along Viale Rolando Vignali are publicly owned.



Figure 2.23. Figure Ground Map

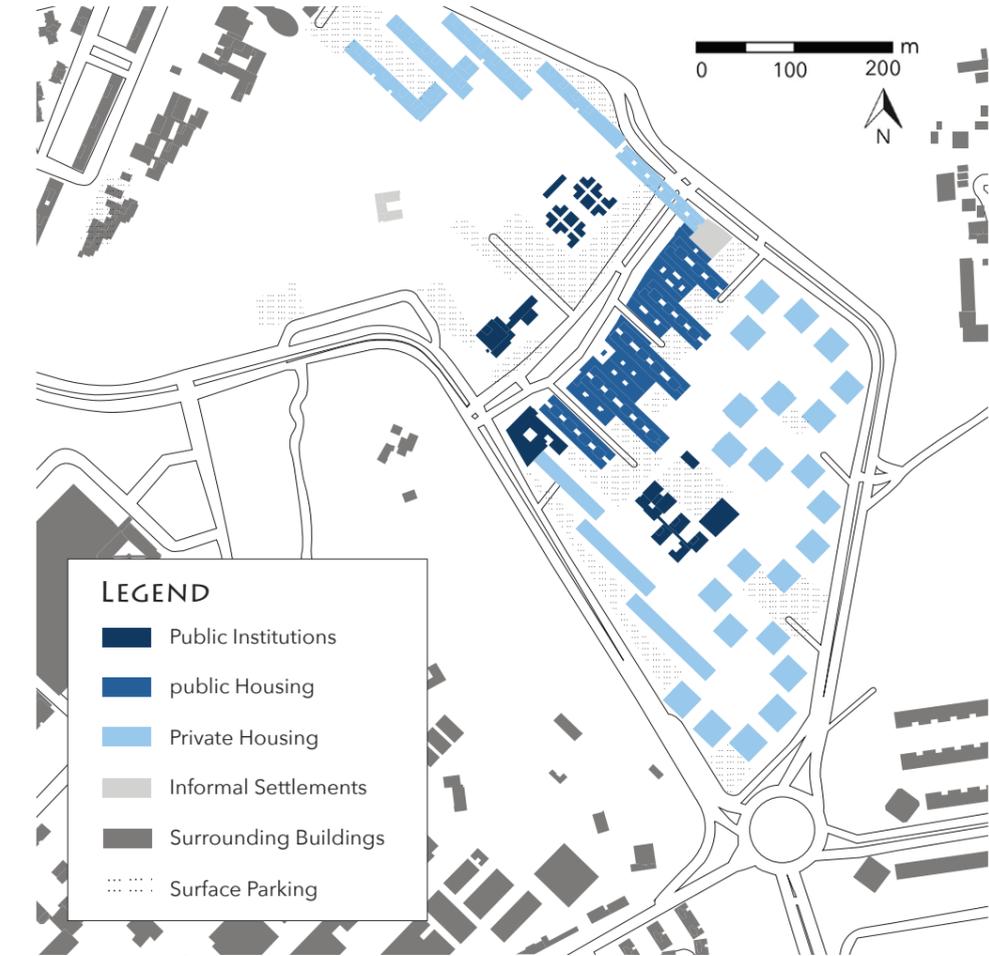


Figure 2.24. Private vs. Public Map

BARRIERS & LAND USE DIVIDE

It becomes apparent by juxtaposing the barriers map with the land use map that there are countless physical barriers both inside and outside PTS that forces differing uses of land apart. Just outside of the neighborhood, barbed wired walls enclose Cinecittà Studios' perimeters.

Within the neighborhood, private housing complexes fence in their buildings from their adjacent public spaces. Furthermore, public institutions such as the athletic fields in the north, the market and church in the center by Viale Rolando Vignali, and the elementary school in the south also each have their own set of fences and wall

perimeters. The only housing complexes within PTS without physical barriers are the public houses along Viale Rolando Vignali, which, with many barriers in place already, are in the end just as isolated as the rest of the neighborhood.



Figure 2.25. Barriers Map



Figure 2.26. Land Use Map

SOCIOECONOMIC DIMENSIONS



CENSUS TRACTS

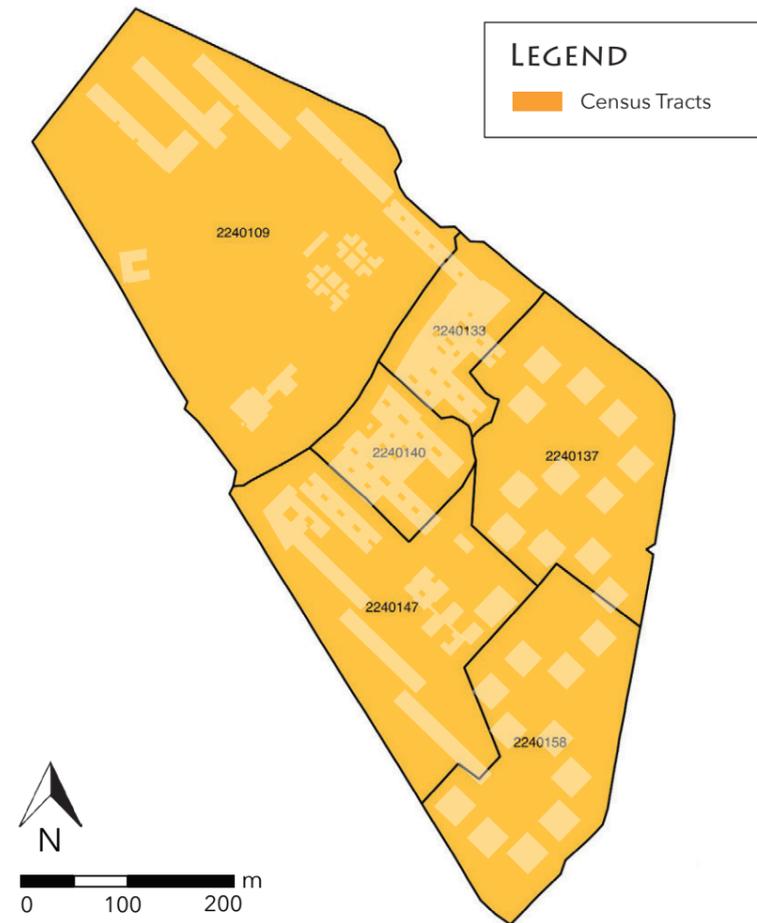


Figure 4.1. PTS Census Tracts Map

The statistical analysis of Piscine di Torre Spaccata (PTS) draws from the census data of the Italian National Institute of Statistics (ISTAT) in 2001 and 2011. The entire neighborhood has a population of between 4,000 and 5,000, which is less than one percent of the population of Rome. Within the neighborhood, there are two major types of residences - public and private. In this analysis, we compare the population, housing, education, and employment statistics of overall Rome with those of the public and private housing areas in PTS. By studying these statistical data, we have gained insight into the present socioeconomic situation of PTS.

RESIDENTIAL TYPE

To begin our analysis, we first divide PTS into census tracts of publicly rented and privately owned housing. We separate the neighborhood this way because of three reasons. Firstly, we believe that the public and private housing areas may demonstrate different socioeconomic characteristics. Secondly, while publicly rented residences concentrate in the center census tracts of PTS, the privately owned ones are mostly in the rest of the

tracts (Figure 4.3). Last but not least, unlike Rome, where 70% of housing is privately owned, the ratio of public to private housing in PTS is close to 1 (Figure 4.2). The similar amount of public and private housing in PTS indicates that residents in public and private buildings are both equally important to the development and vitality of the neighborhood.

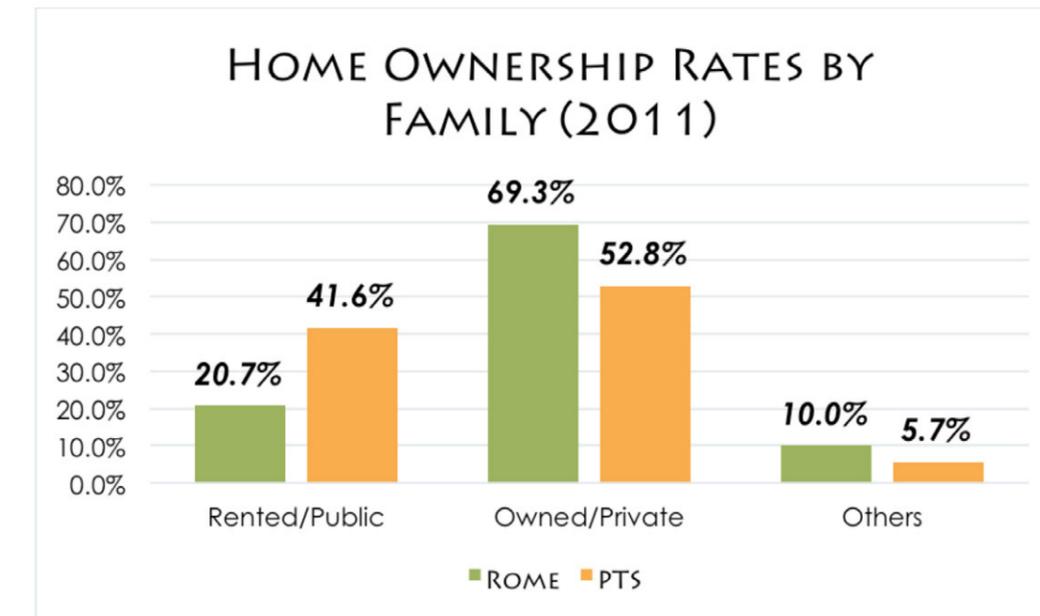


Figure 4.2. Home Ownership Rates by Family (2011)

HOME OWNERSHIP RATES

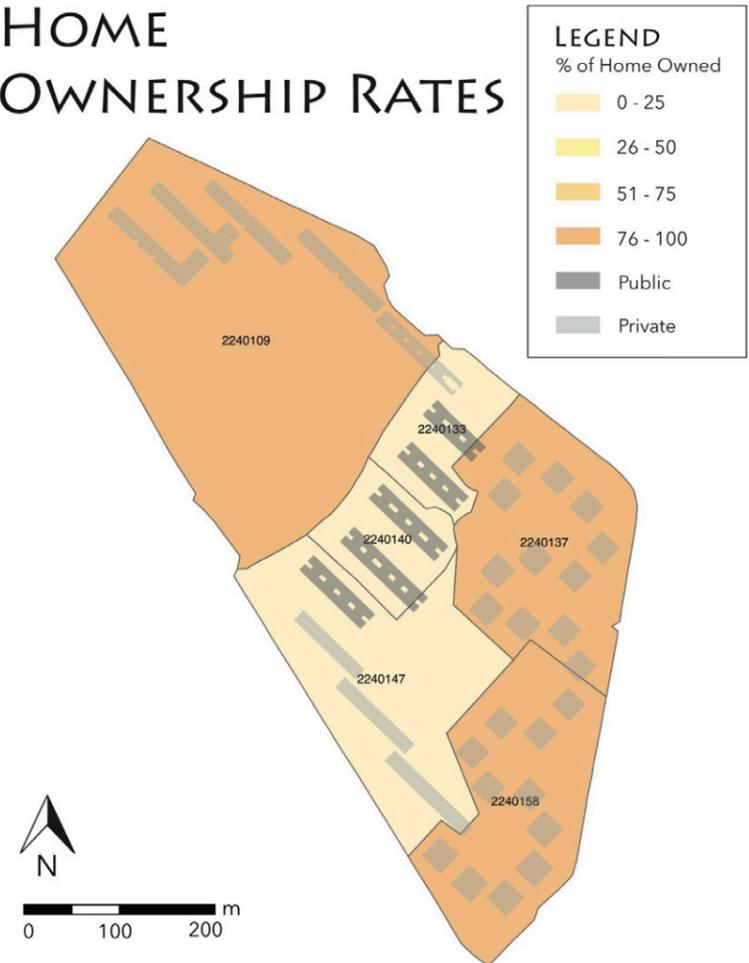


Figure 4.3. Home Ownership Rates Map

POPULATION

After dividing the neighborhood into public and private tracts, we start our analysis by studying populations. In 10 years, while the population of Rome slightly increased, those of public and private PTS tracts had relatively significant decreases. In 2001, Rome, public PTS and private PTS tracts had populations of 2.5 million, 2,500 and 2,500, correspondingly, and in 2011, 2.6 million, 2,200, and 2,300, respectively (Figure 4.4).

Population		
	2001	2011
Rome	2,546,804	2,617,175
Public PTS	2,469	2,185
Private PTS	2,463	2,291

Figure 4.4. Population Table

While the population of the city grew by about 3%, private PTS suffered a loss of population by almost 8%. Public PTS had an even greater loss by more than 10% (Figure 4.5). The opposite

population trend of PTS compared with the city implies the existence of certain physical and socioeconomic issues in the neighborhood, as we have and will demonstrate throughout this report.

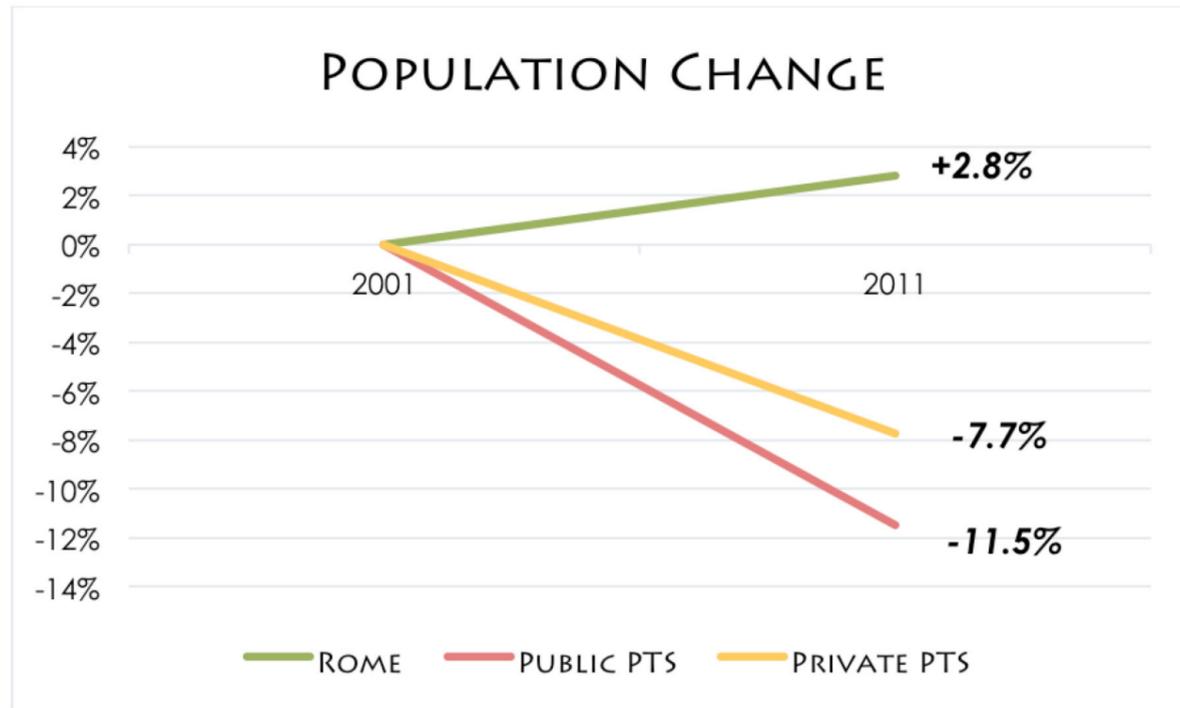


Figure 4.5.w Population Change Line Graph

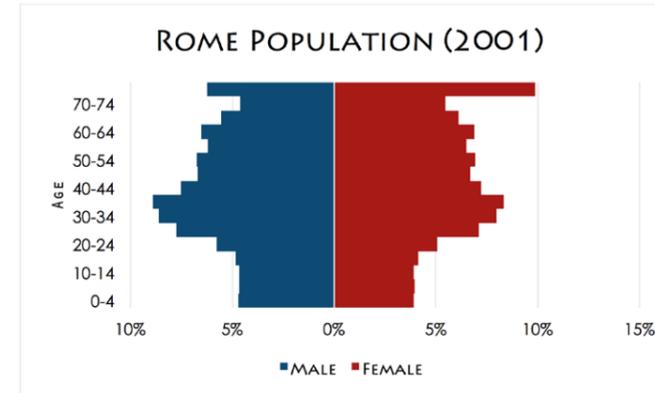


Figure 4.7. Rome Age Distribution (2001) Chart

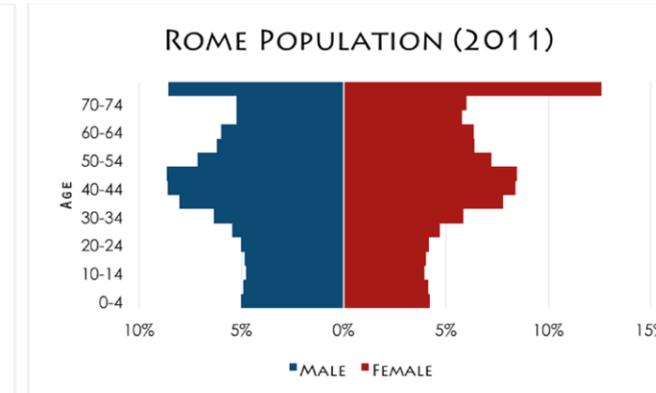


Figure 4.8. Rome Age Distribution (2011) Chart

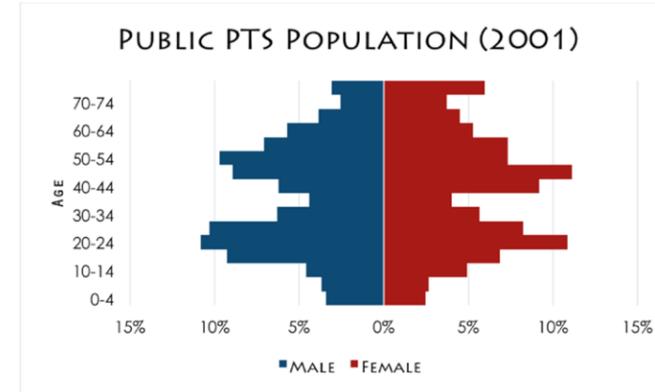


Figure 4.9. Public PTS Age Distribution (2001) Chart

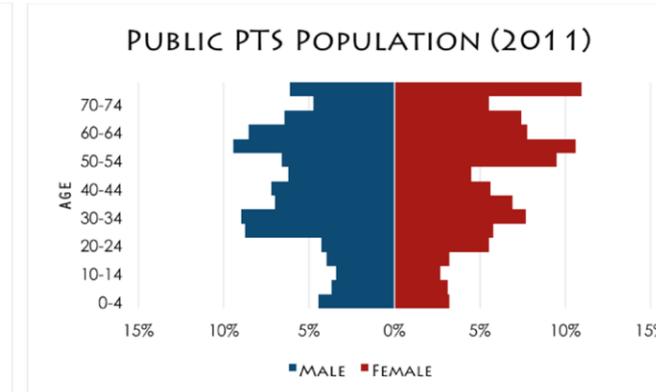


Figure 4.10. Public PTS Age Distribution (2011) Chart

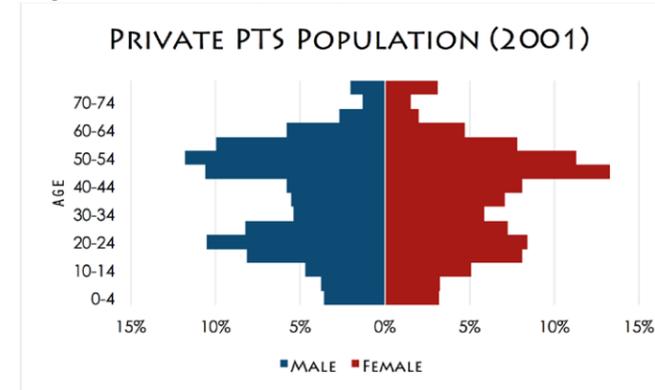


Figure 4.11. Private PTS Age Distribution (2001) Chart

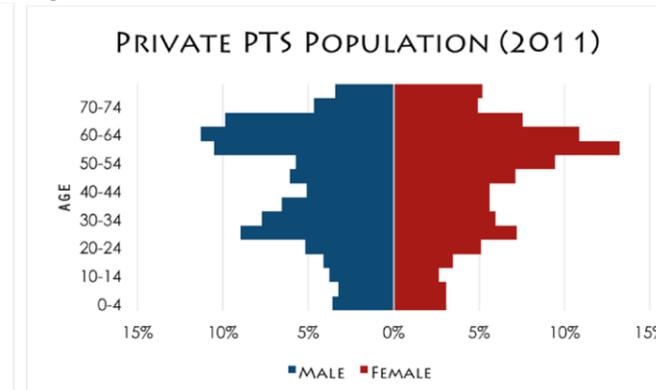


Figure 4.12. Private PTS Age Distribution (2011) Chart

SEX & AGE DISTRIBUTIONS

The sex and age distributions of PTS are similar to those of Rome. In both the city and the neighborhood, there are slightly more women than men (Figure 4.6), small numbers of children, and aging populations. The majority of people in Rome were in their 30s or 70s in 2001, and 40s or 70s in 2011 (Figures 4.7 & 4.8). Public and private PTS tracts, on the other hand, had two different peak ages: the 20s and 50s in 2001, and the 30s and 60s in 2011 (Figures 4.9, 4.10, 4.11 & 4.12). The co-existence of large young and old age groups in PTS indicates the importance for the neighborhood to provide sufficient facilities and services to both young adults and elders. Such facilities and services are vital to the socioeconomic health of PTS.

Sex Ratio in 2011 (%)		
	Male	Female
Rome	53	47
Public PTS	53	47
Private PTS	51	49

Figure 4.5. Sex Ratio (2011) Table

IMMIGRANTS

PTS has a smaller percentage of foreign or immigrant population than Rome. From 2001 to 2011, there was a larger increase in foreign population in Rome than in PTS - 5% growth in the city, 4% in public tracts, and 2% in private tracts (Figure 4.13). The smaller growth of foreign

% of Immigrants in Total Population		
	2001	2011
Rome	3.9	8.6
Public PTS	0.9	4.4
Private PTS	1.0	2.3

Figure 4.13. Immigrants Table

population in PTS might be one of the effects of the physical and socioeconomic problems there. As a result of those issues, most immigrants who settle in Rome do not want to live in PTS.

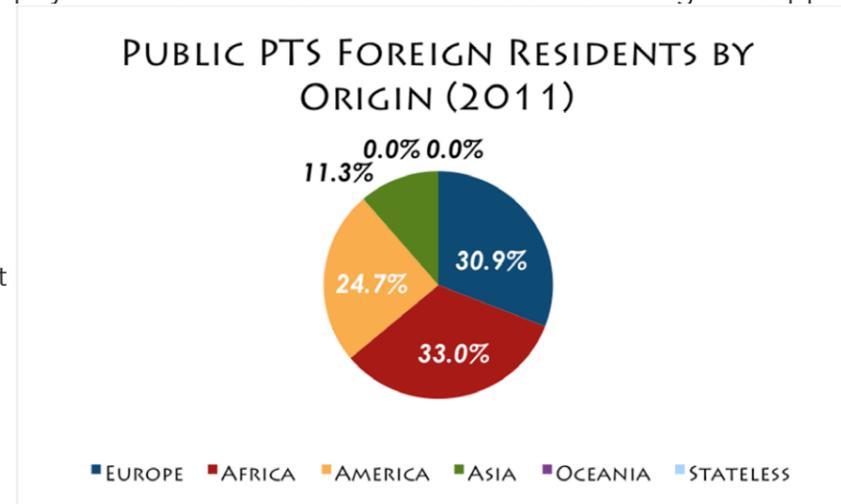


Figure 4.15. Public PTS Foreign Residents by Origin (2011) Chart

Within the immigrant communities, the ethnic compositions of Rome, public and private PTS are different from each other. While almost half of the foreign residents in Rome are from European countries other than Italy, there are 30% in public and 74% in private tracts. Africans and Americans, who constitute about 20% of the immigrants population in the city, form more than half of the total foreign population in public PTS, but only 7% in private PTS (Figures 4.14, 4.15 & 4.16). The different foreigner compositions of public and private PTS from Rome demonstrate the demand for distinct immigrant support

systems in the neighborhood compared with elsewhere in the city.

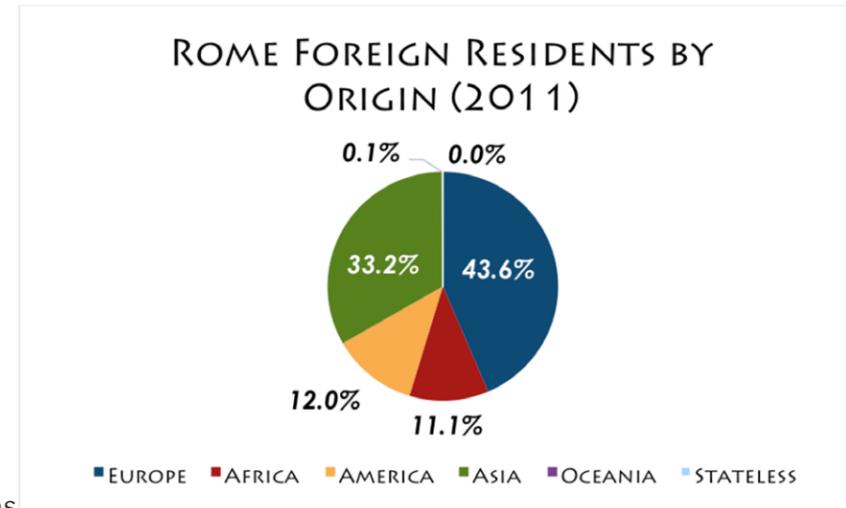


Figure 4.14. Rome Foreign Residents by Origin (2011) Chart

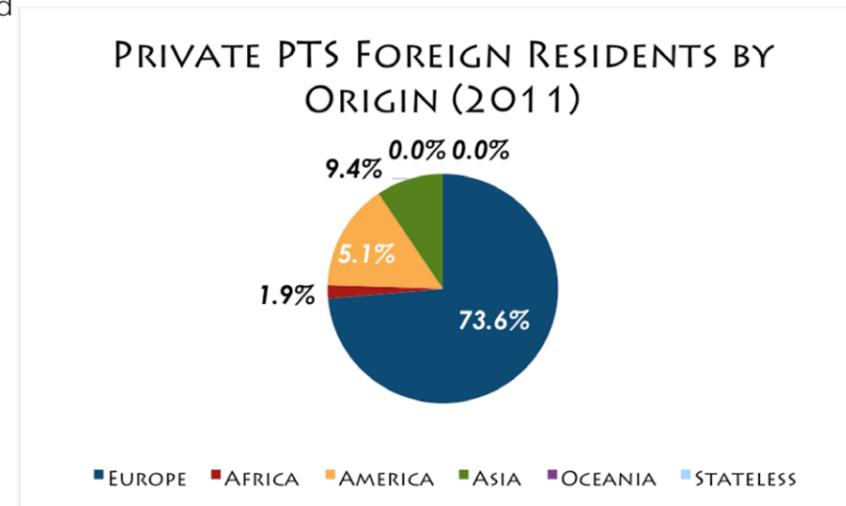


Figure 4.16. Private PTS Foreign Residents by Origin (2011) Chart

POPULATION DENSITY

After analyzing basic demographic information, we turn our focus on housing to understand the residential condition of PTS. The first housing-related statistics we explore is population density. To compute this density, we divide occupied dwelling space by population. In general, the population density of PTS is higher than that of Rome overall. Among Rome, the public and private tracts of PTS, the public residential area has the highest density. In 2001, on average, there were 25 square meters of space per person in public housing, compared with 29 and 34 in private housing and Rome, respectively. 10

years later, although the population density of public PTS declined, it was still the highest among all three places (Figures 4.17 & 4.18). This finding indicates that PTS residents, especially those who reside in public housing, have more crowded living spaces than an average neighborhood in Rome.

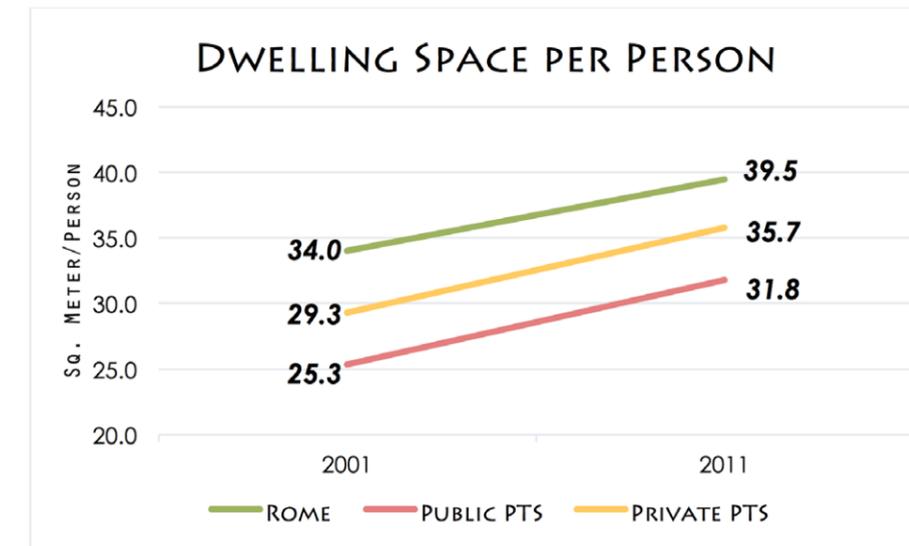


Figure 4.17. Dwelling Space per Person Line Graph

POPULATION DENSITY

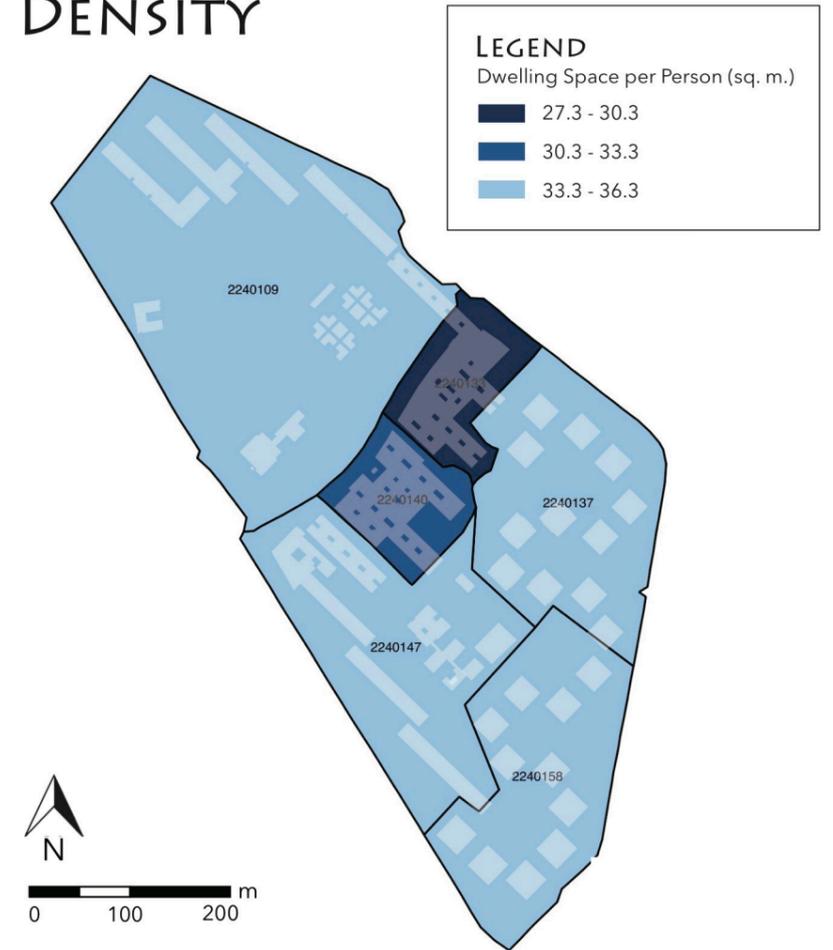


Figure 4.18. Population Density Map

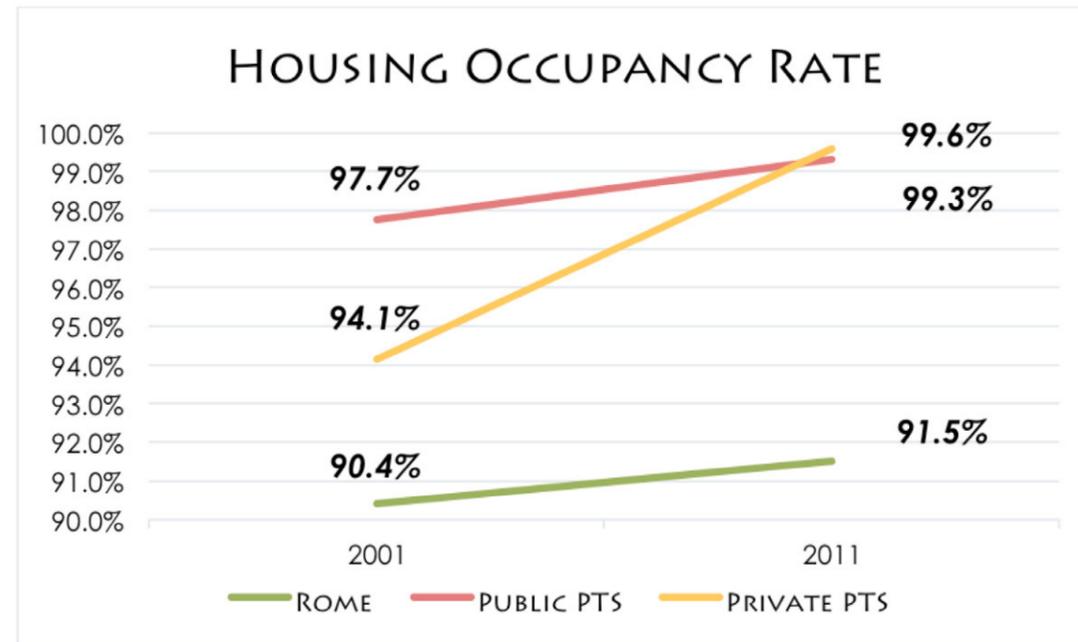


Figure 4.19. Housing Occupancy Rate Line Graph

HOUSING OCCUPANCY

Although the population of PTS declines, compared with Rome, both the public and private housing areas in PTS have higher occupancy rates. As the rate of Rome remained about 90% in 10 years from 2001 to 2011, that of public and private tracts reached almost 100% in 2011. For the private residences, its increase in occupancy rate was larger than the public ones (Figure 4.19). The finding of a relatively high housing occupancy rate in PTS implies a strength of the neighborhood - there is no housing vacancy problem.

Regarding the reasons for rising occupancy in a neighborhood that suffers population loss, we consider the emergence of more small families in PTS to be one of many possible factors.

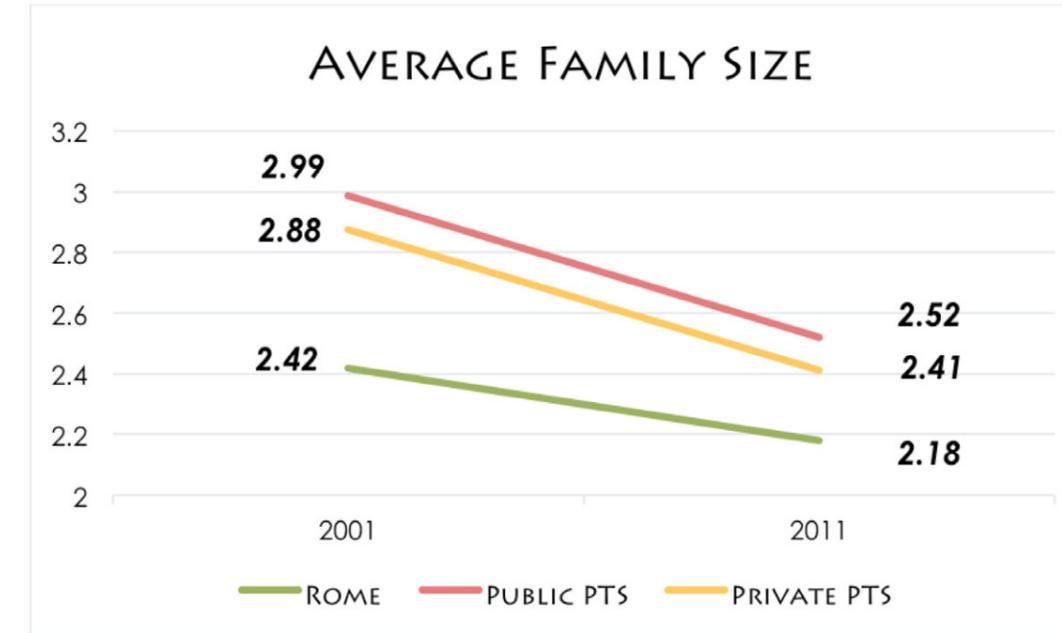


Figure 4.20. Average Family Size Line Graph

FAMILY SIZE

PTS has a larger average family size than Rome, but at the same time follows the city trend towards increasing number of small families. In 2001, the size of family on average in Rome, public and private PTS tracts were 3, 2.9, and 2.4, respectively. After a decade, although the sizes in all places dropped, public and private PTS still had greater family sizes than Rome on average (Figure 4.20). Simultaneously, as the average family sizes decreased, the number of families increased in both Rome and PTS (Figure 4.21). This phenomenon indicates the presence of more small families in the city as well as in the neighborhood.

Families		
	2001	2011
Rome	1,039,152	1,187,778
Public PTS	826	867
Private PTS	861	950

Figure 4.21. Families Table

EDUCATION

After housing, we analyze education data to learn about the education levels of PTS residents, and evaluate whether there is enough education support in the neighborhood. Because ISTAT does not provide information about income, we also utilize education statistics to make inference about it.

The college and high school completion rates of public PTS are lower than those of private PTS and Rome. Although the completion rates of the public tracts did grow in 10 years, it was still significantly lower than the rate in private PTS and Rome - 10% lower for college, 7% to 20% lower for high school (Figure 4.22). These lower completion rates of public PTS demonstrate that residents there tend to be less educated, and thus economically poorer, than their private neighbors and residents of Rome on average. This might be the results of a higher concentration of low-income residents in public PTS than an average neighborhood in Rome, and/or insufficient education assistance services for residents of public housing in the neighborhood.

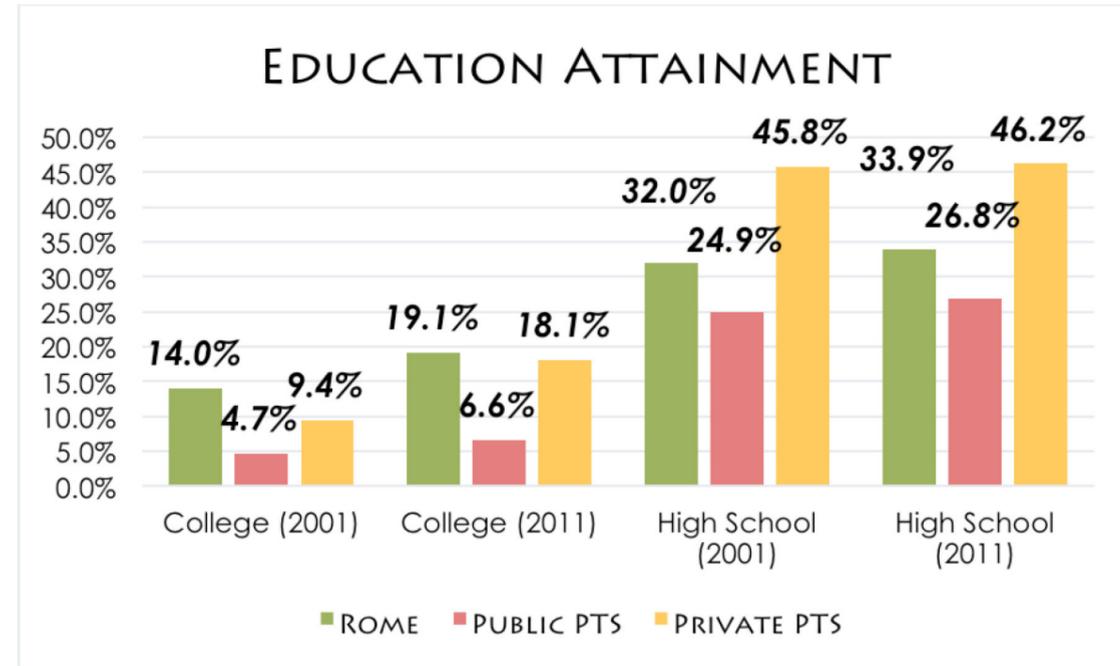


Figure 4.22. Education Attainment Chart

EMPLOYMENT

At the end of our statistical analysis, we examine employment to gain insight into an aspect of the socioeconomic status of PTS aside from education. Generally, public PTS has a higher unemployment rate (persons without jobs and actively seeking new employments) than the private tracts and Rome on average. In 2001, when the rate of Rome was high at 11%, that of public PTS was even higher. At the same time, the private housing area had a much lower rate than both places. A decade later, while the unemployment rate of Rome was almost as low as that of the private tracts, which remained largely unchanged, the rate of the public

tracts merely dropped 1% (Figure 4.23).

This discovery indicates the significant economic struggle of residents living in public housing of PTS. They need employment empowerment more than people in other neighborhoods of Rome.

With regard to employment by sex within PTS, in general, there are more men than women employed, and fewer men than women unemployed (Figures 4.24 & 4.25). We can claim that females seem to have a more difficult time in finding jobs.

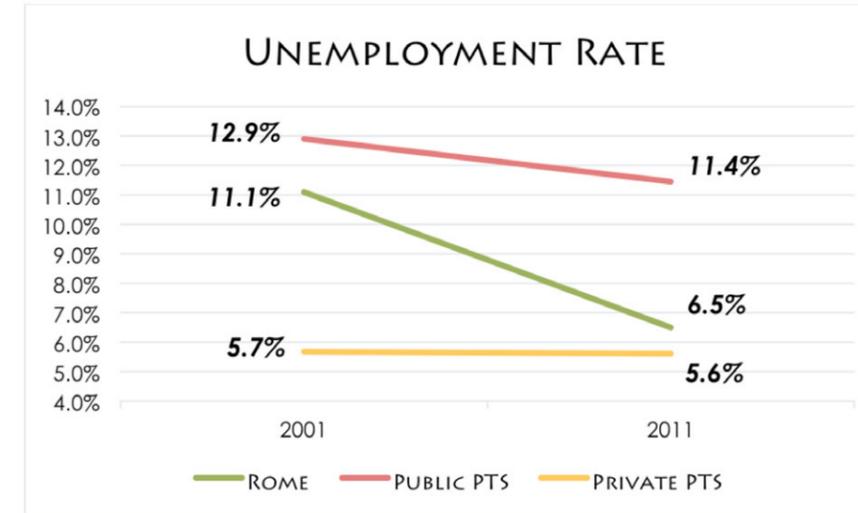


Figure 4.23. Unemployment Rate Line Graph

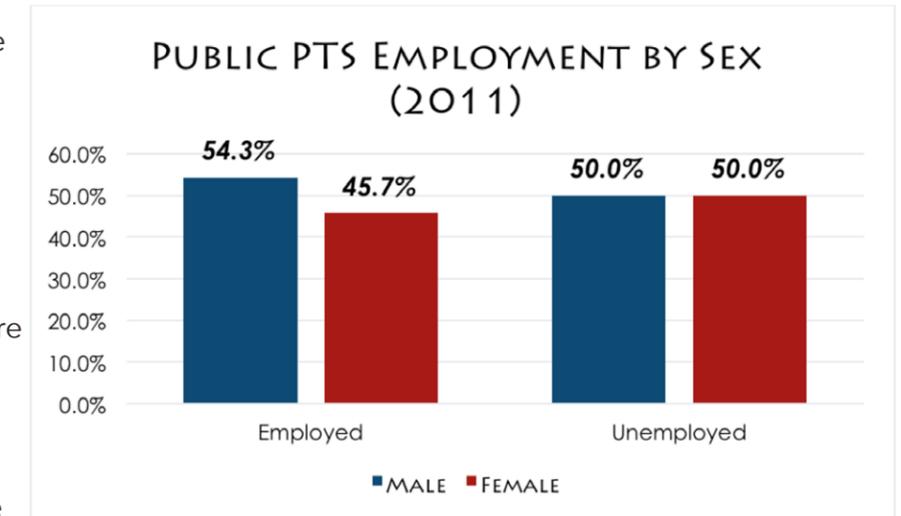


Figure 4.24. Public PTS Employment by Sex (2011) Chart

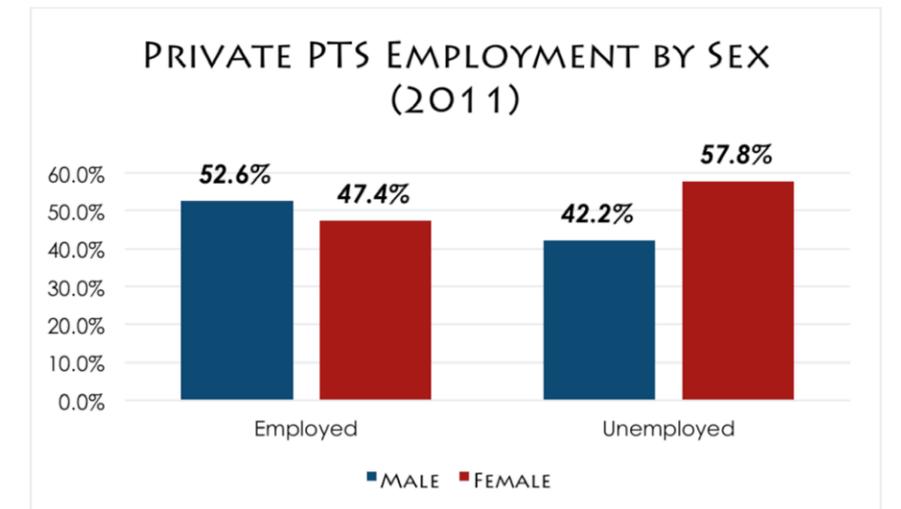


Figure 4.25. Private PTS Employment by Sex (2011) Chart

RESIDENT INTERVIEWS

KEY FINDINGS

Throughout this statistical analysis, we notice that the socioeconomic condition of public PTS seems to be worse than that of private PTS and Rome. The following is some of the important relevant findings:

- PTS suffers a population loss, with the public housing area having a greater decline than the private one.
- The populations of both public and private PTS are aging.
- There is a larger proportion of immigrants in the public residential area than in its private neighbor.
- Public PTS has a higher population density than private PTS and Rome.
- Residents of public housing in PTS tend to be less educated, and hence less economically well-off, than those of private housing and Rome on average.
- Unemployment in public PTS appears to be a more serious issue than in private PTS and Rome.

Although statistics can assist us in understanding the socioeconomic situation of the neighborhood, this tool is unable to provide us a complete picture. To further discover and analyze the situation, we decided to conduct resident interviews.

OUR SUBJECTS

In the course of our analysis of Piscine di Torre Spaccata (PTS), we met with a number of neighborhood residents. In order to gain a more complete understanding of the problems facing the neighborhood, conducted interviews with these residents and documented their perspectives. Our interviews highlighted the dichotomy between the public and privately owned sections of the neighborhood, the lack of vitality of local commerce, the efforts from the community to revitalize the neighborhood through institutions such as the school or the Revolution Palestra Popolare, the isolation of PTS, the relationship with the city government, and general feelings of contentedness in PTS.

We spoke to Daniela, a member of the neighborhood committee and a resident of public housing in PTS; Fernanda, the owner of a produce stall in the local market; Francesca, a co-owner of a pizza stall in the market along with her husband; Mauro, a psychologist who runs a day care and youth outreach center in PTS; Eleanora, the manager of Palestra Popolare; Francesco and Lisa from the

neighborhood committee; Maria Luigia, a teacher at the local pre- and elementary school as well as several other residents encountered around the neighborhood. Many common themes were woven throughout our interviews with residents. Most people expressed similar grievances as well as common commendations for the neighborhood's successes.

THE DICHOTOMY OF PTS

It quickly became apparent that the boundaries we chose for our research on PTS, framed by Viale Bruno Pelizzi, Via Raimondo Scintu, and the apartment complex northwest of Viale Rolando Vignali, are not necessarily in line with the local definitions of the neighborhood.



Figure 4.26. Interviewing Neighborhood Committee member Daniella on March 3, 2016 (From left to right: Cheryl Kuo, William Wong, Daniella, Professor Smith)

Every person we interviewed highlighted the fact that Torre Spaccata's residences are split into public housing and privately owned apartments. Although all of the housing was initially intended to be private when development began in 1974, the government bought the buildings along Viale Rolando Vignali in 1983 before they were completed. Ever since then, a line has been drawn dividing the residents of the neighborhood in terms of quality of life

indicators such as employment, income, access to high quality schooling.

According to Maria Luigia, the public housing is home to a higher number of drug dealers and addicts, as well as criminals serving house arrest. These buildings are viewed as more dangerous and less prosperous. Not only that, our interviews revealed that inhabitants of the privately owned residences viewed themselves as living in an separate

neighborhood entirely. A young woman who lives in one of these buildings says that she lives in Cinecittà Est, a neighborhood that continues past Viale Bruno Pelizzi and is separate from PTS. She has never been to the market on Viale Rolando Vignali, she does not know anyone from the public housing buildings, and she spends most of her free time outside of school in the city center. Her family shops at the supermarket across Viale Bruno Pelizzi and attends the church in that area, despite the fact that this distance requires their driving through dangerous roads and the PTS neighborhood market can be easily reachable by foot from her apartment.

PUBLIC SPACE

The primary issue identified by a number of our interview subjects was the lack of a vital public space for the community to socialize. Daniela emphatically emphasized the issue of having a large number of vacant market stalls. In fact, only five out of almost 50 available stalls are currently being used. Both Daniela and Fernanda agreed vehemently that if the market offered more goods, particularly the services of a butcher and a fishmonger, then the market could effectively compete with the

nearby supermarkets. However, no one is interested in opening shops or businesses there now even though rent is low for, as according to Lisa, the area is too isolated to promise a constant clientele base.

Part of the problem facing PTS is that the population is aging. With young people like Fernanda's daughter moving out of the neighborhood due to the lack of job opportunities, the area becomes more and more depressed. Since people keep leaving the neighborhood, there is little incentive to start new businesses.

Furthermore, the local church on Viale Rolando Vignali, Chiesa di San Stanislao, does not satisfy the neighborhood's need for a social hub. While the church has the potential to function as a gathering place for the community, it falls sorely flat. According to Fernanda and Daniela, the priest does not reach out to the neighborhood or organize social events. Mauro claims that the priest treats his role as merely a form of employment, rather than as a way to connect with the community. Daniela informed us that the city has been making an effort to establish a nightlife in PTS, but she finds this misguided. According to her, they do not need nightclubs; what

they need is a lively market to meet each resident's basic needs.

EFFORT TO REVITALIZE THE NEIGHBORHOOD

The neighborhood has changed

significantly in the past fifteen years. Maria and others recall a time when small-time crime bosses ran the neighborhood, drug deals ran rampant, and shoot-outs were a commonplace. According to Maria, the neighborhood's isolation from other parts of the city created a vacuum in which a



Figure 4.27. A private residence in PTS



Figure 4.28. The nearly empty neighborhood market in PTS.

SOCIOECONOMIC CONNECTIONS & OPPORTUNITIES

hotbed of criminal activity had festered. The situation became so volatile that people began to move out.

The municipal government eventually decided to step in and attempt to stabilize the neighborhood by investing in the pre- and elementary school, constructing fences around the group floor of each building, establishing an employment center, and creating a health clinic for civil workers.

According to an unnamed woman we interviewed who was walking her dog in one of PTS's park at the time, the drop in crime was not the result of any specific action but rather due to the passage of time as crime bosses age, die, or ended up in prison. That is, except for the investment in the elementary school.

The elementary school has certainly had a positive impact on the community. Residents are proud of the school and people from outside the neighborhood are actually competing to get their children enrolled. Maria explained that the school is also making an effort to be inclusive of immigrant children in the community and to bridge the barrier between the private and public housing units.

Mauro is working towards the same cause. His after school program works with

children, especially those from more at-risk, low-income families, in order to keep them away from criminality and help them work towards successful career paths.

Efforts to revitalize the neighborhood have occurred through grassroots measures as well. One woman explained that she and her fellow tenants have organized a group that has, in the absence of assistance from the government or the building developers, taken it upon itself to maintain the green spaces between the apartment buildings.



Figure 4.29. A litter-free park space in PTS

They meet regularly to pick up trash, fix benches, put up signs reminding people to clean up after themselves and their pets, and set up small trash cans to provide an alternative to litter.

Many people in PTS have engaged in "auto recupero," or self-revitalization in English, taking charge of improving the neighborhood themselves as opposed to relying on the government. The next section will discuss this phenomenon in greater depth.

AUTO RECUPERO

Piscine di Torre Spaccata (PTS) is a lower-middle, working class neighborhood that receives virtually no help from the government, so many of the residents are left to their own devices. Government neglect has resulted in a community-level social revolution to better the circumstances of those living in the neighborhood. In Italy, this form of self-revitalization is known as "auto recupero," in which civilians take direct action in order to meet their own needs. In the case of PTS, *auto recupero* movements have often taken the form of illegal occupation and use of government-owned units and storefronts for commercial or residential purposes.

The commercial spaces in the neighborhood are almost exclusively government-owned and when an individual wants to open a store, she must rent the space from the government. Unfortunately, the government has frequently refused to give permits to potential applicants for reasons unknown to the residents. Obstructions like this have blocked the development of certain essential services in PTS, and residents enact *auto recupero* out of necessity and desperation.



Figure 4.30. "The Way We Were..."

Since *auto recupero* often involves the illegal occupation of government space, it is a high-risk procedure. Two of the more successful manifestations of *auto recupero* were the creation of the fitness center Revolution Palestra Popolare and the local theater. In both cases, individuals illegally occupied the commercial space and renovated the interior to fit their needs through their own expenses and with the help of other residents. The occupants risk hefty fines should the government discover the activity.

Auto recupero is the only method in which PTS can progress and sustain itself. However, due to an increasingly aging population and the threat of government retaliation, many are hesitant in initiating such a movement. But, once a self-revitalization has begun, many residents are willing to participate and support the movement, and thus far, the projects that have started have yielded significant results for the benefit of the neighborhood.



Figure 4.31. Revolution Palestra Popolare from Auto Recupero



Figure 4.32. Revolution Palestra Popolare Interior Boxing Stage



Figure 4.33. Revolution Palestra Popolare Interior Office Space



Figure 4.34. Local Theater from Auto Recupero

NUOVA CENTRALITÀ

In an effort to revitalize peripheral neighborhoods in Rome, the city has proposed a large-scale project known as “Nuova Centralità.” PTS is currently located right next to one out of its 18 prospective redevelopment areas, known as Nuova Centralità di Torre Spaccata (NCTS). Specifically, the strip of green land to the north of PTS that currently house various wrecking yards, junkyards, as well as informal settlements. Labics, a prominent Rome-based architecture firm, has thus far been in charge of creating a master plan to address the void in activity and vibrancy in this area. The current plan covers a land area of 60 hectares of which 330,000 square meters will be developed as residential, commercial, mixed-use, and cultural centers (Labics, 2010).



Figure 4.35. NCTS Design Plan (Labics, 2010)



Figure 4.36. NCTS Street View Rendering (Labics, 2010)



Figure 4.37. NCTS Night View Rendering (Labics, 2010)

SOCIOECONOMIC BARRIERS

The plan aims connect Torre Spaccata, Centocelle, Cinecittà, and Don Bosco. As the proposed developments for connection centers are located immediately north of PTS, also a would-be a pivotal point into the Nouva Centralità, the realization of this plan would greatly benefit PTS, and serve as a critical opportunity for revitalizing lost commercial activities within our neighborhood.



Figure 4.38. NCTS borders become places of (from left to right) connection, activation, and organization (Labics, 2010)

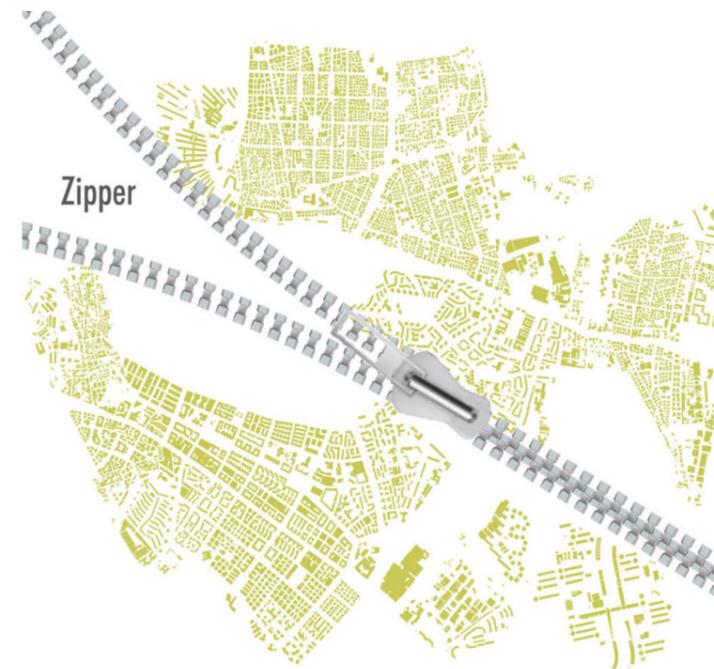


Figure 4.39. NCTS as a “zipper” that reconnects peripheral areas (Labics, 2010)

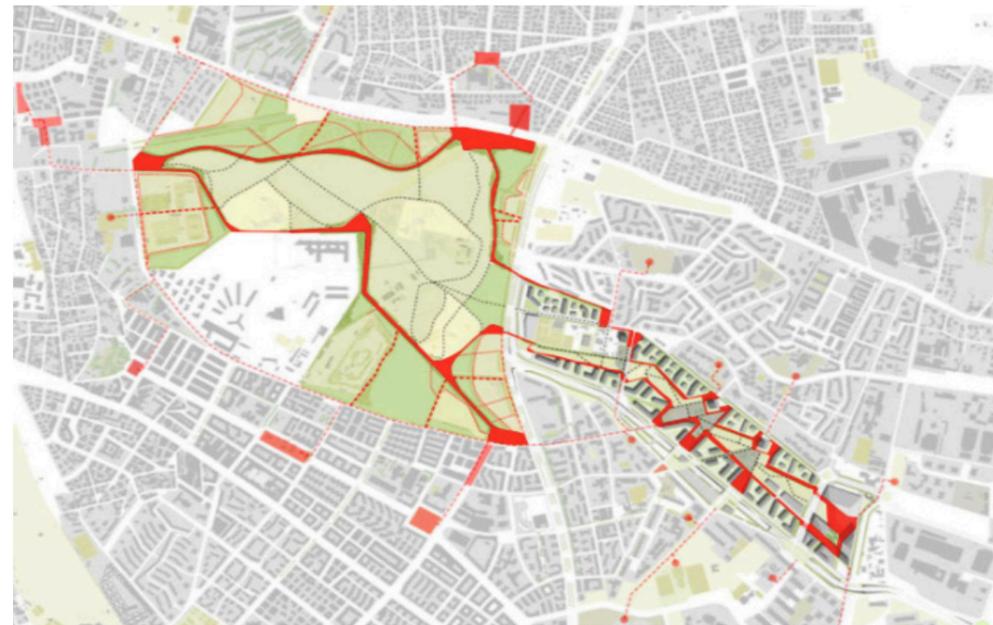


Figure 4.40. NCTS Retail Nodes & Green Spaces (Labics, 2010)

The most notable problem in PTS is the presence of physical, social, economic, and political barriers restricting it from interactions between residents and government, residents and other residents, and residents and neighboring communities.

Socioeconomic barriers are prevalent in PTS, especially in terms of employment. Unemployment rates in PTS are very high and much of the problem stems from the unavailability of jobs, which goes back to the root problem of government neglect. Throughout the interviews with residents, a piercing theme was the lack of presence by the government. The people of PTS feel abandoned by institutions.

Another clear divide present in PTS is the division between residents of public housing and residents of private housing. Although Italian planning encourages the mixing of economic classes, PTS has failed in its attempt to achieve this goal. While there is no tension (according to interview subjects) between the two groups in PTS, there is also no interaction. Interaction and

the exchange of time and resources could be a strong solution for many of PTS’s shortcomings. However, interaction cannot

truly take place unless there are services and places that facilitate it, such as an active church or market.

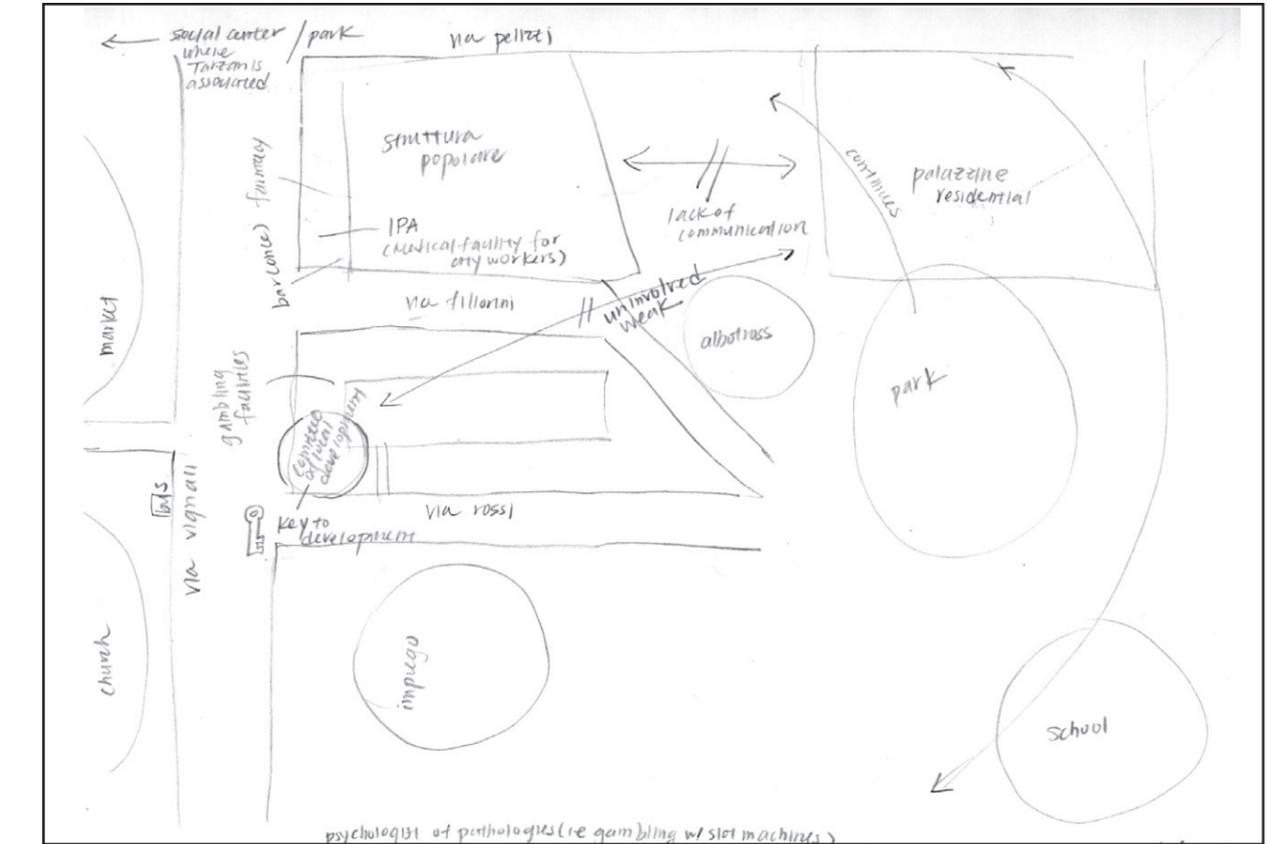


Figure 4.41. Lynch map by PTS day care center operator (See all Lynch Maps in Appendix)

Another prevalent divide is between the PTS residents and “Gypsy,” nomad community around the northwest periphery. While direct interactions between the two groups are virtually nonexistent, the residents have a negative view of the nomads as they often burglarize the outdoor market stalls. Furthermore, the nomads have also caused disruption through the destruction of a local park’s wooden playground in order to plunder the structures for firewood.

Another marginalized community is the squatter settlement on the intersection of Viale Rolando Vignali and Viale Bruno Pelizzi. A former office space, the building has been illegally occupied and now houses numerous families. However, many of the residents of the neighboring dwellings see no tension between them since many of them work and do not cause trouble.



Figure 4.42. Mobile Home Informal Settlements



Figure 4.43. Informal Settlement in ancient ruins



Figure 4.44. Informal Settlement in former office space

INTERPRETATIONS & ANALYSIS



INTERPRETIVE DIAGRAMS

The purpose of this section is to organize and document our interpretations of some critical information we collected from our on-site photography, sketching, journaling, as well as resident interviews. Specifically relevant to our next steps in creating a design proposal for our study area Piscine di Torre Spaccata (PTS), we highlight our experience of the private automobile in our study area through the Traffic Flow & Parking Space Diagram, of the abundant but unevenly maintained green spaces through the Green Maintenance Diagram, of underutilized space through the Lost Space Diagram that corresponds directly to the Opportunity Within PTS Diagram, and conclude with the Opportunity Around PTS Diagram as we look forward to expanding and connecting our neighborhood outwards with its surrounding communities.

TRAFFIC FLOW & PARKING SPACE DIAGRAM

This diagram is part of the transportation analysis that allows us to gain insight into the current traffic and parking situations of PTS. During an afternoon of a Thursday in February 2016 (11:00 am to 1:00 pm), we surveyed

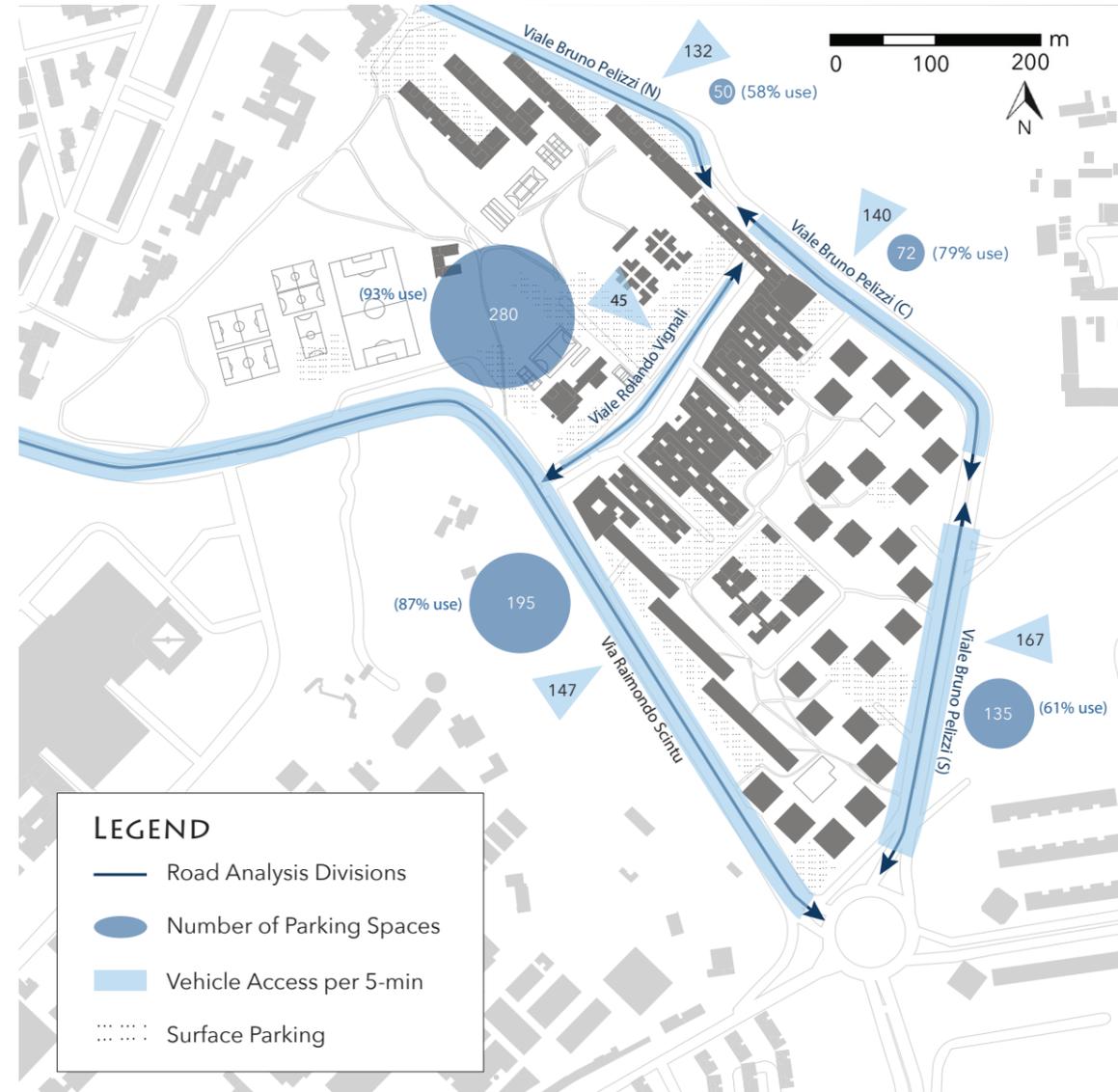


Figure 5.1. Traffic Flow & Parking Diagram

the numbers of vehicles passing by and parking spaces of the major roads in the neighborhood. By major roads we refer to Viale Rolando Vignali, Via Raimondo Scintu, and Viale Bruno Pelizzi, the latter of which was divided into northern, central, and southern sections for this survey due to its length.

Represented in light blue in the diagram, we documented the average number of automobiles driving through each road per 5-minute intervals. The higher resulting numbers include those of Via Raimondo Scintu and the three sections of Viale Bruno Pelizzi, which had a traffic flow averaging of more than 130 cars each. One possible reason for this high traffic intensity is that they connect PTS with its surrounding areas and other parts of Rome. Viale Rolando Vignali, an internal street that serves mostly vehicles that begin or end their journeys in the neighborhood, is the exception that had a much lower flow of 45 cars per 5-minute intervals. In general though, we can deduce that the traffic intensity of PTS is quite high from the averages recorded at the external roads.

As for parking along the major roads, which are represented in dark blue circles in the diagram, we manually counted parking spaces that can be easily spotted from a pedestrian's point of view. We also took into account the ratio of

parking spaces between those used and unused for our count. Overall in PTS, we counted more than about 732 spaces lining the roads, with more than 80% used. The road that has the most spaces and highest utilization rate is Viale Rolando Vignali - 280 spaces and 93% occupied. This high usage rate makes sense as compared with all other major roads, Viale Rolando Vignali has the most neighborhood facilities, including churches, employment center, shops, and gym, lining it. An overall discovery that surpassed our initial expectations was the large amount of parking spaces we counted throughout and around PTS. As shown in the diagram, in addition to roadside parking, both the public and private residences of PTS offer extensive parking areas that are not fully utilized, especially the underground parking. This research information bring attention to the need to activate PTS's unused parking spaces and relocate private automobiles that add to the physical unattractiveness from the public streets and discourage pedestrian travel.

GREEN MAINTENANCE DIAGRAM

PTS is a neighborhood with an abundant amount of green spaces,

but perhaps also because of the large area they cover, much of them is left unmaintained. This diagram is a visual representation of our impressions of green maintenance level in PTS, from well maintained, moderately maintained, to unmaintained. Factors we took into account in categorizing these green spaces include its aesthetics and usage by the residents of PTS. Specifically, represented in green shades are the most used and comfortable green spaces, with mown grass as well as additional landscaping elements such as bushes or flowers kept up by some residents of PTS. By contrast, the areas shaded in red are green spaces that are the public, including us as visitors, mostly avoids, being overgrown with tall weeds and lined with trash and dog feces. The areas shaded in yellow are green spaces with qualities that range somewhere in between.

In addition, we documented the accessibility of these spaces. Green areas that are privatized or fenced off from public access are lined in red. For example, in the case of the large plot of green space to the northeast of the neighborhood, despite it being a seemingly abandoned space, it is lined with fences on all sides of the area. We speculate that as an area planned for redevelopment under the Nuova Centralità di Torre Spaccata project by Labics, it is the



Figure 5.2. Green Maintenance Diagram

municipality that blocked the green area off.

We also noticed certain areas of activity during our site visits to these green areas. One of the most common activities is dog walking in the parks, for example, represented by the paw print signs. The other common feature in the green spaces, especially in the northwest areas, is informal settlements. This is represented by the house symbols. As for the dotted circles, these indicate activity hubs where people tend to congregate in PTS. Overall, this diagram gives us a clearer idea of which green spaces to prioritize in our following design proposal. This is important because green spaces are abundant enough to define the physicality of current PTS and is also a source of pride for residents of this neighborhood - as we discovered through our resident interviews.

LOST SPACE & OPPORTUNITIES WITHIN PTS DIAGRAM

As our team sees it through our research, these two Diagrams directly correspond to each other because every lost space within PTS is another opportunity for redevelopment and revitalization. Particularly of interest in these diagrams are the pedestrian accessibility throughout PTS and the connection points they run through. Currently, there are numerous pedestrian paths that connect to unmaintained green spaces and underutilized commercial units. Through interviews with residents and community leaders, we recognized that the large green space in the northwest sector of our study area, behind the market, should be given the highest priority of revitalization as it is the most central and most public of all green spaces. Its vastness unfortunately contributes to its current quality as lost space, but its location has immense potential to be a thriving gathering point for the residents of PTS and surrounding neighborhoods. Its improvement may also help the lost retail spaces surrounded by parking pavements that add to public discomfort and are mostly running out of business from lack of use. We also highlight the institutional opportunities

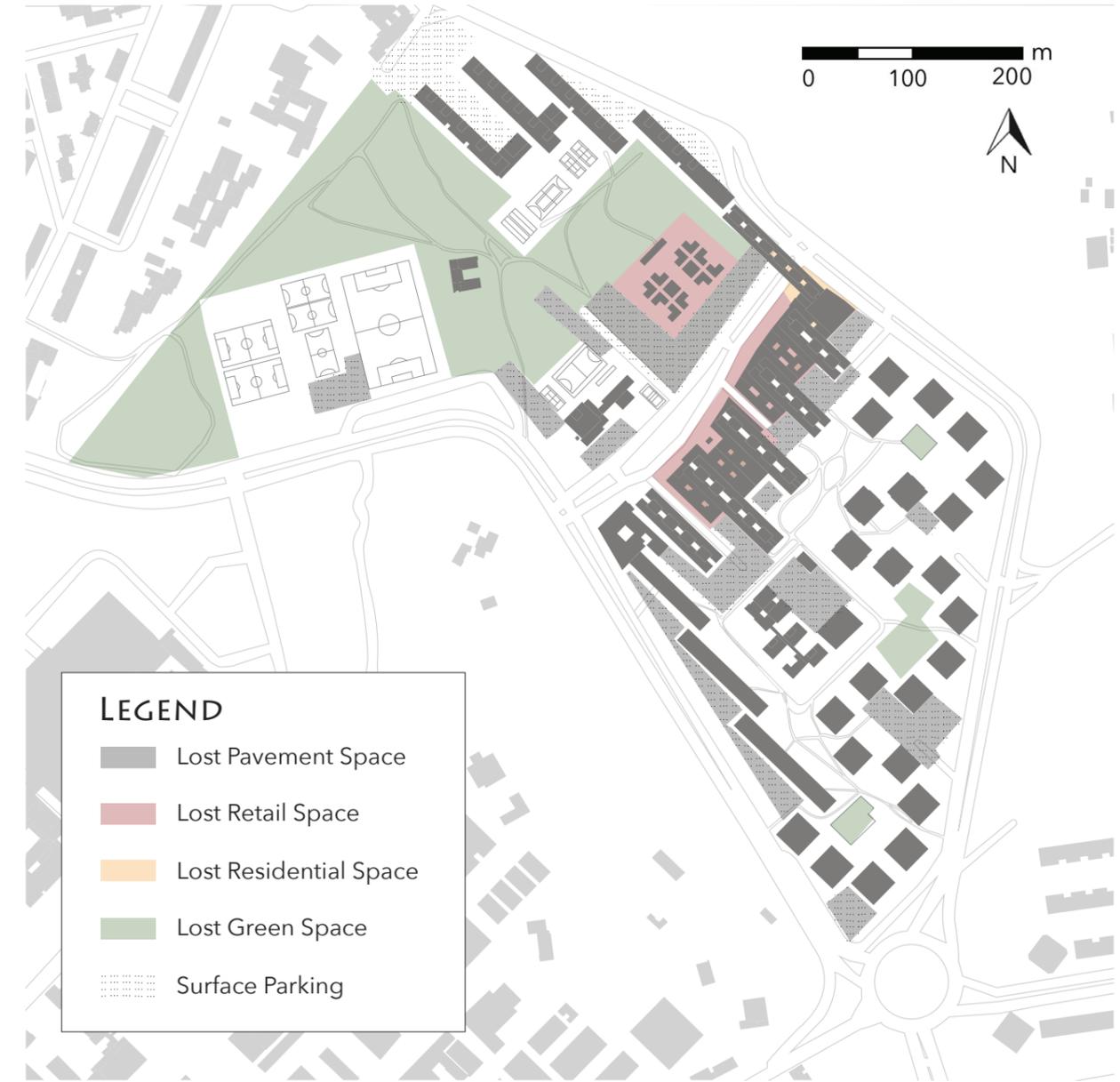


Figure 5.3. Lost Space Diagram

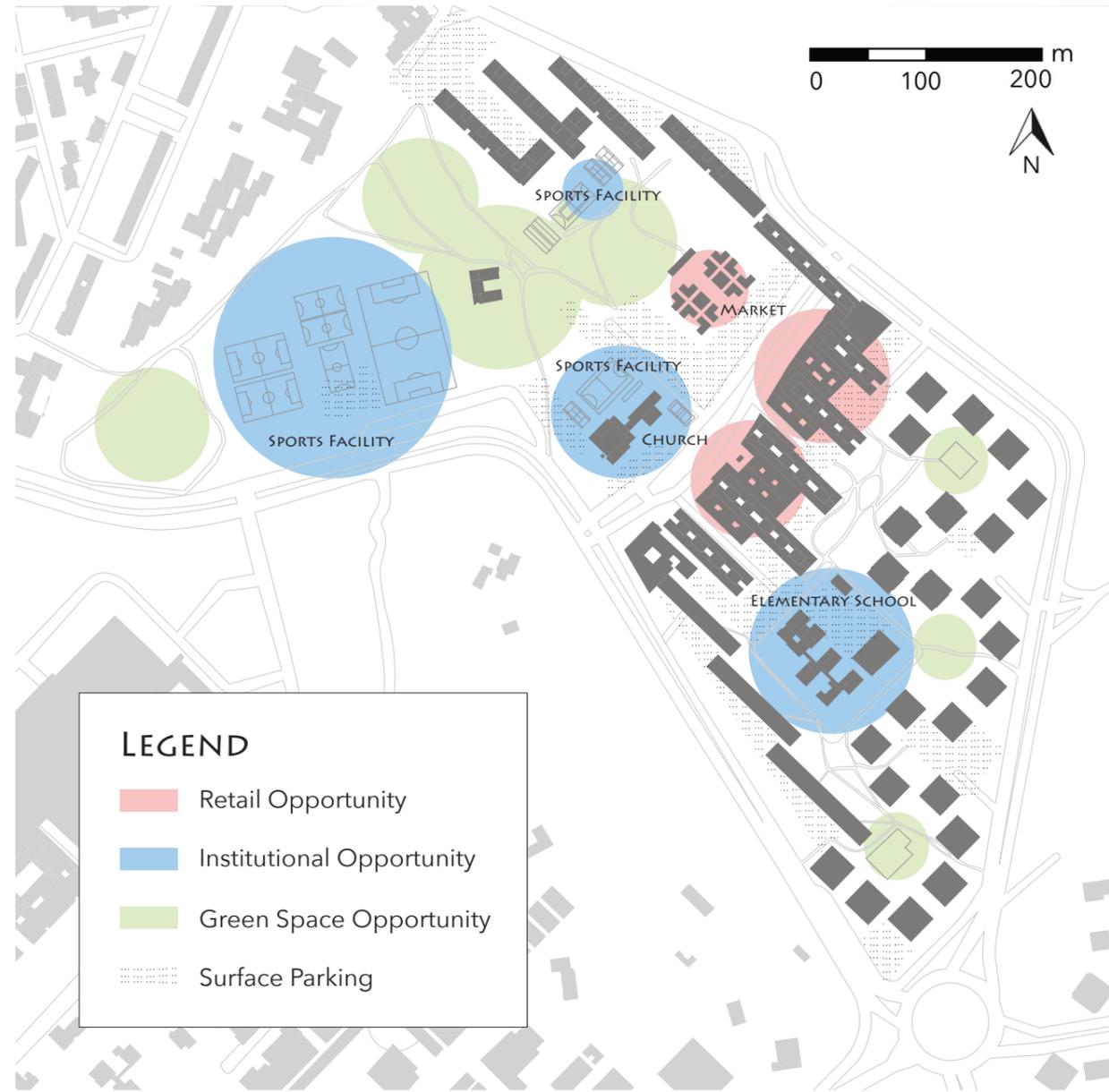


Figure 5.4. Opportunities Within PTS Diagram

in the Opportunity Within PTS Diagram: three large sports facilities, in which if the privatizing fences around them were removed and publicized, may serve to attract populations back into PTS, the church as another gathering location for the community of PTS near the green space, and the elementary school that is currently famous enough to be drawing in students from outside of PTS.

OPPORTUNITIES AROUND PTS DIAGRAM

Ultimately, PTS would not be truly improved if our design proposal only caters to the already shrinking population of our neighborhood. It is thus another one of our priorities to take into account all of PTS's surrounding utilities. Specifically in this diagram, we represent these opportunities around PTS in different colors for opportunities of different types (i.e. retail, regional, institutional, industrial, green space) and in shaded circles of different sizes from largest to smallest for priority. The Parco degli Acquadotti, for instance, is the largest in size physically and the most significant in priority for being an important Roman historical attraction that, if connected to PTS in some way, may draw a diverse range of visitors to PTS. Next in importance is the Nuova Centralità di Torre Spaccata that

may occupy the space to the northeast of our study area and revitalize the lost retail spaces in PTS. It is only second in priority because the plan is only prospective and our research cannot confirm whether it

would be realized or not. Furthermore, sandwiching PTS on two sides are Don Bosco and Romanina, two very successful neighborhoods that, despite its proximity, are currently in no contact with PTS. This

relationship, if bridged, may also be a significant opportunity for our study area, particularly because it is already in an attractive location next to one of the largest retail centers Cinecittà Due in the area,

an extension of Europe's largest film studio of Cinecittà Studios. Institution-wise, University of Rome Tor Vergata is another opportunity for bringing back a largely lost younger demographic to PTS. Last but not least, we note in this diagram the major roads that connect PTS to its surrounding opportunities. This includes Via Tuscolana that overlaps with the path of Metro line A, and the major highway of Circonvallazione Orientale (A90) that links PTS to the rest of Rome.

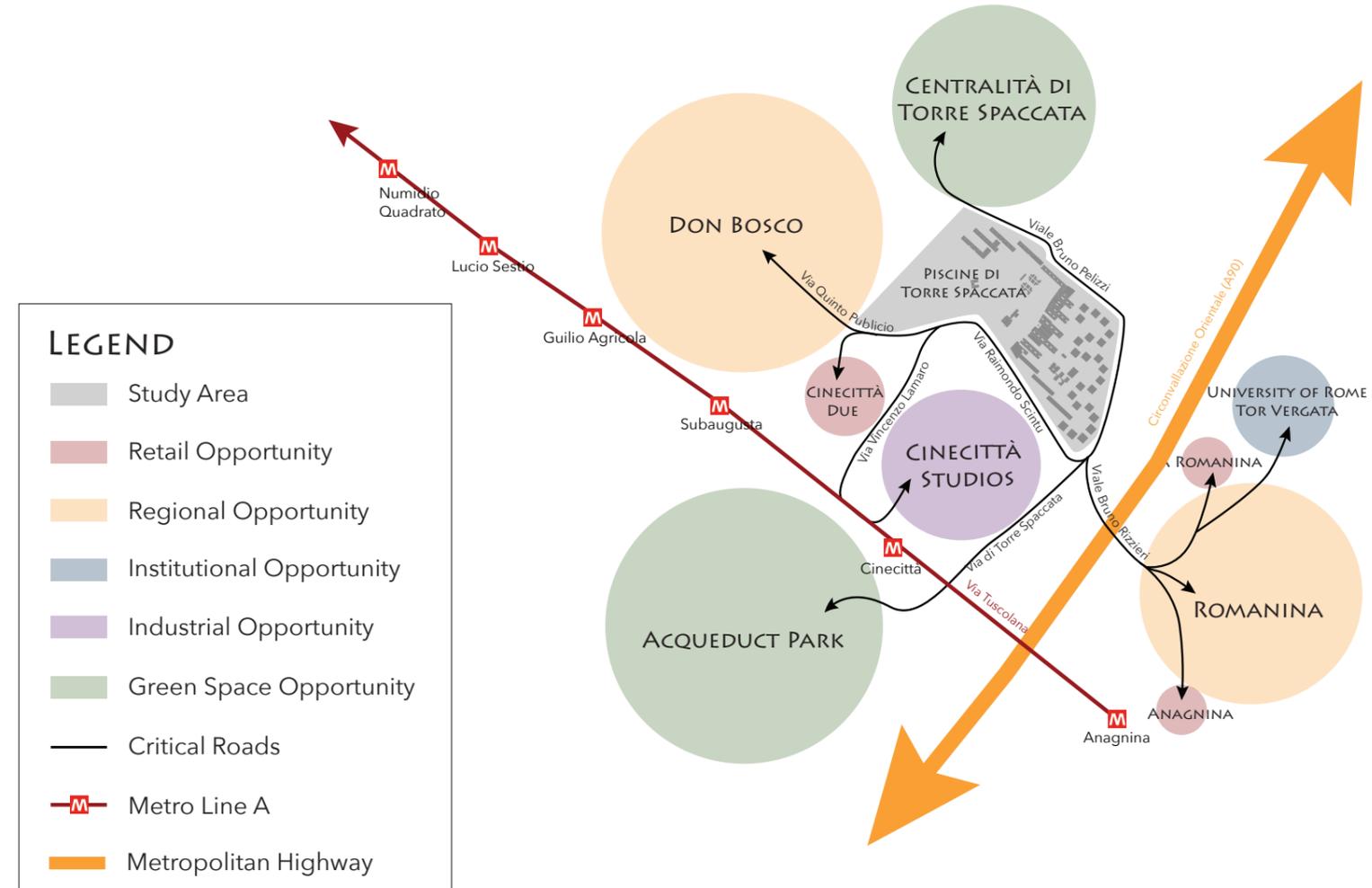


Figure 5.5. Opportunities Around PTS Diagram

SWOT ANALYSIS



Physical Strengths

- Green space
- Residential architecture
- Proximity to Via Tuscolana
- Public transportation

When speaking to residents of PTS, it became quite clear that they value the green spaces in their neighborhood. According to several residents, Parco di Fauni is filled during the warmer months with people strolling, walking their dogs, and congregating around the elementary school. During our visits throughout early spring, the green spaces were not quite flourishing, though certainly used for dog-walking by several residents. Furthermore, beyond valuing the green area outside their buildings, several people conveyed their strong appreciation for their apartments. Every apartment has access to a private balcony and consists of a kitchen, living room, and at least one bedroom. Not only that, but PTS is conveniently located in close proximity to Via Tuscolana, a main artery of Rome as well as a shopping and commercial hub. It is easy for residents of PTS to take advantage of this location because, as many residents expressed, the public transit system in the neighborhood is simple and effective. It is convenient for residents to get to the city center as well as neighboring communities.



Physical Weaknesses

- Physical barriers
- Lost space
- Lack of internal connectivity
- Poor maintenance of green space
- Squatter settlements
- Isolation of neighborhood
- Car oriented

PTS suffers from the presence of a large number of physical barriers, which divide the neighborhood and impede connectivity. Fences and walls separate the apartment buildings from the green spaces, the storefronts on Viale Rolando Vignali are raised above street level and are blocked by cement walls from the sidewalk, and the market is fenced in from the green space behind it. There is a great deal of lost spaces in PTS, including extensive parking lots, sprawling and unused green spaces due to poor maintenance, and a system of tunnels that are empty and unlit. Also, another weakness in PTS is its physical isolation from other neighborhoods. Despite an effective public transit system, PTS is not within convenient walking distance from other neighborhoods and thus fosters a car-oriented neighborhood, which results in cluttered parking lots.



Physical Opportunities

- Re/development
- Green/open space
- Recreational facilities
- Roads
- Pool
- AS Roma training soccer field

There are a great deal of opportunities for re/development in PTS to revitalize the community. It is possible to work with existing physical assets like vast green spaces, recreational facilities such as playgrounds and sports fields, a network of well-traveled roads nearby, and the proximity to the AS Roma training camp soccer fields. These assets offer opportunities to create a beautiful system of parks, improve the playgrounds to provide local children with recreational facilities, connect PTS to the surrounding city, and build a relationship with AS Roma's facilities to allow locals to utilize them.



Physical Threats

- Vandalism
- Fences
- Porticoes
- Parking

PTS faces a number of physical threats that imperil the safety and development of the neighborhood. Vandalism has been a recurring issue in PTS, often perpetrated by members of the squatter settlement. Vandalism has resulted in broken windows in storefronts and destroyed playgrounds. The presence of many fences also divides the public space around the market and separates the apartments from each other and from the surrounding green space. The structure of the storefronts of Viale Rolando Vignali threatens the neighborhood's commerce as well, for dark concrete porticoes block the visibility of the shops, and the porticoes do not connect in a continuous line that facilitates walking from store to store. The stores are also raised up above street level with concrete walls separating them from the street. Moreover, parking is a threat in PTS because the current underground lots are under-utilized. People do not prefer parking in the underground land as a result the streets are extremely congested with parked cars.



- Socioeconomic Strengths*
- Elementary school
 - Grassroots movements
 - No housing vacancy

One of the great socioeconomic strengths of PTS is the elementary school located in the Parco di Fauni. The school is popular and well respected and even attracts children from other neighborhoods. The school hosts functions and dances to bring together students and parents, and these events help break down social barriers between families from different areas and economic statuses in the neighborhood. Another strength that is helping to revitalize the town is the presence of local grassroots movements and organizations. PTS has a neighborhood committee that acts as the liaison between the neighborhood and the municipio, a locally run theater that strives to bring the community together, an after-school program directed towards at-risk children, and a group that has taken the responsibility to improving and maintaining the Parco di Fauni. Another strength of PTS is the fact that it does not suffer from the issues of housing vacancy, and every apartment is occupied.



- Socioeconomic Weaknesses*
- Empty market
 - No vibrant church life
 - Lack of neighborhood identity
 - Aging community
 - No employment opportunities
 - History of criminality

PTS is unfortunately plagued by a number of socioeconomic weaknesses. The market is almost empty, with only five out of almost 50 available stalls in use, and many store fronts are boarded up and empty. People have given up on the commercial potential of the neighborhood and often drive to other neighborhoods to do their shopping. The church, Chiesa San Stanislao Vescovo, is another weakness in PTS. The residents describe the priest as hostile and distant and while the church has the potential to be a social resource to the town, it does not host events or programs for the community. PTS also suffers from a lack of neighborhood identity. Many of the private residents do not even consider their neighborhood to be PTS at all, and spend little to no time in the PTS public spaces. The population of PTS is aging because no new young people are moving in and current young residents are moving out because there are no employment opportunities in PTS. Furthermore, PTS has a history of criminality (including frequent violent crime such as shootings) that has resulted in a wariness that residents feel towards the existing public spaces and towards the poorer residents, despite recent drops in crime.



- Socioeconomic Opportunities*
- Elementary school
 - Neighborhood Committee
 - Auto-recupero
 - Proximity to industrial area of Rome
 - Proximity to Cinecitta Studios

The socioeconomic opportunities of PTS are tied to the strengths of the neighborhood. The elementary school has the potential to instill a sense of neighborhood pride and draw young families into PTS. The neighborhood committee can work with the municipio to improve the neighborhood and bring in more resources. The grassroots organizations have already initiated an auto recupero movement and sense of community through the creation of the theater and the Revolution Palestra Popolare and can certainly carry this momentum further. PTS is located near both Cinecittà studios and a Euronics Headquarters in Rome and these places can provide opportunities for employment and regional identity.



- Socioeconomic Weaknesses*
- City government
 - Division between public and private residents

PTS has been continuously hindered in its development by the municipio and the Roman city government. Residents actively mistrust the government because they feel it has done nothing to help them in the past and does not deliver on promises. The city government owns the storefronts on Viale Rolando Vignali and makes renting or buying the properties very difficult for the residents and starting a business nearly impossible. Another threat to the neighborhood is the social divide between the residents of publicly and privately owned buildings. Were these communities to join together and collaborate on issues of maintenance, the community could improve more quickly. Furthermore, if the private residents identified with the neighborhood more clearly, then they would choose to patronize businesses in PTS instead of in other neighborhoods.

DESIGN PROPOSAL



DRAWING CONNECTIONS

The most striking issue we identified and have centered much of our design proposal in Piscine di Torre Spaccata (PTS) is the lack of connectivity, both within the neighborhood and between the neighborhood and its surroundings. As a result, we recommend a number of interventions to help draw connections among the residents and link PTS to neighboring communities and the center of Rome.



Figure 6.1 & 6.2. (Left) Rendering of new pedestrian pathway towards central tower monument and (Right) design proposal plan with red arrow indicating view direction of rendering.

A NEW RESIDENTIAL BELT

One major intervention we are proposing is the creation of a new residential belt in PTS. As can be seen in figure 6.4, the belt will be a curved stripe that extends from Viale Rolando Vignali to Don Bosco on the northwest edge of PTS, creating an artery that connects PTS to its neighbor. The inspiration for the curved structure of this residential belt is drawn from the highly popular and aesthetically pleasing Royal Crescent in Bath, England (figure 6.5). In the spirit of connectivity, the new belt will have apartments for both private and public residents. A two-way road will travel along the north side of the belt between Via Giuseppe Messina and Viale Bruno Pelizzi, making access between Don Bosco and PTS more convenient (figure 6.3). The belt will have five breaks between buildings to create openings for easy access between the apartment buildings in the north of PTS and the green space that will be developed in the south of the new curved belt. These breaks will be reminiscent of the radiating access points extending out from the Piazza



Figure 6.3 & 6.4. (Left) Rendering of street view of new residential belt and (Right) design proposal plan with red arrow indicating view direction of rendering.



Figure 6.5. Panoramic view of Royal Crescent in Bath, England

del Campo in Siena that so successfully connect to its surroundings.



Figure 6.6 & 6.7. Clear accessible view sheds (left) onto and (right) into the Piazza del Campo

REVITALIZED GREEN SPACE

The residential belt will sit upon a completely revitalized park space. The buildings will rise to a height of no more than four stories, which will make access to the park convenient for every inhabitant. This will facilitate a strong connection between the residents and the park and will lower the chance of criminality, which has historically been present in public spaces in PTS, by keeping more “eyes on the street” (Jacobs, 1961). The park will replace a swath of current lost spaces, as defined by Trancik (1986), found in the form of unmaintained green land, empty pavement, and an under-utilized market.

The barely-used market that is currently in place creates a barrier between the residents and green spaces, so it will be removed and the concrete will be covered with landscaped grass. The area west of the market will be revitalized and will include a pool, a central piazza with a monument, and areas for sports, play, dog-walking, and congregating. To the south of the park, the area around the church will be converted into a small piazza for gathering and social activities. The park will center on a main circular piazza with a monument that captures the spirit of PTS and serves as a main point of congregation for the neighborhood. This monument will become an important sight line from one end of PTS to the other that connects the neighborhood from the northern and southern poles. Our rendering of this proposal can be viewed in figure 6.1.

CONNECTED PIAZZAS

The monument in the new central piazza will connect to a main pedestrian walkway that will intersect Viale Rolando Vignali and will be book-ended by two other smaller piazzas. One piazza will be situated between the northern apartments on Bruno Pelizzi and the new residential belt, and will be visible from the main piazza through a break in the new residential belt. On the southeastern end of the walkway, a small piazza will sit



Figure 6.8. Linear View Shed towards Flaminian Obelisk on Piazza del Popolo

in Parco di Fauni and will complete the line from the northern piazza and the main monumental piazza. This entire strip will be a wide, walkable plaza that connects the private and public residents of PTS to each other and extends almost as far as Don Bosco in the north. The central plaza with its three nodes along the spine emulates Pope Sixtus V’s plan for Rome in the 1500s. Pope Sixtus reinvigorated Rome by restructuring the connections between separate monumental points and prioritizing circulation, movement along axes, and creating connections between landmarks and central hubs (Ciucci, 1974). Our proposed plaza and monuments in PTS evoke Piazza del Popolo and the

Flaminian Obelisk in their consolidation of space and view shed (figure 6.8).

CONNECTIONS TO COMMERCE & MIXED USE

The new plaza will intersect with Viale Rolando Vignali and create a mixed-use commercial hub for all residents of PTS. Our design proposal aims to draw new residents into PTS through this new residential belt. While we hope that these new residents will make the neighborhood more capable of supporting commercial activities, a history of failing retail in PTS due to a lack of consumer base and other factors make us hesitate to zone more retail-only buildings. Thus, in the short-term, we mark most of our new building additions as mixed-use to cater to the specific needs of PTS residents. This change in land-use can be seen depicted in before and after figures of 6.31 and 6.32.

In the long-term, we can extrapolate that the influx of residents with their needs met will lead to an increase in businesses and, thus, a flow of new shoppers and visitors to the town. This future PTS as a bustling commercial center along Viale Rolando Vignali and the new plaza, may also attract residents of neighboring Don Bosco to consider doing their shopping in PTS as well, and residents of PTS who currently shop elsewhere will likely keep

their business closer to homes. The market shopkeepers can re-open their stalls along the main plaza and incorporate business into locals' evening passeggiata.

LINKS TO EXTERNAL RESOURCES

We seek to connect PTS not only to Don Bosco, but to other resources in the

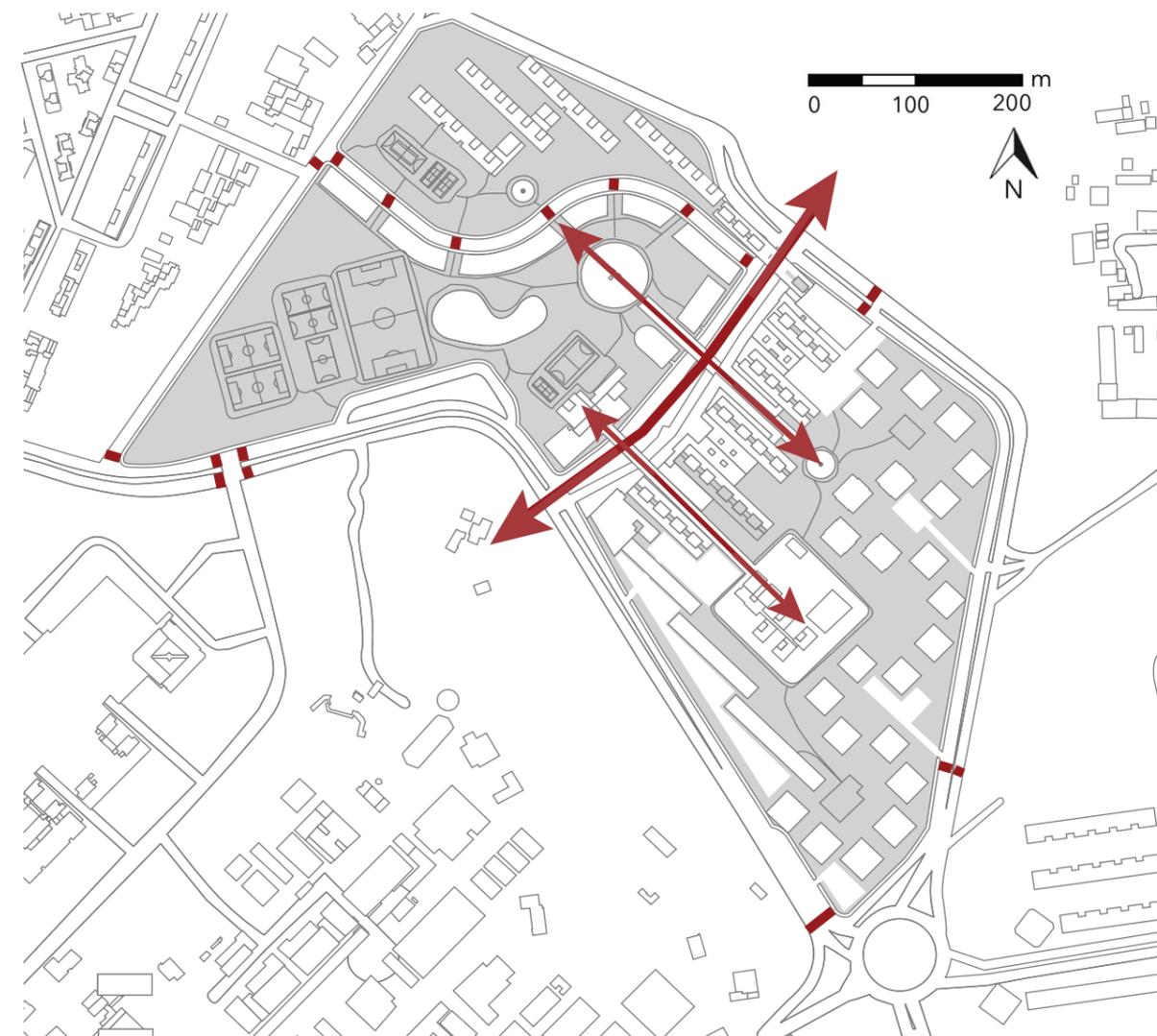


Figure 6.9. Connections diagram showing new pedestrian pathways in red, with arrows indicating main pedestrian routes in our design proposal.

area such as Cinecittà, Nuova Centralità, and the Parco degli Acquedotti. The expansive park project just north of PTS, Nuova Centralità, creates a highly useful possibility to connect PTS to the center of Rome if we can simply connect PTS to this new artery. Cinecittà is a world famous film studio directly adjacent to PTS and represents an opportunity to connect PTS to sources of tourism and art. In order to create these connections to Cinecittà in the southwest and Nuova Centralità in the north, we will extend the boulevard design of Viale Rolando Vignali in both directions to include entrances to the park and to Cinecittà. We will widen the sidewalk to support pedestrian traffic and create a monumental gate to Cinecittà studios at one end. The monumental design will inform people that Cinecittà is an attraction to visit and a reason to come to PTS. On the other end of Viale Rolando Vignali, we propose to change the material of the small residential overpass that crosses over Vignali into a more transparent design. This overpass blocks the view of the Nuova Centralità di Torre Spaccata and visually confines the neighborhood. By opening up visibility through this exit and entry point between PTS and Nuova Centralità, the connection between PTS and its surrounding resources will be much stronger. This overpass will become a sky walk from one side of Viale Rolando Vignali

to the other along to enable beautiful views of the park as well as more convenient access across the street. A view from this sky walk can be depicted in figure 6.18.

Furthermore, we propose modifying Viale Bruno Pelizzi and Via Raimondo Scintu into complete streets that include a bike path and connect to the nearby Parco degli Acquedotti. This park is a historical and cultural landmark in Rome and linking PTS to this site will increase its connection to the city and its history and place PTS within the greater urban context.

COMPLETE STREETS

The utilization of complete streets on Viale Bruno Pelizzi and Via Raimondo Scintu to link PTS to its surroundings helps further our goal of improving connectivity and breaking barriers. According to the National Complete Streets Coalition (NCSC) on Smart Growth America's website (2016), complete streets are designed and operated to enable safe access for pedestrians, bicyclists, motorists and transit riders of all ages. They make it easy to cross the street, walk to shops, bicycle to work, and they allow buses to run on time and make it safe for people to walk to and from train stations. NCSC states that there is no singular design for complete streets, and each one responds to its community context. Our design takes into consideration the general

opinion of the residents that public transit is successful in their neighborhood, so we would include one lane on each side dedicated to mixed transit (public and private), one lane dedicated solely to cars, and a bike lane on the median. We would extend the sidewalks up to the mixed use lane, thus eliminating parking on the street and creating plenty of space for pedestrian activity, bus stops, street furniture, and trees. Complete streets would facilitate convenient, diverse modes of transportation between PTS and surrounding resources like Via Tuscolana and the Parco degli Acquedotti.

CONCLUSION

We believe that PTS has much to offer to the rest of Rome and that PTS can benefit as well from nearby external resources. This symbiotic relationship can be achieved through a few design interventions. By creating homes for new residents, opening up beautiful park space for current residents, connecting the two poles of the neighborhood with piazzas along a central plaza, and opening up the neighborhood to Cinecittà, Nuova Centralità, and Parco degli Acquedotti, PTS has a chance of becoming a community that is truly integrated into the city and a home to all its residents, both public and private.

CREATING IDENTITY

Another major issue facing PTS is its lack of identity. Despite being so physically well-defined a neighborhood, with roads on all sides to mark the edges of our study area, those living within it often do not associate with the name of "Piscine di Torre Spaccata." This was particularly apparent during our informal resident interviews, where those living in the private Palazzine in the south referred to themselves as part of the Cinecittà neighborhood, and said that they would rather drive to a further market to buy groceries than visit the PTS market less than a 5-minute distance walk away.

As Ruggeri and Southworth (2010) defines identity, it includes the presence of "memorable and imageable environments," thus we seek to enhance the public spaces of PTS by incorporating new sites that beautify the area and where residents and visitors can create pleasant memories.

Furthermore, the name of PTS is deceptive in its association with the neighborhood of Torre Spaccata, which is in fact located two kilometers north of what is considered PTS. Thus, in our design proposal, we attempt to incorporate elements that match PTS's nominal identity: a bio-pool, a public tower(s) monument, and a cinema that identifies with PTS's literal identity as the "Pool of the Broken Tower."

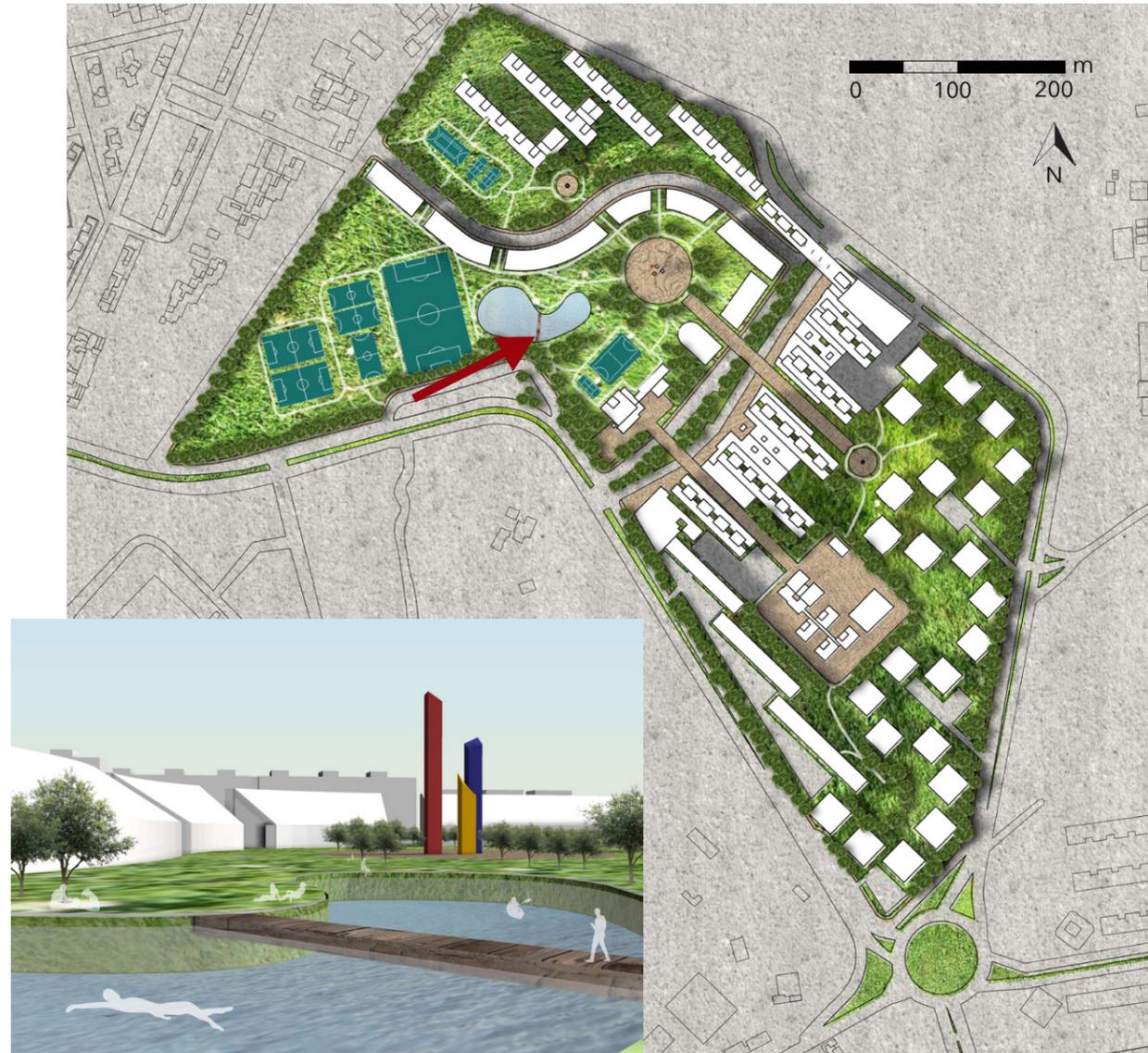


Figure 6.10 & 6.11. (Left) Rendering view from new pool towards central tower monument and (Right) design proposal plan with red arrow indicating view direction of rendering.

BIO-PISCINA

We start with the first word of our neighborhood's name, "Piscine," or "pool," by filling the lost space north of our study area with a water feature. We caution against placing a modern outdoor public pool that requires constant maintenance attention in the area because, as our team has come to discover through our research, PTS suffers from many issues related to lack of maintenance of green space. Thus, we draw our inspiration from the bio-piscina of Cimini Park, a resort north of Rome in the Province of Viterbo. Known as a bio-pool in English, it is a water feature embedded into the environment that sustains itself through salt purification. The bio-piscina in Cimini Park has attracted many visitors seeking a relaxing swim or stroll within nature (Rossi, 2015). Keeping such a precedent in mind, we propose this identifying feature to be introduced in PTS - literally placing the "Piscine" in Piscine di Torre Spaccata.



Figure 6.12. Bio-Piscina of Cimini Park (Rossi, 2015)

PUBLIC TOWER MONUMENT

The next element we propose in our design for creating identity is a public art monument that relates to the nominal "Torre Spaccata" component of PTS. Initially, the idea was just to have a public art installation at the center of PTS inspired by the historical broken tower that gave our study area its name. However, our reoccurring site visits developed our proposal further to the inclusion of color. Since the first time we visited, the bright colored balconies on the central line of public housing, or the Ville Plattenbauten within PTS, drew our attention with their array of red, yellow, and blue - now the color scheme for our booklet on PTS as well. Naturally, this focus on the three colors inspired us to use them to liven the neighborhood. Luis Barragan's installation in Mexico City, named "The Towers of Satellite City" (Monro, 2011) is particularly

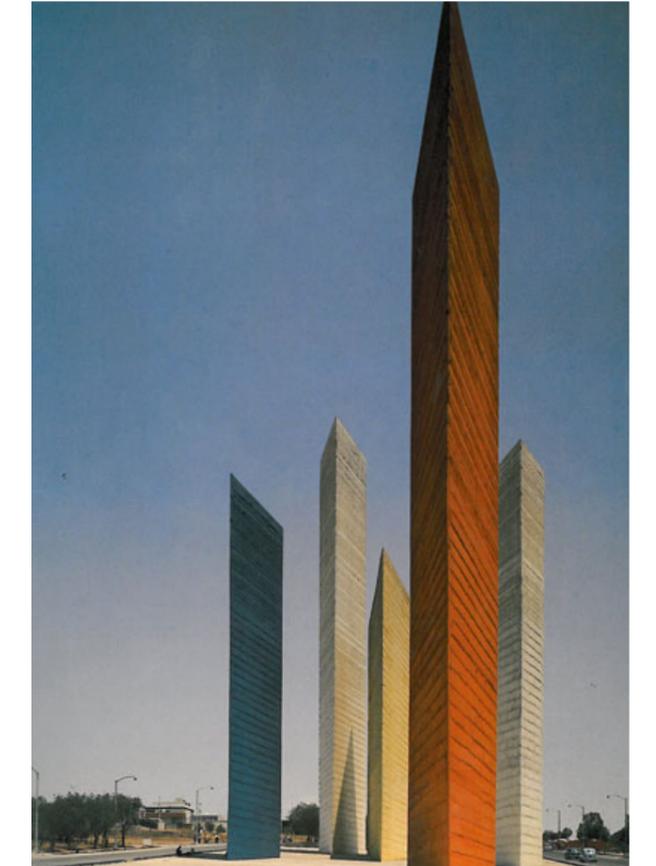


Figure 6.13. Luis Barragan's "The Towers of Satellite City" (Monro, 2011)

relevant to our site. Its eye-catching appearance with its large scale and bright colors that match our color scheme, its relation to the theme of towers, and its embodiment of a "broken tower" through separate pieces rising next to each other to form a whole all represent the spirit that we

hope to capture in a public monument in PTS. Thus, we incorporate a similar model at the center of our design.

COLOR SCHEME

Our utilization of color as a tool for fostering identity extends beyond our monument design. We propose the brightening of dark passageways (existing condition shown in figure 6.14) throughout PTS with bright wall paintings that connects to the neighborhood's identifying colors. We hope to foster greater activities in the neighborhood by providing local artists more formal opportunities to be seen and heard, while helping to decorate their neighborhood. Currently, there are already numerous graffiti throughout PTS. If street art could be consolidated and gathered



Figure 6.14. Graffiti on the wall of a dark passageway in PTS

in one place, in connection with the towers, they may help monumentalize and revitalize what is currently mostly lost space at the center of PTS. With this, we draw inspiration from the potential of Graffiti Park in Austin, TX of the United States, as shown in figure 6.15 below.



Figure 6.15. Graffiti Park in Austin, TX (Valles, 2014)

EVOKING PARCO DEGLI ACQUEDOTTI

A nearby cultural and historical icon for Rome is the Parco degli Acquedotti, as shown in figure 6.16.

This park has a rich history that spans from the Roman Antique Age to the Modern Age. It contains ruins and artifacts reflecting the system of six ancient aqueducts that provided water flowing from the mountains to the central city in

antiquity (Parco degli Acquedotti, 2014). One way to connect PTS to the spirit of the park and share in its identity within the city is by alluding to the landscape design from parts of the Parco degli Acquedotti in our green spaces to indicate our park as sort of extension of a system of parks. Creating this indication would require design techniques such as utilizing similar materials like tufa and peperino stone, the stones used to build the actual antique aqueduct system, as well as adding seating places, bonfire pits, or stone pathways throughout PTS's green spaces. We may also allude to the ponds in Parco degli Acquedotti through the design of our bio-pool.



Figure 6.16. Parco degli Acquedotti South of PTS (Sh., 2010)

CINEMA

Another proposal to foster neighborhood pride for PTS is connecting it to its closest cultural icon, Cinecittà Studios, through the building of a cinema. Our design places the cinema next to our new plaza to the north and in an accessible and visual position from Viale Rolando Vignali. As the largest film studio in Europe (Cinecittà Studios, 2016; Davis & Bridge, 2016), Cinecittà is an invaluable opportunity for developing PTS, which is less than a 5-minute walking distance away. In order to physically connect PTS to Cinecittà, we also, as is clearly marked

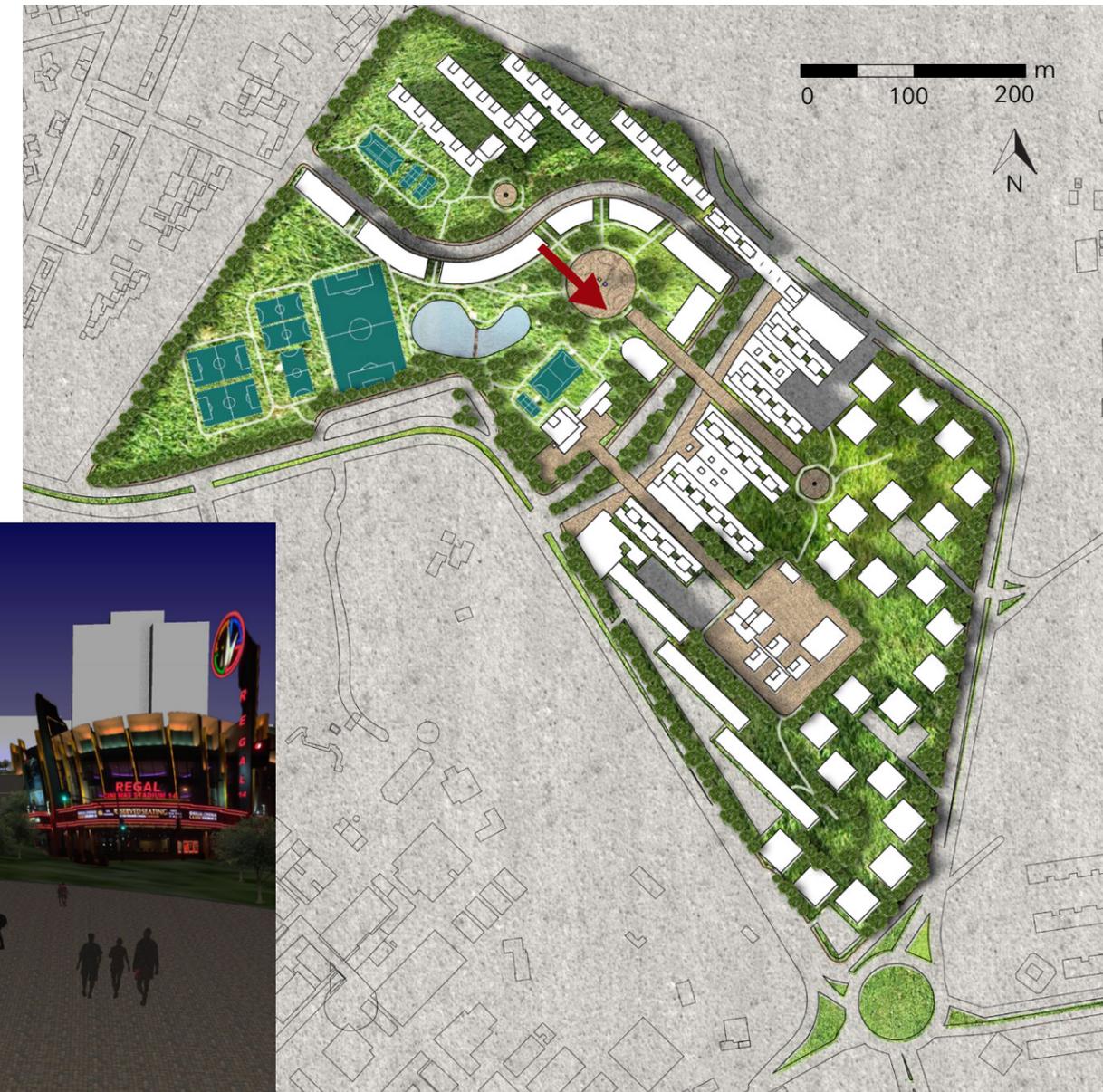


Figure 6.17 & 6.18. (Left) Rendering view central tower monument towards cinema and (Right) design proposal plan with red arrow indicating view direction of rendering.

in figure 6.9, propose a new entranceway into Cinecittà Studios from Viale Rolando Vignali.

SIGNAGE

Our final, and perhaps the most simple, proposal for creating a sense of identity in PTS is the erection of signs that welcome people into the neighborhood. At present, there is no signage that distinguishes PTS from the surrounding area. Visitors have no way of recognizing what neighborhood they have entered and no words draw them to enter the area in the first place. The residents have no visible, written reminder of where they live and why their home matters. Our design proposal will provide the residents with a neighborhood they can be proud of, with signs to mark the official name of the neighborhood for residents to call it home.

CONCLUSION

PTS is a neighborhood with no real sense of identity. Residents are not proud to call PTS their home, and most young people move away as soon as they can. If PTS is to survive as a neighborhood, its residents must want to be there. There is already a growing movement of self-revitalization in the name of auto recupero among a few residents, but the progress would be much greater if every resident identified with the neighborhood as their own and felt a vested interest in improving

it. Our proposals thus draw upon existing themes in PTS to nurture the current fragments of neighborhood character into a unifying identity. We propose a public bio-pool that reflects the first word in the neighborhood's name, a sculpture that monumentalizes the historical context of the third and fourth words of PTS's name, we recommend utilizing an existing color scheme from the balconies of the ville plattenbautens the residents are so proud of to liven up lost spaces and link different spaces in the neighborhood, we advise connecting PTS to the ancient identity of the Parco degli Acquadotti through similar usage of materials, and we endorse the creation of signs to label the neighborhood that welcome visitors and, more importantly, welcome residents home.

IMPROVING WALKABILITY

The third and final critical issue that we identified in PTS is the lack of walkability within the neighborhood as well as between PTS and nearby sites. The concept of "walkability" not only entails the aspects of physical pathway structure and connectivity, but it also describes the human experience of walking through an area. The human level perspective comprises the details of the street (i.e. street furniture, art work, shops, etc.), which contain aspects that affect the way people psychologically feel while walking. In Dr. Deni Ruggeri's (2016) presentation entitled "Measuring the Livable City: The Livability Audit," he categorizes walkability indicators into quantitative aspects and qualitative aspects. He defines quantitative aspects as "connectivity of paths, multi-modality, fine grained land use patterns, number of intersections, block dimensions, topography and slope." Qualitative aspects, alternatively, refer to the "safety and quality of the path," (Ruggeri, 2015). Piscine di Torre Spaccata is flawed in this area and our design interventions seek to correct these faults and improve walkability in and to the neighborhood.



Figure 6.19 & 6.20. (Left) Rendering view from sky walk towards Viale Rolando Vignali and (Right) design proposal plan with red arrow indicating view direction of rendering.

PORTICOES AND SIDEWALK INTERVENTIONS

There are currently porticoes lining sections of Viale Rolando Vignali. However, these porticoes are not continuous along the entire street, they are raised above street level, and are blocked from the street by walls. Thus, they inhibit walkability where they should improve it.



Figure 6.21. Front view of current PTS porticoes

Our design for these porticoes involves permeating walkability to the street level by constructing stairs as well as making the porticoes a continuous path along Via Vignali, as can be seen in Figure 6.22.

We would achieve this by decreasing the width of the street and allocating that space for public market

space and pedestrian activity. We would also delineate that area with bollards or potted plants. Furthermore, we propose replacing the current pillars and barriers with architecturally appealing columns, which would be constituted by a possible amendment in the façade of this porticoed level to make the architecture of the façade match the grandeur of the columns. This would maintain a clear-but-permeable, pleasant division between the streets. Our design for these porticoes is inspired by those in the portico capital of the world, Bologna, as shown in figure 6.23 and 6.24. Therefore, this particular design intervention aims to improve the quality of the path, and adds to the imageability of the site.

Additionally, we focus on improving the current facades of the storefronts by replacing the drop-down, obfuscating doors with glass fronts. This is a crucial aspect of reactivating this into a walkable

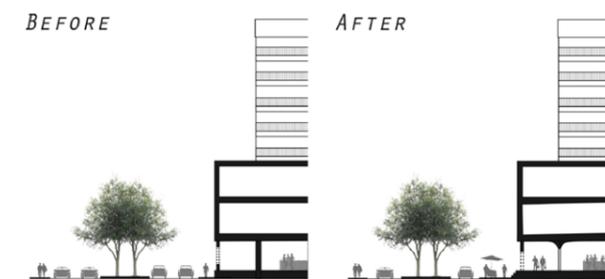


Figure 6.22. Portico Sections before and after our design interventions

site because not only will it invite people to engage with the stores, it places “eyes on the street,” improving safety perceptions (Ruggeri, 2015). By enhancing the walkability of PTS’ main commercial street, Viale Rolando Vignali, people will be encouraged to spend more time shopping and commerce will improve in PTS.



Figure 6.23 & 6.24. (Left) Bologna Portico Sketch by Cheryl Kuo and (Right) Photo

DISTINGUISHING PEDESTRIAN PATHWAYS

PAVING PATTERNS

Ruggeri (2015) identifies “connectivity of paths” as a quantitative aspect of walkability. Thus, we will distinguish pedestrian pathways through

usage of uniform paving patterns. If done with appealing material such as cobblestone, or marble, they will make for very pleasant walks as well as improving the physical quality of the path. This intervention will also distinguish walking paths from driving paths, thus discouraging parking on sidewalks and improving safety for pedestrians.

STREET FURNITURE

Furthermore, one of the most simple but effective means of improving walkability is the utilization of street furniture. We plan to use the new sections of the sidewalks that extend into the street as an area for gathering, socializing, and setting up market stalls. By installing street furniture into that area, people will see clear indicators that they are encouraged to use the extensions and this will counter the tendency of public space becoming lost space in PTS. Some of our proposed street furniture includes kiosks, bollards, benches, and trash cans. The presence of public trash cans will discourage litter and provide a place for people to clean up after their dogs.

PARKING DESIGN

RESTRUCTURE EXISTING PARKING

To further improve the walkability of PTS, we must tackle the issue of parking. In the interpretive diagram of traffic flow and parking (figure 5.1), we indicate the widespread presence of parking spaces in the neighborhood. Their abundance is a significant problem because they have negative impacts on the environment and community of PTS. Firstly, *Finding Lost Space* (Trancik, 1986) states that open automobile parking can weaken connections among buildings and their users. PTS contains large surface parking lots that physically and socially separate its public and private housing areas. Secondly, according to Jacobs (1993), parking spaces, especially those along a road, do not contribute to the creation of a “great street” since they make a road less comfortable and unsafe for walkers. Cars are a problem that extends beyond PTS and into the entirety of Rome, as cars often disturb pedestrian traffic.

For these reasons, we created a parking design proposal. Figures 6.25 and 6.26 show the current and proposed parking in PTS.

Firstly, we recommend restructuring existing parking in three main sections

of PTS, including that near the market. Outside the market entrance, which is currently a parking area, we plan to construct a mixed-use building with underground parking to accommodate cars that park along Viale Rolando Vignali, the street that has the highest usage rate of parking and the most commercial and institutional facilities in PTS. This lot will also welcome cars that come to visit the planned cinema on Viale Rolando Vignali. With the establishment of this mixed-use building, we will remove all the roadside parking spaces of Viale Rolando Vignali to make the street more walkable and safe for people, especially the elderly, the disabled, and people with strollers. Because of the increased attractiveness of the street, more people will visit it, and more commercial and recreational activities will occur there.

In addition to the parking on the Viale Rolando Vignali, we will eliminate most of the parking spaces between the public and private residences of PTS, the second section of our parking restructure plan. In our design proposal, we suggest building two promenades that link private and public PTS on the southeast of the neighborhood with two new piazzas and the new residential belt on the northwest. These promenades intend to offer “coherent, visible connections between

new and old uses, buildings, and activities” for the purpose of developing what Trancik (1986) considers to be a good urban landscape. In order to achieve this goal, we need to abolish some existing parking lots that the promenades will pass through in the center of the present housing areas. To relocate some of the vehicles that occupy the lots now, we will retain the surface and underground parking spaces next to the northernmost and southernmost Ville Plattenbauten, and turn part of the squatter building on the north of PTS into a garage. In order to minimize the impact of surface parking removal for the residents of the central public buildings, we will construct vehicle tunnels between Viale Rolando Vignali and the presently underutilized underground parking spaces of those buildings.

Along with these modifications of parking patterns in the residential area of the neighborhood, our parking restructure plan will target the parking spaces near the planned bio-pool. This bio-pool aims to be a recreational facility that can attract PTS residents and visitors. As such, it will generate a demand for transportation services, such as parking lots. There are already parking spaces in place, but mobile homes of nomads occupy some of them. In order to make the spaces suitable and sufficient for the users of the pool,

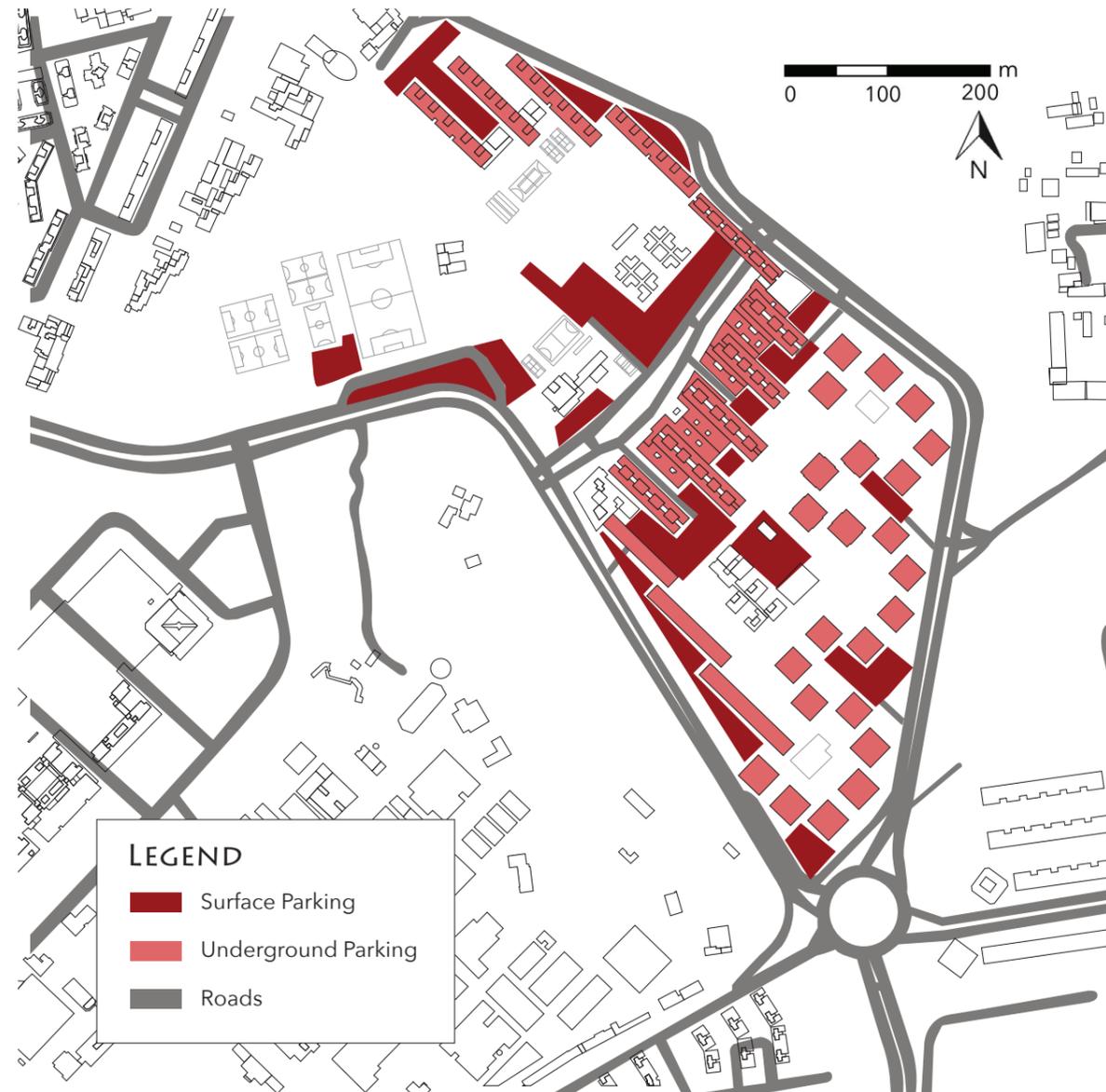


Figure 6.25. Current PTS Parking

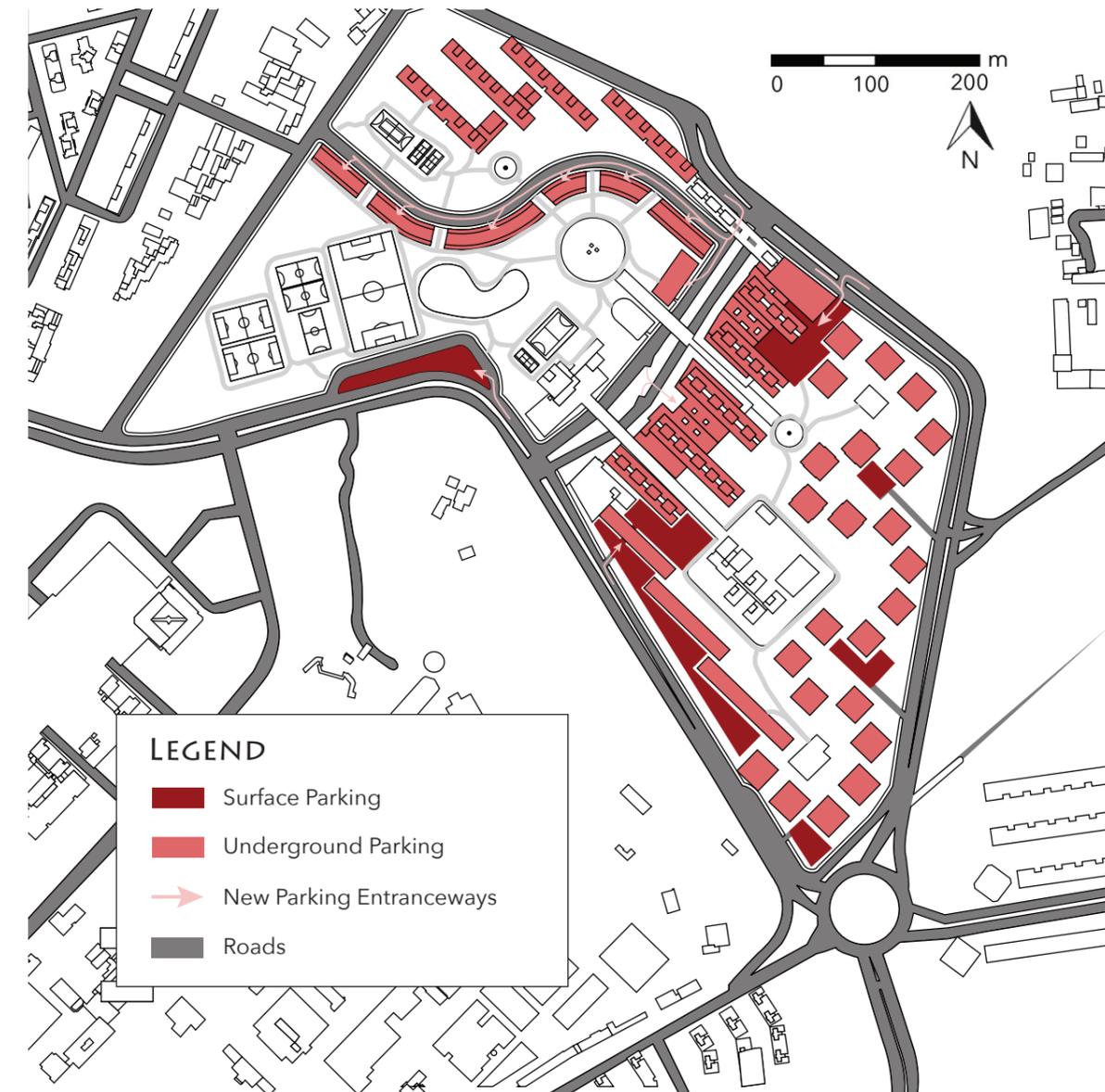


Figure 6.26. PTS Parking Design Proposal

we would improve their conditions, and encourage the nomads to live in the new residential buildings. With these renewed spaces, cars will not need to use residential parking facilities, and hence would not increase the traffic flow in the residential areas.

RELOCATED BUS STOP

Furthermore, in the interest of keeping the Viale Rolando Vignali more pedestrian and the promenades respected as walking spaces, we also propose relocating the current major bus stops of 657, 557 as depicted in figure 2.21 to be in the new parking space next to the bio-pool.

PARKING UNDER NEW RESIDENTIAL BELT

In order to satisfy the growing need for parking that our redevelopment design will cause, we will create new underground parking spaces beneath the five new housing settlements. These spaces will mainly serve residents, but will be open to some visitors of the recreational facilities in PTS. We propose the construction of parking spaces underneath these buildings in order to prevent the current parking issue from reemerging in the redeveloped area. We aim to discourage and remove lost spaces and pedestrian-unfriendly streets in our design proposal. As a result,

BREAKING BARRIERS & CONNECTING COMMUNITIES

we recommend the construction of parking facilities in the underground to reduce their physical and social unattractiveness while fulfilling the demand for them.

CONCLUSION

Walkability is a critical issue facing PTS. Resident interviews have confirmed that people do not have enough recreational activities to occupy them in the neighborhood. One resident referred the neighborhood as “dead.” We were able to see for ourselves that few people linger on the streets or meet in the market. In order to help PTS grow into a happy, active, and vibrant neighborhood, we need to make it more convenient and pleasant to spend time walking on the streets. We propose to extend and connect the current porticoes along Viale Rolando Vignali and create easier access to them, and the shops they shelter, from the street by installing stairs. We plan to extend the sidewalks and add street furniture to encourage socializing in this new commercial hub. We will distinguish these new pedestrian spaces with distinct paving patterns to discourage parking on the sidewalks and to keep the pedestrian spaces safe and beautiful. We will create new, hidden parking spaces to de-congest the streets and sidewalks to make PTS more pedestrian-friendly. Once the residents and visitors find that

walking along the neighborhood streets can be pleasant and safe, the community will become more social, connected, and active. Instead of calling PTS “dead,” residents will come to call it a “lively” neighborhood.



Figure 6.27. Aerial View of Current PTS from Google Earth Pro



Figure 6.28. Aerial View Rendering of New PTS

As can be seen in the before and after figure ground and land-use maps (figure 6.29-32), we plan to revitalize PTS through the development of lost space, particularly in the northwest sector. As mentioned by residents through on-site interview, PTS needs a presence of activity. Therefore, we have put a heavy focus on expanding the fabric of the neighborhood by increasing density with the goal of bring more activity to the rather desolate neighborhood.

Furthermore, the creation of identity through the implementation of a pool and monument are means of garnering activity. The neighborhood is currently planned in a way that inherently restricts interaction and growth internally and externally. Through our focus of connectivity, identity, and walkability, we hope to literally break the current barriers and connect PTS with other peripheral communities, connect these communities with each other, then to central Rome.



Figure 6.29. Figure Ground Map of Current PTS



Figure 6.30. Figure Ground Map of New PTS

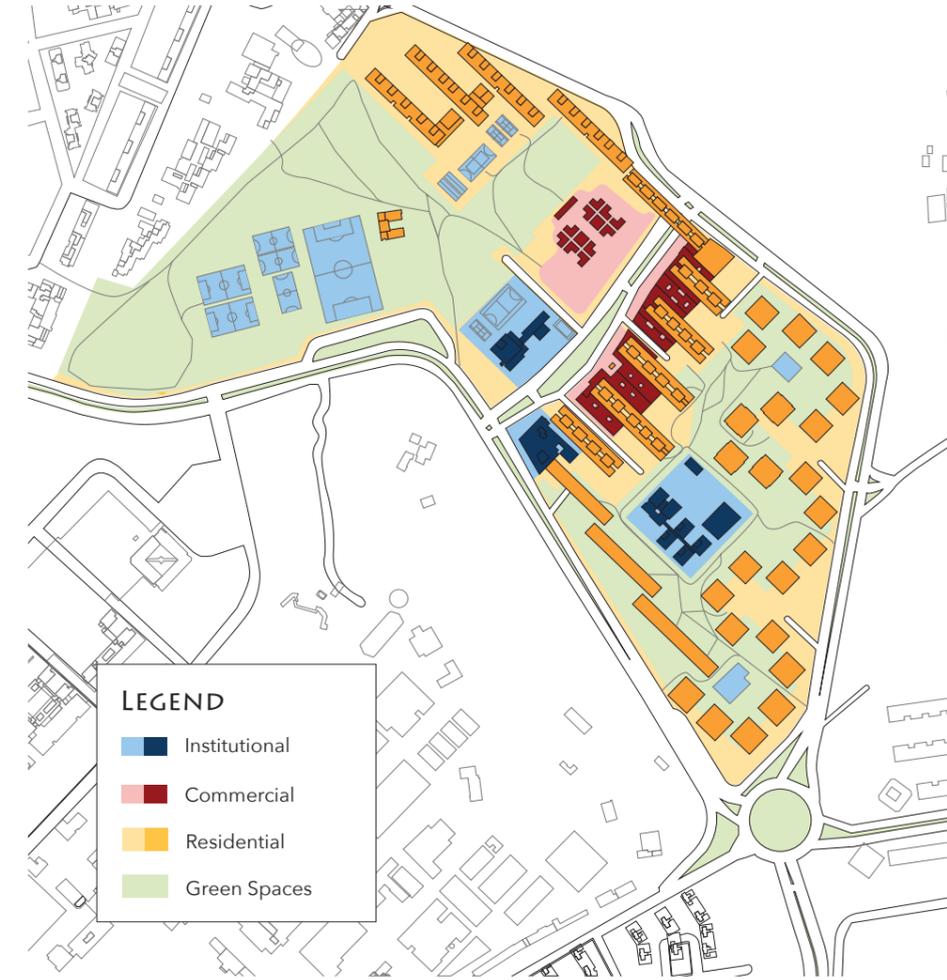


Figure 6.31. Land Use Map of Current PTS



Figure 6.32. Land Use Map of New PTS

FEASIBILITY ANALYSIS

Finally, we would like to present a brief feasibility plan based off of community engagement initiatives already working in PTS. This will include a review of relevant policies and a general investment strategy. This is an important aspect of our plan because it responds to the call for action presented by one of the people we interviewed. This resident stated that there have already been many studies conducted on PTS, but nothing has ever been done to execute them. Thus we present a brief feasibility plan that demonstrates what it would take to put our proposal into action. Our feasibility plan corresponds with Deni Ruggeri's livability dimension of "process," which he describes as "the ability to shape a place and make [people] more likely to be invested in it" (Ruggeri, 2015). This process can be executed with participation from civic groups, volunteer work, community gardening, and the snowball effect of participation that will grow in the community upon actually seeing evidence of civic discourse and participation in PTS. Our feasibility analysis presents a breakdown of short-term initiatives that establish a foundation for this planning process as well as long-term initiatives that will include the bulk of the physical work necessary for our entire plan to be executed.

SHORT-TERM INITIATIVES

Our short-term initiatives for our proposal include interventions that can be carried out by the strength of the local neighborhood organizations. These will mobilize contributions within the neighborhood, which, in the long run, will

attract the necessary public investment for the community to do more in their neighborhood. More importantly, for the social context of this community and for the concept of breaking barriers, these communal contributions will establish an identity for the people who live in PTS

Design Principle	Intervention	Feasibility
Creating Identity	Evoking Parco degli Acquedotti: reflecting its landscaping principles in our system of green spaces, including flat landscape, pathways with resting points, shadowy areas, structures resembling aqueduct architecture, and pine trees.	To be designed by municipality landscape architects and maintained by Parco degli Acquedotti's current volunteer landscaping organization
	Bio-Pool	To be designed by Parco degli Acquedotti's volunteer landscaping organization
	Central Tower Monument	To be completed through arts competition, proposed through PTS neighborhood committee
Walkability	Installing Street Furniture	To be contributed by PTS neighborhood organizations, encouraging plants, seatings, tables, etc. that encourage the replacement of parking

Figure 6.33. Short-Term Initiative Feasibility Analysis

by generating a unifying sense of pride in the community. Currently, this already exists in the form of auto-recupero (as discussed in socioeconomic connections & opportunities section). Short-term initiatives that can be accomplished through our design may be organized into four main design intervention and feasibility analysis, as shown in figure 6.33.

LONG-TERM INITIATIVES

The long-term initiatives are a lot more complicated to plan at this stage because of the complexity of financial and political strategizing. However, we outline below a general strategy to develop and attract investment. Since private investors respond to the likelihood of optimizing profits on their developments, the housing complex would be an attraction point for that form of investment. The housing complex would be developed on public park space, which is an obstacle we foresee overcoming by rezoning our area as a responsive action to the Labics Nuova Centralita Plan. This would create public land that is sellable to private investors to develop the housing complex. The porticos on Viale Rolando Vignali and the Cinema would also attract private investment. Developing and enhancing the porticos on Viale Rolando Vignali would eliminate the political barrier that is preventing

people from establishing stores there now. The increased business would be a great compliment to the Cinema, which we hope can be co-sponsored by Cinecittà as a cultural hub for our neighborhood.

Additionally, with the optimism that community members will have established a larger impact in their communities towards accomplishing the short-term goals in this plan, the physical and more expensive planning interventions can be kept vibrant and livable over time with publically supported social activities and amenities such as those already espoused by the volunteer park maintenance organization and neighborhood committees. PTS will then have a combination of private investment and public investment working together to create an improved Piscine di Torre Spaccata. We have opportunities in and around PTS that can support our plan in its long- and short-term development. It all starts with the community members contributing to this process and establishing a foundation to break the social barriers that have held PTS back and allow the neighborhood to be incorporated into the socioeconomic, sociopolitical, and physical context of Rome.

20. Check all of the visible street furniture within view. Do not record furniture in enclosed parks, gardens, plazas, and courtyards:

<input type="checkbox"/> Tables (without associated chairs)	<input type="checkbox"/> Newspaper boxes	<input type="checkbox"/> Tall street lights
<input type="checkbox"/> Chairs (without associated tables)	<input type="checkbox"/> Public mail boxes	<input type="checkbox"/> Planters
<input type="checkbox"/> Food stands	<input type="checkbox"/> Bike racks	<input checked="" type="checkbox"/> Seating areas
<input type="checkbox"/> Hanging plants	<input type="checkbox"/> Bollards	<input type="checkbox"/> Entry monuments
<input type="checkbox"/> Benches	<input type="checkbox"/> Hydrants	<input type="checkbox"/> Water fountains
<input checked="" type="checkbox"/> Lean posts	<input type="checkbox"/> Flags	<input type="checkbox"/> Umbrellas
<input type="checkbox"/> Flower pots	<input checked="" type="checkbox"/> Banners	<input checked="" type="checkbox"/> Maps
<input type="checkbox"/> Kiosks	<input type="checkbox"/> Merchandise stands	<input type="checkbox"/> Street artists
<input type="checkbox"/> Phone booths	<input type="checkbox"/> Pedestrian-scale street lights	<input checked="" type="checkbox"/> Traffic signals
<input checked="" type="checkbox"/> Public trash bins	<input checked="" type="checkbox"/> Recycling trash bins	<input checked="" type="checkbox"/> Other: <i>placards</i>

21. Count the number of mature street trees present within a 360 degree viewshed. Do not count yard and frontyard trees. *a lot*

22. Count the number of overhangs (if any) within 10' of the designated audit location. Record the total number in the box provided. *porches on along one side*

Section #5. Vitality

23. Count the total number of ground level vacancies, for sale or for rent signs within a 360 degree viewshed. Record the total number in the box provided. *-20*

24. Count the total number of signs of new development, buildings under construction or renovation within a 360 viewshed. Record the total number in the box provided. *0*

25. Check all land uses you are able to observe within a 360 degree viewshed.

<input type="checkbox"/> Low density residential	<input type="checkbox"/> Retail big box	<input checked="" type="checkbox"/> Parking
<input checked="" type="checkbox"/> Medium density residential	<input type="checkbox"/> Offices	<input checked="" type="checkbox"/> Sport fields (court?)
<input checked="" type="checkbox"/> High density residential	<input checked="" type="checkbox"/> Open space	<input type="checkbox"/> Warehouses
<input checked="" type="checkbox"/> Mixed commercial/residential	<input type="checkbox"/> Public facilities	<input type="checkbox"/> Vacant sites
<input checked="" type="checkbox"/> Mixed office/retail	<input type="checkbox"/> Industry	<input type="checkbox"/> Underground parking
<input checked="" type="checkbox"/> Mixed residential/public	<input type="checkbox"/> Light industry	<input type="checkbox"/> Structured parking
<input type="checkbox"/> Retail "mom and pop"	<input type="checkbox"/> Education	<input checked="" type="checkbox"/> Other: <i>church</i>

Section #6. Connectivity

26. Check all modes of transportation in you are able to observe within a 360 degree viewshed. Do not count the bus as a mode of transportation as it is a given at the transit stop.

<input type="checkbox"/> Train	<input type="checkbox"/> School bus	<input type="checkbox"/> Car pooling
<input type="checkbox"/> Light rail	<input type="checkbox"/> Bike trails	<input type="checkbox"/> Car share
<input checked="" type="checkbox"/> Motorcycle	<input checked="" type="checkbox"/> Sidewalks	<input checked="" type="checkbox"/> bus
<input type="checkbox"/> Park and ride	<input type="checkbox"/> Bike share	

27. Count the total number of streets within a 360 degree viewshed with heavy traffic. *1*

28. Count the total number of crosswalks within a 360 degree viewshed. *1*

Figure 7.3. PTS Livability Audit Page 3 Scan

29. On the map below please illustrate your observations of the specific place using the provided icons:

Sounds/Noises <input type="checkbox"/> Pleasant <input type="checkbox"/> Unpleasant	Smells <input type="checkbox"/> Pleasant <input type="checkbox"/> Unpleasant	Depth of Views <input type="checkbox"/> Long <input type="checkbox"/> Close	Path Continuity <input type="checkbox"/> Walk through <input type="checkbox"/> No walk	Safety <input type="checkbox"/> Safe <input type="checkbox"/> Unsafe
Lighting <input type="checkbox"/> Sun <input type="checkbox"/> Shade	Slope <input type="checkbox"/> Steep <input type="checkbox"/> Flat	Maintenance <input type="checkbox"/> Messy	Habitat <input type="checkbox"/> Yes	Visual interest <input type="checkbox"/> Distinctive <input type="checkbox"/> Generic

30. Label each icon with a brief description of what it indicates (for example, pleasant sound could be labeled as "birds.")

Additional Notes:

Did you:
 Write your name on the audit form?
 Write the date and time of audit?
 Write the transit stop location including cross streets and bus lines served?
 Record weather conditions during the audit?
 Order your digital images?

Figure 7.4. PTS Livability Audit Page 4 Scan

Name: *Jorre Specatta* *Subaugusta* Date: *2/29/16*

Bus Location Street(s): *transit stop subaugusta via orazio publico* Bus Line/s #: _____

Check Weather Conditions sunny rainy cloudy windy

Check Time *2:52* morning noon afternoon evening

Section #1. Imageability

1. Count the total number of courtyards, parks, and plazas within view. *1*

2. Count the total number of large-scale natural landscape landmarks within view. *1*

3. Count the total number of unique buildings within view. *1*

4. Check the proportion of the architecture with a common style/form/aesthetic?
 0-25% 26-50% 51-75% 76-100% of the buildings have the same character

5. Count the total number of wayfinding elements visible in the study area. *26*

6. Count the total number of buildings with high use intensity/ use singularity value within view. *1*

7. Count the total number of freestanding buildings within view. *3*

8. Count the total number of buildings with complex shape within view. *6*

9. Count the total number of buildings with distinct (memorable) facades within view. *2*

10. Count the number of sculptural, pictorial, or architectural artistic elements within the view. *0*

Section #2. Transparency, Safety Perceptions, and Maintenance

11. Count the total number of locally undesirable land uses as liquor stores, pawn shops, abandoned buildings or parking lots within the view. *0*

12. Check the proportion of the buildings with transparent facades within the view.
 0-25% 26-50% 51-75% 76-100% of the buildings have transparent facades

13. Rate your satisfaction with the level of cleanliness and maintenance by placing an X along the continuum.
 Very Dissatisfactory Very Satisfactory

14. Check all of the following transit infrastructure that is present at or within 10' of the stop:

<input type="checkbox"/> Signage deterring non-transit vehicles	<input checked="" type="checkbox"/> Marked pedestrian crossings	<input type="checkbox"/> Four stop signs
<input checked="" type="checkbox"/> Emergency call-boxes to report incidents	<input checked="" type="checkbox"/> Curb ramps/ADA accessible ramps	<input type="checkbox"/> City maps
<input checked="" type="checkbox"/> Adequate lighting	<input type="checkbox"/> Speed bumps	<input type="checkbox"/> Electronic display
<input checked="" type="checkbox"/> Recycling bins	<input type="checkbox"/> Timetables	

Figure 7.5. Subaugusta Livability Audit Page 1 Scan

15. Using the bulls eye question format below, please record the depth of your sight lines.

Depth of sight lines example

16. Using the bulls eye question format please record the proportion of sky you are able to see.

Visible sky example

17. Record your observations regarding the edges present within 10' from the transit stop in the checklist below.

<input checked="" type="checkbox"/> A fence or wall	If it is 5' high or higher.
<input type="checkbox"/> Shrubs	If they are above 4'.
<input checked="" type="checkbox"/> Buildings	If there are no visible windows.
<input checked="" type="checkbox"/> Transit kiosk wall	If it is not transparent.

18. Using the bulls eye question format record the heights of the buildings. Only count buildings that are directly fronting the street you are standing on.

Building height example

Section #4. Human Experience

19. Rate the consistent noise level rating in the study area by placing an X along the continuum.
 Very Noisy Very Quiet

Figure 7.6. Subaugusta Livability Audit Page 2 Scan

20. Check all of the visible street furniture within view. Do not record furniture in enclosed parks, gardens, plazas, and courtyards:

<input type="checkbox"/> Tables (without associated chairs)	<input type="checkbox"/> Newspaper boxes	<input checked="" type="checkbox"/> Tall street lights
<input type="checkbox"/> Chairs (without associated tables)	<input checked="" type="checkbox"/> Public mail boxes	<input checked="" type="checkbox"/> Planters
<input type="checkbox"/> Food stands	<input checked="" type="checkbox"/> Bike racks	<input checked="" type="checkbox"/> Seating areas
<input type="checkbox"/> Hanging plants	<input type="checkbox"/> Bollards	<input type="checkbox"/> Entry monuments
<input checked="" type="checkbox"/> Benches	<input type="checkbox"/> Hydrants	<input type="checkbox"/> Water fountains
<input type="checkbox"/> Lean posts	<input checked="" type="checkbox"/> Flags	<input checked="" type="checkbox"/> Umbrellas
<input checked="" type="checkbox"/> Flower pots	<input checked="" type="checkbox"/> Banners	<input type="checkbox"/> Maps
<input type="checkbox"/> Kiosks	<input checked="" type="checkbox"/> Merchandise stands	<input type="checkbox"/> Street artists
<input checked="" type="checkbox"/> Phone booths	<input checked="" type="checkbox"/> Pedestrian-scale street lights	<input checked="" type="checkbox"/> Traffic signals
<input checked="" type="checkbox"/> Public trash bins	<input checked="" type="checkbox"/> Recycling trash bins	<input checked="" type="checkbox"/> Other... <i>live for</i>

21. Count the number of mature street trees present within a 360 degree viewshed. Do not count yard and frontyard trees. 16

22. Count the number of overhangs (if any) within 10' of the designated audit location. Record the total number in the box provided. 2

Section #5. Vitality

23. Count the total number of ground level vacancies, for sale or for rent signs within a 360 degree viewshed. Record the total number in the box provided. 0

24. Count the total number of signs of new development, buildings under construction or renovation within a 360 viewshed. Record the total number in the box provided. 0

25. Check all land uses you are able to observe within a 360 degree viewshed.

<input type="checkbox"/> Low density residential	<input type="checkbox"/> Retail big box	<input checked="" type="checkbox"/> Parking
<input type="checkbox"/> Medium density residential	<input type="checkbox"/> Offices	<input type="checkbox"/> Sport fields
<input checked="" type="checkbox"/> High density residential	<input checked="" type="checkbox"/> Open space	<input type="checkbox"/> Warehouses
<input checked="" type="checkbox"/> Mixed commercial/residential	<input checked="" type="checkbox"/> Public facilities	<input type="checkbox"/> Vacant sites
<input checked="" type="checkbox"/> Mixed office/retail	<input type="checkbox"/> Industry	<input type="checkbox"/> Underground parking
<input type="checkbox"/> Mixed residential/public	<input type="checkbox"/> Light industry	<input type="checkbox"/> Structured parking
<input type="checkbox"/> Retail "mom and pop"	<input type="checkbox"/> Education	<input checked="" type="checkbox"/> Other... <i>live for</i>

Section #6. Connectivity

26. Check all modes of transportation in you are able to observe within a 360 degree viewshed. Do not count the bus as a mode of transportation as it is a given at the transit stop.

<input checked="" type="checkbox"/> Train <i>Mubo</i>	<input type="checkbox"/> School bus	<input type="checkbox"/> Car pooling
<input type="checkbox"/> Light rail	<input type="checkbox"/> Bike trails	<input type="checkbox"/> Car share
<input checked="" type="checkbox"/> Motorcycle	<input checked="" type="checkbox"/> Sidewalks	
<input type="checkbox"/> Park and ride	<input type="checkbox"/> Bike share	

27. Count the total number of streets within a 360 degree viewshed with heavy traffic. 4

28. Count the total number of crosswalks within a 360 degree viewshed. 4

Figure 7.7. Subaugusta Livability Audit Page 3 Scan

29. On the map below please illustrate your observations of the specific place using the provided icons:

Sounds/Noises Pleasant Unpleasant	Smells Pleasant Unpleasant	Depth of Views Long Close	Path Continuity Walk through No walk	Safety Safe Unsafe
Lighting Sun Shade	Slope Steep Flat	Maintenance Messy	Habitat Yes	Visual interest Distinctive Generic

30. Label each icon with a brief description of what it indicates (for example, pleasant sound could be labeled as "birds.")

Additional Notes:

Did you :
 _____ Write your name on the audit form?
 _____ Write the date and time of audit?
 _____ Write the transit stop location including cross streets and bus lines served?
 _____ Record weather conditions during the audit?
 _____ Order your digital images?

Figure 7.8. Subaugusta Livability Audit Page 4 Scan

LYNCH MAPS

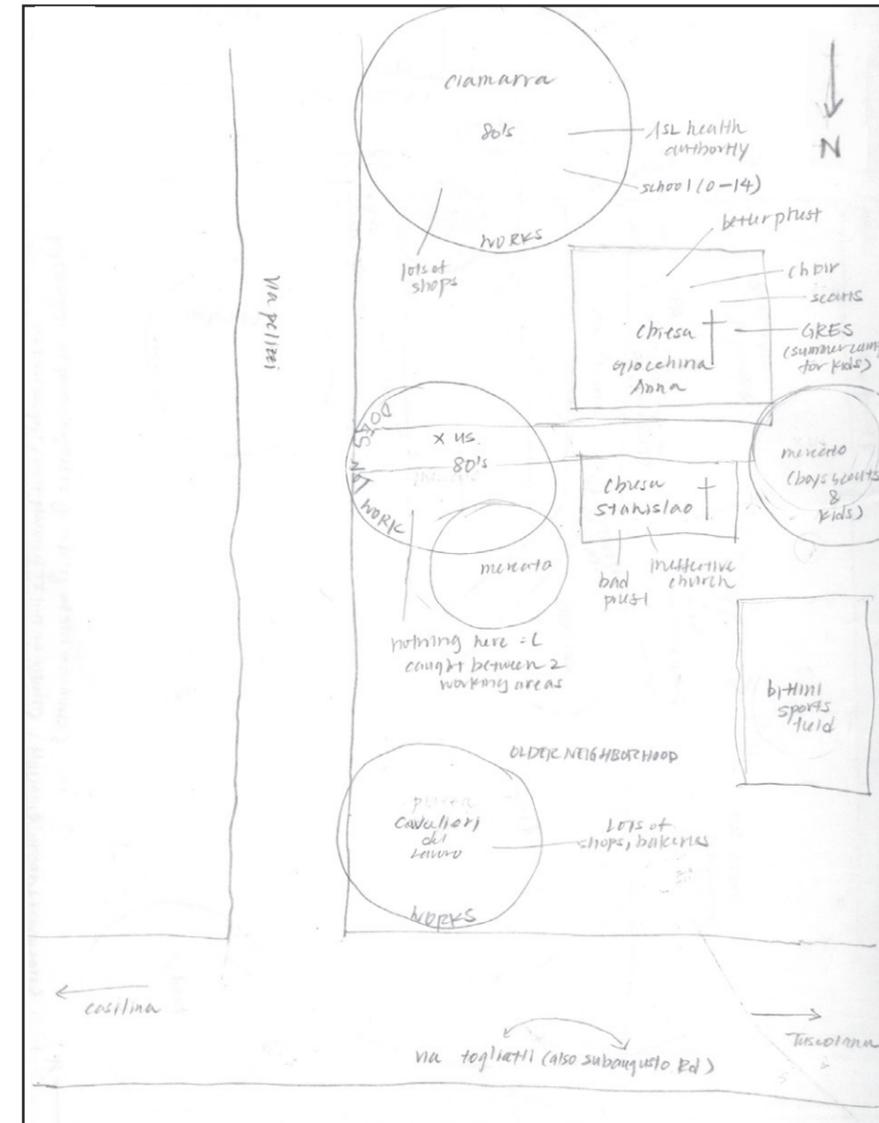


Figure 7.9. Lynch Map by Daniela, a neighborhood committee member

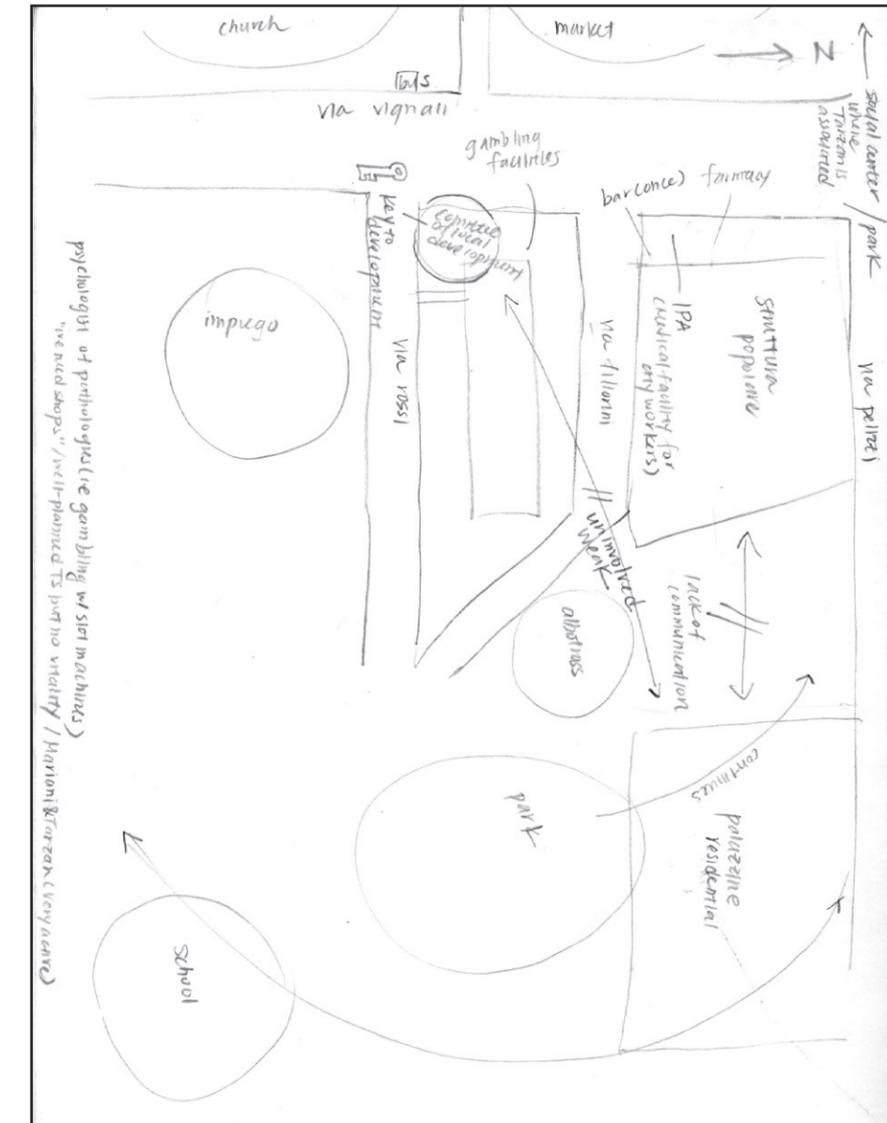


Figure 7.10. Lynch Map by day care center operator in PTS

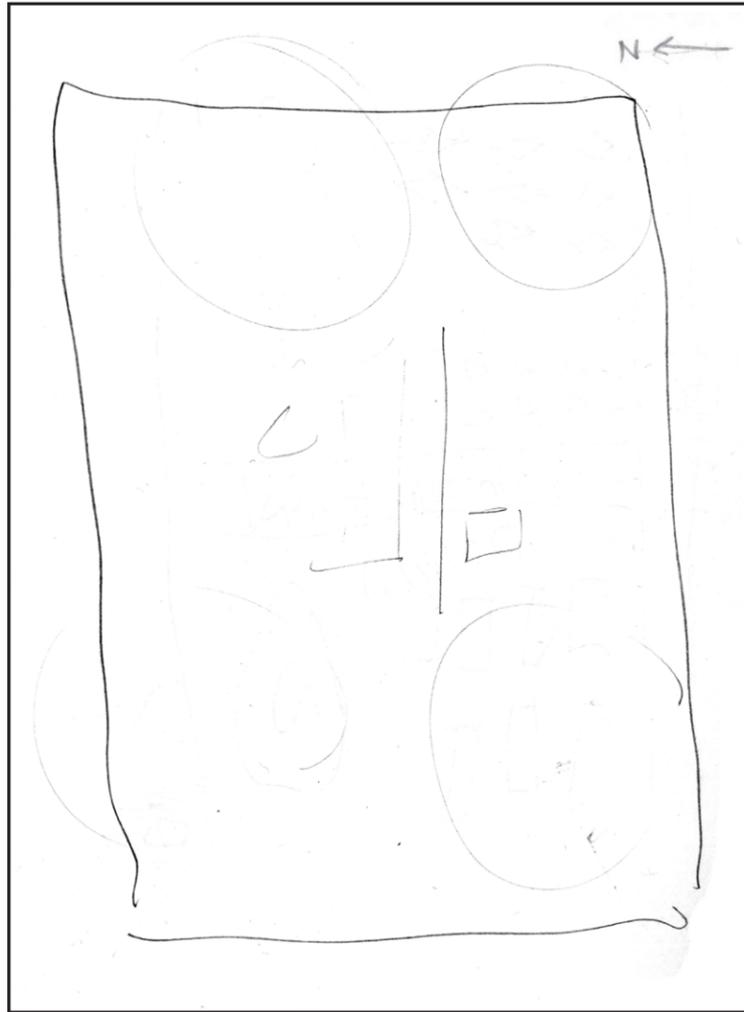


Figure 7.11. Lynch Map by president of PTS neighborhood committee

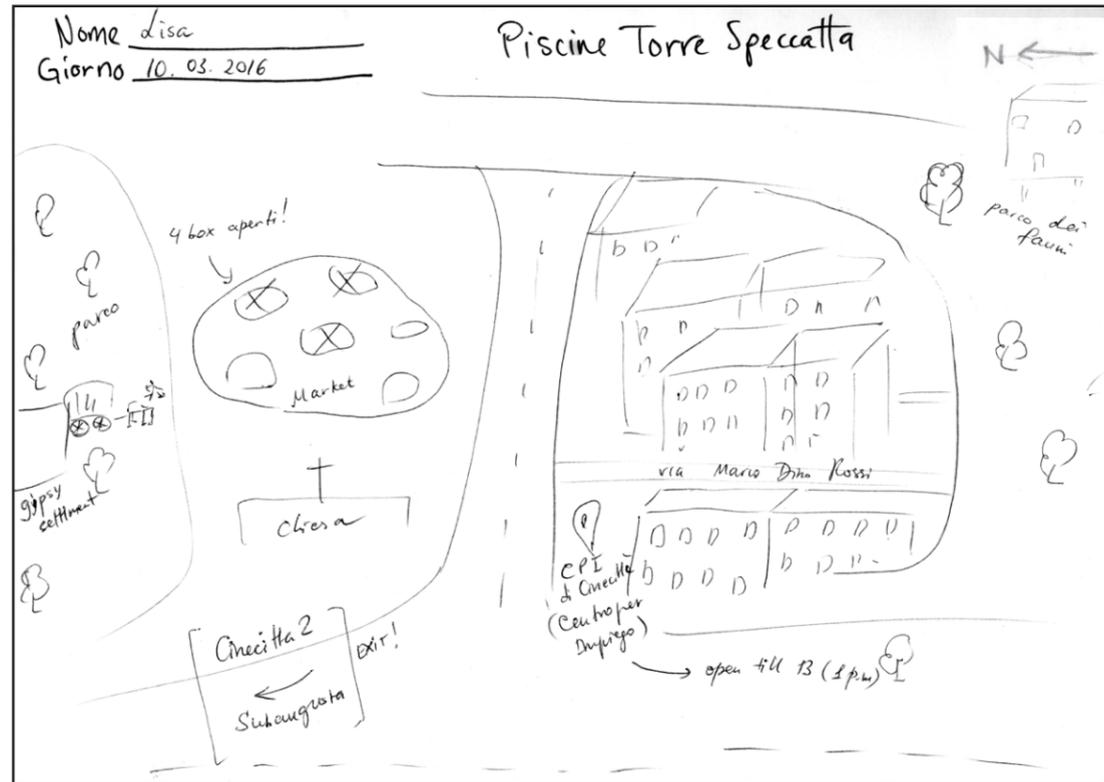


Figure 7.12. Lynch Map by Lisa, secretary of the president of the neighborhood committee

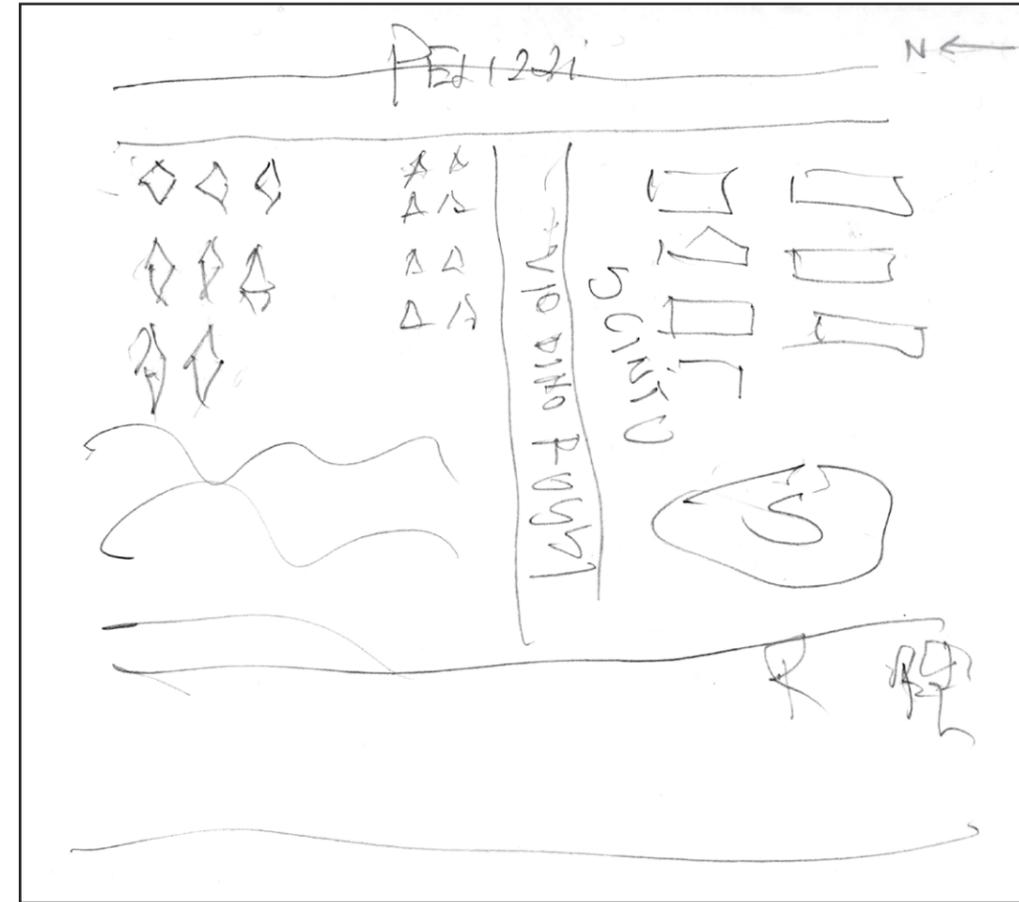


Figure 7.13. Lynch Map by president of PTS neighborhood committee

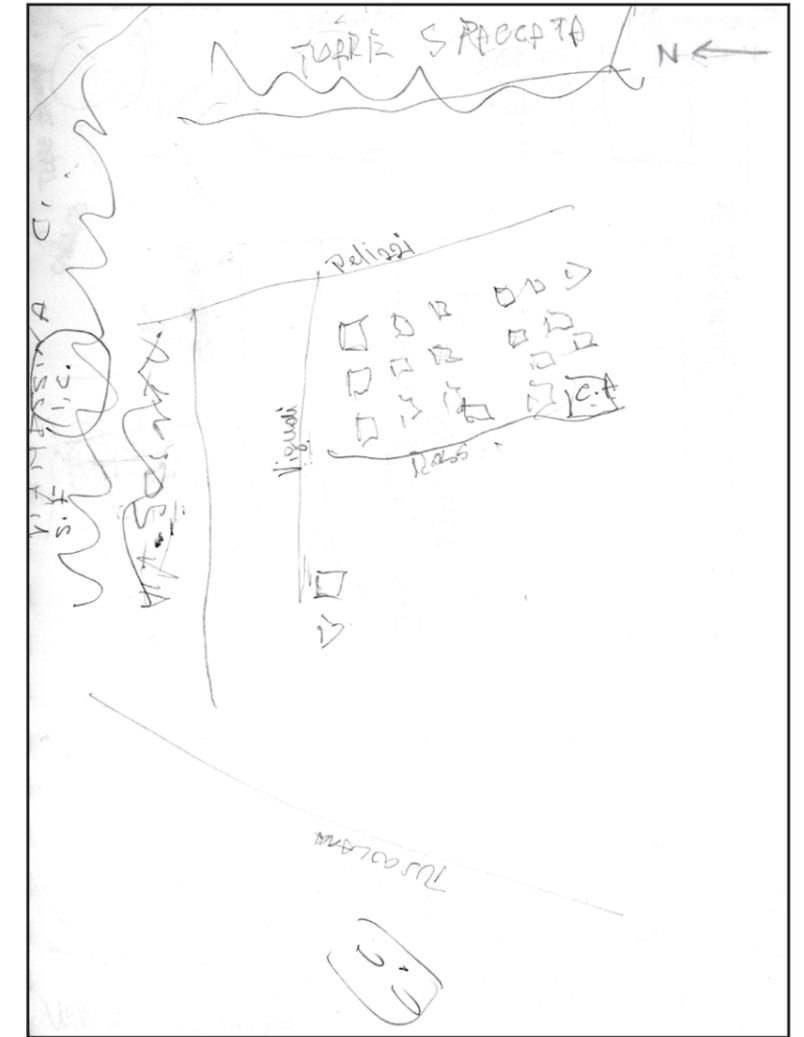


Figure 7.14. Lynch Map by president of PTS neighborhood committee

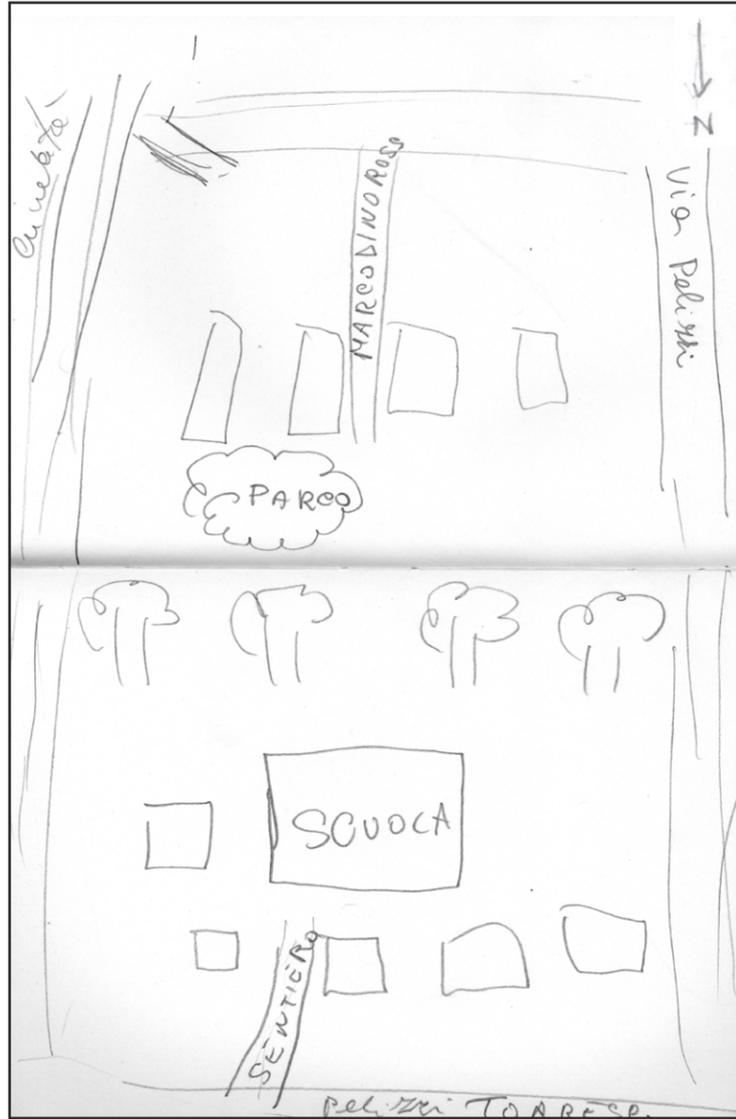


Figure 7.15. Lynch Map by Maria Luigia, school teacher from PTS elementary school

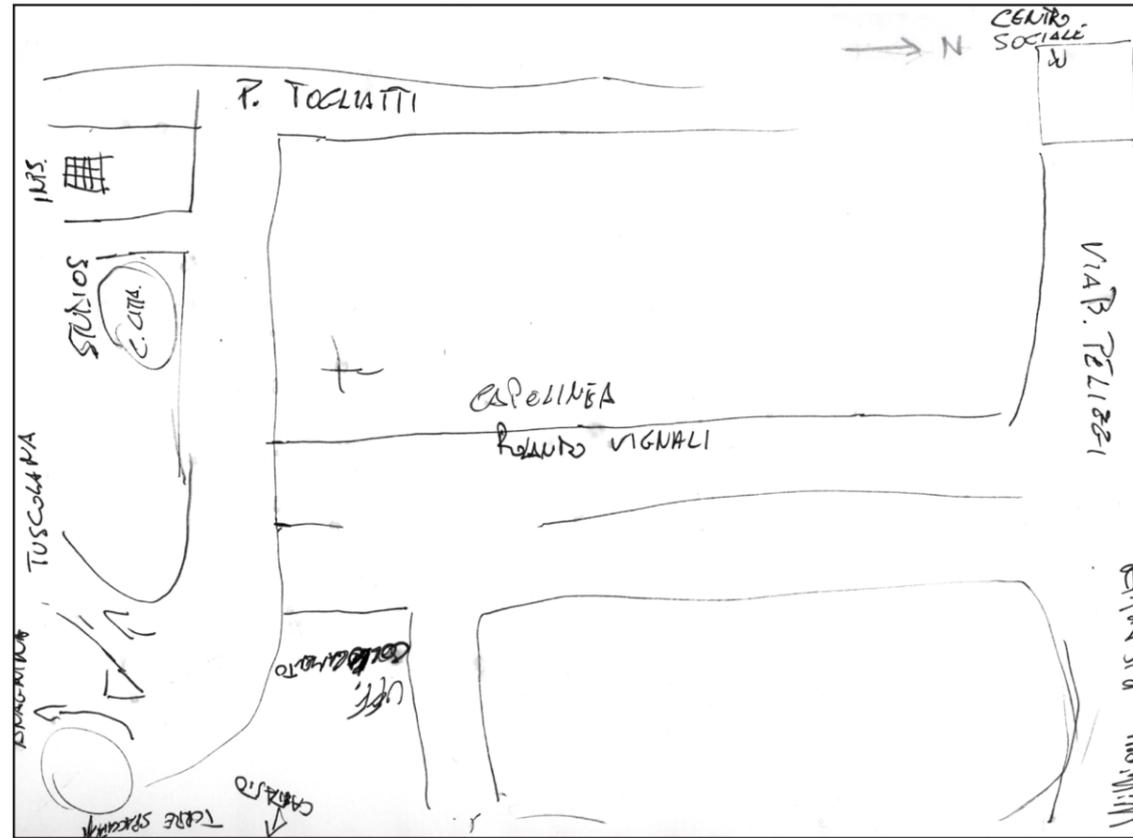


Figure 7.16. Lynch Map by bus driver on Viale Rolando Vignali

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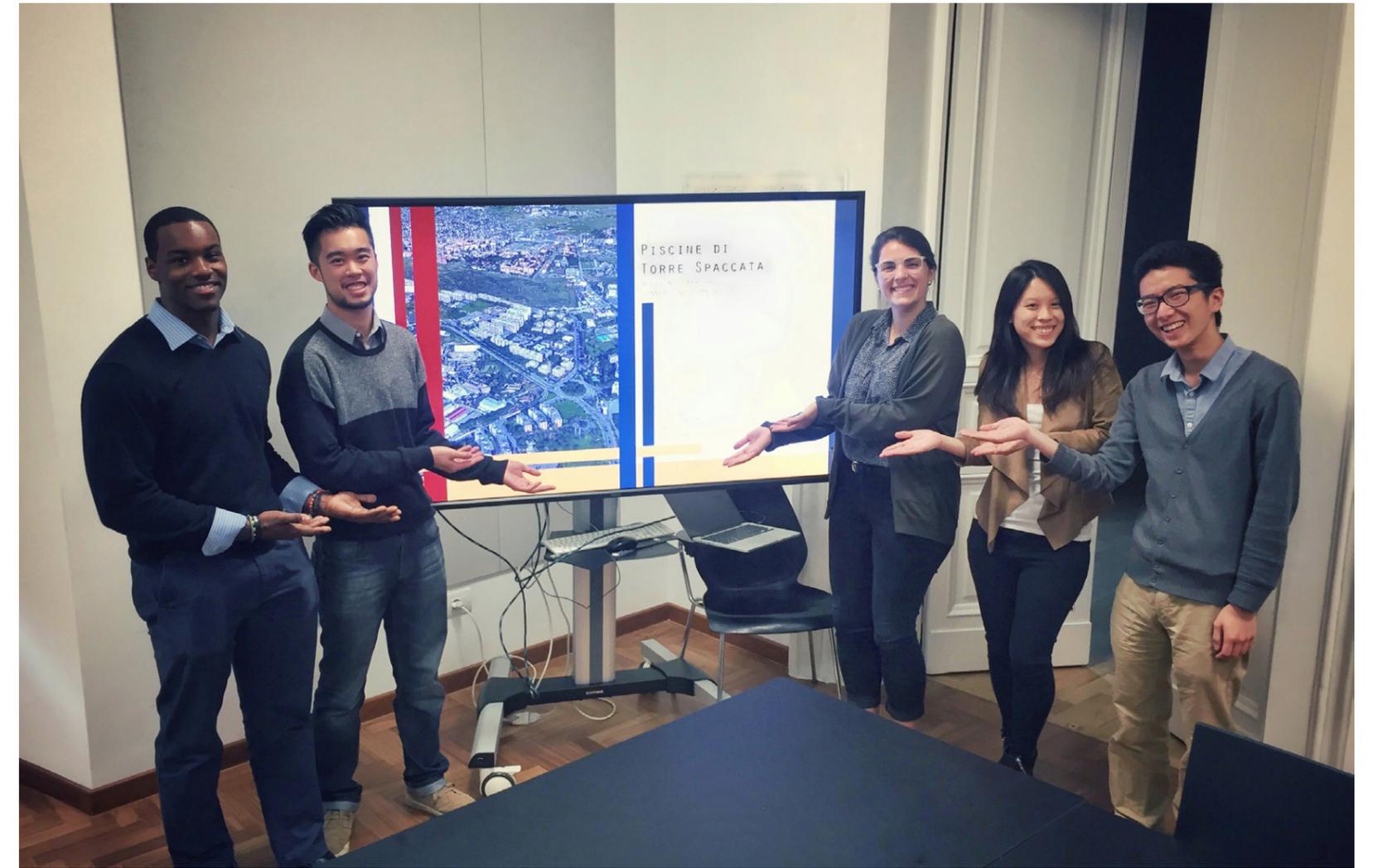
Courtesy Google Maps (pg. 3)

Courtesy of Calvin Kuang (figure 4.30, 4.34)

Courtesy of Cheryl Kuo (pg. 7, 14, 49, 79; figure 2.4, 2.7-11, 2.14-15, 2.17, 4.27-29, 4.31-33, 4.42-43, 6.6-8, 6.14, 6.24)

Courtesy of Molly Muoio (pg. 27; figure 4.26)

Courtesy of William Wong (figure 6.5)



From left to right: Gaylord Minett, Calvin Kuang, Molly Muoio, Cheryl Kuo, William Wong