



REGREENERATION

CONNECTIVITY IN
TWO NEIGHBORHOODS

TIBURTINO III & COLLI ANIENE

2015

Peter Duba, Emma Guida, Imani Jasper,
Caelyn Kwak, Kyra Spotte-Smith

TIBURTINO III & COLLI ANIENE

I WOKE UP IN A NEW BORGATA:

The transformation of two peripheral neighborhoods from Fascism to the Present

Peter Duba, Emma Guida, Imani Jasper, Kaeun Kwak, Kyra Spotte-Smith

CRP 4160: Rome Workshop

Cornell University Rome Program

College of Architecture, Art, and Planning

Spring 2015

Course Instructors

Rome Faculty:

Greg Smith, D.Phil., Visiting Critic

Carlotta Fioretti, PhD, Visiting Critic

Viviana Andriola, PhD, Teaching Assistant

Serena Muccitelli, ABD, Teaching Assistant

Ithaca Faculty:

Tom Campanella, Professor

Mildred Warner, Professor

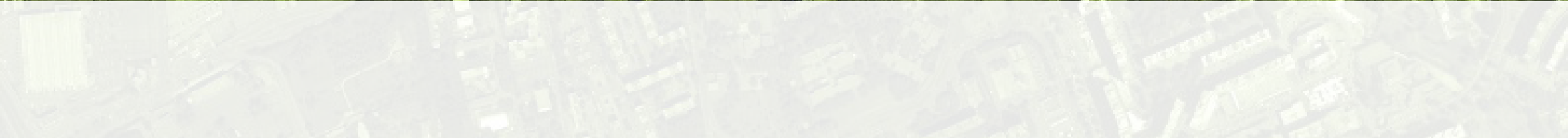
Table of Contents

Analysis

I. Overview	4
II. History	13
III. Methodology	19
IV. Typologies	25
V. Statistical Analysis	41
VI. Interviews	49
VII. SWOT Analysis	57

Proposal

I. Introduction	65
II. Policy Proposal	70
III. Design Proposal	72
IV. Case Studies	80
V. References	86
VI. Credits	87



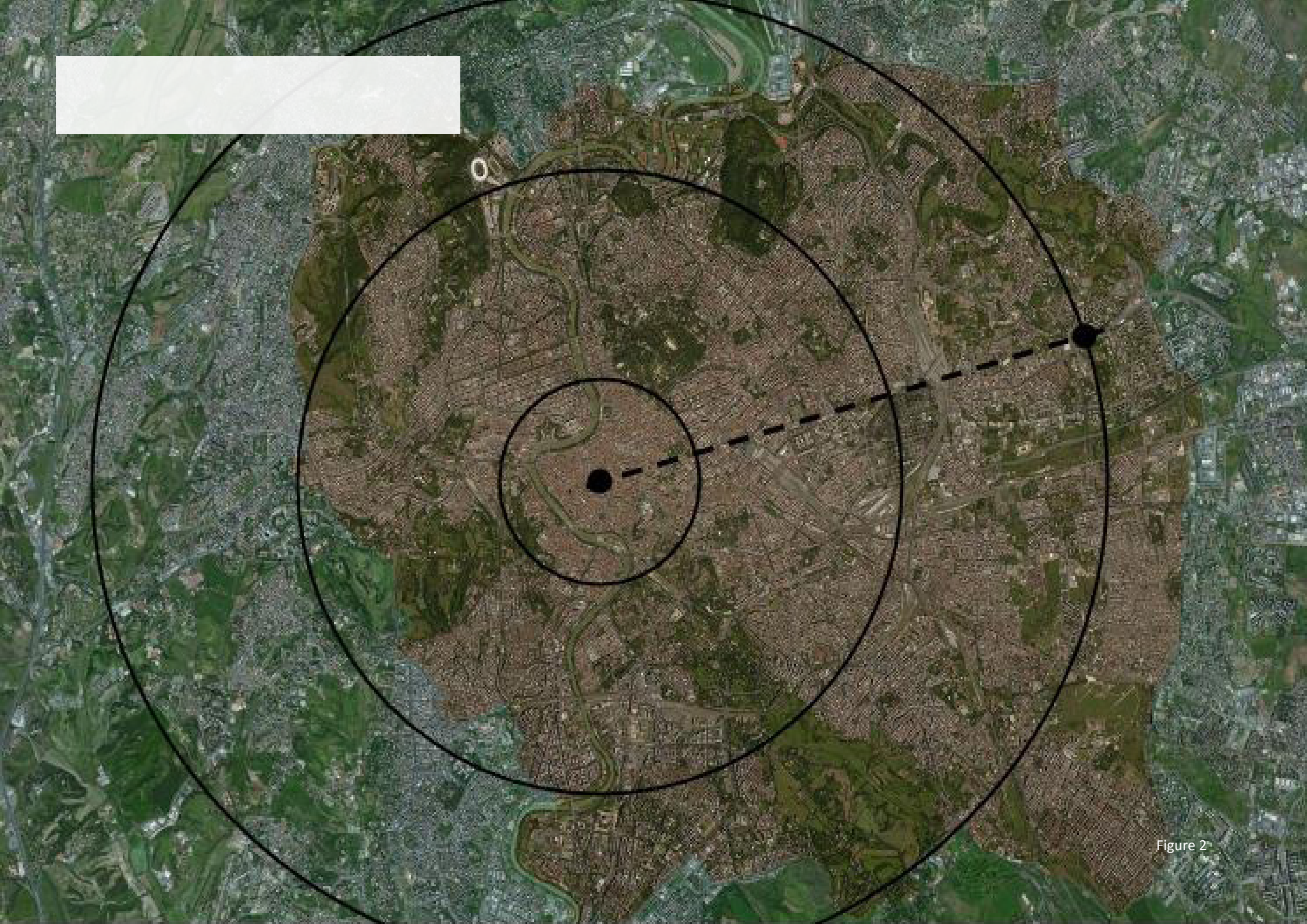


Figure 2



Bologna

Tiburtina
Station

Pietralata

Via Tiburtina

Autostra dei Parchi

Tiburtino III

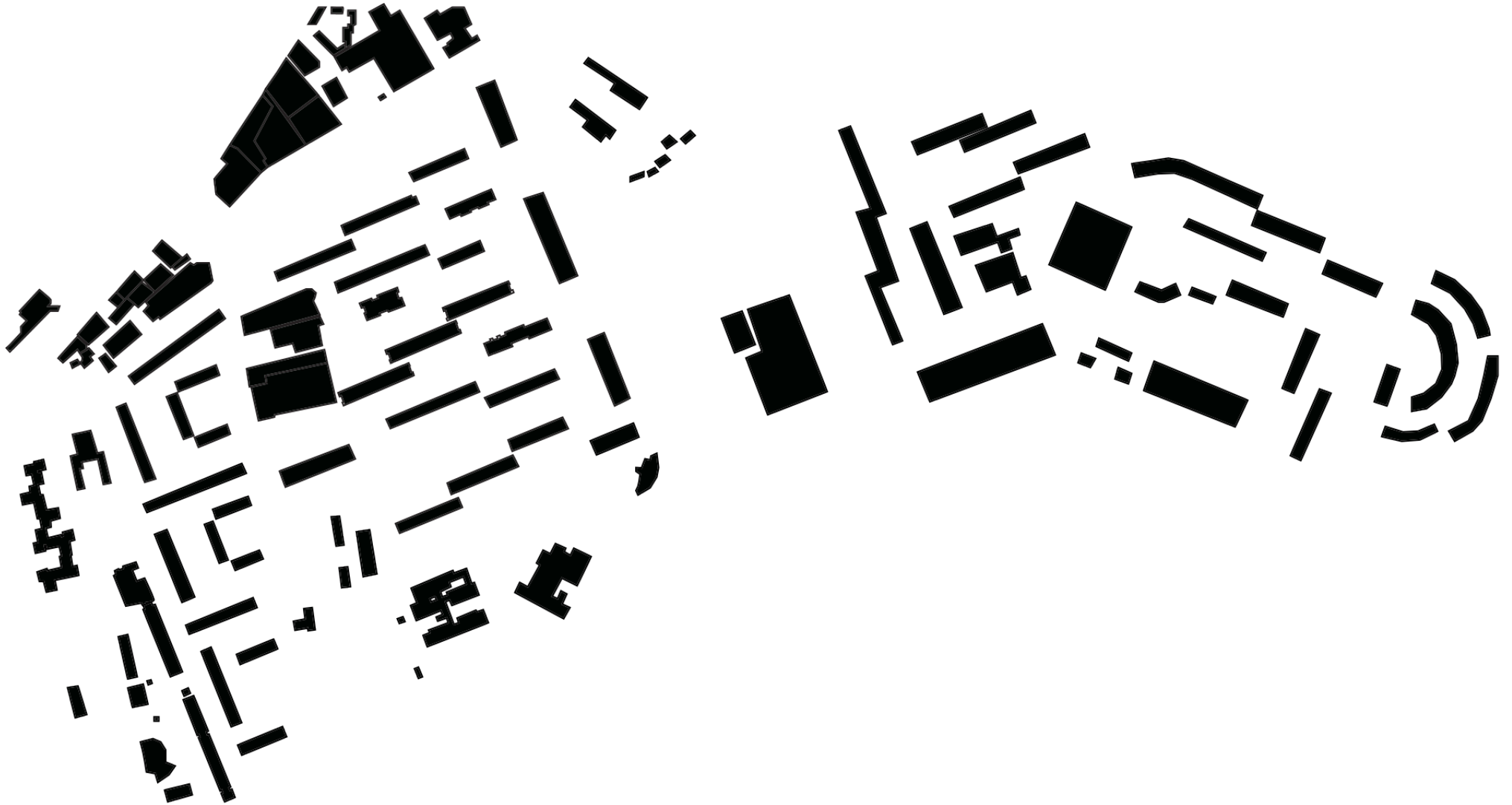
Cervolletta

Figure 3



Figure 4

FIGURE GROUND





Introduction

Our primary study area consists of the neighborhoods Tiburtino III and Colli Aniene. It is bordered by Via Tiburtina on the north, Via Frantoio on the west, Via della Vanga on the south, and Viale Palmiro Togliatti on the east - which also serves as the western border of our secondary area. Our secondary area is entirely Colli Aniene,

and is bordered by Via Fernando Santi on the south and the nature preserve Cervelletta on the northeast. We selected both neighborhoods for our primary study area because they were both constrained into the same physical space by major roads, and because of the historic pattern of development that linked the two neighborhoods.

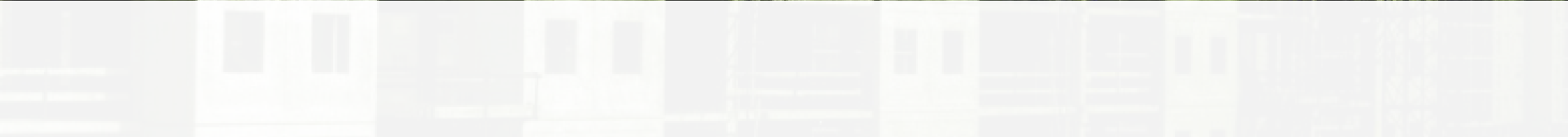
We examined the physical construction of the study area by analyzing its street typology, building typology and land use patterns, which we did by surveying and mapping the streets and buildings of Tiburtino III and Colli Aniene. We utilized ISTAT data to achieve an in-depth analysis of our study area by census tract and neighborhood, which we contrasted to data for Rome as a whole. The interviews conducted by our group and the Lynch maps we obtained from our interviewees provide insight into the neighborhood from the resident perspective. This serves as a valuable contrast to purely statistical or scientific information obtained outside of the field.

These citizen interviews, in conjunction with our SWOT analysis, helped us focus our vision as to what the future of Tiburtino III could be and how the neighborhood could get there. The story that follows is one of two neighborhoods very much divided, but not necessarily at odds. Our analysis concludes that the residents feel this difference, but in most cases there is no additional animosity. Tiburtino III and Colli Aniene tell a story of birth, growth, decay, and redevelopment, experienced both together and separately. Their legacy of activism and community engagement has been alive for many years, and is one that we hope will continue to thrive.

“Se mai la vita del Tiburtino III dovesse venir minacciata, se qualcuno tentasse di minare le fondamenta sociali e umane di questo luogo un tempo così infinitamente lontano da Roma, allora tutti sarebbero pronti a schierarsi compatti per difendere e lottare in nome dei loro diritti.”

“If ever the life of Tiburtino III was threatened, if ever the fundamental society and humanity of this place so far from Rome was undermined, then everyone would prepare to organize together to defend and fight in the name of their rights.”

- Tiburtino III Archival Sources



Timeline

Figure 6



Piano Regolatore approved for Rome, calling for the demolition of Tiburtino III's old lots and the reconstruction of the neighborhood

Constuction of Fascist *borgate* in Rome

1924

Architect Giuseppe Niccolosi's initial plan for Tiburtino III completed, consisting of 17 apartment buildings

1950

1965

1936

1962

Tiburtino III created as a *borgata*; original residents displaced from the center city

Italian Law 167 authorizes local authorities to purchase large tracts of land for social housing, known as PEEPs (*Piano di Edilizia Economica e Popolare*)



Figure 9

Figure 7



First building of Colli Aniene completed, established as a construction cooperative legalized by Law 167

Figure 8



Piano Regolatore demolition and reconstruction finished; current neighborhood realized

1972

1987

1970

1980

2009

Neighborhood organizations and sense of community grows, especially in response to immigration influx and widespread drug use

Tiburtino III connected to Metro B line at Santa Maria del Soccorso



Figure 10

Vaccheria in Colli Aniene repurposed as neighborhood library



Figure 11



Figure 12

Tiburtino III started as one of Rome's initial borgate created under Mussolini's Fascism. The neighborhood was formed in 1936 on the eastern edge of Rome, housing residents displaced from the center city. Giuseppe Nicolosi, a popular architect of Rome's borgate in the era, designed the district; it initially held eight lots, each consisting of a 1-2 floor apartment building housing multiple families. By 1950 Tiburtino III had grown to 17 lots, and the neighborhood had begun to form its distinctive character.

Although the Fascist presence was strong during Tiburtino III's early years, the residents leaned towards Communism - a trend that is still alive today. Such political cohesion fostered a strong social character, manifested in the creation of essential services early on, resources that would not have been provided to the borgata without community interference. These included an elementary school in 1939 and church the year after. Later, citizens would establish a library, nursery school, centro anziani, parish choir, and group of blood donors. Even today, the residents of Tiburtino III take great pride their neighborhood's initial efforts to overcome neglect, isolation, and the poor living conditions it faced in its early years.

“Tiburtino III's last seventy years have been full of solidarity, resistance, and small but important battles.”

- Tiburtino III Archival Sources

These efforts are most visible today in the current facade of the neighborhood. The apartment buildings that exist today belong to both ATER (Azienda Territoriale per l'Edilizia Residenziale del Comune di ROMA), a regional public housing agency, and Rome's municipal housing authority (Comune di Roma). These buildings were constructed to replace the initial apartments built under Fascism. After many years of denouncing their deplorable living conditions, in the 1960s the citizens' complaints were recognized. The first of Tiburtino III's original lots was demolished in 1967, and by 1987 the current neighborhood was completed - with the original inhabitants retaining the right to live there.

The latter half of the 20th century was a period of great change for the area. In 1972, the first building of Colli Aniene, a neighboring district, was completed. Colli Aniene was the product of Law 167 (Social Housing Act) passed in 1962, allowing local authorities to purchase large tracts of land for social and low cost housing. Thus, the area was purchased by a cooperative of construction workers, still making up the dominant inhabitants today. The current neighborhood of Colli Aniene was developed from land previously used for agricultural purposes and inhabited primarily by farmers. It is named for its proximity



Figure 13

to the Aniene River, and for the Italian word for “hill”, referring to its natural marshy and hilly state. The initial cooperative apartments were built in the 1970s, and later in the 1990s more private housing was built - this time out of red brick distinctive for the area.

Due in large part to the distinction between Colli Aniene’s mainly private, cooperative housing and Tiburtino III’s public housing, the two neighborhoods developed separate identities without having an overwhelming sense of animosity. Colli Aniene was referred to as a “perioni”, or high class neighborhood (although it does contain some public housing) amongst its residents, while Tiburtino III embraced and touted its history of public housing.

Along with the introduction of Colli Aniene, Tiburtino III saw many changes in the 1970s and '80s. Neighborhood organizations and sense of community strengthened, particularly in response to threats from the outside. The area experienced a large influx of African - especially Libyan - immigrants,

“Un quartiere ricco di parchi e giardini e a cui non mancano i servizi essenziali, commerciali e culturali.”

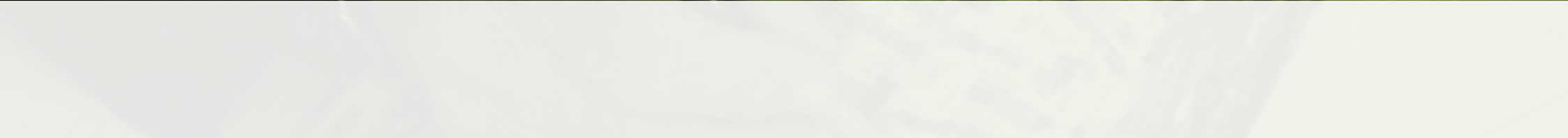
“A neighborhood rich in parks and gardens which is not lacking essential services, both commercial and cultural.”

- Antonio Barcella, Colli Aniene resident

which led to the formation of a refugee center for women and children that is still active today (La Tenta). During the same time period Rome as a whole experienced drug problems, and Tiburtino III was particularly affected.

Thus, Tiburtino III emerged as one of the first neighborhoods to fight against gangs such as the Banda Magliana. This period of conflict and resolution helped define the nature of Tiburtino III today, especially in terms of recognizing the strong role of women in the neighborhood, who were the main players in battling drug organizations and fostering immigrant institutions.

In 1980 Tiburtino III was connected to the Metro B line at Santa Maria del Soccorso, a change which brought about greatly improved citizen accessibility and participation in Rome as a whole. The same year saw more local developments as well, such as the Centro Anziani, a group of blood donors, and a parish choir. Tiburtino III and Colli Aniene have continued to develop since, including successful citizen efforts in mobilizing the government to re-purpose an old Vaccheria (dairy farm) into a highly effective library in 2009.





Map 3

METHODOLOGY:

After initially surveying our neighborhood on foot and making observations, as well as by examining the area on the map, we were able to isolate a primary and a secondary area of study. Our primary area comprises Tiburtino III and includes a portion of Colli Aniene. Our secondary area continues into Colli Aniene. We then conducted research using four main methods: street surveys, interviews and Lynch Maps, statistical analysis, and SWOT analysis. This enabled us to collect data in order to understand and characterize our neighborhood.

STREET SURVEYS:

Our team conducted street surveys between February 19th and March 3rd, 2015. In doing so, the five members of our team methodically sectioned off the streets and surveyed them using consistent observation methods.

We began by recording the date, time, weather conditions, and street name. Next, we described the street typology. We classified each street as primary, secondary, or tertiary and recorded any important details or features. We also documented the nature of the sidewalks adjacent to each surveyed street, observing their material, relative width, and any distinguishing features. Classifications of both streets and sidewalks also included state of repair and maintenance. Further, our team observed the presence of car and motorcycle parking spaces on each street. This included the presence of painted on-street parking spaces and/or parking lots that connected to the street. Additional observations noted the presence of trees, shrubbery, green spaces, and other public spaces or notable features on the street.

After documenting the characteristics of the streets and sidewalks themselves, we observed the traffic intensity, classified as light, medium, or heavy. We also classified noise level as low, medium, or high, and noted the noise source(s). Additionally,, we described the presence of people for each street surveyed, taking note of their locations and actions.

Our team then documented the building typologies found on each street. Observations included, but were not limited to, the type of use (e.g. residential, commercial, manufacturing, etc.), the number of floors, an estimation of the age or architectural style of the building, state of maintenance, and indications of vacancy. We also noted the types of shops found on each street. In classifying and describing the building typologies, we consulted and utilized Italian building types. The classifications relevant to Tiburtino III and Colli Aniene were palazzine, casa a blocco, and torre. Our street survey process concluded by reflecting on our observations of each street and noting areas of lost space and other possible areas where improvements could be made to create a more thriving environment.

Figure 15



INTERVIEWS & LYNCH MAP:

With the help of the Professors or Teaching Assistant (TA) who accompanied us to the field, our team conducted a series of interviews with residents and other members of the community. In addition to formal interviews, we talked with people on the street and baristas in neighborhood bars, recording the names, genders, nationalities, and relative ages of subjects. In most cases, interviews were translated to English. This leaves the possibility that some of the quality and detail of our interviewees' responses were lost in translation. However, this was minimized with the assistance of the Professors and TAs, all of whom are fluent.

We prepared a series of questions and topics to discuss in our interviews, which we also translated into Italian. Interviews were comprised of asking the interviewee about his or her personal experience living in Tiburtino III or Colli Aniene, the social conditions and sense of community in the neighborhood, transportation options, immigration, the public space and its usage, and suggestions for improvements. We also asked them to classify the building typologies in their own words

Interviews were conducted on citizens of various ages, genders, affiliations, and backgrounds, which allowed us to gather a perspective on Tiburtino III and Colli Aniene and on how their respective residents felt about where they lived. Some of our interviewees had lived in the neighborhood for the majority of their lives, and were able to give insight into Tiburtino III's history and how it has changed over the years. We documented interviews by taking photographs and writing notes.

At the end of many interviews, we asked our interviewees to draw Lynch Maps of the neighborhood, which entails drawing a mental map of an area. The technique was developed by Kevin Lynch, who studied how people perceive their urban environments and suggested how urban design can respond to these perceptions. Lynch speculated that people's perceptions of their environment are broken down into five elements: paths, edges, districts, nodes, and landmarks. (Lynch 1960). We did not use scientific terms in asking citizens to draw Lynch Maps. We explained that we were asking them to draw from memory a map of the neighborhood, assuring them that it did not have to be at all drawn to scale. We explained to our interviewees that they should draw and label the major roads and boundaries of Tiburtino III and Colli Aniene, the major landmarks (including schools, meeting and recreational places, etc.), and discuss the paths they took to get from one locale to another.

STATISTICAL ANALYSIS:

Using the ISTAT data, our team collected information from Rome's censuses from 2001 and 2011. This contained data on population, immigration, housing, labor, and gender. We began by selecting specific categories for analysis, which were population dynamics, employment, education, immigration, and housing. We looked at this data and compared our neighborhood to the statistics of Rome as a whole. We also drew statistical comparisons between the two neighborhoods, Tiburtino III and Colli Aniene. Unfortunately, the Italian census data does not include income data, so we inferred about social class by examining data on education and occupation.

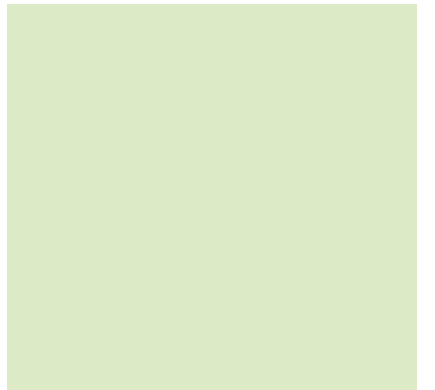
We used Microsoft Excel and ArcGIS to analyze the data. For housing and immigration data analyses, we used ISTAT data from the 2001 census. For all other analyses, our team utilized 2011 ISTAT data. Based on this, we made descriptive observations about the study area, which helped us to move forward in determining exactly what the neighborhood has and lacks. We then created graphs and charts to accurately represent both the data and the neighborhoods. We made several maps of the area, including maps that were periodized, allowing us to see the evolution of the social, environmental, and economic conditions of Tiburtino III and Colli Aniene over time.



Figure 16

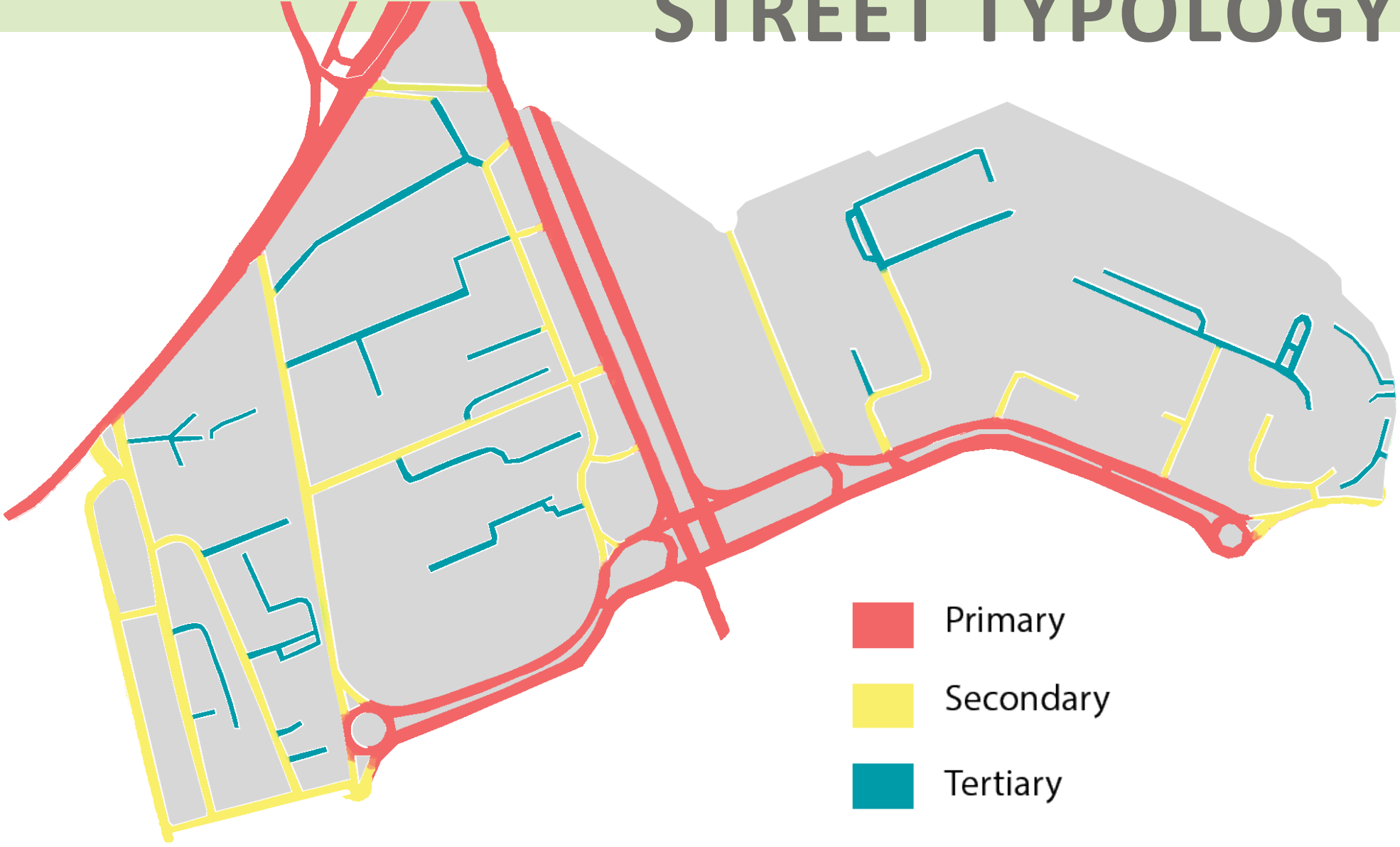
SWOT ANALYSIS

Following conducting research using our three methods of street surveys, citizen interviews and Lynch Maps, and statistical analysis, our team conducted SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis based on our compiled findings. By examining the Strengths, Weaknesses, Opportunities, and Threats faced by our areas of study, we were then able to move forward to better focus on the areas for our policy recommendations. In formulating these policy recommendations, our team conducted further research by examining case studies and urban planning theories as sources of insight as to what policies would best fit Tiburtino III to enhance the neighborhood. Our policy recommendations fall under three main themes: Urban Agriculture and Greenspace, Transportation, and Club Structure.





STREET TYPOLOGY





Primary

Primary streets are characterized as wide, having two-lanes, typically heavy traffic, and providing access to major highways leading out of the neighborhood. primary streets are primarily ways to enter or exit the neighborhood.

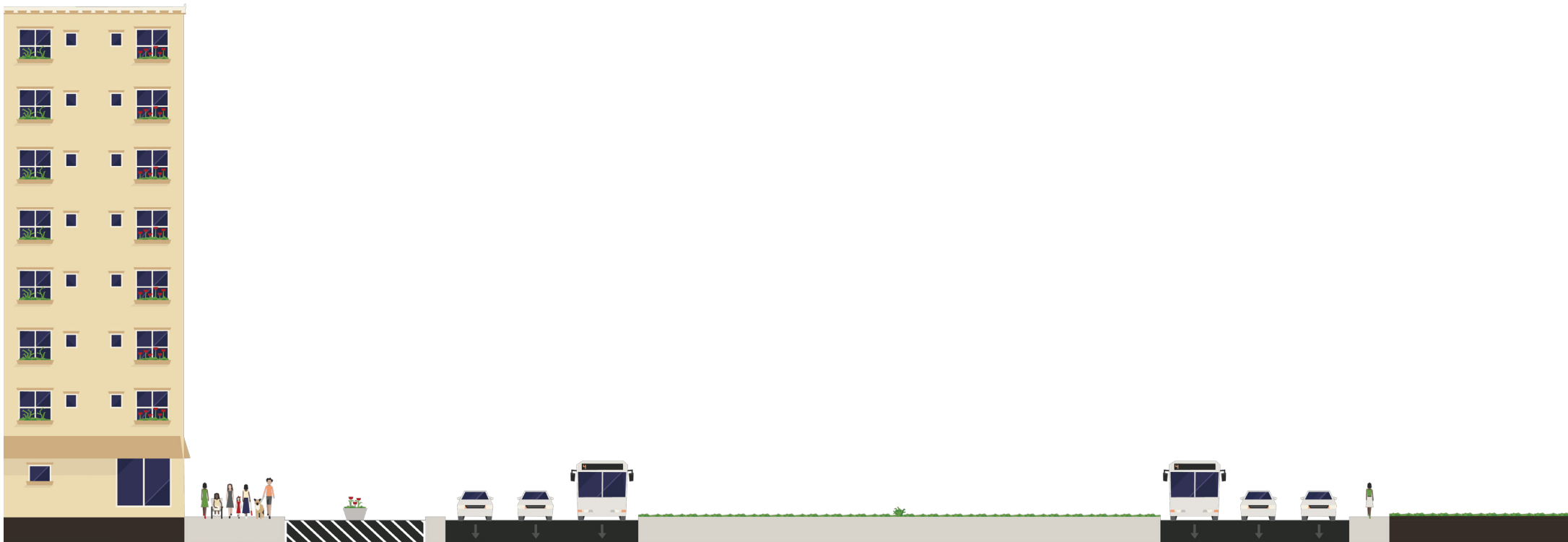


Figure 18

Secondary

Secondary streets connect primary to tertiary streets, therefore providing a means to reach the interior of the neighborhood. They are one-way, have medium traffic activity, and generally provide on-street parking, although they do not always have drawn-on spaces. Secondary streets serve a more utilitarian purpose.



Figure 19

Tertiary

Tertiary streets serve as access networks within the neighborhoods, and are narrow, usually without (legal) on street parking, and light-medium traffic. They are, however, characterized by high pedestrian traffic - this distinguishes them from primary streets and many secondary streets. Tertiary streets function as spaces of socialization and accessibility for residents.

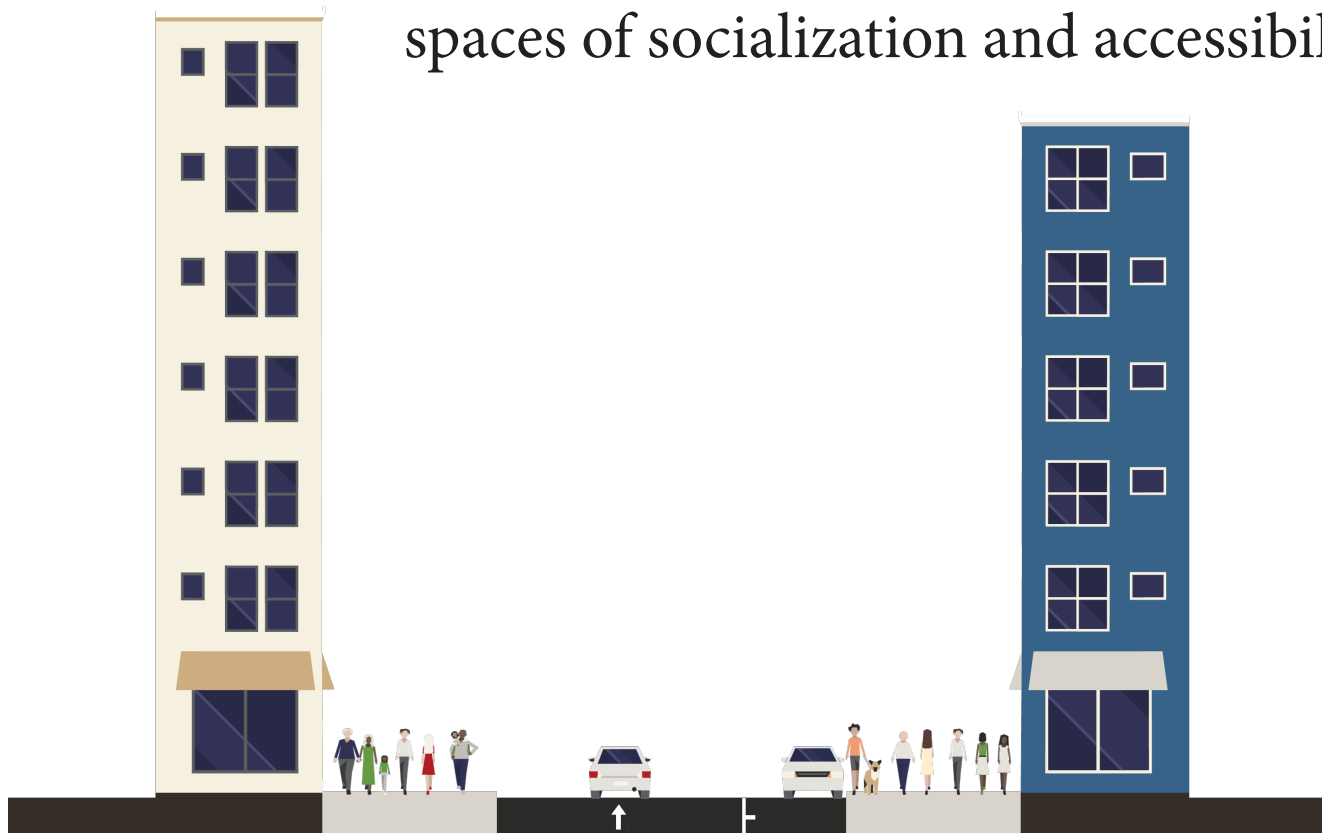
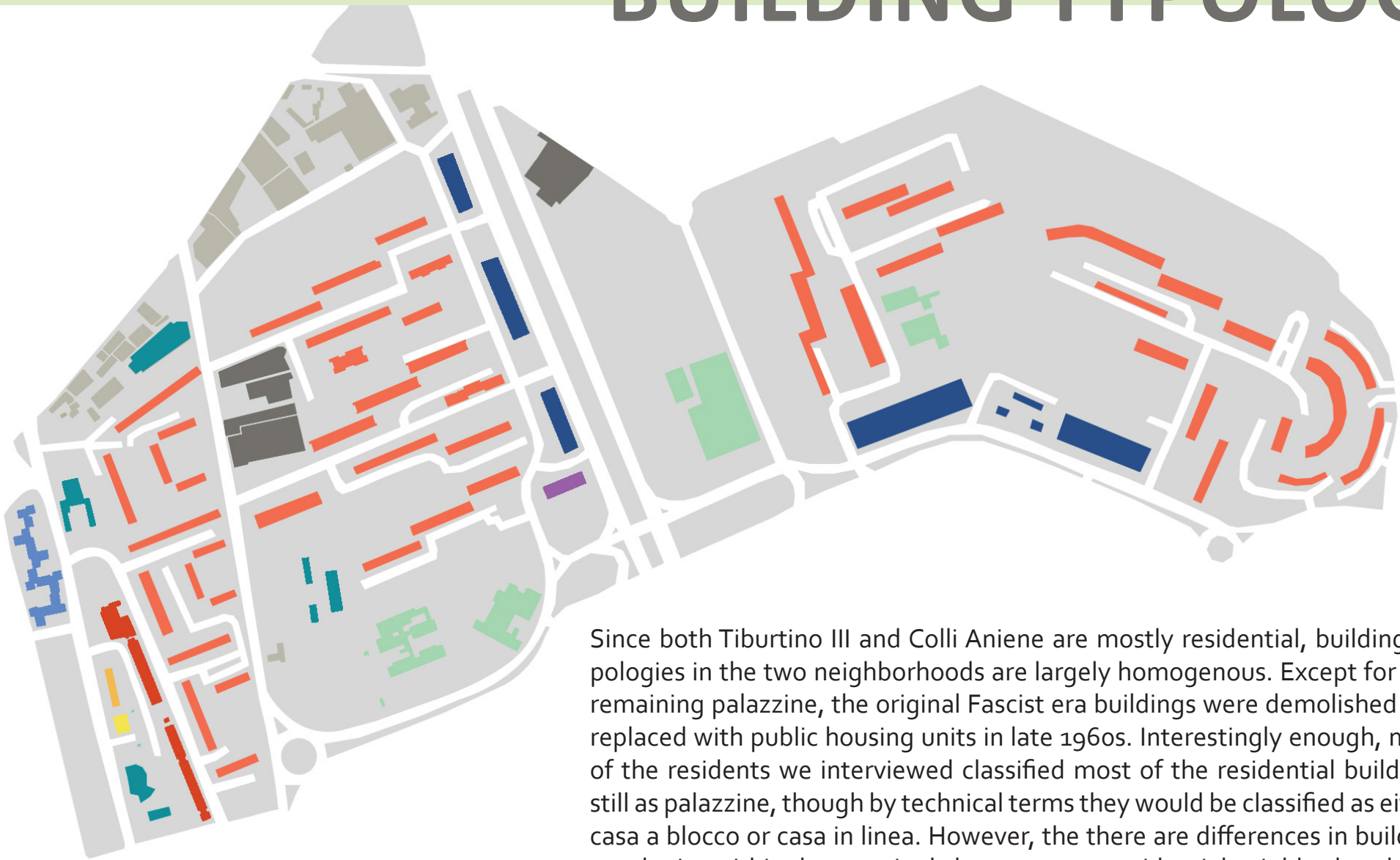


Figure 20

BUILDING TYPOLOGY



Since both Tiburtino III and Colli Aniene are mostly residential, building typologies in the two neighborhoods are largely homogenous. Except for two remaining palazzine, the original Fascist era buildings were demolished and replaced with public housing units in late 1960s. Interestingly enough, most of the residents we interviewed classified most of the residential buildings still as palazzine, though by technical terms they would be classified as either casa a blocco or casa in linea. However, there are differences in building typologies within the seemingly homogenous residential neighborhood.

PALAZZINE

Types A and B are the palazzine preserved from the original development of Tiburtino III as a Fascist borgata.

Type A

Type A is used to describe 4-story residential palazzine and Type B describes 4-story mixed-use palazzine.

Type B

In Type B buildings, commercial stores are located on the ground floor. The ground floor, in this case, is located below the street level. This is because the road was covered with cement after the building was built probably during redevelopment of Tiburtino III in 1970s. There also are porticos to hold up the terrace on first floor. The first through third floors are residential.

CASA IN LINEA

Most of the other residential buildings are classified as Type C, 8 – 9-story casa in linea. Residents call these buildings palazzine; however, building characteristics, such as having two apartments per floor along a staircase suggests that they are casa in linea. In our neighborhood, two to five buildings of this nature are aligned in a row. Most have long windows along the front facade of the building with little veranda. Two to three of these casa in linea form a complex with a garden and other greenery at the center. Additionally, some private casa in linea have fences around the complex.

Type C

6-story mixed use casa in linea. Ground floor is occupied by commercial stores and the rest is residential apartments.

Type D

12-story casa in linea, is a variation of typical casa in linea. While most of casa in linea has 6-9 stories, this building has 12 stories.

Type E

BLOCCO

Type F and G are casa a blocco. Blocche usually have a central staircase surrounded by and four apartments.

Type F Residential, 4-story casa a blocco. Type F buildings have open ground floors. The 21 blocks are irregularly connected, forming a particular shape as a apartment complex.

Type G 6-8 story mixed-use blocche. The ground floor, mostly with higher ceilings and porticoes for pedestrians, has commercial uses. The first and second floors are used as office space and the floors above these are residential.

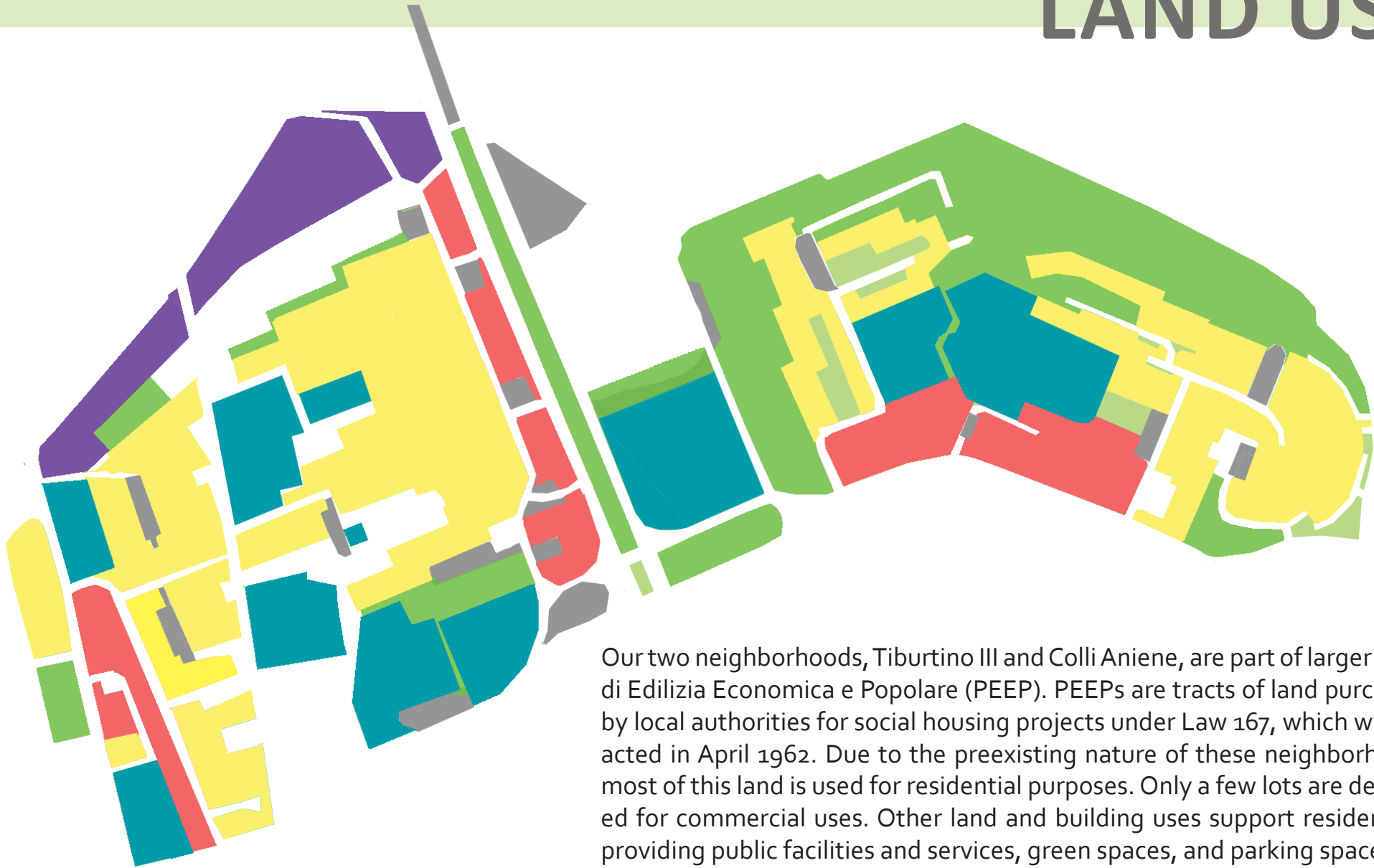
Type H Type H describes one-story buildings atypical to the aforementioned building typologies. This atypical nature corresponds to land use. These buildings in our study area are public facility buildings, such as the Centro Anziani, Chiesa Parrocchia Santa Maria del Soccorso, a library, and an ice rink.

Type J 2-story buildings of institutional use. These include a primary school and a research institution.

Type I 1-2-story commercial warehouses. The land use and building materials differ from the aforementioned building typologies.

Type K Type K describes parking garages.

LAND USE



Our two neighborhoods, Tiburtino III and Colli Aniene, are part of larger Piano di Edilizia Economica e Popolare (PEEP). PEEPs are tracts of land purchased by local authorities for social housing projects under Law 167, which was enacted in April 1962. Due to the preexisting nature of these neighborhoods, most of this land is used for residential purposes. Only a few lots are dedicated for commercial uses. Other land and building uses support residents by providing public facilities and services, green spaces, and parking spaces.

Residential

Many of the residential housing units are in close proximity to each other, forming a complex. Complexes usually have greenspace and parking spaces allotted in the middle of complex and around buildings.

Public housing

Residential buildings occupy the entire block between Via Grotta di Gregna and Via Gennaro Cassiani. In the case of Tiburtino III, most of the housing units are owned by Roma Capitale.

Cooperative housing

A similar land use pattern is found in Colli Aniene. All of the land uses east of Via Francesco Compagna are residential except for one school (Liceo Scientifico Statale Benedetto Croce), and three mixed-use buildings along the southern border. Unlike the state-owned public housing of Tiburtino III, most of Colli Aniene is cooperatively owned.

Mixed Use

Most of the mixed-use buildings are located along primary streets such as Via Palmiro Togliatti and Viale Battista Bardanzellu. Except for one building in Via Mozart, mixed-use buildings in our study area were developed by private investors. However, since local authorities purchased the land that comprises our primary and secondary study areas to realize social housing projects, the mixed-use buildings are classified as cooperatives.

Commercial

Solely commercial uses are concentrated on the northern border of neighborhood, along Via Tiburtina. The buildings in this commercial area are primarily warehouses. Additionally, around this commercial area our team observed very few pedestrians and high auto-dependency, especially as compared to the rest of our study area.

Public Facilities and Services

Tiburtino III has one Catholic Church (Chiesa Parrocchia Santa Maria del Soccorso), one Centro Anziani, one library, and one comprehensive school. These facilities are well dispersed throughout the neighborhood, but are located in close enough proximity to be accessed by the residents. In Colli Aniene, there are both a comprehensive school (including middle and elementary) and a Liceo Scientifico (Science high school). The schools are public schools.

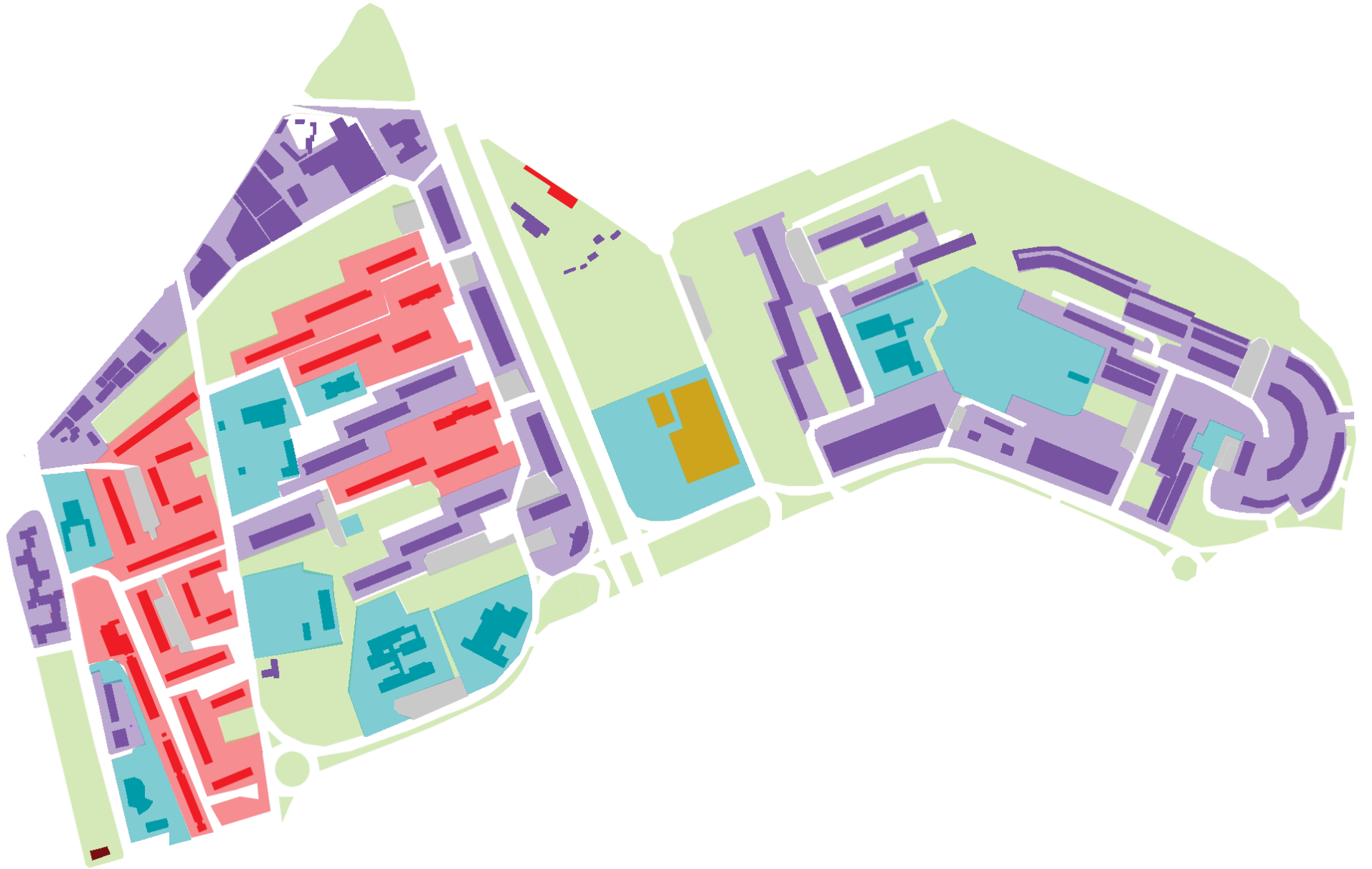
Greenspace

Although Tiburtino III's park is communal, land itself owned by ATER, it is surrounded by high metal fencing and can be entered through a number of gates, which remain open throughout the day. The large fences diminish the sense of the park's accessibility. Other green spaces are within the apartment complexes. In comparison to Tiburtino III, Colli Aniene has a higher quantity of green spaces, and also overall has better-maintained greenspace and other public spaces. However, most greenspaces and sports fields are located within the cooperative housing complexes, instilling a perception that they are exclusive spaces. Though there are no physical barriers, the spaces feel minimally permeable.

Parking Lot

Many paved areas are used for parking even where specific lines are not delineated. There are some parking lots, reflecting the auto-dependent nature of the residents.

OWNERSHIP



 ERP/Roma Capitale

These lots are owned by Roma Capitale.

 Public Facilities and Services

 Public Facility Buildings

These lots dedicated to public facilities and service buildings.

 A.T.E.R. Building

Located in the empty field right outside of Parco Tiburtino III, s is a only building owned by A.T.E.R in our study area.


 Public Garden

These lots are meant to be public and green.

 ERP/Roma Capitale Buildings

The buildings are owned by Roma Capitale.


 Cooperative

 Cooperative Buildings

These lots are cooperative, with cooperative housing and mixed-use buildings.

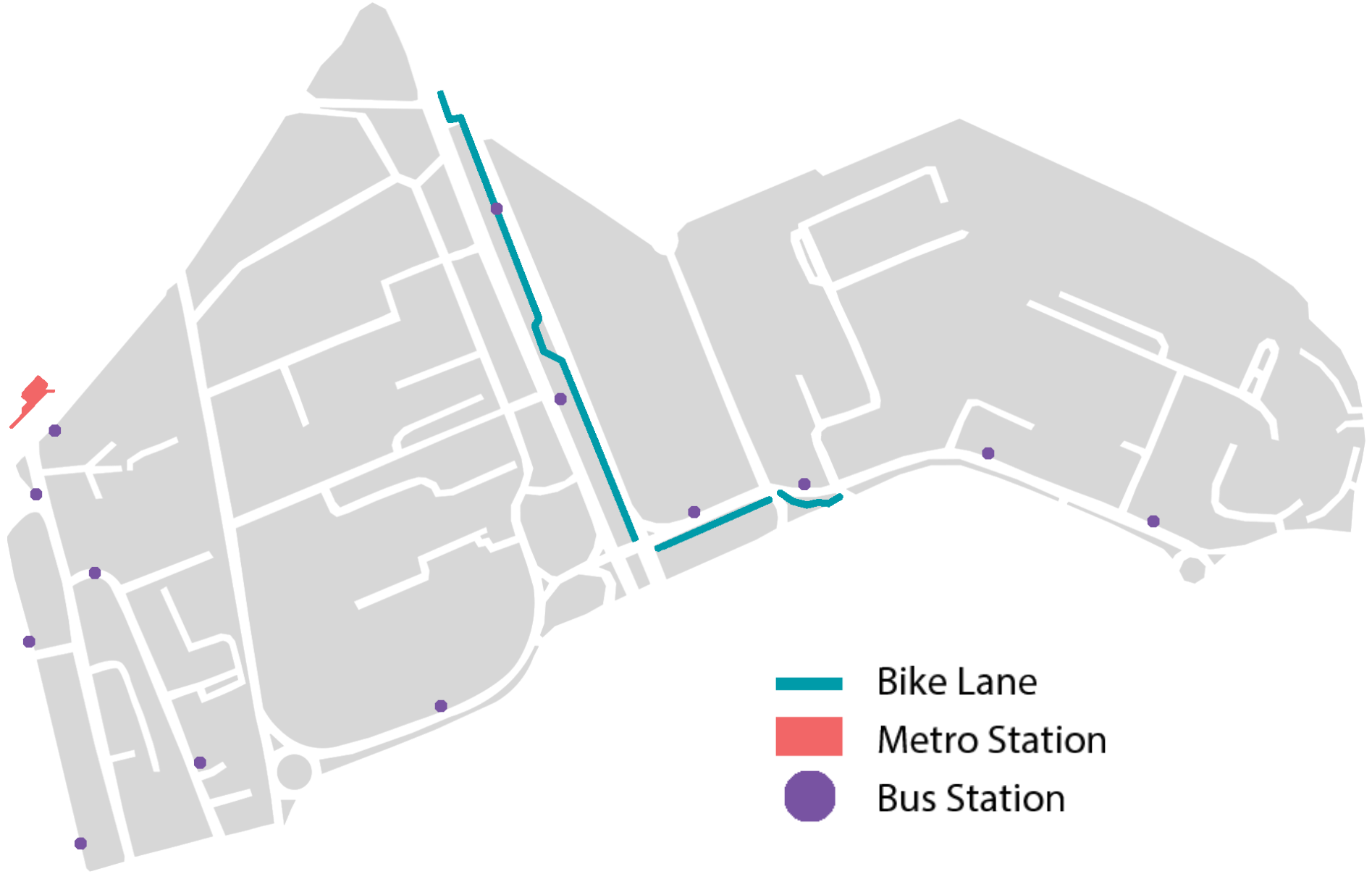
 Province of Rome

These lots are owned by province of Rome. The land where Scientifico Liceo stands is the only place owned by the province of Rome in our study area.

 Paved Area and Car Parking

These lots are paved and used as parking lots.

PUBLIC TRANSPORTATION



METRO

This map indicates the distribution of public transportation in our study area, which includes metro, the bus, and cycling resources. There is one metro stop, Santa Maria del Soccorso, on the far Northwestern edge of our primary area. It provides access to the Metro B line, which extends two more stops East to Rebibbia, or Southwest towards the center city, terminating at Laurentina. The metro is fairly heavily frequented, as it is the area's fastest and most efficient way to access the center city via public transportation. The train comes from each direction total of 187 times in weekdays, 134 times on Saturdays, and 121 times on Sundays.

BUS

Both Tiburtino III and Colli Aniene have multiple bus stops; the neighborhood is served by the 163, N2, 111F, 120F, 450, C5, 309, 450, 075, 319, 319, 451, 508, and N23 lines. This bus service provides largely encompassing accessibility within Rome. Buses in average have 109 rounds from each directions in weekdays and 60 rounds in weekends. They are distributed with higher frequency in rush hours. Night buses, on the other hand, are served once in every hour from 1am to 5am. It is even possible to take the 309, which extends into the edge of Colli Aniene, to the metro stop at Santa Maria del Soccorso. Buses are utilized by a wide range of demographic groups, and are seen running frequently.

BIKE

Although Tiburtino III and Colli Aniene have a fairly strong network of metro and bus accessibility, cycling paths are notably lacking. As shown on the map, there is a bike lane alongside the median at Viale Palmiro Togliatti, which extends two small streets East along Viale Fernando Santi. This is, however, the extent of cycling access in our study area - all of which is on the Colli Aniene side. The one lane in existence is severely under-utilized; judging from observation and interviews this seems to be a product of heavy reliance on automobiles combined with unsafe and ineffective placement of cycling lanes.



Figure 21



Figure 22



Figure 23

GREENSPACE

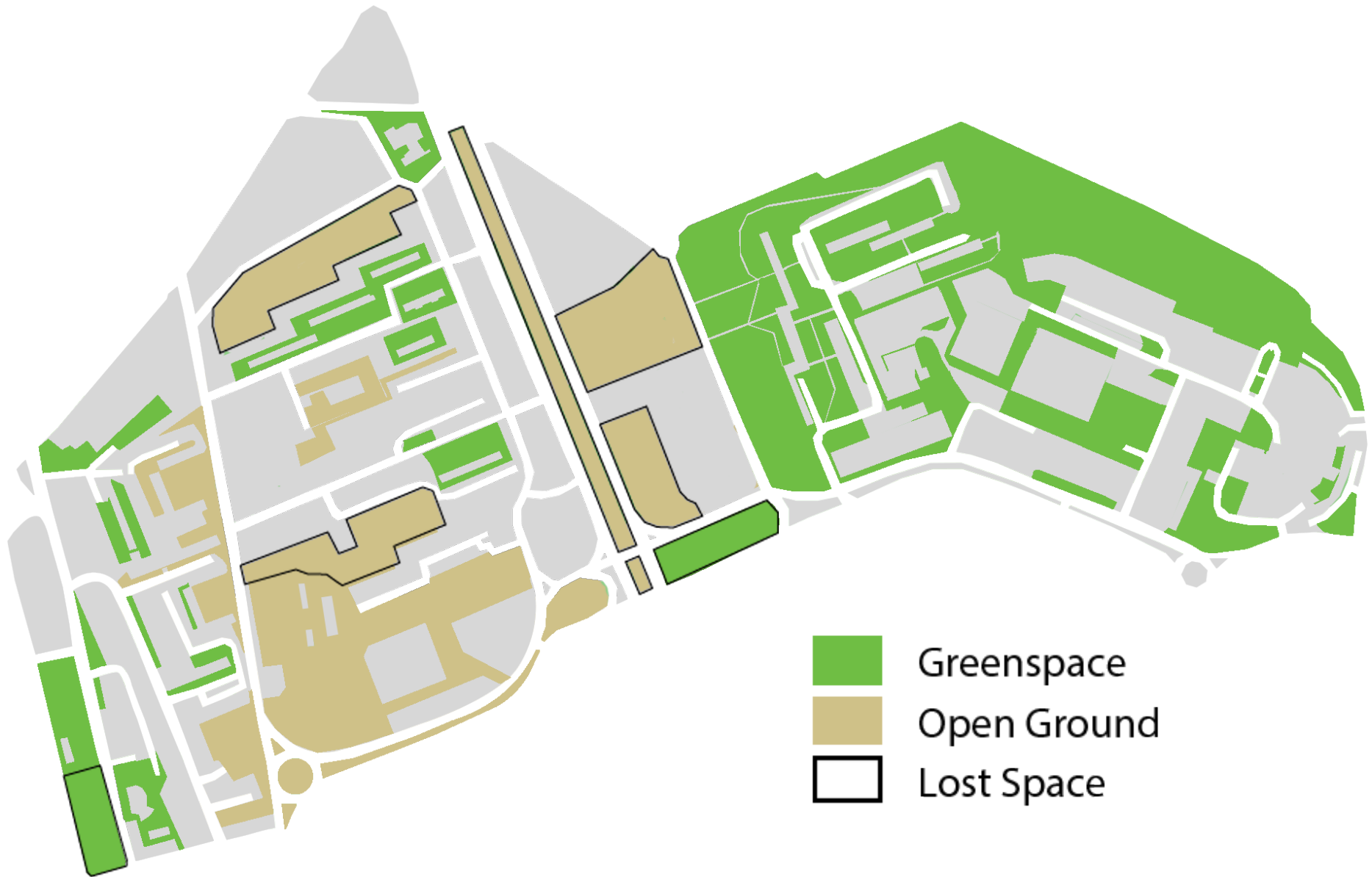




Figure 24

OPEN GROUND/LOST SPACE

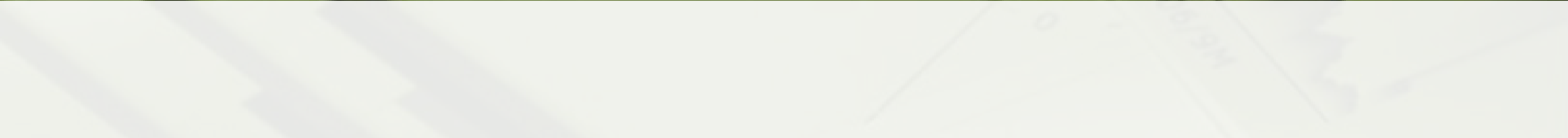
Our primary study area contains some greenspace for public use. Additionally, the secondary area borders Cervelletta Park, a wetland nature preserve with controlled access that is open to the public. There is also a smaller greenspace that was reclaimed by the neighborhood as a park in the 1970s. The large green space in Tiburtina III is a fenced off, unused space that is owned by ATER. Lost space in our study area can either be greenspace or open ground, the latter of which refers to spaces left open without greening.

The greenspace in Colli Aniene is more closely related to the casa in linea it borders. Colli Aniene has more greenspace than Tiburtino III, although in both neighborhoods the greenspace exists as islands, disconnected from other surrounding green areas. This is especially true of the median on Via Palmiro Togliatti, the boundary between the primary and secondary study areas. The median, while green and containing a bike path, is virtually unused, most likely due to its dangerous and inconvenient location.

Most of the lost space in our study area is in Colli Aniene. This lost space is unused because of the lack of connectivity between the green spaces.



Figure 25



GENERAL POPULATION STATISTICS

The total population of our primary and secondary area is 10,796. When broken down, the total population of our primary area is 6,201 residents, while the total population of the secondary area is 4,595 residents. Overall, compared to Rome, our primary area tends to be younger with only 9% of the population aged over 65, while in Rome 19% of the population is older than 65. This demonstrates the working class nature of the neighborhood. Over 75% of the area is between 15 and 65 years of age, the range usually considered ages of employment, as opposed to Rome, where only 68% of the population is of working age.

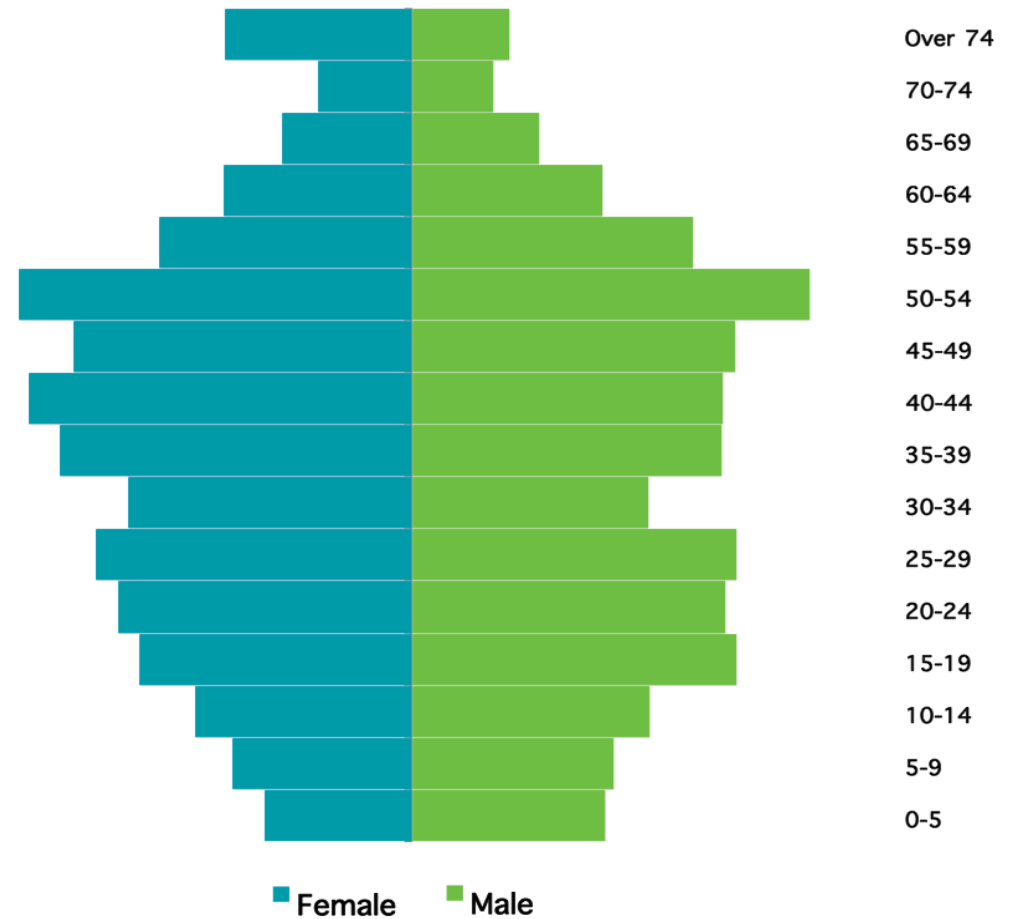
10,796



6,201



4,595

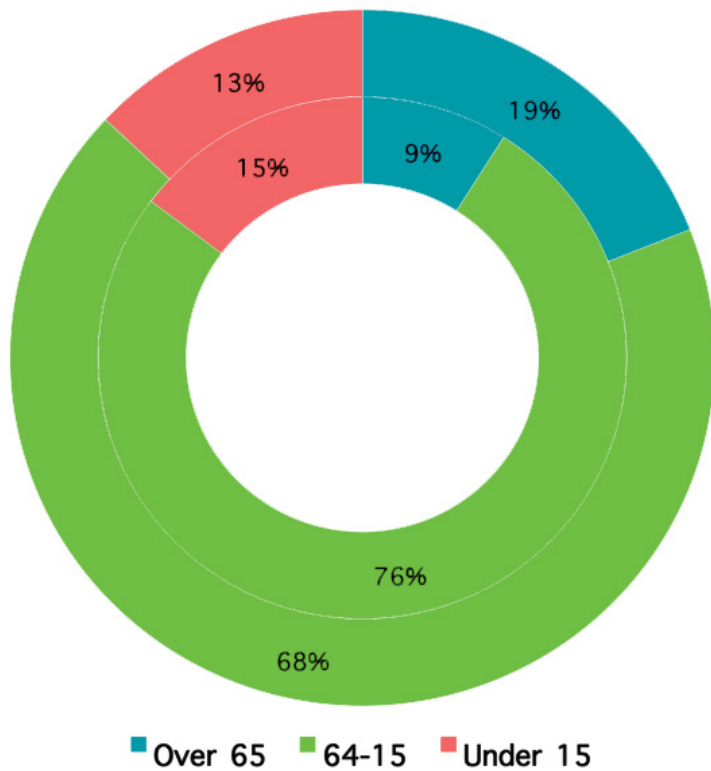


GENDER DISTRIBUTION
(Study area)

Figure 27

GENERAL POPULATION STATISTICS

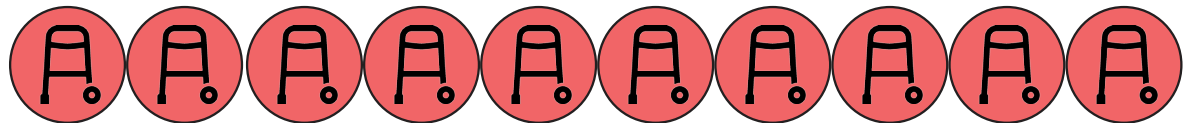
When looking at our primary and secondary areas side by side, our secondary area - comprised entirely of Colli Aniene - exhibits a greater proportion of residents within the working age. Families with one or more members in the workforce tend to delay having children, which is supported by the age demographics of the primary area, as it has both a greater percentage of older residents (21% of total population) as well as children (6% of total population). In general, our primary area tends to conform to the statistics of Rome overall, while our secondary area tends to have more working-age residents and fewer families.



STUDENTS: 9%



RETIREES: 10%



AGE DISTRIBUTION

Study area (inner rim) vs. Rome (outer rim)

Figure 28

WORKFORCE

Approximately half of the population of our total area is part of the workforce, with 5,088 individuals involved. With an unemployment rate of 9% and 6% of the population not actively seeking employment, our total study area has a higher employment rate than Rome, which has an 11% unemployment rate. However, this statistic is misleading when looking at the breakdown of our primary and secondary areas. Our primary area has a much lower employment rate at only 81%, with an unemployment rate of 11% and 8% of the population not seeking employment. This contrasts sharply with our secondary area, where the employment rate is 90% with an unemployment rate and non-employment seeking rate of 6% and 4% respectively. This once again demonstrates the more professional and wealthy nature of our secondary area.

Workforce Participation:

SECONDARY AREA: 49%

PRIMARY AREA: 45%

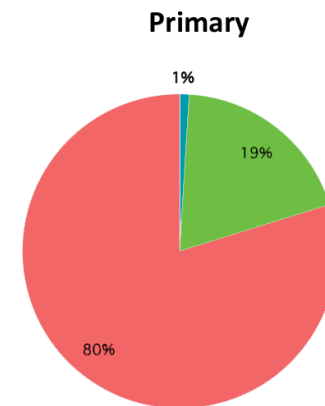
EMPLOYED: 85%



UNEMPLOYED: 9%

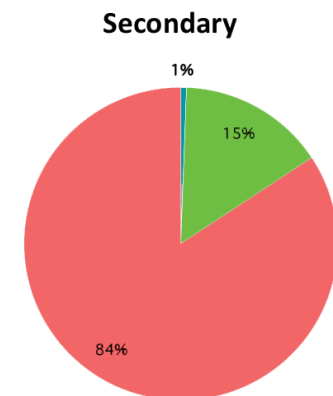


UNACCOUNTED: 6%



■ Agriculture ■ Industrial ■ Service

Figure 29



■ Agriculture ■ Industrial ■ Service

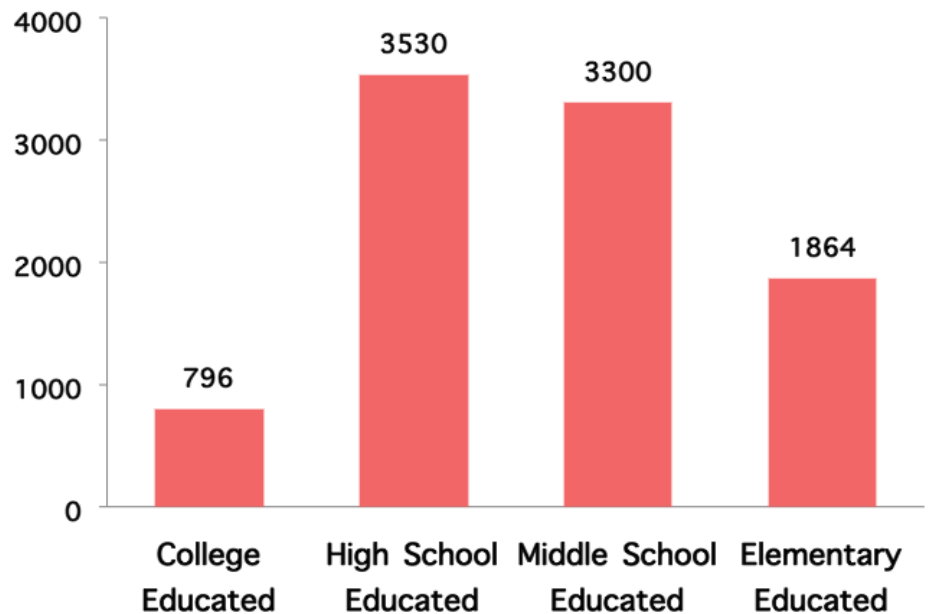
Figure 30

EMPLOYMENT BY SECTOR

POPULATION WITH:

COLLEGE: 7%

PRIMARY: 45%



HIGHEST DEGREE ATTAINED

Figure 31

In our secondary area, residents tend to have a higher level of educational attainment (specifically in college and high school) than in our primary area, which has a lower level of educational attainment (mainly middle school and elementary school). Although the primary area tends to be slightly below average in most metrics as compared to Rome in education, most statistics tend to be nearly equal, save for college education. This may be due to the fact that for the 10,000 residents, there are three elementary schools and four secondary schools. This is reflected in the number of residents in both neighborhoods that have achieved at least a middle school education (over 60%).

IMMIGRATION

In terms of total foreign-born residents, the combined study area has a very low level of immigrants. There are only 123 foreign born residents living in our primary area, or approximately 1.1% of the population. This is in sharp contrast to Rome's overall immigrant population of 3.9%. The reason for the low level of immigrants may be due to the legacy of public housing and the prohibitive costs of private housing. Many residents in the primary area, especially in Tiburtino III, pass public housing down through the family creating a barrier to entry for any new residents try to find housing.

While the entire area tends to exhibit small immigrant populations, even by 2001 standards from which the data is drawn, of the 123 foreign born residents in the combined area, over 2/3rds of them live in the primary area while only about 40 live in the secondary area. This may reflect the difference in public versus private housing in the area. Because our primary area includes Tiburtino III, it has a much larger supply of public housing than does our secondary area, which is entirely Colli Aniene, and thus mainly cooperative housing.

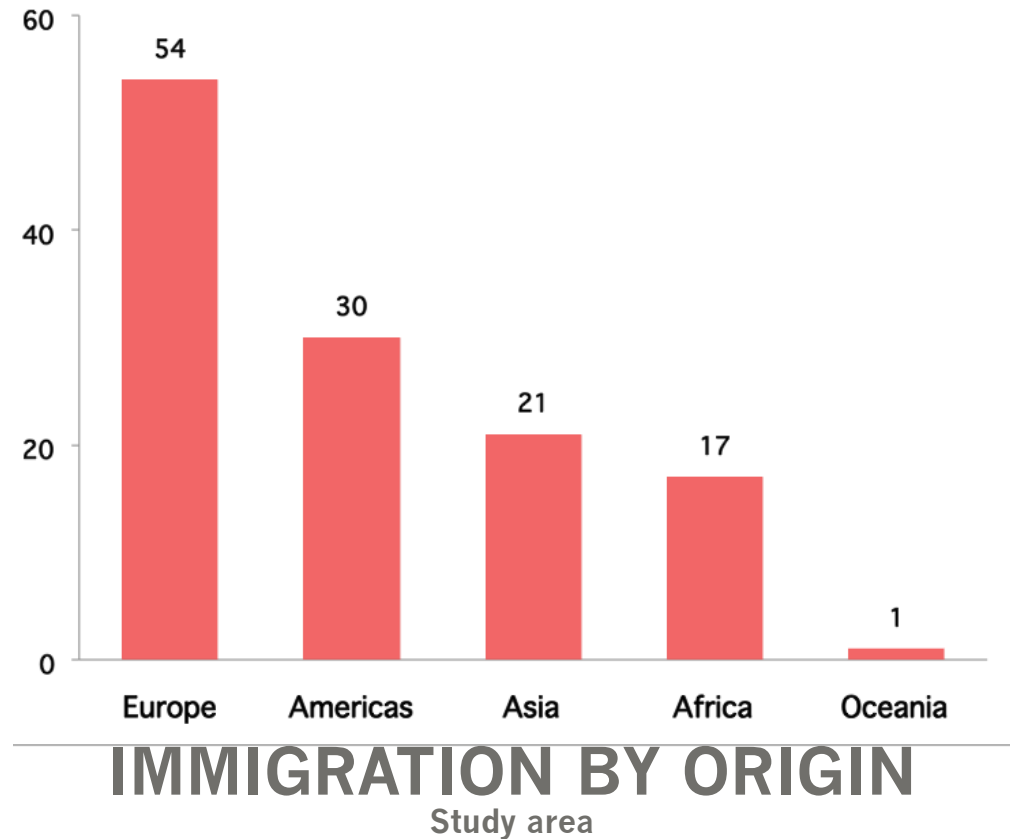
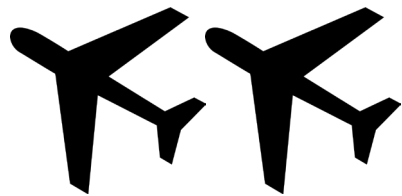


Figure 32



123 IMMIGRANTS
1.1% FOREIGN BORN

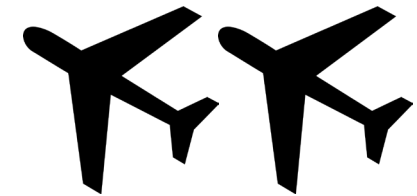
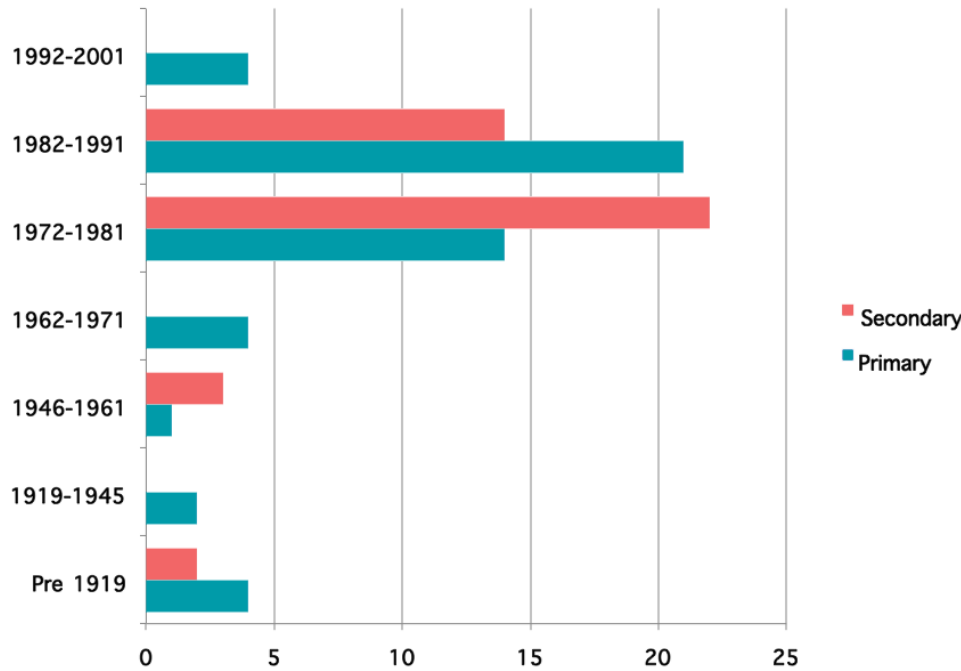


Figure 33



HOUSING BUILT BY YEAR

Study area

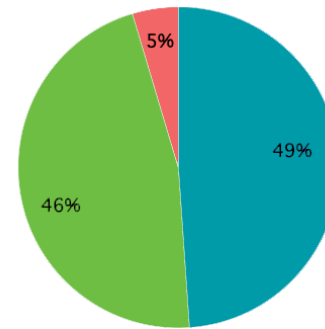


**OCCUPANCY
RATE: 95%**

Combined, both areas have in total 3,875 housing units. Of those 3,875 housing units, 3,689 are occupied, 143 are unoccupied, and 46 are informally occupied. This means that there is a 95% occupancy rate with 4% unoccupied and 1% squatter-occupied. This demonstrates an extremely healthy housing market. Although Rome has been experiencing a decline in population and has an occupancy rate of just over 90%, our study area has a very healthy housing market demonstrating both a strong sense of community and desire to live in this area, as well as a healthy replacement of residents in public housing by presumably family members. This shows us that there is a strong sense of commitment to the area, a strength that can be drawn upon in our policy recommendations.

Figure 34

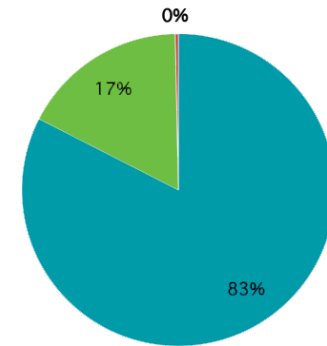
Primary



■ Own ■ Rent ■ Other

Figure 35

Secondary



■ Own ■ Rent ■ Other

HOME OWNERSHIP RATES

HOUSING



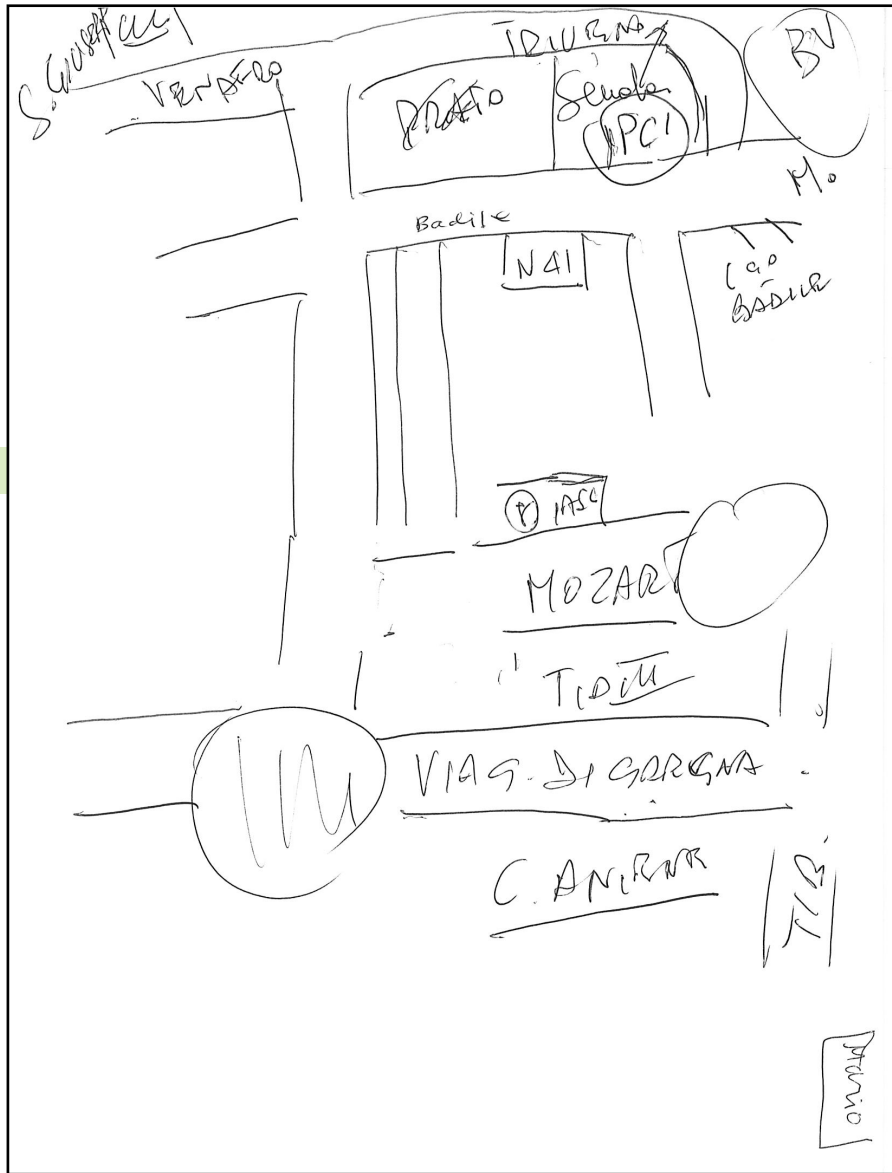
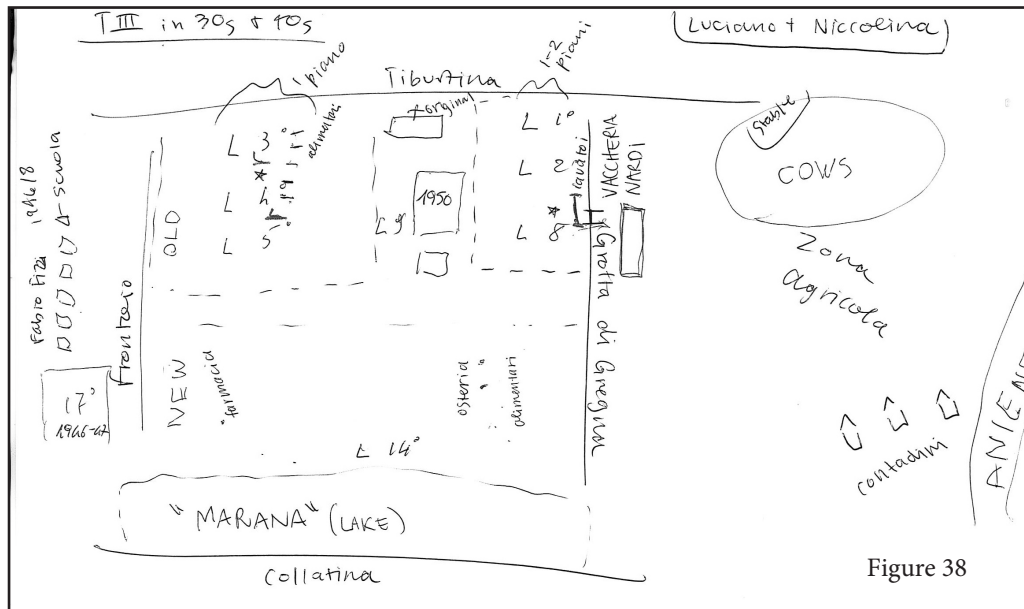


Figure 37

Lynch Maps

In the three-week period it took to compile the following interviews, our team gained invaluable insights about each of the neighborhoods in our primary study area- Tiburtino III and Colli Aniene. We interviewed 12 people in 9 interviews; 4 of which are included. Interviews were both formal and informal; the former being pre-arranged and based on predetermined questions, and the latter being more impromptu. However all interviews included questions of maintenance, social service availability, location of residence, building typologies, and the interviewee's personal history. Four of the interviews produced Lynch Maps drawn by the interviewee.

LUCIANO AND NICOLINA- 74 AND 73 YEARS OLD



Luciano and Nicolina spoke to us in the café in the Centro Anziani in Tiburtino III, qualifying as an informal interview. They have been married for almost 50 years, and Luciano proudly told us that he has lived in Tiburtino III his entire life. Luciano and Nicolina drew a Lynch Map showing what the neighborhood was like when it was first built. Luciano pointed out where he was born (Lot 8) and where he moved when he got married (Lot 4). The neighborhood was originally divided into lots numbered 1-17, and today only lot 17 remains, which is located at the end of Via di Frantoio. When the neighborhood was being redeveloped in the 1960s the redevelopment effort started with lots 1-4 in 1964. The lot on Via Mozart was the first to be rebuilt, and what was Lot 9 is now comprised of the refurbished buildings near the Centro Anziani.

When they were young, Colli Aniene used to be entirely agricultural land (animals and fields), and the boundaries of the old borgata (Tiburtino III) were the Via Frantoio and Grotta di Gregna, Tiburtina and Vaccheria Nordi. Today, the latter of these boundaries is a library, which Luciano and Nicolina said "they were pleased with the decision to transform the old Vaccheria into a library".

They also told us that the church, Santa Maria del Soccorso, is original to the neighborhood, and that there used to be a playground nearby. When Tiburtino III was built its original inhabitants came from San Giovanni, the shacks near Porta Maggiore, and San Lorenzo (which was bombed during the war). Lot 3 originally had an alimentari, a macelleria, a farmacia, and a hosteria (shopping/food stores).

Nicolina told us there were laundry services between Lots 3 and 4 and between 4 and 5. When Luciano and Nicolina were children, the bathrooms in the homes only had toilets. Eventually, there were self-built bathrooms in the old lots. When thinking about the differences between Tiburtino III when they were younger as compared to today, they said that the neighborhood is better now in terms of services, but not in terms of a sense of community. The neighborhood was more cohesive before, demonstrated by people keeping their doors unlocked. Now, in contrast, there are iron gates everywhere and there is no sense of community.

The historic Lynch map they provided was particularly interesting because it shows where past and current landmarks and pathways intersect and overlap. For example, there are remnants of the neighborhood's old lot system, which can be seen in the layout of the large, block-shaped buildings. This reuse and repurposing of the neighborhood's landscape is demonstrated by how the Vaccheria is still standing, but serves a different purpose than originally.

ANTONIO VICARO- MALE, 60S

Antonio Vicaro, one of our interviewees in Colli Aniene, works with AIC (Associazione Italiana Case), a cooperative of inhabitants of the neighborhood. Our interview was previously set up, and thus formal. According to Vicaro, there are many associations in Colli Aniene, in stark contrast to the situation in Tiburtino III, where the residents are "less well off" and there are few neighborhood associations. He also told us that there would be a big festival in Colli Aniene on May 9th to celebrate the anniversary of the neighborhood, to which Tiburtino III is not invited. This divide between the two neighborhoods came up a few times in our conversation. Vicaro said that in terms of the boundaries between the two neighborhoods, "Grotta di Gregna is a physical boundary, but also a cul-

tural barrier”.

According to its residents, Colli Aniene is the central, best peripheral neighborhood in Rome in comparison to the rest of the periphery, because it is one of the few designed and planned peripheral neighborhoods in Rome. Vicaro told us that the general consensus in the neighborhood was that the relationship between built and green space was well designed. He said current issues in the neighborhood were the degradation of buildings and sidewalks along with problems of maintenance. He then expressed how these issues could prevent Colli Aniene from “emerging from its chrysalis” as a improved and thriving peripheral neighborhood. He mentioned that residents were also concerned about economic problems as well as about security and lack of public engagement in community issues.

AIC currently maintains four hectares of parks as well as an amphitheater. The gardens used to be maintained by residents, but this stopped for an unstated reason and the gardens were abandoned for five years and AIC was formed to take care of the gardens. AIC cleaned the gardens and opened them for public use after going door-to-door in the neighborhood, visiting in total around 500 families and asking for 5 euro donations to maintain the facilities. Today, 330 families collaborate with the organization with 12 families being the most active in the organization. The association has now broadened its focus beyond solely maintaining green space, according to Antonio; AIC is now looking at general decay in the neighborhood. They are also currently working to keep gambling machines/parlors from entering the neighborhood; as they believe it is a vice that is not welcome in their community.

While talking with Vicaro we learned more about the differences between the neighborhoods, which appear to be primarily social and economic in nature. Vicaro brought up the perceived difference in average income level between the neighborhoods, as well as the presence of both a physical and psychological boundary of Via Grotta di Gregna. This separation manifests itself in the interactions between the neighborhoods as well as preconceptions about who lives on the other side of Via Grotta di Gregna.

ENO, TONINO AND ALBERTO- MALES, 50S-70S

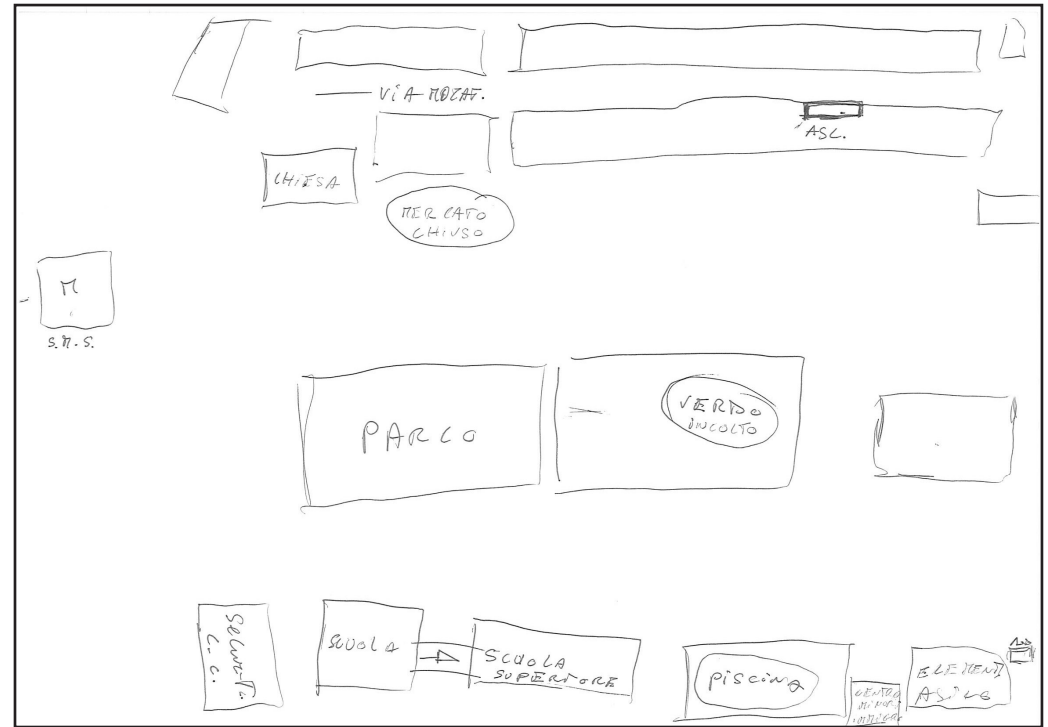


Figure 39

This interview was pre-arranged (formal) as a historical interview regarding Tiburtino III. According to Enno, Tonino and Alberto the neighborhood was the home of the poor workers during the Fascist era, and there was always a strong Communist and anti-Fascist presence in the neighborhood. The Communists remained after Fascism, making Tiburtino III a strongly left-wing area. They advocated for the neighborhood in various ways, taking the place of the neighborhood associations that started in the borgate to provide services. They said that Tiburtino III was near one of the few industrial areas in Rome. The government in the early days of the neighborhood wanted to minimize the working class and keep the industry out of the city center so that they could keep a strong worker party from organizing. In addition to the political history of the neighborhood they spoke about social trends over the years. There was a serious drug problem in the 1970s in addition to issues with gangs, such as Banda Magliana. Tiburtino III was one of the first neigh-

borhoods to focus on combatting drug use and helping those with addictions. The organization La Tenda was started by four mothers to help those with drug problems. Today, La Tenda is working on preventing drug-related problems such as HIV by providing people with sterilized needles.

According to Eno, Tonino and Alberto, there was not a lot of change in Tiburtino III in terms of the physical environment between the 1940s and today because even when Colli Aniene was built the two areas were so separate that the new buildings did not affect the character of Tiburtino III at all. They did point out, however, that the new buildings in Tiburtino III lack the gardens that the old buildings had, demonstrating that the changes in the built environment are noticeable to the locals.

The three also said that the high turnover rate in public housing is what makes the neighborhood suffer, because everyone used to know each other, something that is no longer possible with a high turnover rate. They also mentioned that the neighborhood is very well served by public transit, used by many people because it is inexpensive (it costs 265 euros per year for a public transit card).

They mentioned that there was always a strong history of immigration; mainly from Libya in the 1970s. Due to the left-wing history of the neighborhood, they have "always offered some kind of social services to immigrants." Today, the neighborhood committee is concerned about the lack of local jobs, lack of social solidarity, and the negative effects of American neoliberal politics.

In terms of the economic sector in Tiburtino III, Eno, Tonino and Alberto told us that due to industrial decline, there was a high amount of vacancy and a crisis in the building sector where many residents worked, putting many locals out of work. They said that there were many vacant and closed storefronts because families had less buying power than previously due to their decreased income. Commercial rents are high and potential business owners know that they will not make enough of a profit to be able to pay the rent. The shops on Via Mozart are owned by ATER; according to Eno, they should have lower rents but ATER has high rents for the shops. He told us that even if the store fails, shop renters still accumulate debt for not paying rent and the next renter has to pay that difference. This leads to a general reluctance of potential stakeholders to rent the space. If the storefront stays closed past a certain period of time, then ATER opens up bidding for

the space, which starts around 60 euros. The three also spoke about how the informal economy has changed in the neighborhood. People used to be employed in black market jobs, but those jobs moved to the formal sector. Unfortunately, with this transition of the jobs to the formal sector, the employment opportunities were only available as part-time, so those formerly employed in the informal sector did not make as much money as they did before.

According to these men, Colli Aniene was built in 1974 and is co-op housing where a corporation (or group of construction workers in this case) owns a residential property and each member of the corporation or group owns a membership share in the housing unit and can occupy a unit. In Colli Aniene, there are big buildings and large streets because the neighborhood was built during the period of high auto-dependency, while Tiburtino III was built when few people had cars. Resultantly, Tiburtino III is more walkable. In Tiburtino III, public housing rents range from 115-120 euros per month, while private rents start around 1,000 euros per month and in Tiburtino III rent is proportional to income.



Figure 40 53

FRANCESCO MALE, 13 YEARS OLD

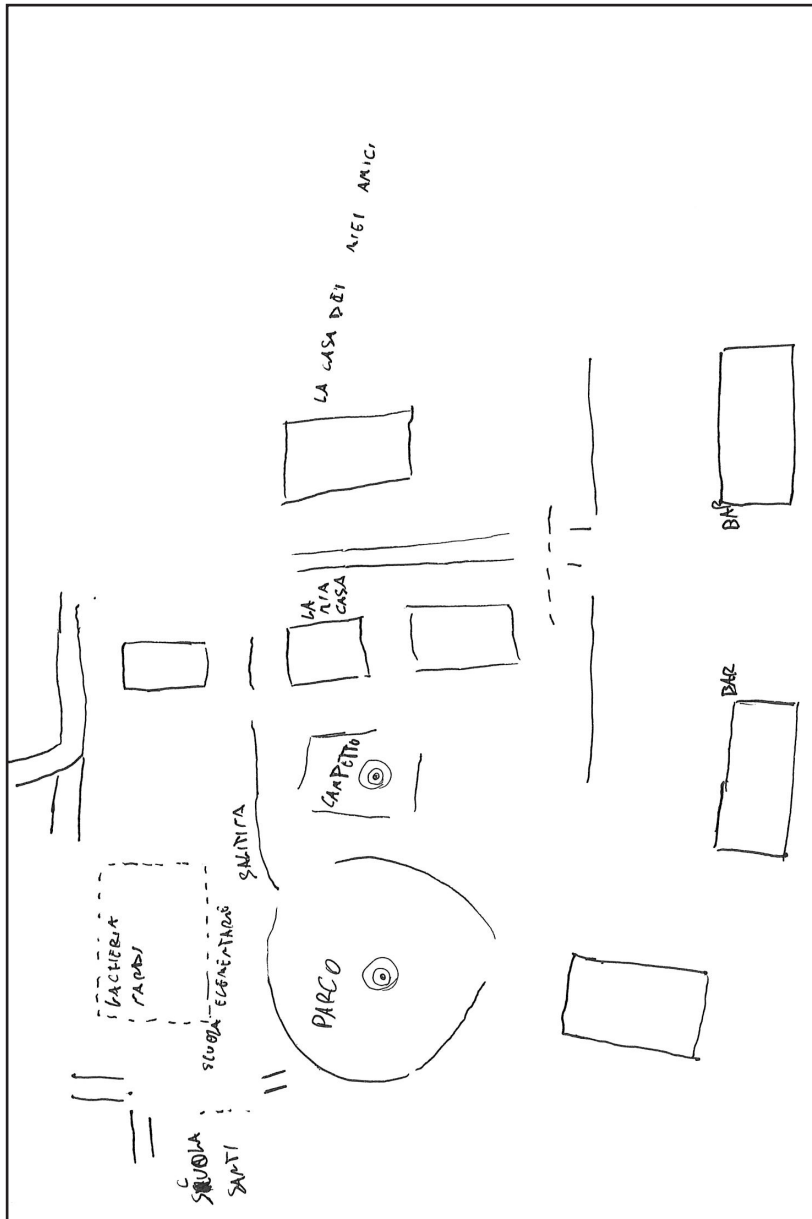


Figure 41

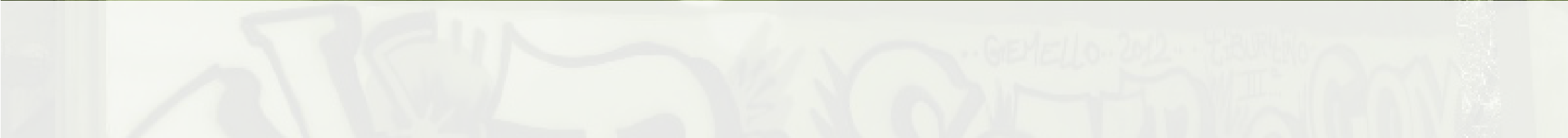
Francesco was the youngest of our interviewees, and as we planned a time and came with questions his interview was formal. While he drew his Lynch map, we learned that he and his friends have a wider travel radius than that of the adults we interviewed. Francesco told us that he and his friends tend to go via bus to a McDonalds near the Tiburtina train station, and hang out there and then later on move on to another location until it is time for them to return to their homes. He labeled mostly buildings on his map as opposed to roads, and pointed out neighborhood landmarks and monuments more so than traditional street names. Francesco mapped the routes he takes to his aforementioned hang out spots as well as the meeting points he and his friends frequent. His was the only map to draw street contours such as slopes. His map focused mainly on the Colli Aniene neighborhood, although he did include the Santa Maria del Soccorso Metro stop.

Despite being the youngest of our interviewees, Francesco managed to point out several things that others had neglected to divulge to us. For example, by talking to Francesco we learned that the main entertainment activities available to neighborhood youths are located elsewhere and also that young people can walk around with a large degree of freedom and safety.

Assesment

Despite minor disagreements among interviewees pertaining to dates of developments, ownership, the relative wealth of the neighborhoods, and the repurposing of the Vaccheria, there were several unanimous agreements. First, there was a consensus that there is a lacking sense of community in both neighborhoods. This is something AIC is trying to reconcile by uniting residents to maintain the green areas, which parallels successful efforts in the area's history, where residents were brought together by the early struggles to bring adequate services to the neighborhood. The second consensus was that there are issues of maintenance of public areas, such as sidewalks, playgrounds, and building exteriors. The third agreement was that there is a distinct separation between the two adjacent neighborhoods. In

Colli Aniene, the Tiburtino III residents are believed to all live in public housing, are not invited to Colli Aniene's annual festivals, and have lower income levels than do those living in the palazzine in Colli Aniene. In Tiburtino III, the Colli Aniene residents are seen as primarily middle class, bourgeoisie doctors and families who live in a great neighborhood and are perceived to pay very low rent, which some believed unfair. Both sides agreed that Via Grotta di Gregna was the border between Tiburtino III and Colli Aniene. In reality, it seems to be a highly permeable barrier, as no one on either side mentioned being unwelcome or harassed when they went to the other side to shop or use public transit.



Strengths



- Availability of open space
- Sense of community among older people
- Entrenched families
- Presence of young families
- High occupancy rates
- Strong tradition of financial competence

Our primary area has several key strengths that need to be considered to conduct a neighborhood analysis. Foremost is the availability of greenspace throughout the study area. Unlike many other parts of Rome, our study area contains an abundance of open space spread throughout the two neighborhoods. By our calculations, upwards of 50% of the space in our total study area is open. This wealth of open space could easily be capitalized upon to create community gardens and parks, which we believe would be particularly effective in Tiburtino III. The neighborhood has a strong sense of community amongst older residents, which is another strength that could be capitalized upon. This group of individuals is highly organized and highly mobilized, and through interviews it was revealed that many of them were involved in agriculture in the past. Tied to this, another great strength of the study area is the presence of entrenched families because it shows a level of commitment to the neighborhood that stretches across generations and predisposes residents to favor ways to improve the neighborhood that they already take pride in. This, in addition to the multi-generational claim on public housing creates a community that is invested in the health and beauty of the area as well as a long-term vision of Tiburtino III.

Another strength that not only demonstrates the resilience of Tiburtino III, but also its cross-generational appeal, is the area's high occupancy rate and presence of many young families. These two factors demonstrate the pull that Tiburtino III and Colli Aniene possess and their ability to attract and retain residents. This large population of work-



Figure 43

ing-age adults with children can be mobilized through a desire to better the community for the children, and could also be tapped for their financial resources. Both of these factors can be leveraged in order to create a greener, more sustainable, and more vibrant vision for the community. Indeed, young families are the lifeblood of both Tiburtino III and Colli Aniene, and their ideas and vivacity can be used to create energy and vibrancy in our study area.

Finally, a strength of our study area that is vital to create a vision of sustainability and financial health is its strong tradition of financial competence. The cooperative system, which is very complicated, but seemingly well managed by the residents of Colli Aniene, as well as the public housing system's rent-to-buy policy in Tiburtino III, has instilled a knowledge of complex financial systems and understanding of financial commitment to the area. This understanding can be harnessed to create a series of clubs and community organizations to improve various areas of the study area, as already demonstrated in Colli Aniene.

Weaknesses



- Lack of community among youth
- Excess of lost space
- Poor maintenance of public space
- Lack of connectivity of public transportation
- Lack of locally grown food options
- Misuse of commercial spaces
- Multi-generational claim on public housing

Our primary area has a number of weaknesses that require attention. These include both physical and social factors, the latter mostly stemming from a weak sense of community among young people. Although Tiburtino III has a strong historical memory that serves as a crucial cohesive force among older residents, this thread does not exist among its younger population, which is often left under-served. Whereas the Centro Anziani serves as an excellent resource for the elderly, young people do not have a comparable organization, and are left – as we learned in an interview – relying on outside neighborhoods for entertainment. Another social weakness is that of entrenched families, which can simultaneously be viewed as a strength of Tiburtino III. Although this is positive in terms of civic pride and accountability, it also prevents new citizens from entering the neighborhood. This is both detrimental both in terms of unfulfilled demand for public housing, and in terms of a lack of bringing new faces and ideas to the neighborhood.

The physical weaknesses of our primary area include poor use of open spaces, minimal maintenance of public spaces, a lack of connectivity to public transportation, and misuse of commercial spaces. The presence of open spaces, oftentimes green, is a tremendous strength of the area, but currently, many of these spaces are blocked off or otherwise inaccessible. This is an issue in both neighborhoods, where open spaces have generally become undesirable, unattractive lost spaces. The poor maintenance of space applies to open spaces, but also to roads, sidewalks, and other forms of public infrastructure – this is notable, because private infrastruc-

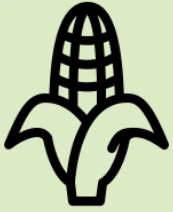


Figure 44

ture tends to be quite well maintained. Thus, a contrast between public and private space is created, particularly in Tiburtino III, where the quality of upkeep does not necessarily align with residents' intentions, but rather with what the Commune di Roma has provided.

Lack of connectivity to transportation is a major weakness, especially in terms of cycling accessibility. Our study area has many bus stops and one major metro station, but is deficient of an acceptable standard of bike mobility. The one bike path in existence is in an inconvenient and unsafe area, and severely detracts from what could be a potential to improve citizen activity – both for purely mobility and social purposes. The path itself is inconsistent and does not augment connectivity. Additionally, many commercial spaces are occupied by storefronts that, if not abandoned, are greatly neglected and do not appear to be sufficiently frequented. This misuse detracts from the possibility of effective and exciting real estate, and is definitely a weakness of the area. Moreover, a fundamental market resource that the study area lacks are locally grown food options. The sole local market in the entire area is small and irregular, and not sufficient to provide local food options. Thus, residents are left buying inferior products and supporting large companies, instead of feeding money back into the local economy through sustainable food.

Opportunities



Growing immigrant population in Rome
Capitalize on agricultural history
Reclamation of Cervelletta

From analysis and research on our study area and Rome as a whole, our team identified several opportunities to help drive revitalization. First, we find opportunity in the growing immigrant population in the city of Rome. These immigrants could be attracted to our primary area, particularly Tiburtino III, because of its low rent, proximity to public transit, and ease of commuting to the center city. This potential influx of immigrants to Tiburtino III would help to bring renewed diversity to the community, which would entail new customs and perspectives to a neighborhood with such a rich past. The implications of this influx could help promote new commercial investments and entities, which could even span as far as an expansion of services and recreational attractions for the younger residents.

Additionally, there is an opportunity to capitalize on the entire area's agricultural history. As previously stated, there is a generous availability of open space, much of which is underutilized and/or poorly maintained. If the necessary conditions are satisfied and evaluations of the space are conducted, some of Tiburtino III's open space is opportunistic for urban gardens and other urban agriculture. This is ideal in that it draws on the neighborhood's past, promotes a sense of community engagement and pride, teaches residents about horticultural practices, and makes productive use of lost space. A final opportunity for revitalization is the possibility for reclamation of Cervelletta, a wetland area on the northeast border of our study area. Cervelletta is closer to Colli Aniene than to Tiburtino III, but residents of either neighborhood, according to interview accounts, do

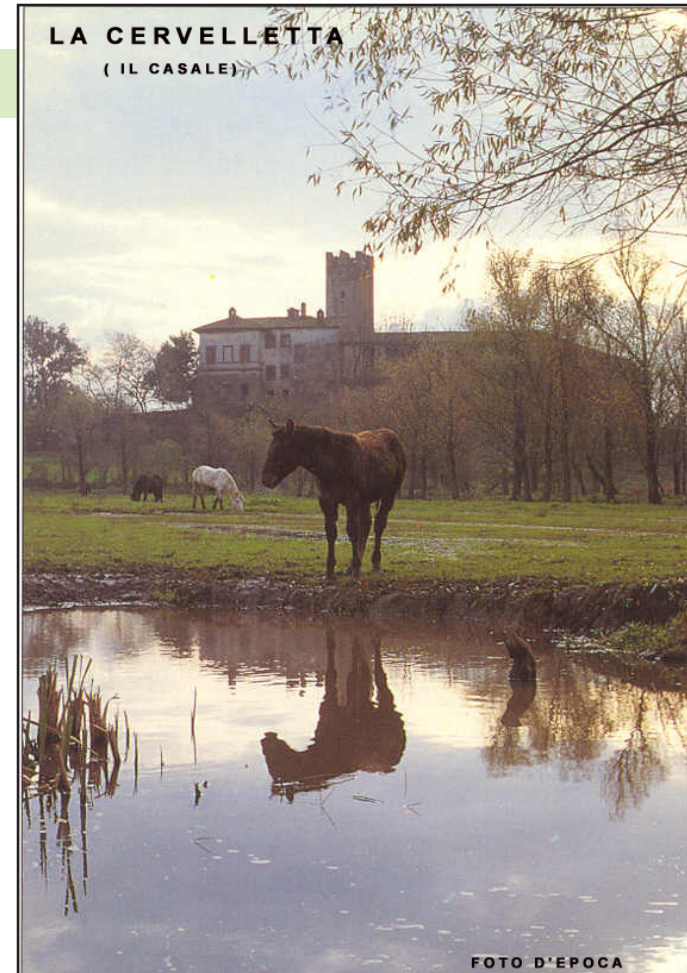


Figure 45

not frequently utilize it. One possible explanation for this is that due to the fact that the area is fenced off on some sides, it is not seen as accessible. Additionally, it is located behind several apartment complexes in Colli Aniene, which likely obstruct the visibility of Cervelletta to other residents. Given the quality and large size of Cervelletta, it is opportunistic to improve the awareness and access of citizens to this park, as it has potential to provide recreational greenspace for residents from a variety of demographic groups from both neighborhoods.

Threats



- Private development
- ATER owns most of the land
- Financial constraints
- Auto-dependent culture
- Population drain to other neighborhoods
- CAB

The threats to the future success of our study area come from a variety of sources, public and private, economic and social. ATER's ownership of the land in Tiburtino III could pose a potential barrier to the long-term success of any use of the open land, as they would be able to reclaim it at any time. Furthermore, any future success might lead to new development, either by ATER or by private interests that could irrevocably alter the community. Financial constraints of the residents and the city threaten the maintenance of any project as well as the maintenance of existing infrastructure. The auto-dependent culture of the entire study area threatens the existing weakness of the lack of connectivity of bike lanes. Despite the area being well served by public transportation, many residents rely on cars to commute to their jobs. This auto-dependence could dilute desires to improve bike transit infrastructure and discourage residents from using new infrastructure.

Additionally, there is the threat that other peripheral neighborhoods could instigate a population drain from Tiburtino III and Colli Aniene. This poses severe implications in terms of the study area's economic health and overall sense of community. A final threat is the Centro Agroalimentare Roma (CAR), which threatens the potential for a local food market since as a wholesale food vendor, it does not support local communities (growers, sellers and vendors). Thus, the presence of CAR would deter the development of an alternative local food option.



Figure 46

“Auto-dependence could dilute desires to improve bike transit infrastructure and discourage residents from using new infrastructure.”

“The Centro Agroalimentare Roma (CAR) threatens the potential for a local food market since as a wholesale food vendor, it does not support local communities (growers, sellers and vendors).”

Conclusion

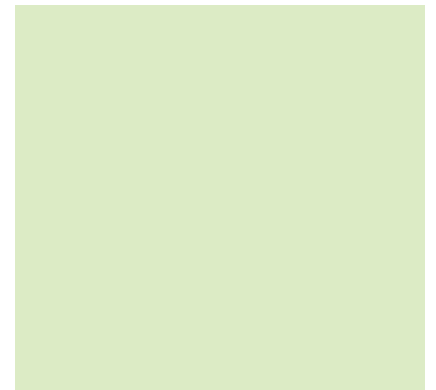
The story of our primary study area, consisting of Tiburtino III and Colli Aniene, is a continuous cycle of growth, decay and regeneration. Tiburtino III began as a Fascist Borgata with working class residents in the 1930's, and currently maintains that residential base in its status as a peripheral neighborhood. Colli Aniene, built in the 1970's began as a cooperative of construction workers and is today a middle class neighborhood, considered by its residents to be a high-class peripheral neighborhood.

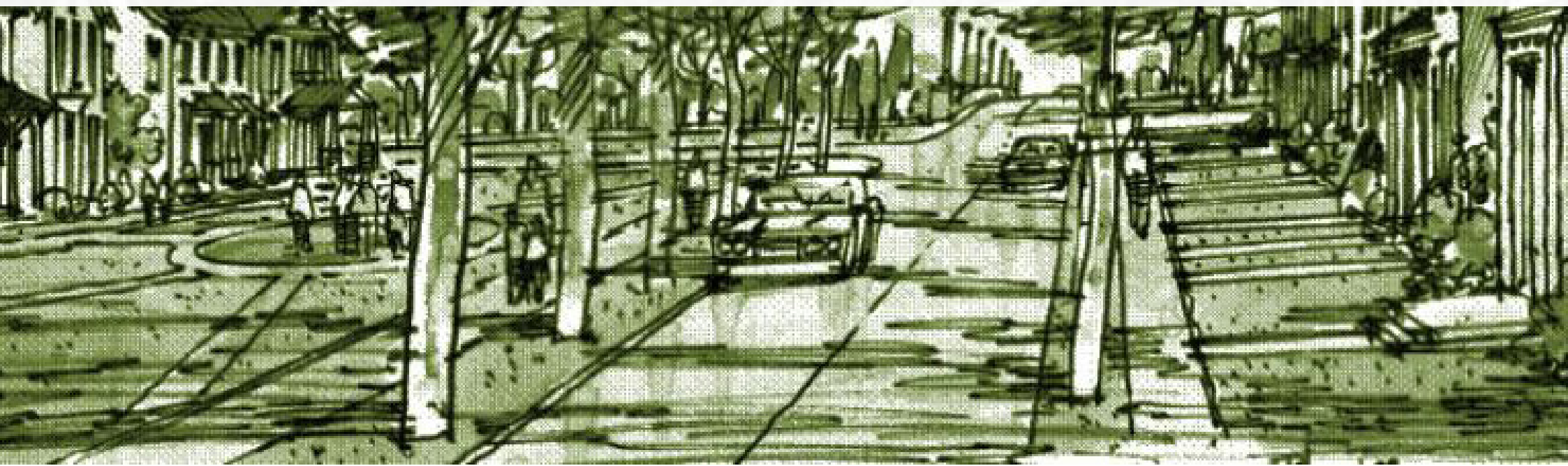
The streets of our primary area are reasonably well maintained and have levels of car traffic ranging from light to heavy, despite the close vicinity of public transportation options (train and bus). There is a contradiction of steady car traffic despite the neighborhood being well served by public transportation. According to the residents, this is due to the lack of connectivity among peripheral neighborhoods where the residents work – the metro runs frequently, but mainly into the center city.

The majority of people who live in the primary area are between the ages of 15 and 64, 9% of the residents are over the age of 65 and 15% are under the age of 15. The area's unemployment

rate is lower than that of Rome (9% and 11% respectively). Therefore, Tiburtino III and the section of Colli Aniene that comprise our primary area are predominantly middle aged neighborhoods with a significant elderly and youth population, and are economically better off than Rome as a whole in terms of employment.

Interviews and interactions with neighborhood residents revealed that while they are proud to call either Tiburtino III or Colli Aniene home, they are concerned about maintenance of parks and buildings and the lack of opportunities for young people. The interviews also taught us the strong history of community involvement and organization that can be leveraged to unite the community around maintaining the services that are important to them. Through our SWOT analysis, citizen interviews, and conversations with course instructors, we feel that our entire study area could benefit from a policy based intervention to connect the green space in the two neighborhoods. This would also necessitate maintenance, and the provision of infrastructure to increase bike connectivity across the area. These ideas will be researched and explored more in our policy analysis.

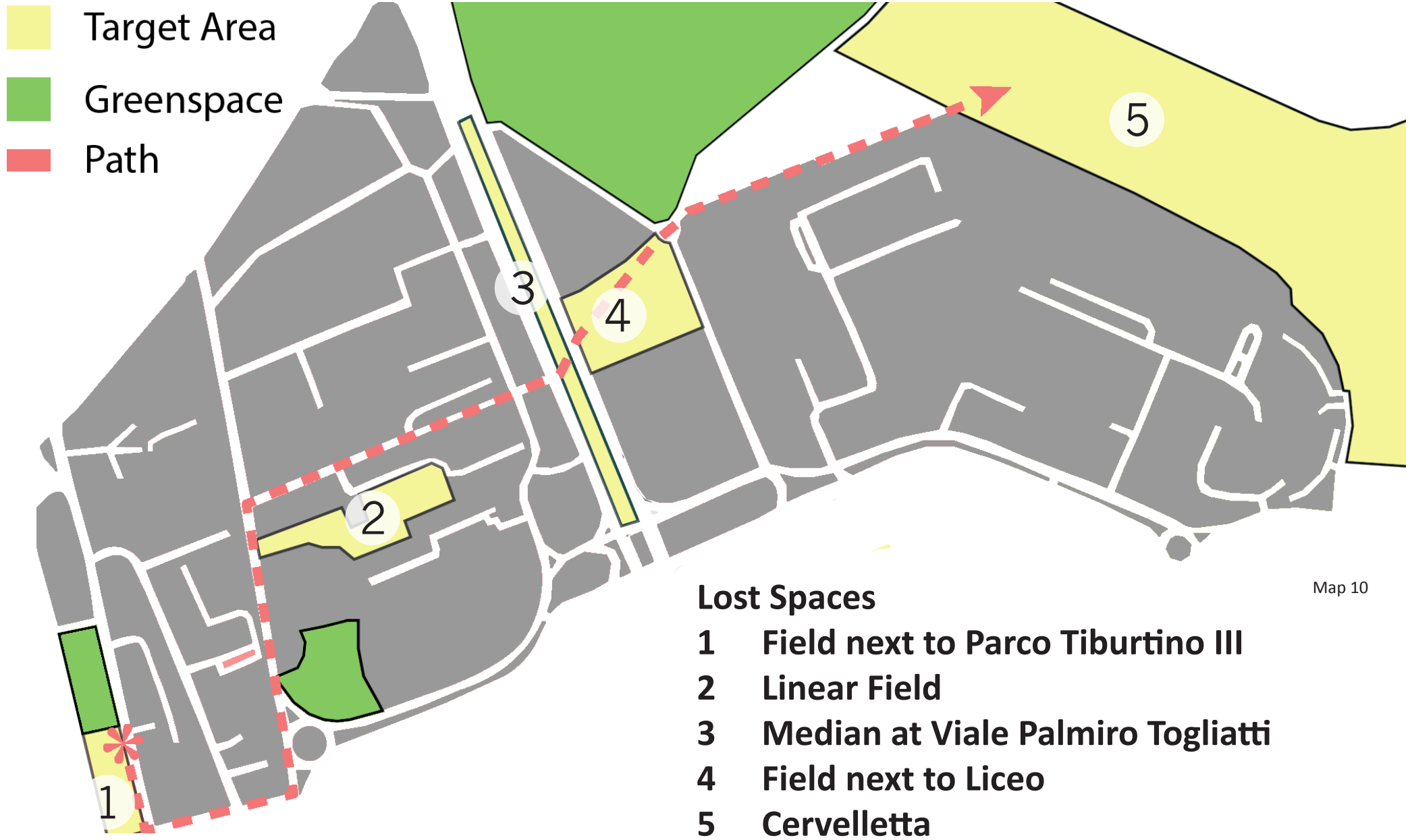






Introduction

After carefully analyzing the strengths, weaknesses, opportunities, threats, physical environment, demographics, and history of our primary study area, our group isolated the key issues that require attention and intervention. We believe that these issues are the maintenance of greenspace in Tiburtino III, the lack of entertainment or activities for young people, and the lack of opportunities for civic engagement. Moving forward, we believe that combining ways to provide for maintenance of greenspace and generate civic engagement through a public-private club goods approach is the most suitable tactic for our study area. We plan to provide for these two aims through a combined approach of spatial redesign and organizational policy proposals.



Methodology

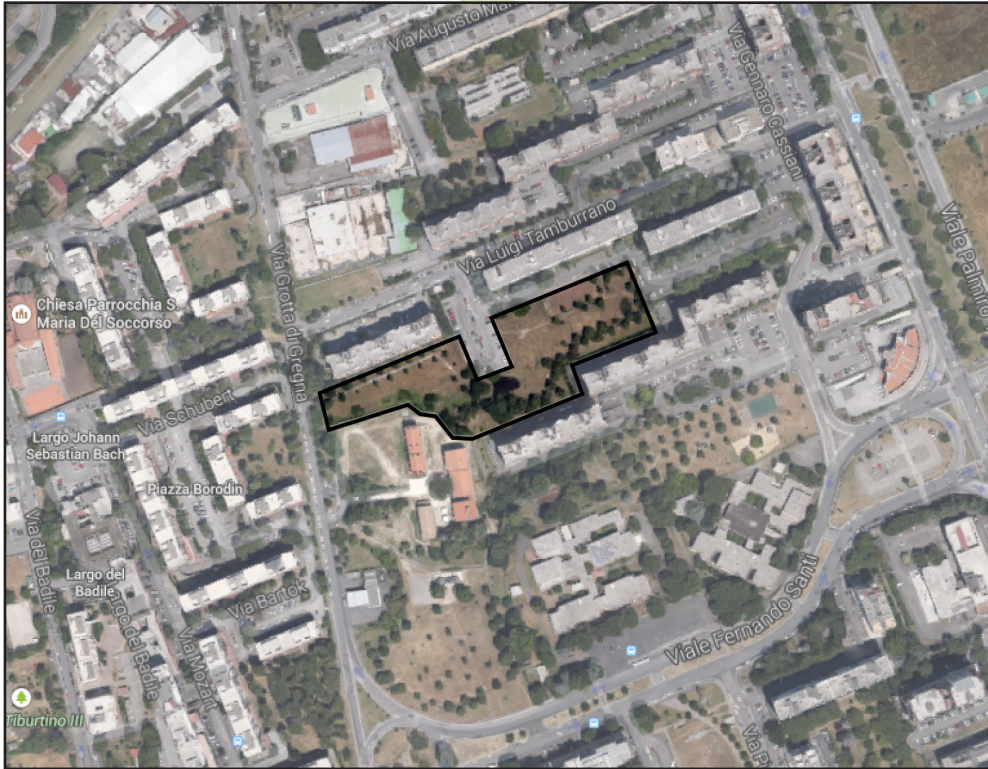
In considering how best to improve and connect greenspace in our study area we surveyed available space in Tiburtino III, analyzed the pros and cons of “clubbing” public goods, completed a comparative case study with similar success stories in Colli Aniene and Garbatella, examined what elements lead to the success of clubbing goods, and utilized key stakeholder interviews with Antonio Vicaro from L’Anfiteatro and Anna Maria Baiocco from Legambiente in Garbatella. We also read several academic articles supporting and criticizing club goods in order to address concerns about the approach and provide ways to ensure the success of the scheme.

We conducted interviews with the assistance of one member of the teaching team and three of our team members. Our interviewing team was comprised of the Italian-speaking members of our group so that the interview was not solely based on translations by the member of the teaching team who was present. We prepared for each interview by compiling a list of questions, which were answered over the course of our conversation. We received our answers either indirectly as the interviewee told his or her story or directly as we asked them specific questions about their work.

We also completed research based on academic articles available to us through the online research databases and through the Cornell Library collection on our topics of study. We read the relevant articles, created an annotated bibliography so other members of the group could quickly and efficiently absorb the article and used the resulting information in our report.



Map 11



Map 12



Map 13

GREENSPACE

Why Green is Good

There are many benefits of creating and maintaining green spaces in urban neighborhoods, including both environmental and social factors. One key intervention we propose is the urban garden, which we believe is a crucial and potentially very effective way of encouraging local agriculture, sustainable and healthy food systems, and community engagement. Numerous studies have been conducted and articles written detailing the advantages of urban gardens, suggesting their success in urban areas - in many cases, this particularly applies to underprivileged or underrepresented urban areas. We have looked especially at the article "Tending Cultural Landscapes and Food Citizenship in Toronto's Community Gardens" by Lauren Baker. Although the article discusses urban gardens in Canada, it includes extremely relevant case studies for our proposal.

Baker's research is based around the key idea that urban gardens have the ability to "provide social and recreational opportunities, supplement nutrition, educate the public about food production and preparation [be a] part of community- development strategies, offset income needs, and "green" the urban environment." She discusses in particular the concept of "food citizenship," which involves food-system localization and the value for caring for community and environment-based places (Baker, Lauren, 2004). This is particularly applicable to Tiburtino III, which currently has one local market that is quite small and not available every day. Providing access to fresh, locally grown fruits and vegetables would be the first step in moving toward effective food citizenship in the study area.

The case study of the Frances Beavis Community Garden in Toronto, discussed in Baker's article, has provided us with much insight as to why green areas and urban gardens would be so effective in enhancing the community of Tiburtino III. The Frances Beavis Community Garden is adjacent to a senior public housing residence, similar to the proximity of the Centro Anziani to our proposed urban garden. Members of Tiburtino III's Centro Anziani reside in public housing as well, another similarity between the two



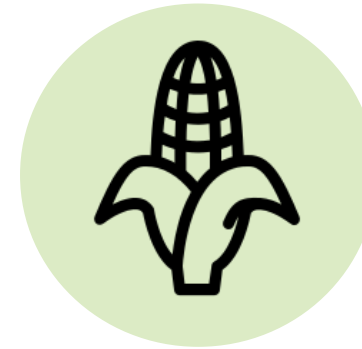
Map 14

cases.

The Frances Beavis Community Garden has created a "place where they [residents] can grow food and connect with their friends" (Baker, Lauren, 2004). The garden, run by a group of residents and network of non-government organizations (NGOs), encourages strong social connections through resources, such as composting workshops and seed exchanges. The result is a community with both more social and nutritional capital - residents have the opportunity to interact and connect, and at the same time benefit from both a green space and the products grown in it.

After carefully analyzing the results of citizen interviews, our land use surveys, and street surveys, we believe that the neighborhoods of Tiburtino III and Colli Aniene could be improved through the addition of and improvement of parks and greenspace. This approach was decided upon after reviewing our citizen interviews, where we were told that there was a maintenance problem with the greenspace in the overall study area, a lack of services and recreational space for young people, and a lacking sense of community in Tiburtino III. We also noticed through street surveys of our primary study area that the existing greenspace was not well maintained or connected, and that the greenspace in the median running through Viale Palmiro Togliatti was seldom used. We believe that adding a community space in Tiburtino III, connecting the green spaces through a path leading to Cervelletta (a nature preserve east of our secondary study area), and using landscaping methods to invoke a more human scale on the median of Viale Palmiro Togliatti would collectively improve the quality of greenspace in our study area.

Our primary study area is comprised of two neighborhoods that have very distinct socioeconomic and physical characteristics, despite the fact that they are divided physically only by a road. The tower in the park model of much of our primary study area inhibits social interaction between the residents of both neighborhoods and within each respective neighborhood itself. Based on our statistical and SWOT analyses, we identify target areas, greenspaces, and proposed pathways, and suggest the following design proposals to increase cohesion and connectivity between Tiburtino III and Colli Aniene, make better use of greenspace, and repurpose lost space. In doing so, our target areas serve as nodes that form the connective pathway between Tiburtino III and Colli Aniene.





In our primary study area, there is a lack of accessible, inviting green spaces, which restricts their usage as a point of meeting and social interaction. Much of the greenspace is either surrounded by apartment complexes or fenced off, and thus perceived as private and inaccessible. Despite the fact that there is ample greenspace within the boundaries of our primary and secondary study areas, these areas are underutilized and require design interventions. In our interviews, several people mentioned the lack of services for the younger portion of Tiburtino III and Colli Aniene's residents.

Through analyzing our observations, interviews, and case studies, our team formed proposals to enhance the quality and accessibility of greenspace to residents, which, in turn will help cultivate more recreation and social interactions among all age groups within and between Tiburtino III and Colli Aniene. Our first priority is Parco Tiburtino III, as it is located in Tiburtino III, which is the less affluent and more poorly maintained portion of our primary and secondary study areas and requires the most attention.



Figure 49

Median on Viale Palmiro Togliatti

EXISTING CONDITIONS:

Tiburtino III and Colli Aniene's primary streets successfully serve their purpose of moving automobiles, motorcycles, and buses at an ideal traffic flow. Though several unsuccessful attempts to improve pedestrian mobility are evident, the area is in need of interventions. Currently, there is a wide median dividing Viale Palmiro Togliatti. It has trees lining the border of the median that render the space uninviting due of their height, and also do not offer any enclosure or protection from the automobile traffic flow. Additionally, the median has a paved, clearly defined bicycle lane that is not continuous and does not provide any benefit in connectivity that would promote its usage. This impacts the potential for promoting a bicycle culture in our primary study area and perpetuates its autocentric nature. As the lane is surrounded by heavy traffic flow on both sides, it poses threats to safety, especially for young children, which further discourages its usage as a recreational greenspace area. The presence of heavy traffic not only is a safety hazard, but also restricts pedestrian movement in and out of the space. Though it appears to have been designed with the intent to provide a park area for pedestrians and cyclists, the median instead presents an instance of greenwashing in our primary study area. Its design reflects the consideration of pedestrians and recreational greenspace as after thoughts to the automobile, and consequently fails to properly function as it ideally was intended.



Map 15



Figure 50

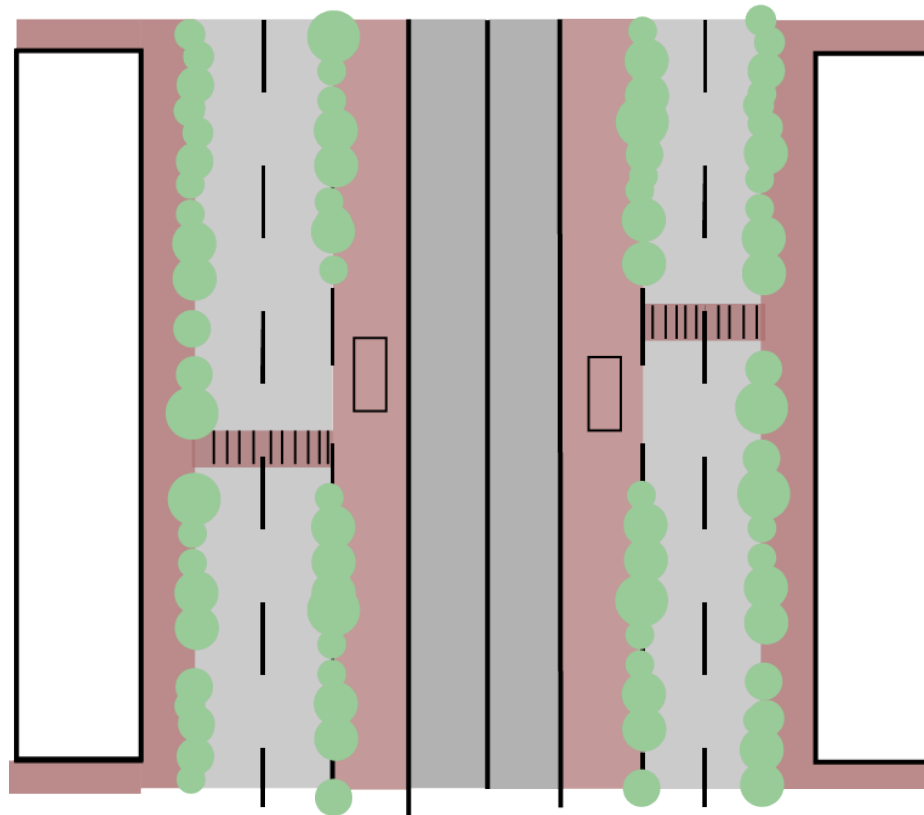


Figure 51

NEW VISION:

In order to improve use of space on Viale Palmiro Togliatti, significant redesign is required. In our research, we studied some of the atmospheric and pedestrian benefits of the European Bus with a High Level of Service (BHLS) concept. While we do not wish to fully implement and restructure the transit system of our primary and secondary study areas themselves, we wish to implement some of the built infrastructural elements discussed in the related studies. By modeling our proposed design on the European tramway model, but adapting it to a bus lane design, we will place our new bus lane on a specifically designated right-of-way. This will connect the lane to the pedestrian and the overall urban environment directly through the sidewalks with bus stops, which can be accessed from either edge of the street through crosswalks. The benefits of including such features involve better efficiency, timeliness, speed, and performance of the bus. Results of studies from implementing some or all aspects of BHLS have shown that gains in bus ridership has been shown to double in some cases.

We propose breaking the median down into smaller pieces, essentially splitting it in half and placing two bus lanes in the middle. These bus lanes will go in both directions and will be separated from the car lanes by thin sidewalks with bus stops. In order to enhance pedestrian permeability, we will include clearly defined crosswalks at appropriate intervals. Additionally, the bus stops will have clear signs as well as benches, which will make the stops more inviting, especially for the more elderly residents. We plan to replace the trees with smaller shrubs, which create softer edges and enhanced permeability. The shrubs will also help divide the pedestrians waiting for the buses from the road, enhancing their feelings of safety. These interventions will both make better use of the existing space as well as increase bus ridership.

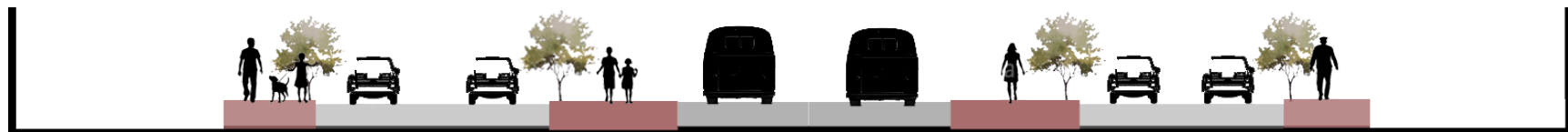


Figure 52

Parco Tiburtino III

EXISTING CONDITIONS:

Parco Tiburtino III is located directly across from the Centro Anziani, between Via del Badile and Via del Frantoio. As previously discussed, using guerilla tactics, the residents of Tiburtino III created the park, as they occupied and molded the previously debris-laden space to fit their needs. Currently, this park is open to the public and has recreational equipment for young children, benches, a grassy shaded area, a shed, and a café with outdoor tables and seating. The benches are in poor repair and are severely rusted and uncomfortable or impossible to sit on. The shed also is in poor repair.

Additionally, the park is surrounded on all sides by a tall metal fence, which makes it appear uninviting or inaccessible. Directly bordering the park is another green area, which is surrounded on all sides by tall metal fencing. This space, however, is not accessible to the public and is owned by ATER. Fenced off with likely intent to promote squatter settlements, the space sits unused and is the only structure inside is a deteriorating shack. In both spaces, the design, maintenance, and landscaping render both spaces uninviting despite their significant potential in terms of location and size.





Figure 53

NEW VISION:

In order to enhance the quality and use of Parco Tiburtino III, we plan to connect the two parks, which are currently separated by a fence. In order to do this, we plan to occupy the vacant greenspace owned by ATER and remove the fence separating the two greenspaces. We then plan to add amenities to the greenspace, such as a soccer field, a bocce court, urban garden plots, and a new shed for gardening equipment. Our influence in creating these urban garden plots, which will be located in the currently vacant inaccessible lot, came from Parco Garbatella and the organization Legambiente that supervised and helps organize the park. This park will promote sustainable, local food sources, which is especially critical and

beneficial to less mobile members of the community. The development of urban garden plots will improve civic pride and social interaction. To augment the permeability of the park, we propose removing the large, restrictive fences with shorter fences like those in Parco Garbatella. We do not propose completely eliminating the fence because a resident or family of Tiburtino III or Colli Aniene will essentially own each plot, and fences prevent the intrusion or free riding of other members of the community.

In addition to these features, we plan to update and enhance the existing park infrastructure (the playground and benches). In the currently public portion of Parco Tiburtino III, we propose improving the landscaping to both make the park more aesthetically pleasing and also to better define the pathway on which to walk through the park. Our designs envision recreational entities that appeal to the spectrum of age groups within our primary and secondary study areas and promote a healthy, sustainable lifestyle.

BOCCE

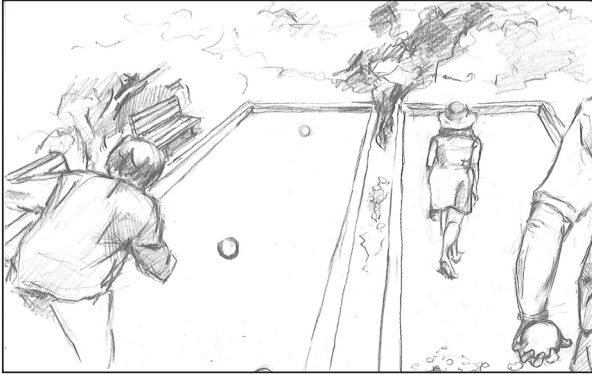


Figure 54

GARDEN

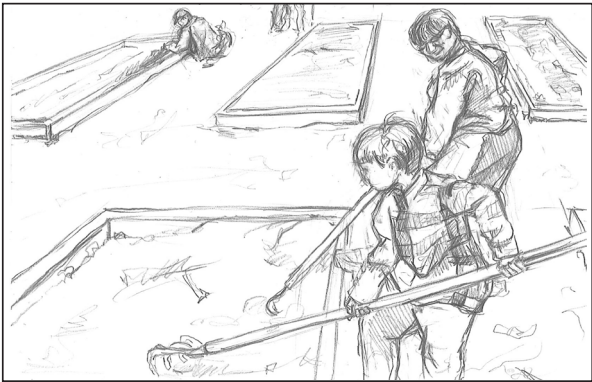


Figure 55

SOCCER

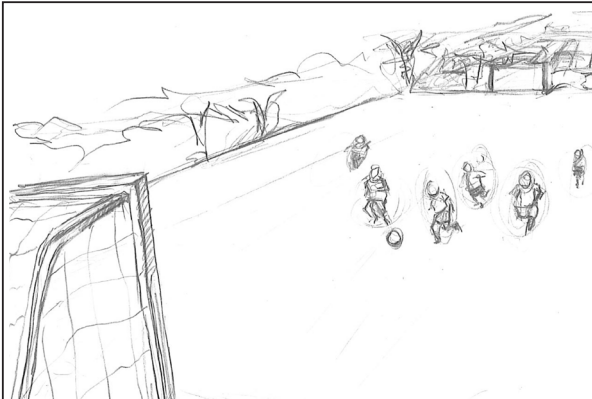


Figure 56

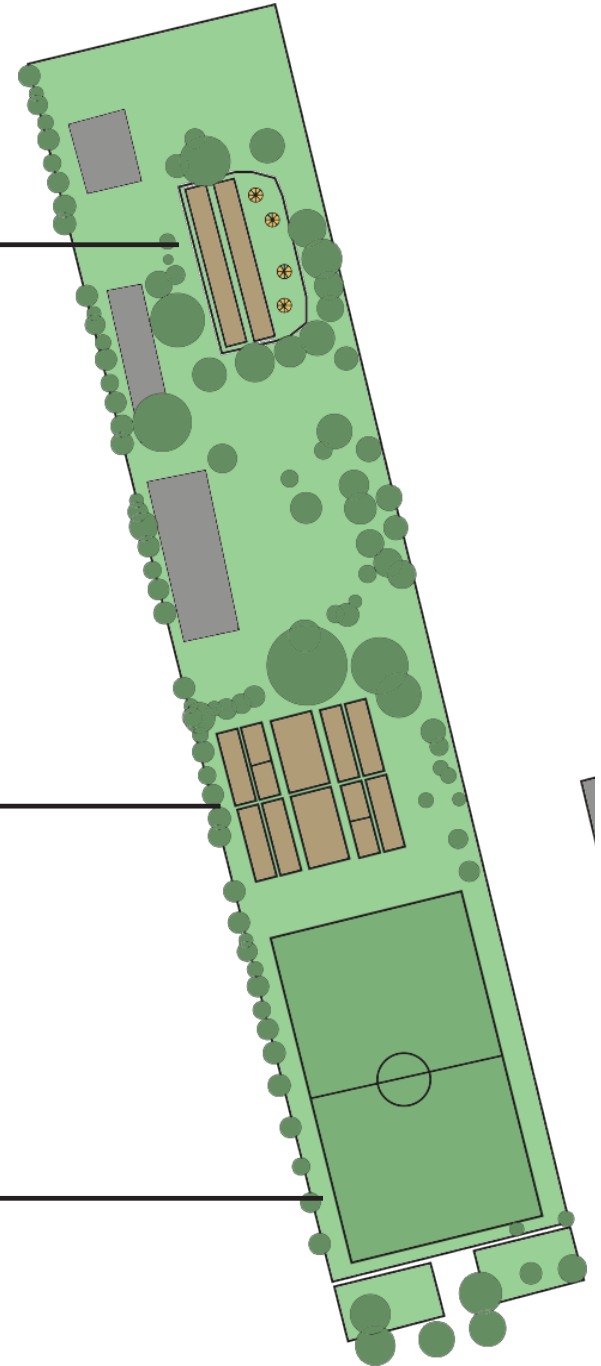
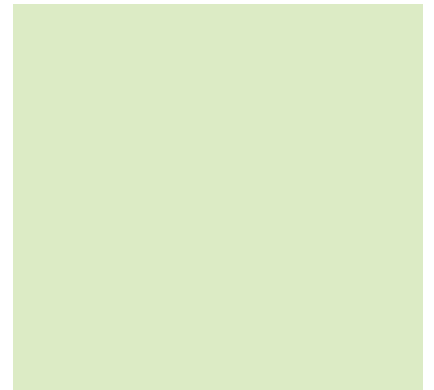


Figure 57



Success Stories in the Roman Periphery

We have investigated two specific case studies of successful community greenspace interventions in the Roman periphery. Our first case study is that of Parco Garbatella, an urban garden in the Garbatella neighborhood. Garbatella, like Tiburtino III is a neighborhood dominated by public housing developments. The second case study is L'Anfiteatro, a community organization in Colli Aniene devoted to public green spaces.

The movement for the creation of Parco Garbatella started in the 1990s as a citizen effort that was opposed to the prospect of development along Via Cristoforo Colombo, a major highway bordering where the current park is. The land, which had previously been privately owned, was made public with a municipal loan in which the owner relinquished private control in exchange for another tract of land in the city. With the planting of its first trees, Parco Garbatella was officially born in 1997. Initial efforts for funding and other fiscally and socially driven resources came from both Legambiente and a Garbatella community group. These efforts involved many fundraising events, specifically parties organized for the community. Legambiente is a nationwide Italian organization dedicated to tackling issues of environmental interest and globalization. Membership in Legambiente is 30€/year, but is not required to cultivate a plot in Parco Garbatella.

Parco Garbatella is open to the public – the area is surrounded by a low fence, but it remains unlocked during the day. The agricultural portion is structured around 25 small garden plots, each of which belongs to a designated person or group. The Parco Garbatella committee selects interested individuals or parties to look after the plots for periods of four years. This costs 50€/year. Anna Maria Baiocco, a representative from Parco Garbatella, shared that there are rarely issues with a lack of maintenance of the plots, but if there are, other members of the community will assist. Three of the garden tracts are always designated for the disabled, while two are set aside for a children's school. Ms. Baiocco explained that Parco Garbatella is very focused on reaching out to these underserved or underprivileged members of the community. The yields – fruit, herbs, flowers, vegetables, etc. – from each tract belong to the individual currently tending it. However, the organization throws periodic events and garden parties, where members share

their personal yields with the greater community.

Parco Garbatella represents an extremely successful urban park and garden in a Roman peripheral neighborhood. It has successfully mobilized and involved the community around it, through both initial efforts to create the garden itself, and through its continued maintenance. Parco Garbatella additionally provides a physical space for the community to gather, and within that space many opportunities for activity and socialization. In addition to the garden, one section of the park has more open greenspace, trees, and picnic tables. Parco Garbatella is also notable for serving all members of the community – young and old, newer members as well as residents that have been there for many years. This fosters a strong sense of community, while at the same time creating a more aesthetically pleasing neighborhood.

L'Anfiteatro began as reaction to the many abandoned green spaces in Colli Aniene. This lack of maintenance was due to a confusion of responsibility between the neighborhood's cooperatives and the municipality. After nearly thirty years of abandonment, a group of concerned citizens in Colli Aniene mobilized to improve their greenspace. They went door-to-door in Colli Aniene asking citizens to contribute a small amount of money to an organization that would revitalize and maintain the green spaces. Antonio Viccaro, one of these original citizens and a current representative from L'Anfiteatro, told our team that it was difficult to convince citizens to contribute money. The goal was that 70% of families would contribute 5€ each for the betterment of the area. In the end, 500 families, or 75% of the total neighborhood, contributed money to this fundraising.

These initial efforts launched the organization, which now consists of 330 families, each paying 60€/year. They maintain several green spaces in the neighborhood, which involves minor urban landscaping and various upkeep responsibilities. One such greenspace includes an outdoor amphitheater, which is used for neighborhood gatherings and events. This space was previously occupied by an underground parking garage company – Greenbox – which assisted in cleaning and revitalizing the area, and created a piazza that is currently used by many residents.

All of the green spaces maintained by L'Anfiteatro are open to the public, although Mr. Viccaro shared that many families are still unwilling to

contribute money to the organization. Out of the 330 families that do contribute money, he estimated that at any given time, there are six to eight consistent volunteers. Nonetheless, these green spaces still provide valuable points of community gathering and social activity, and are frequented by many residents.

Unlike the land used for Parco Garbatella and the land we propose to revitalize in Tiburtino III, the green spaces of L'Anfiteatro were always owned by the cooperatives. Accordingly, the organization did not go through any branch of the municipality to obtain rights to the land. L'Anfiteatro serves as an example of a successful implementation of the club structure model. The cooperative nature of the neighborhood has enabled a group of citizens to provide and maintain greenspace usable by the entire community. These spaces, particularly the outdoor amphitheater, serve as key gathering points for the neighborhood and locations for community events.



Figure 58

Funding and Implementation

In order to achieve the benefits of bridging the greenspace across our primary and into our secondary study area, substantial work will be necessary in terms of fundraising and community organizing. We propose that our green policies and programs be funded in part by startup donations from community members to maintain the overall greenspace and by dues that would provide for garden plot resources such as seeds, fertilizer, and gardening equipment that residents could not acquire and store easily in their apartments (e.g. wheelbarrows, tilling equipment, other large equipment).

The first phase of fundraising would function similarly to the method employed by L'Anfiteatro when they first began to raise funds for maintenance. A door-to-door campaign would have the dual purpose of raising funds and awareness. While this system would have the same issue of free riders as the L'Anfiteatro scheme, there are 6,201 resident in our study area, and a 10€ donation from half of this population would be a strong start to allow for the benefits of participation to be visualized to gather future support.

For a garden plot, we propose a system similar to that of Garbatella by Legambiente. An annual fee would give each participant access to a garden plot and the right to cultivate it that year - we propose a fee of 30€/year. In Garbatella, the plots were offered in a multi-year contract, but we would only offer one-year terms at the beginning and lengthen them as the project became more stable and successful.

Regarding the structural organization of the scheme, we propose that Legambiente be invited as the organizing group. The cooperative system of Colli Aniene would be difficult to emulate in Tiburtino III, because it is better suited to a place with a pre-existing tradition of cooperative maintenance, as opposed to the strong public focus in Tiburtino III. Legambiente would be a successful organizing body to lead this project because it has the resources and organizational expertise and structure established to run a successful project. The use of an already established organization would mean that residents would not have to worry about a new, inexperienced organization in the neighborhood making dramatic and semi-permanent changes to the landscape of the area.

Why Club Goods Can Work

In implementing our design proposal to create an urban garden and park in Tiburtino III, we propose utilizing a club goods approach. We draw on the work and theories on collective action discussed in articles by Chris Webster and Lawrence Lai, as well as by Elinor Ostrom. Ostrom views clubs as a means to improve management in the community, arguing that they can serve as a preventative measure against resource dissipation. Ostrom explains her belief that they function optimally in smaller systems (Warner, 2011, pp. 156-157). Tiburtino III would fit this category of a smaller system. Ostrom also discusses two hierarchies of “webs” that are prerequisites for successful collective action. The first web is defined as core relationships and includes trust, reputation, and reciprocity. The second web is a framework that links structural variables to the core relationships and include characteristics such as freedom to enter and exit, heterogeneity of participants, number of participants, face-to-face communications, and information about past actions (Ostrom, 2010).

A club goods approach can also be beneficial in enhancing private investment and reducing costs to the city as a whole (Warner, 2011, p. 155). Clubs are intended to deliver public goods and collectively shared benefits, and Webster and Lai warn about the problems of externalities related to these public goods, arguing that they arise due to underdeveloped markets and institutions with vaguely defined property rights (Webster & Lai, 2003). Making these property rights better defined will in turn minimize and more equitably distribute transaction costs. The authors also describe several different scenarios that will yield efficient management of public goods and services.

For the two neighborhoods in our study area, we believe that initially the best approach involves fostering a situation where there is an entrepreneurial club with contractual collective action. According to this approach, the club, a third party, will provide the residents of Tiburtino III with these goods with contractual agreements and fees. Requirements of this scenario are sources of investment and capital, efficient management, and a base of membership. In order to successfully employ a club goods approach in our policy for the park in Tiburtino III, externalities must be identified and mini-

mized. This approach is similar to that utilized in our case study, Parco Garbatella, where the organization Legambiente became involved and provided significant managerial assistance and organization during the early phases of the project.

Ideally, this club structure will shift to another scenario discussed by Webster and Lai. The community will initially require the guidance and organization of an entrepreneurial club to establish the park. However, due to an eventual increase in community organization, initiative, and civic pride, residents will be able to maintain and allocate the resources of the park independently. Ideally this club structure will shift to another scenario discussed by Webster and Lai; that of the imperfect community with perfect information and no transaction costs. This will function best under conditions of strong public support and involvement (Webster & Lai, 2003).

Problems with Club Goods

In our proposal for the park in Tiburtino III, we address the possible negative impacts of implementing a club goods approach, one of which is the potential for exclusion of some members of the community. Mildred Warner warns that club approaches can fragment urban service delivery and lead to more intensified inequality. Warner asserts that planners and urban managers must balance the benefits of club goods with the “need for broader urban integration” (Warner, 2011, p. 155).



Conclusion

Tiburtino III is a neighborhood with a strong history of community involvement and citizen activity, and this is perhaps the most important social asset they have moving forward. Older residents of the neighborhood recall a history ripe with civic engagement, and although they still have a strong sense of community, the neighborhood's youth is given fewer opportunities and spaces for socialization.

The most important physical asset we have identified is the open space in Tiburtino III that could be used for potential development. The neighboring area of Colli Aniene has very strong green resources, and we believe that creating and maintaining successful green spaces in Tiburtino III as well would foster a cohesive theme of urban greenspace in the area.

We can accomplish this in Tiburtino III by mobilizing the already existent sense of community, and by taking advantage of the vacant and underutilized spaces. The currently closed off space between Via del Frantoio and Via del Badile would be an excellent location for our proposed urban garden and soccer field. These resources could be extremely successful centers of community activity, as they are both inherently people oriented. Our examples of past successes, notably Parco Garbatella and L'Anfiteatro, provide templates with which to base strategies for funding, implementation, and continued maintenance. We believe that the similarity of Parco Garbatella and the proximity of L'Anfiteatro are very encouraging in terms of the success of our proposals.

Our additional proposal of revitalizing the median on Viale Palmiro Togliatti will contribute to the overall strategic greening of the area, and is especially influential in terms of the cohesive green spaces we wish to foster. By providing active greenspace near the Santa Maria del Soccorso metro stop in Tiburtino III, and continuing that theme through to the median and ultimately into Cervelletta, we hope to encourage a neighborhood with strong green resources that will in turn foster a stronger sense of community.



References

Archival sources from the neighborhood committee of Tiburtino III

Barcella, Antonio. "Colli Aniene Compie 40 Anni (1972-2012) – Buon Anniversario!" Collianiene.org. Colli Aniene, 17 Mar. 2012. Web. 10 Mar. 2015.

Baker, Lauren E. "Tending Cultural Landscapes and Food Citizenship in Toronto's Community Gardens." *Geographical Review* 94.3 (2004): 305-25. JSTOR. Web. 20 Apr. 2015.

Data from the National Institute for Statistics (Istat)

Gianuzzi, Filippo. "La Banda Della Magliana." *Misteri D'Italia. Misteri D'Italia*, n.d. Web. 5 Apr. 2015.

Howe, D. (2013). Chapter 13: Planning for Aging Involves Planning for Life. In N. Carmon, & S. S. Fainstein (Eds.), *Policy, Planning, and People*. University of Pennsylvania Press.

Lynch, Kevin (1960) *The Image of the City*, MIT Press (selections).

Ostrom, Elinor. "Analyzing Collective Action." *Agricultural Economics* 41 (2010): 155-66. Web.

Petrucci, Luca, and Carlo Maltese. *PASS (Progetto per Abitazioni Sociale E Sostenibili. Concorsopass. ATER ROMA*, n.d. Web. 1 Apr. 2015.

Trancik, Roger (1986) *Finding lost space. Theories of urban design*. New York: Wiley & Sons, pp. 1-20, 97-124.

Warner, M. E. (2011). *Club Goods and Local Government* (Vol. 77). *Journal of the American Planning Association*.

Webster, Christopher J. and Lawrence Wai-Chung Lai. 2003. *Property Rights, Planning and Markets: Managing Spontaneous Cities*. Cheltenham, UK; Northampton, MA: Edward Elgar.

Interview Credits:

APA Sixth Method

Bruno. (2015, February 26). (T. Terzo, Interviewer) gb

Eno, T. a. (2015, March 11). (T. Terzo, Interviewer)

Francesco. (2015, March 26). (T. Terzo, Interviewer)

Macellino, M. (2015, March 26). (T. Terzo, Interviewer)

Mario. (2015, March 11). (T. Terzo, Interviewer)

Nicolina, L. a. (2015, March 11). (T. Terzo, Interviewer)

Vicaro, A. (2015, March 26). (T. Terzo, Interviewer)

Photo and Graphic Credits

Figures:

Figure 1: Aerial view of primary study area, taken from Google Maps

Figure 2: Metropolitan context, taken from Google Maps

Figure 3: Regional context of Roman peripheral neighborhoods, taken from Google Maps

Figure 4: Aerial view of entire study area, taken from Google Maps

Figure 5: 1970s public housing construction in Tiburtino III, taken from archival sources

Figure 6: Tiburtino III public housing demolition in 1960s, taken from archival sources

Figure 7: Cooperative housing in Colli Aniene, taken by Kyra Spotte-Smith

Figure 8: Public housing in Tiburtino III, Via Mozart, taken by Kyra Spotte-Smith

Figure 9: Map of Tiburtino III as a borgata, taken from archival sources

Figure 10: Santa Maria del Soccorso metro station, taken from archival sources

Figure 11: Children's building of the Vaccheria, Colli Aniene, taken by Kyra Spotte-Smith

Figure 12: Ennio Calabria artwork in Tiburtino III demolition, taken from archival sources

Figure 13: Vaccheria, Colli Aniene, taken by Kyra Spotte-Smith

Figure 14: Interview at Centro Anziani, taken by Kyra Spotte-Smith

Figure 15: Team member photographing Tiburtino III, Via Badile, taken by Emma Guida

Figure 16: Interviewee drawing Lynch Map, Parco Tiburtino, taken by Kyra Spotte-Smith

Figure 17: Santa Maria del Soccorso metro station, taken by Kyra Spotte-Smith

Figure 18: Section of Viale Palmiro Togliatti

Figure 19: Section of Via Mozart

Figure 20: Section of Via Schubert

Figure 21: Santa Maria del Soccorso metro station, taken from archival sources

Figure 22: Bus stop on Viale Palmiro Togliatti, taken from Google Street View

Figure 23: Bike lane on Viale Palmiro Togliatti, taken from Google Street View

Figure 24: Open ground east of Viale Palmiro Togliatti, taken from Google Street View

Figure 25: L'Anfiteatro, Colli Aniene, taken by Emma Guida

Figure 26: Excel graphs, taken from Google Images

Figure 27: Gender distribution graph, data from Istat (2011)

Figure 28: Population age distribution graph, data from Istat (2011)

Figure 29-30: Employment sector graphs, data from Istat (2001)

Figure 31: Highest degree attained graph, data from Istat (2001)

Figure 32: Immigration by country of origin graph, data from Istat (2001)

Figure 33: Housing construction by year graph, data from Istat (2001)

Figure 34-35: Housing ownership graphs, data from Istat (2001)

Figure 36: Interviewees in Centro Anziani, taken by Kyra Spotte-Smith

Figure 37: Lynch map drawn by Mario

Figure 38: Historic Lynch map drawn by Luciano

Figure 39: Lynch map drawn by Eno, Tonino, and Alberto

Figure 40: Interviewees drawing Lynch map, Parco Tiburtino, taken by Kyra Spotte-Smith

Figure 41: Lynch map drawn by Francesco

Figure 42: Street art in Tiburtino III, taken by Kyra Spotte-Smith

Figure 43: Historic photo of festival in Tiburtino III, taken from archival sources

Figure 44: Unused green space in Tiburtino III, taken by Kyra Spotte-Smith

Figure 45: Cervelletta, taken from archival sources

Figure 46: Street view of Via Grotta di Gregna, taken by Kyra Spotte-Smith

Figure 47: Sketch of street with trees, taken from Google Images

Photo and Graphic Credits, cont.

Figure 48: Aerial view of primary study area, taken from Google Maps

Figure 49: Aerial view of primary study area with target areas and connectivity path, base taken from Google Maps

Figure 50: Section of current median on Viale Palmiro Togliatti

Figure 51: Design proposal for median on Viale Palmiro Togliatti

Figure 52: Section of design proposal for median on Viale Palmiro Togliatti

Figure 53: Design proposal for Parco Tiburtino III in context map, base taken from Google Maps

Figure 54: Bocce court, taken from Google Images

Figure 55: Community garden, taken from Google Images

Figure 56: Soccer field, taken from Google Images

Figure 57: Design proposal for Parco Tiburtino III

Figure 58: L'Anfiteatro greenspace in Colli Aniene, taken by Emma Guida

Figure 59: Members of the Dream Team amongst greenery, taken by Melody Stein

Map 13: Zoomed in target area 4, aerial view, taken from Google Maps

Map 14: Cervelletta, aerial view, taken from Google Maps

Map 15: Median on Viale Palmiro Togliatti, aerial view, taken from Google Maps

Map 16: Parco Tiburtino III, aerial view

Maps:

Map 1: Figure ground

Map 2: Primary study area, aerial view

Map 3: General map of study area

Map 4: Street typology map

Map 5: Building typology map

Map 6: Land use map

Map 7: Land use by ownership map

Map 8: Public transportation map

Map 9: Greenspace, open ground, and lost space map

Map 10: Design proposal target areas with greenspace and path

Map 11: Median on Viale Palmiro Togliatti, aerial view, taken from Google Maps

Map 12: Zoomed in target area 2, aerial view, taken from Google Maps

