



**SAPIENZA**  
UNIVERSITÀ DI ROMA



**UNIVERSITÀ**  
DEGLI STUDI DELLA  
**TUSCIA**

# **GREEN REBIRTH**

## **REGENERATION OF SANTA RITA PARK AS A KEY URBAN GREEN SPACE IN LATINA, ITALY**

**DEPARTMENT OF ARCHITECTURE AND DESIGN**

**MASTER'S DEGREE THESIS  
LANDSCAPE ARCHITECTURE**

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CO-SUPERVISOR: CRISTINA IMBROGLINI**

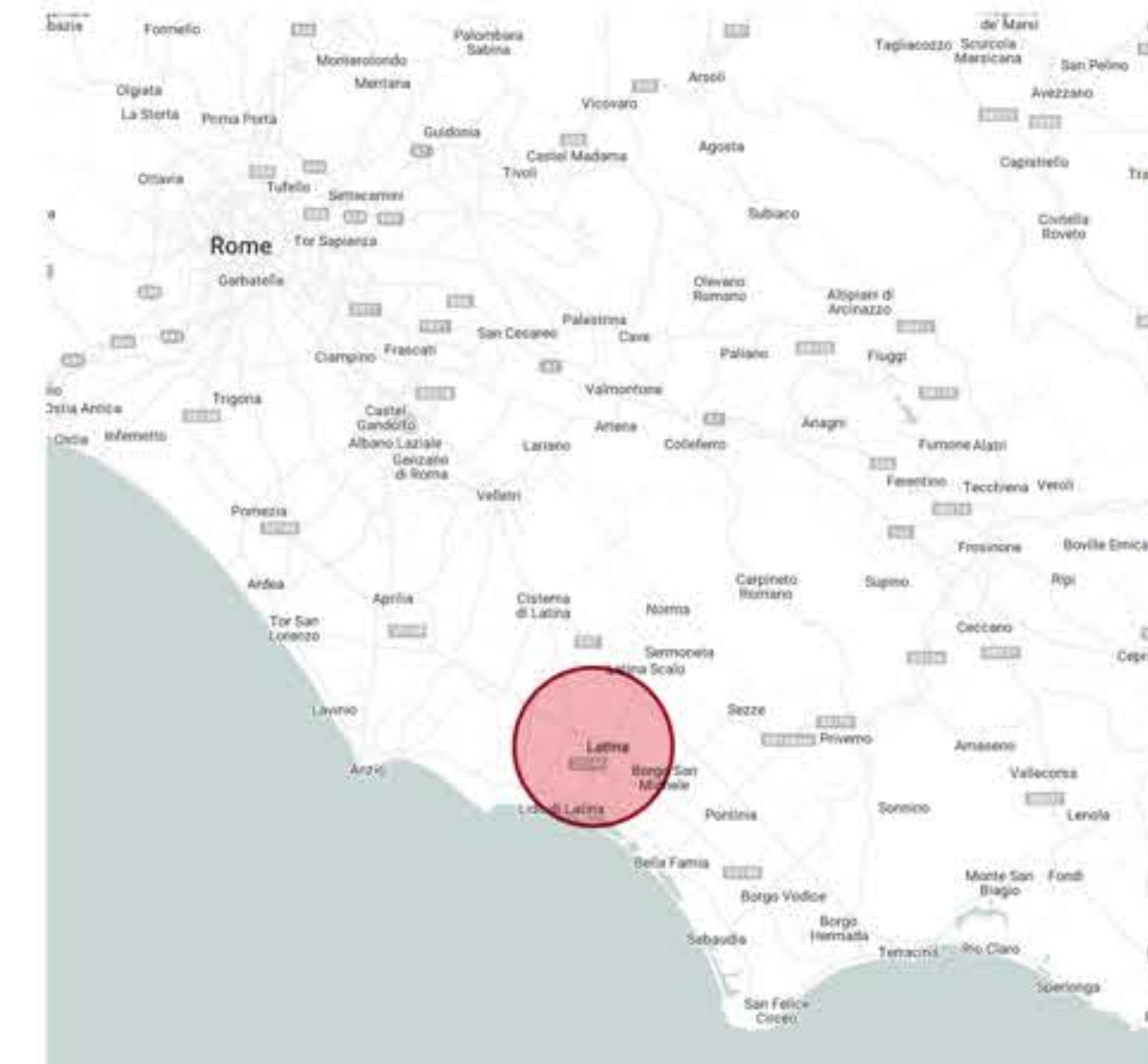
**STUDENT: ROZHAN TEYMOURTASHLOO**



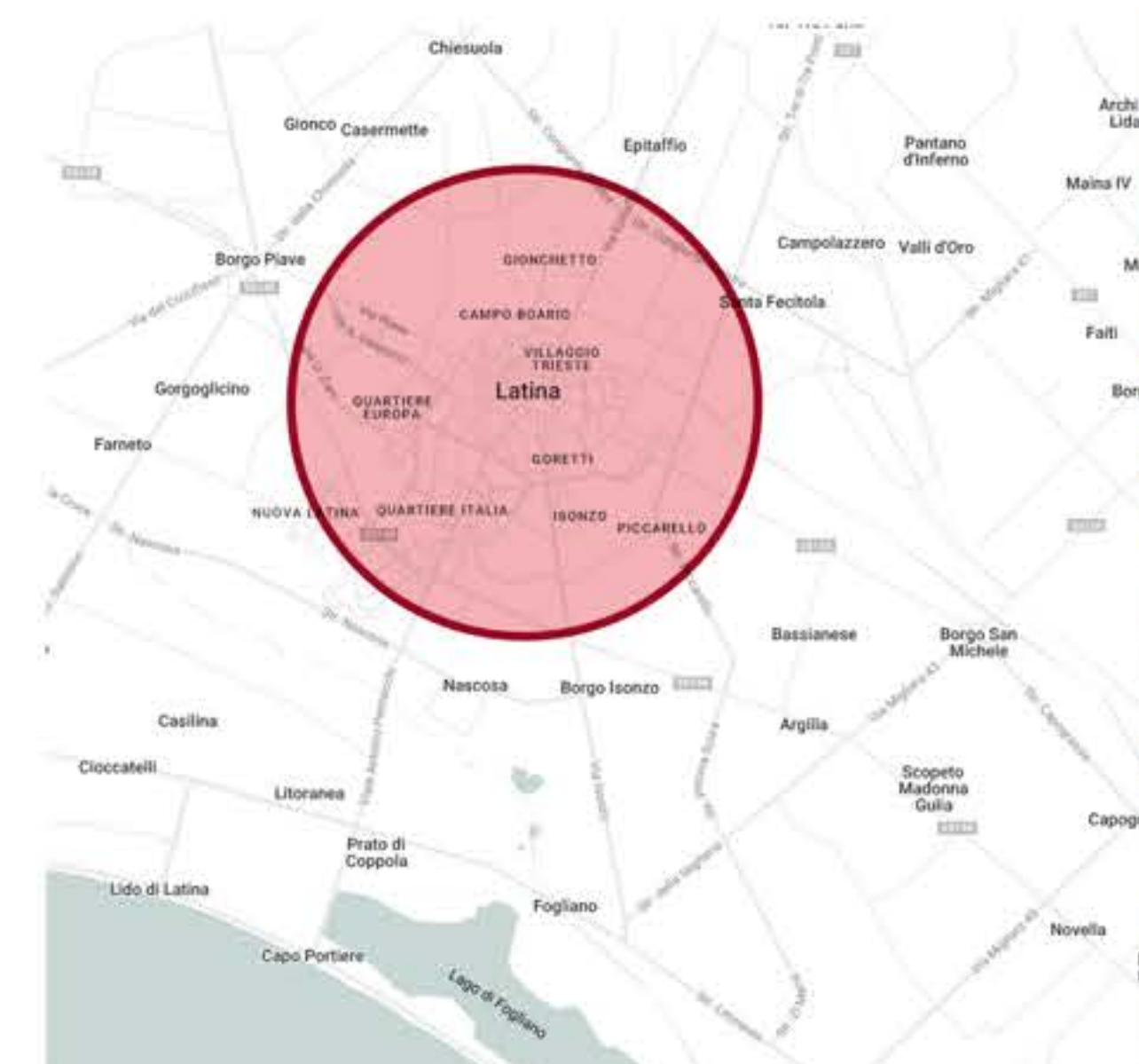
## SITE LOCATION



The distance between Rome and Latina is approximately 70 kilometers.



Latina is smaller than Rome in both size and population. Rome covers about 1,285 square kilometers with a population of around 2.8 million. In contrast, Latina spans about 276 square kilometers and has a population of approximately 125,000.



Latina is about 10 kilometers from the Tyrrhenian Sea. The closest beach is near the coastal town of Sabaudia.



Panorama of Latina



Borgo Sabotino Church



Torre Pontina (11th tallest building in Italy)



City Hall



Palazzo M

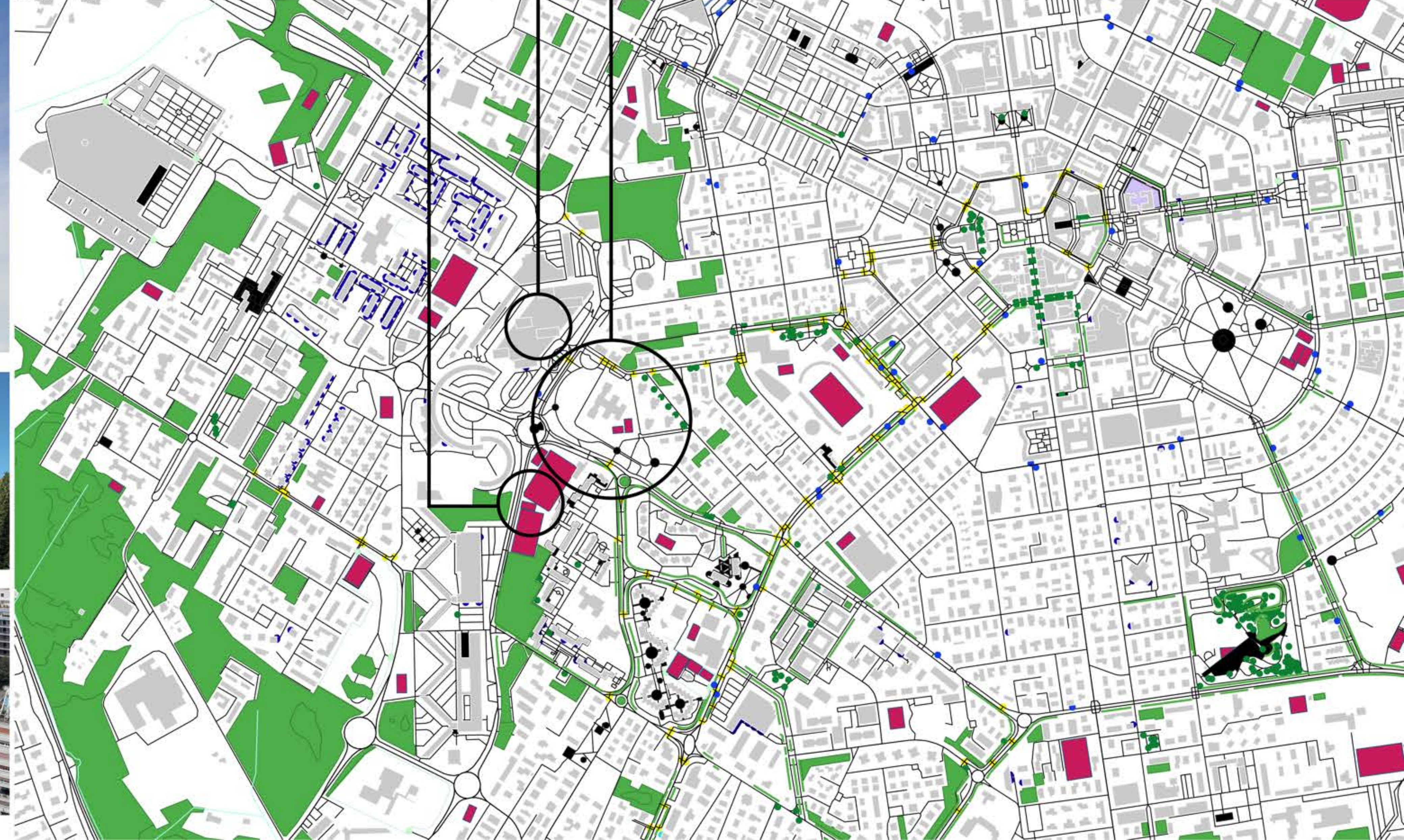
- building1
- building2
- waterway1
- waterway2
- sport1
- sport2
- sport
- social\_facility
- route1
- route2
- route3
- route
- residential1
- residential2
- public\_transport1
- public\_transport2
- playground
- natural1
- natural2
- natural
- lanes1
- lanes
- landuse1
- landuse2
- landuse
- junction
- highway1
- highway2
- highway
- cycleway1
- cycleway2
- building



SCALE 1:40000



SCALE 1:8000



Commercial Centers  
Sport Fields  
Santa Rita Park





## SWOT ANALYSIS

### STRENGTHS

1. **Natural Beauty:** Well-maintained green spaces and gardens.
2. **Accessibility:** Centrally located and easily reachable.
3. **Amenities:** Playgrounds, sports facilities, and picnic areas.
4. **Community Engagement:** Hosts local events and festivals.

### WEAKNESSES

1. **Maintenance Issues:** Occasional litter and vandalism.
2. **Limited Facilities:** Some amenities might be insufficient.
3. **Crowding:** Can get crowded during peak times.
4. **Noise Level:** Potential for noise from events and gatherings.

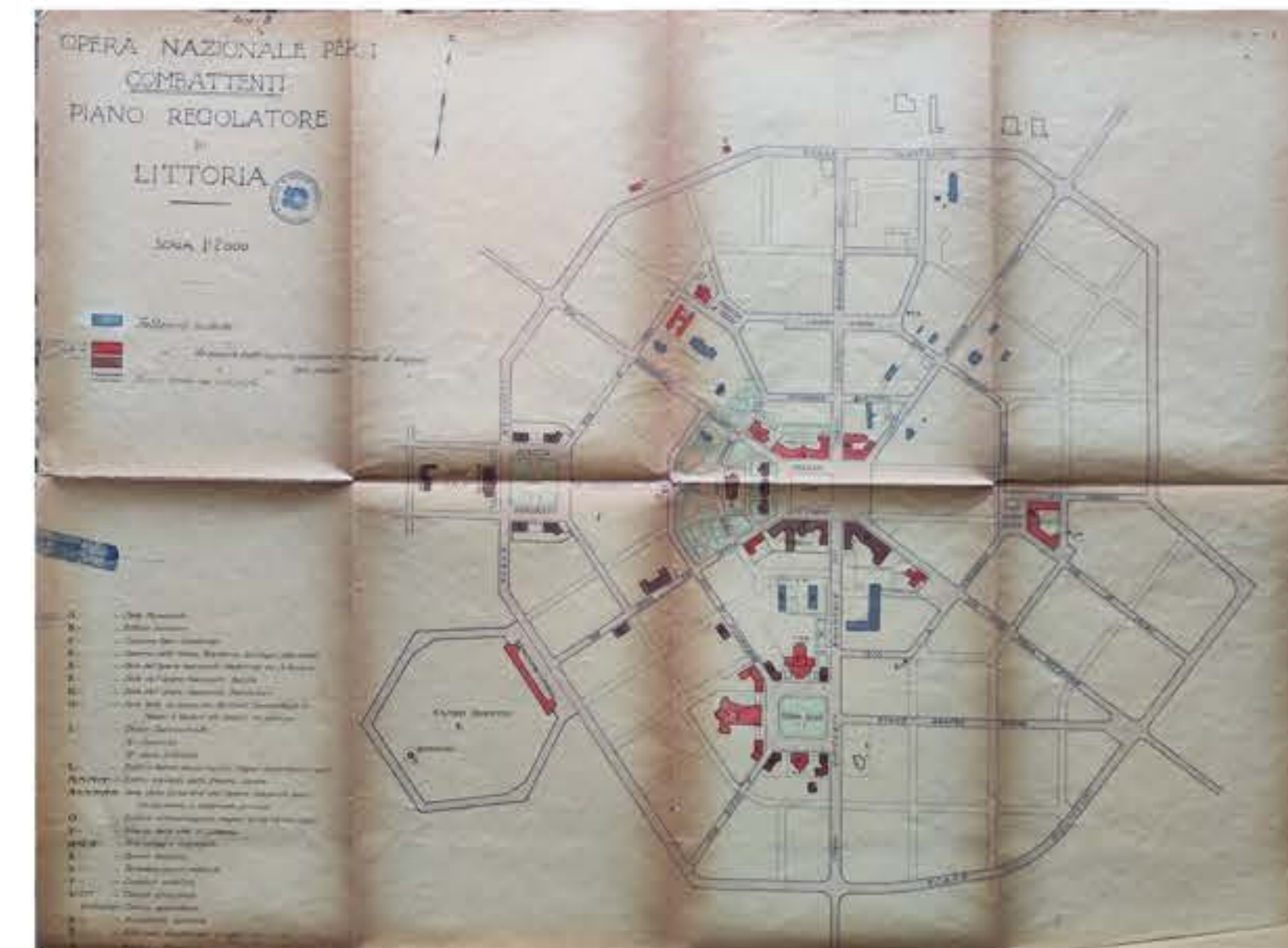
### OPPORTUNITIES

1. **Event Expansion:** More events to attract visitors.
2. **Partnerships:** Collaborations for resources and improvements.
3. **Eco-friendly Initiatives:** Sustainable practices to enhance appeal.
4. **Educational Programs:** Workshops and classes to engage the community.

### THREATS

1. **Funding Constraints:** Possible budget cuts affecting maintenance.
2. **Environmental Factors:** Weather and environmental degradation.
3. **Security Concerns:** Ensuring visitor safety is crucial.
4. **Vandalism:** Risk of damage to facilities and amenities.

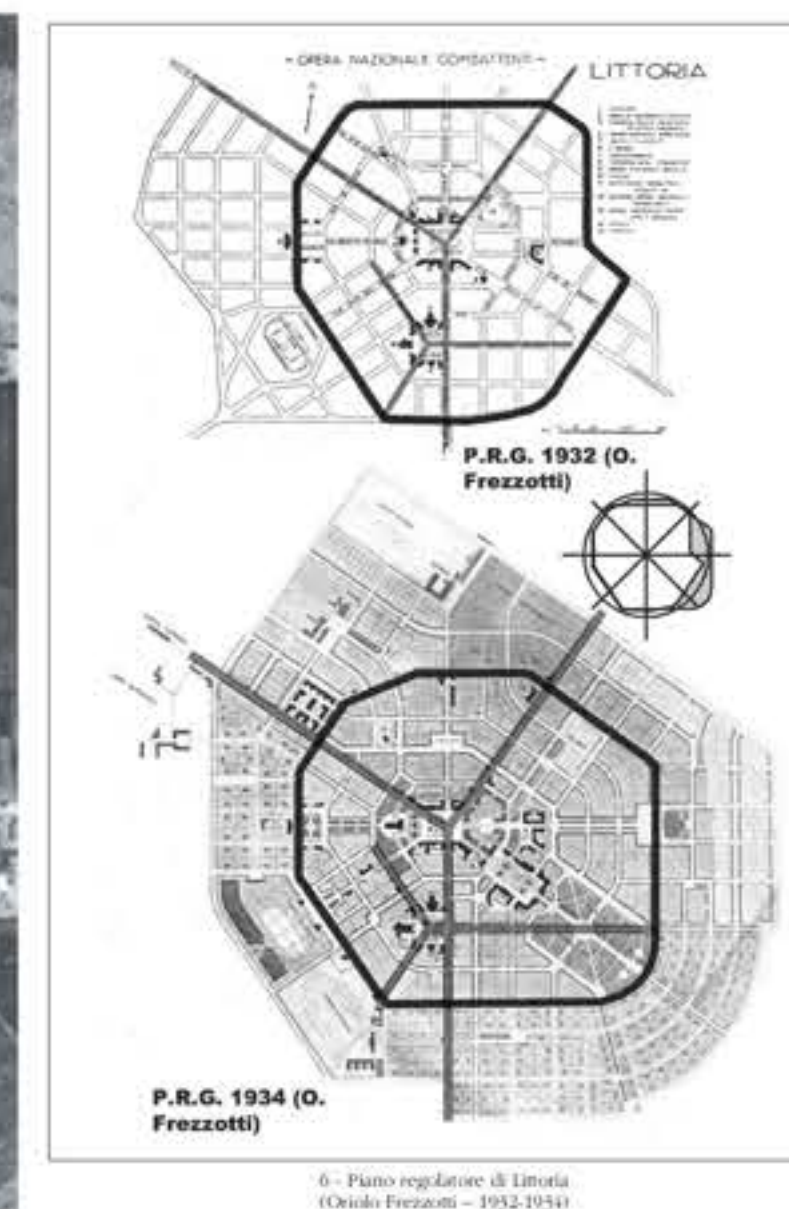
## HISTORY



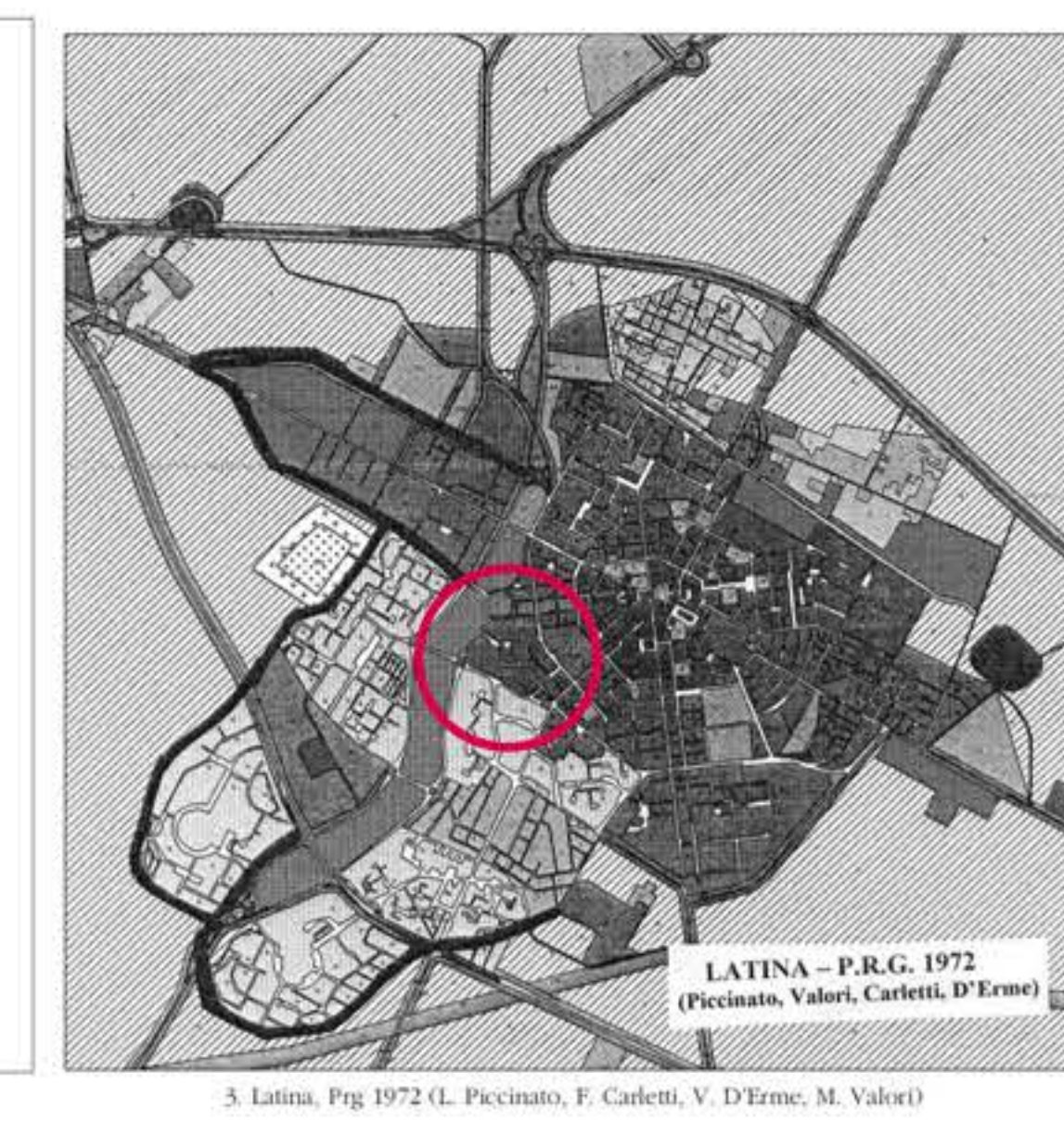
1920



1930



1932/4



1972

In 1920, the area now known as Latina was an undeveloped, malaria-ridden swamp in the Pontine Marshes, largely uninhabitable. This changed dramatically in the early 1930s when Mussolini's regime drained the marshes and established Littoria in 1932, a planned agricultural town showcasing Fascist ideals. After World War II, the town was renamed Latina in 1946 and gradually shifted from its rural roots. Over the decades, it evolved into a modern urban hub, supported by industry, commerce, and education. Today, Latina thrives as a vibrant provincial center with a diverse economy, its transformation from swamp to city reflecting a century of change.



2003



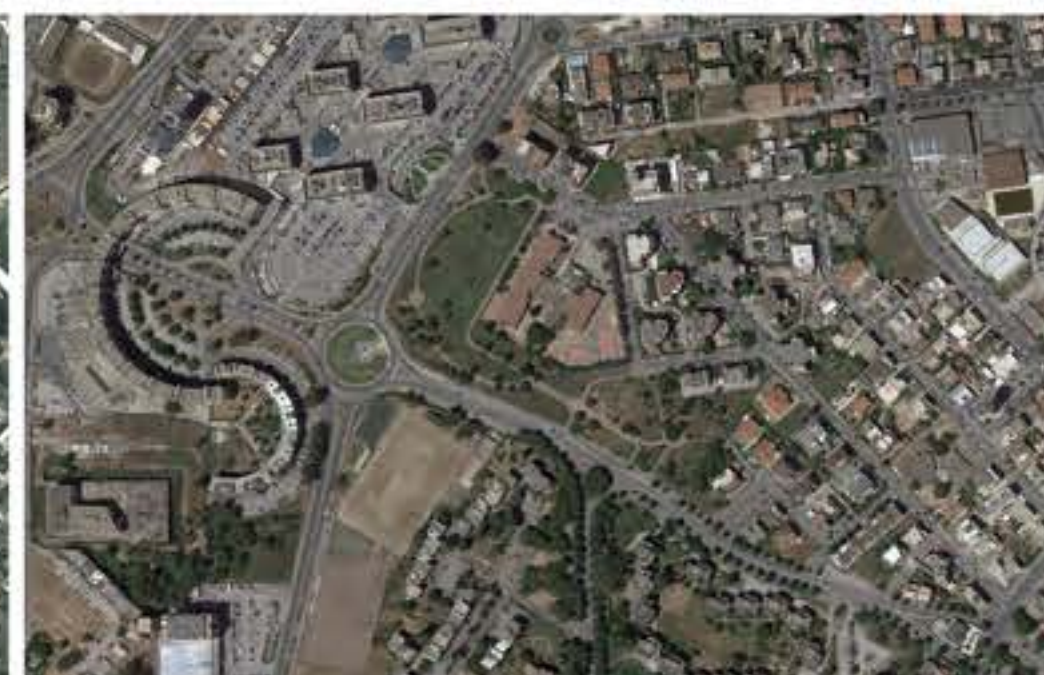
2007



2010



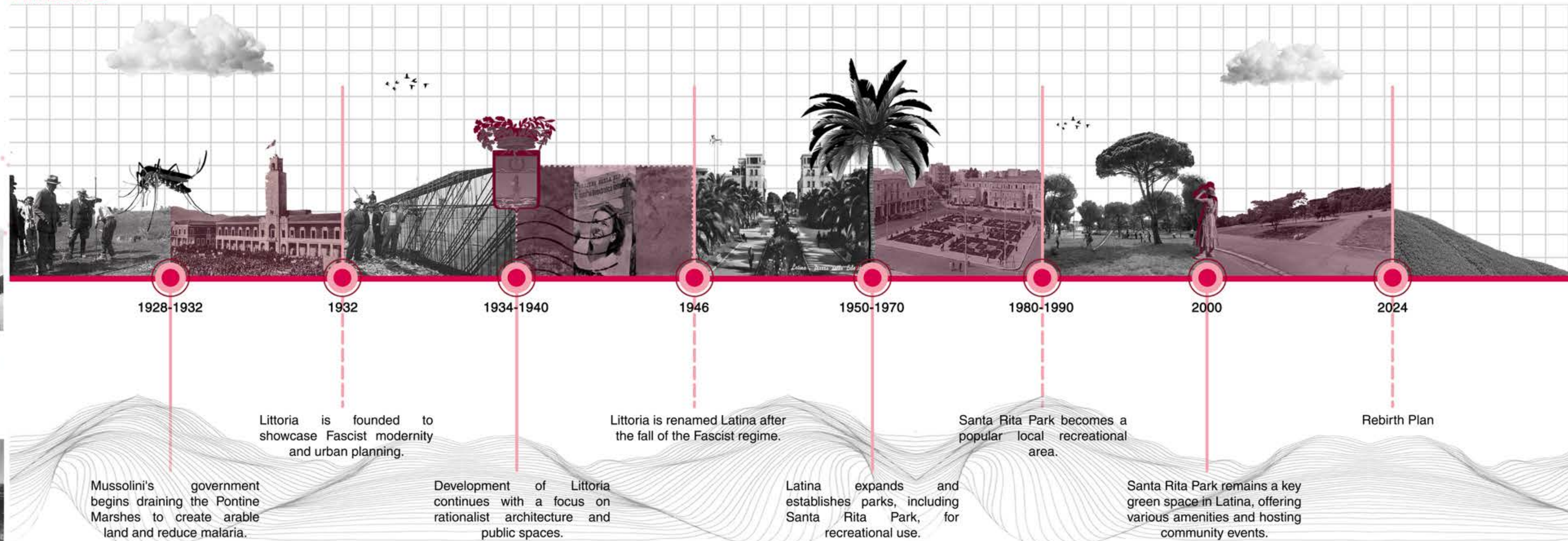
2011



2022

Since 2003, when the earliest photograph of this park was taken, its architectural design and spatial layout have remained unchanged. As new buildings, infrastructure, and modern developments have transformed the surrounding urban fabric, the park's original pathways, greenery, and structural elements have stayed intact. Its preserved design contrasts sharply with the evolving cityscape, offering a consistent architectural presence amid the dynamic growth of the urban environment around it.

## TIMELINE

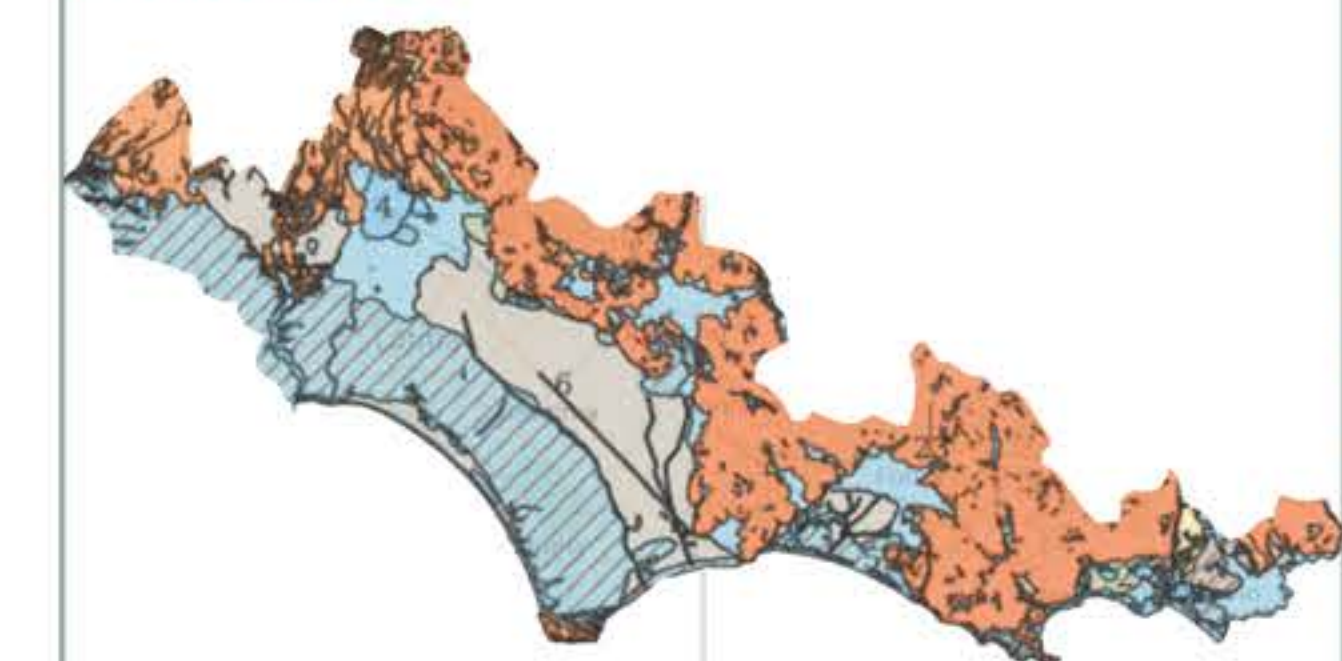






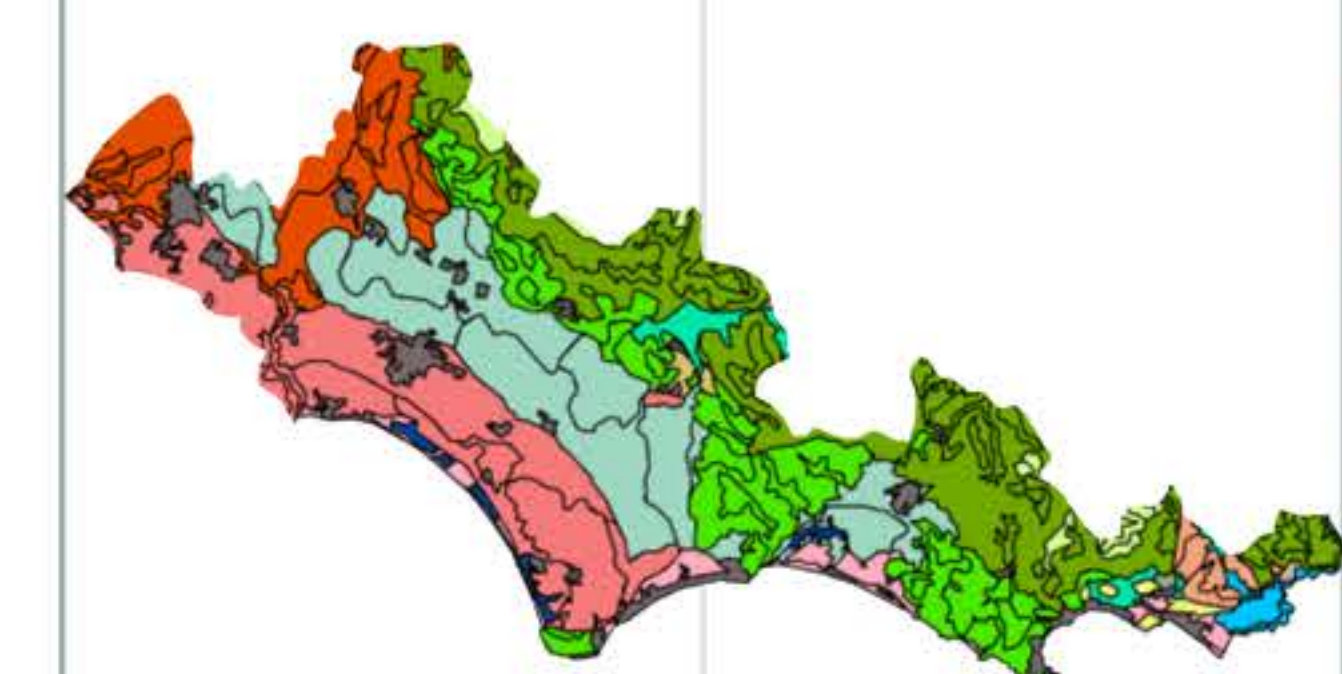
## ANALYSIS

### HYDROGEOLOGY



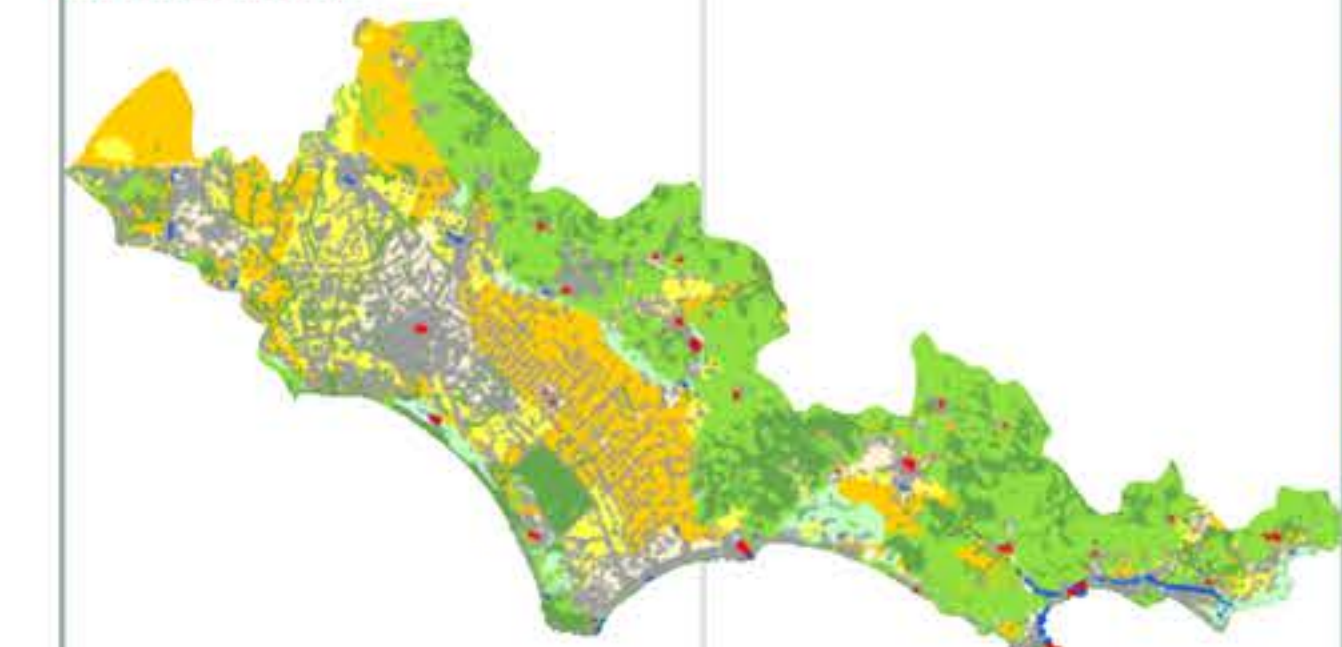
- Complex of lavas, laccoliths and scoria cones
- Sand dune complex
- Complex of stratified tufts and phreatomagmatic facies
- Marly-clayey flysch complex

### SOIL



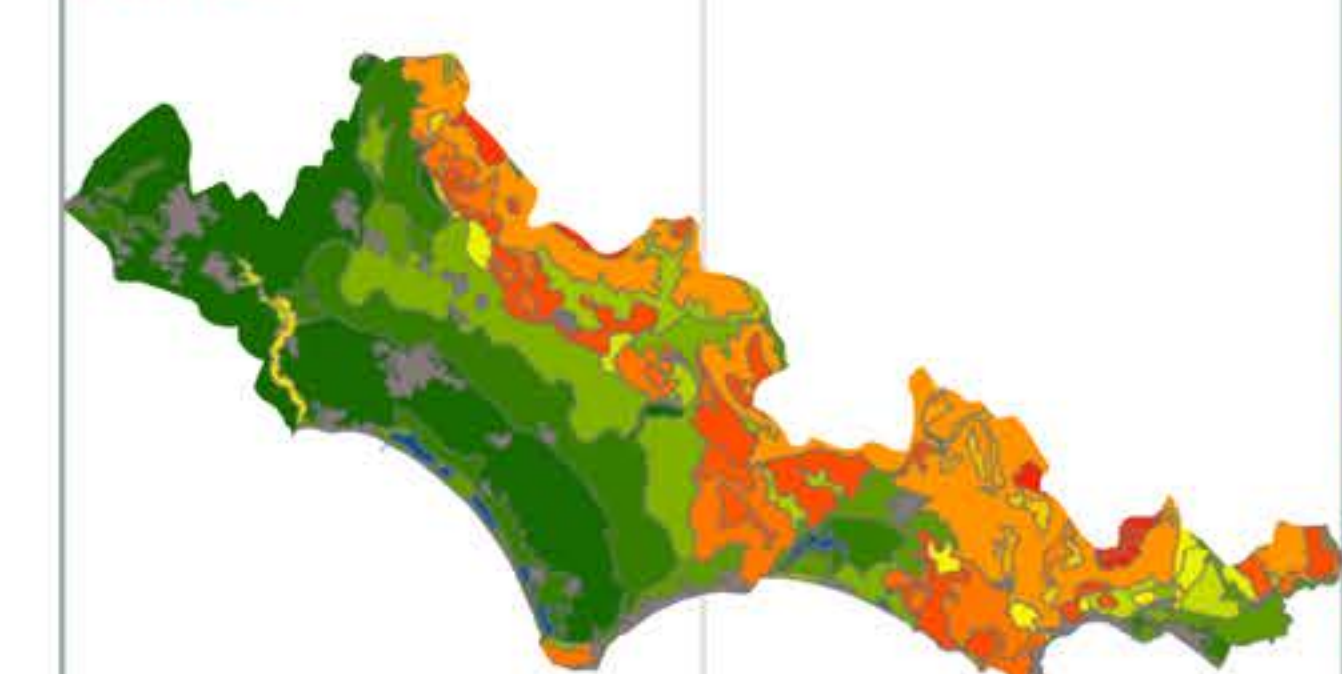
- Volcanic area
- Ancient dune/Red dune on ancient aeolian deposits
- Alluvial plain on fluvial-lacustrine and marshy deposits
- Calcareous-marly area located below 1000 m above sea level
- Limestone and dolomitic mountains below 1200 m above sea level
- Artificially shaped territories

### LANDSCAPES



- Agricultural landscape of significant value
- Valuable agricultural landscape
- Natural landscape
- Natural landscape of continuity
- Landscape of historical centers
- Networks, infrastructure and services

### LAND USE



- Artificially shaped territories
- Bodies and waterways
- I-III
- VIII-VII



Latina LT, Italy



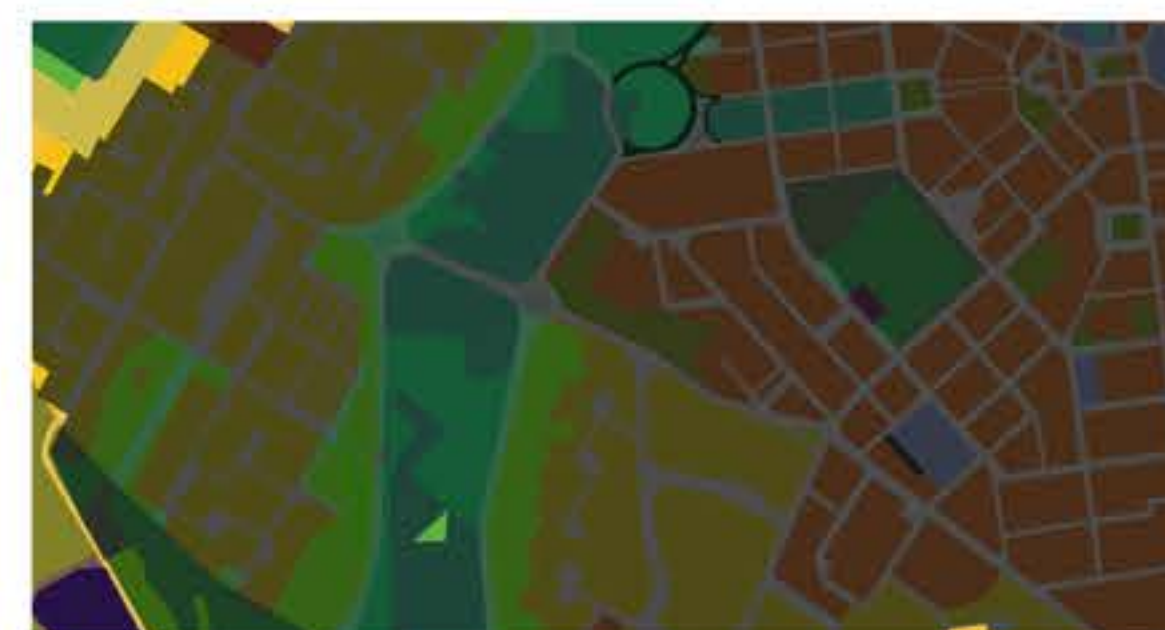
- Residential settlement
- Arable land
- Shrubby and/or herbaceous vegetation cover
- Production plant
- Urbanized green area



- Wooded areas and semi-natural environments
- Used agricultural surfaces
- Artificial surfaces



- Completion areas
- Urban planning standards
- Industrial settlement
- Facilities of general interest
- Expansion zones



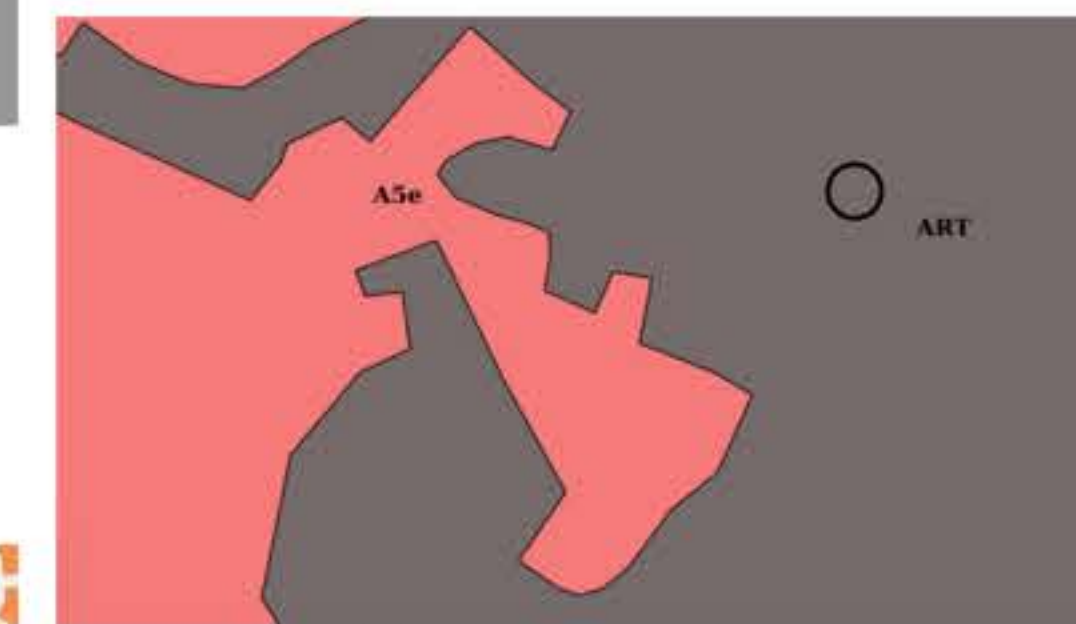
Urbanized green completion area on artificial surface



Coastal sand complex



Urban settlements



Artificially shaped territories on aeolian



Artificially shaped territories on area II (Cultivable)



Aeolosand Agro-Urban Complex

## WHY SANTA RITA?



### COMMUNITY IMPACT

Santa Rita Park serves as a community hub for all ages, with sports facilities, shaded areas for elders, and family-friendly picnic spaces. Its diverse uses make it ideal for design upgrades to boost accessibility and functionality.

### DESIGN POTENTIAL

Santa Rita Park's diverse spaces make it ideal for design improvements. Enhancing athletic facilities and open areas can boost accessibility and encourage use by all ages, transforming it into a vibrant, multifunctional community hub.

### ACCESSIBILITY & CENTRAL LOCATION

Santa Rita Park's central location and connected pathways make it easily accessible to all, encouraging foot traffic and community engagement. Improved accessibility will strengthen its role as a vital hub for recreation and social activities.

### UNIQUE CHARACTER

Santa Rita Park's character, defined by its natural landscape and history, features mature trees and diverse plant life that encourage outdoor interaction. Adding design elements reflecting the community's heritage will strengthen its identity and enhance visitor engagement.

### ENVIRONMENTAL POTENTIAL

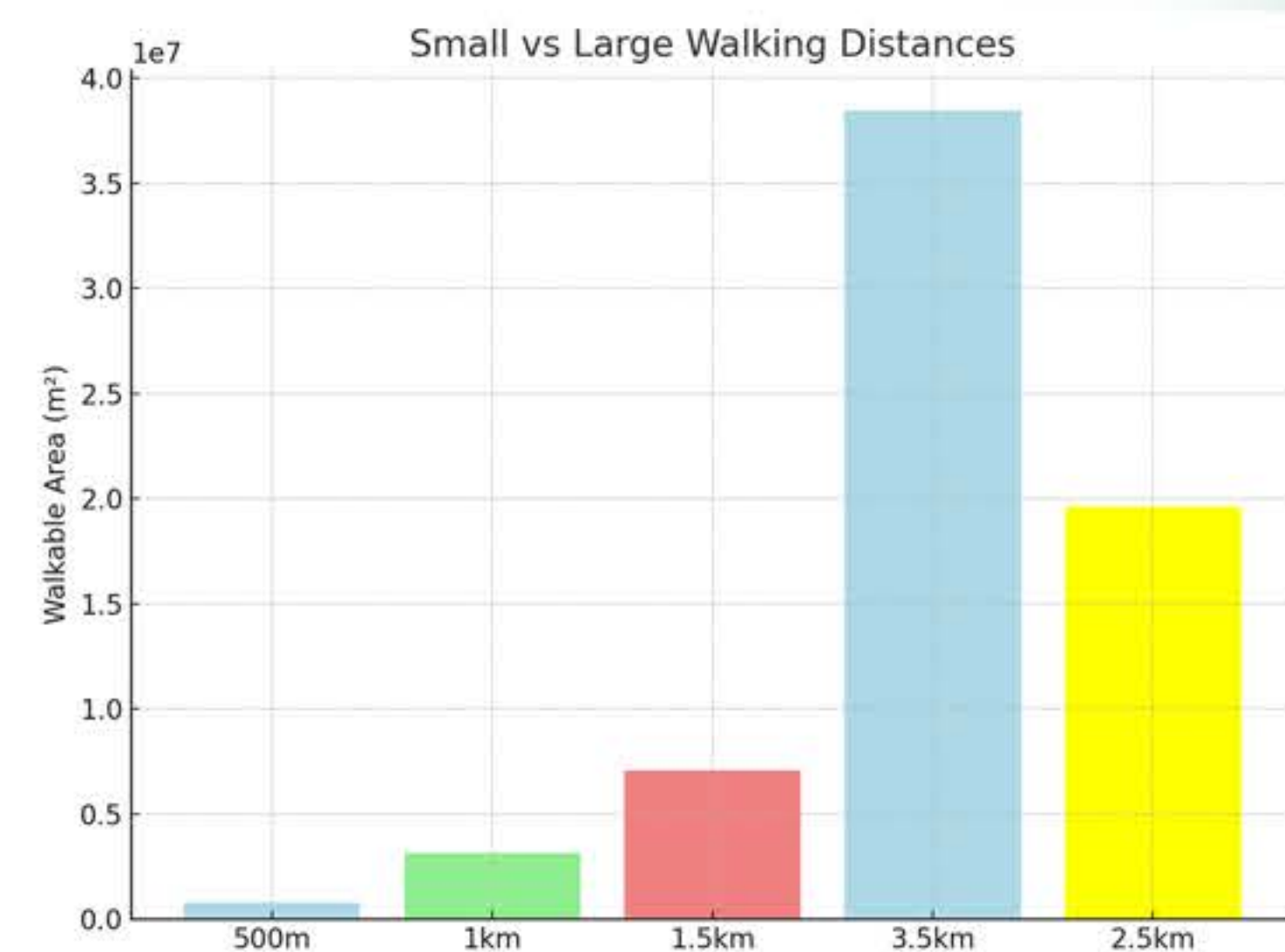
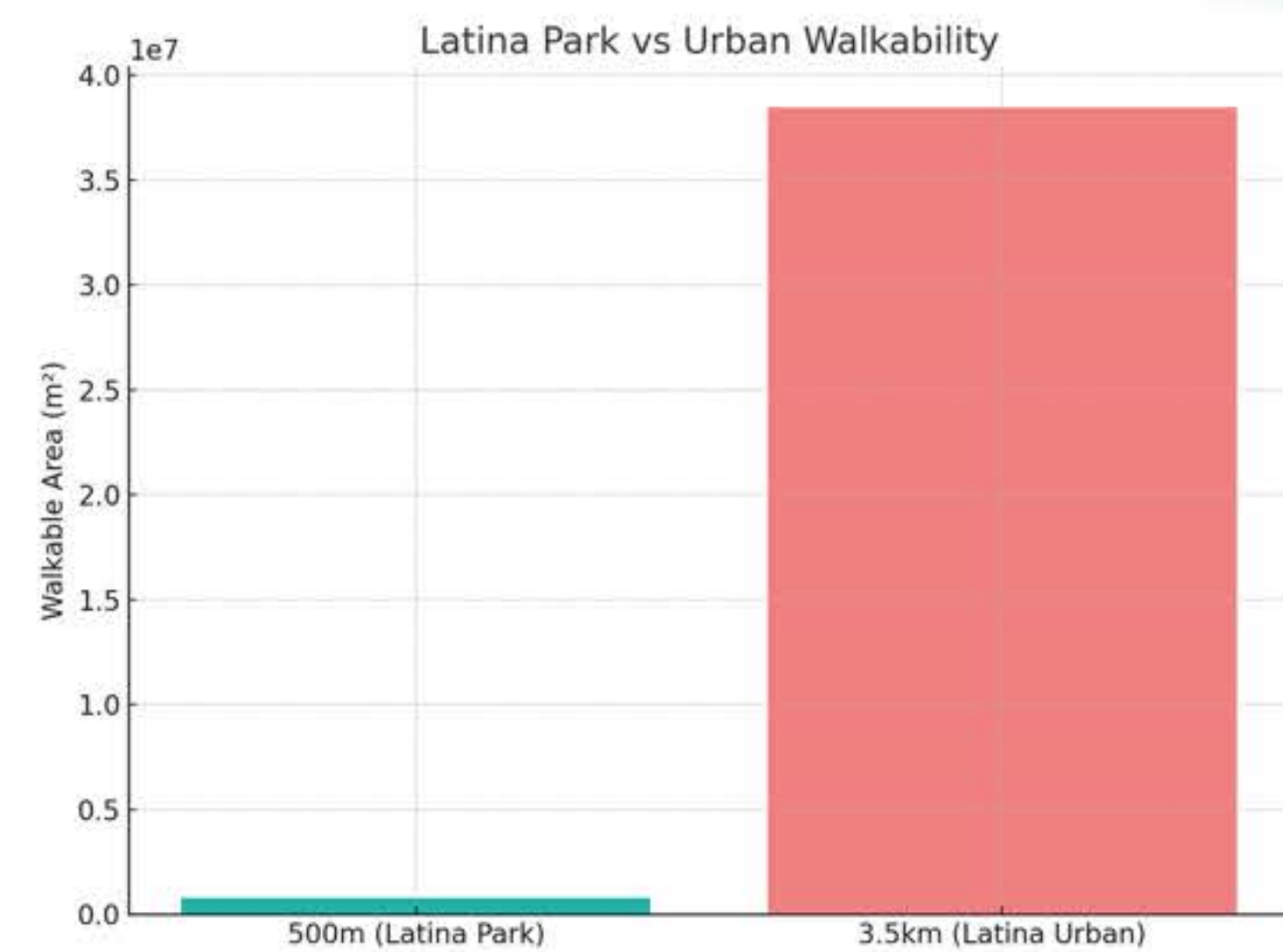
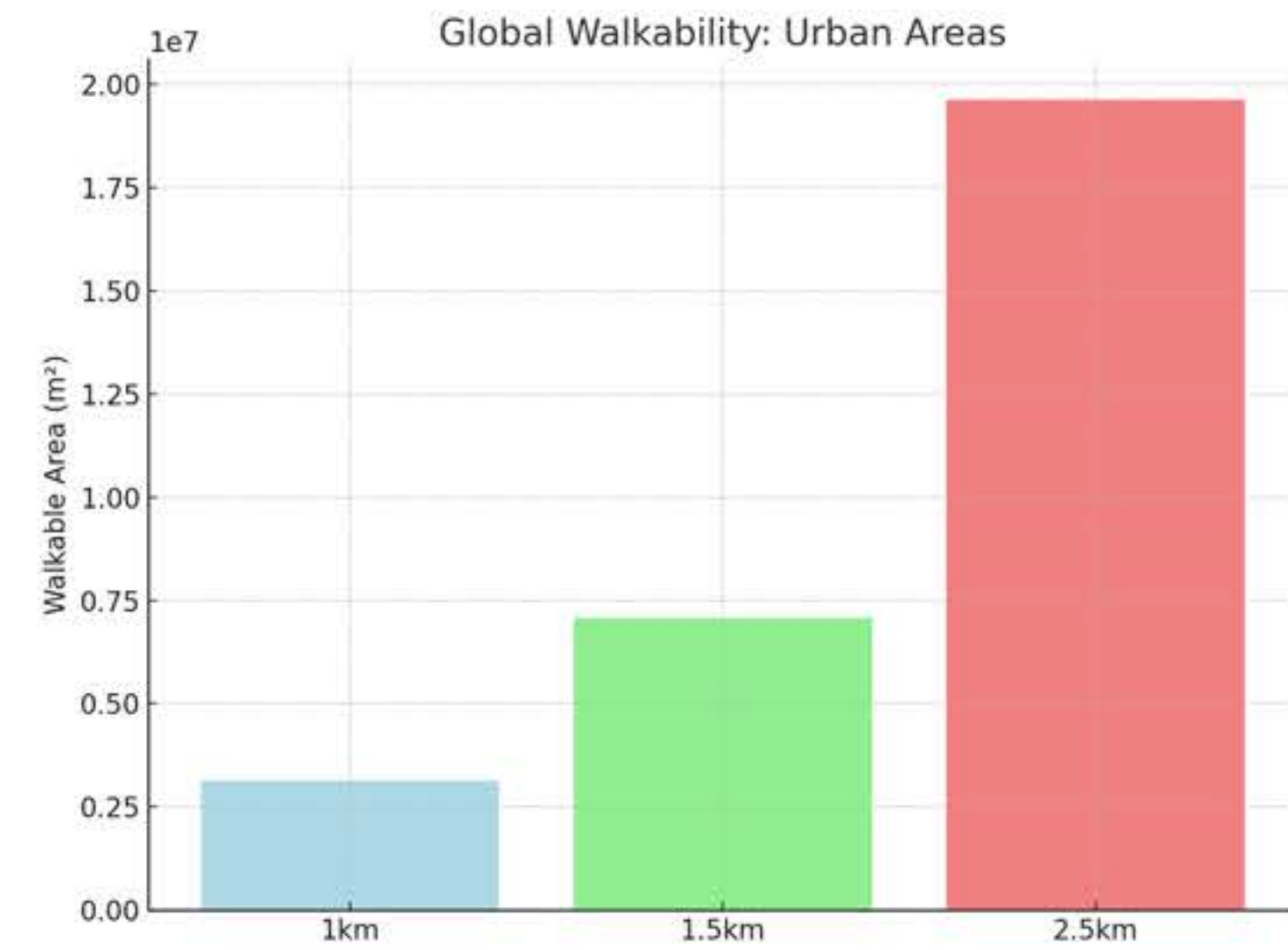
The park's mature trees and plant life boost biodiversity, while sustainable design like native landscaping and green infrastructure can improve stormwater management and strengthen the community's connection to nature.





## WALKABILITY

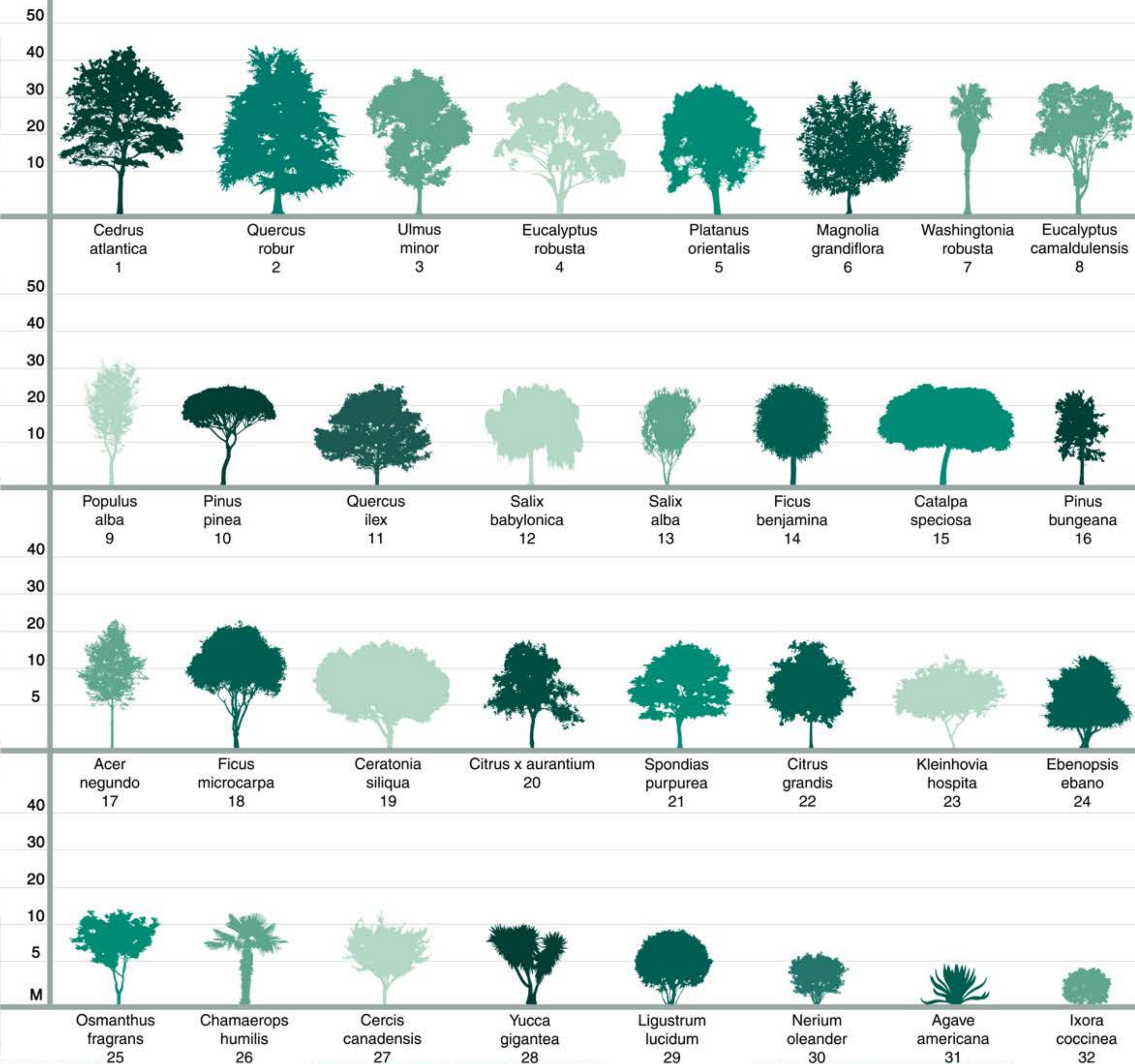
According to the World Health Organization (WHO), a walkable urban area is generally considered to be within a 3.5 km radius, which is the distance most people can comfortably walk in about 45 minutes. However, Italian law for local parks sets a much shorter benchmark for accessibility. It states that parks should be within a 500-meter walking distance from residents to ensure they are easily accessible for daily use. This contrast highlights the difference between broader urban planning standards aimed at overall walkability and the more specific accessibility requirements for local green spaces.







VEGETATION & TOPOGRAPHY



RESTRICTED ACCESS

The arrows show the existing park entrances for visitor guidance. However, the northwest section is off-limits due to Oleanders, which pose safety hazards, ensuring the well-being of all park users.

ABSENCE OF TRANSPORTATION

There is currently no public transport connection between the city center and the park, with the nearest bus stop located 600 meters away.

LACK OF RUNNING PATH

The absence of a running path restricts opportunities for outdoor exercise, limiting physical activity and overall usability of the space.

ABSENCE OF ACTIVITY ZONES

The absence of an activity zone limits spaces for recreation and social interaction, reducing the area's appeal for active engagement. This lack of designated areas may discourage community involvement and outdoor activity.

EXCLUSION OF DOG PARK

The absence of a dog park limits recreational space for pet owners, reducing opportunities for pets to socialize and exercise. This omission can impact the overall appeal for those with dogs in the community.

LACK OF CONNECTION

The fragmented bike path infrastructure lacks connections to key areas like parks and the city center, limiting cycling's viability and creating safety hazards at road intersections.

NOISE POLLUTION

Noise pollution from the nearby school, shopping mall, and surrounding highways significantly impacts the park's tranquility. The constant sounds of traffic, along with voices and activities from the school and mall, disrupt the natural environment, making it difficult for visitors to enjoy a peaceful experience.

SHADOWLESS

A shadowless design eliminates shade, potentially reducing comfort and making outdoor spaces feel more exposed. This lack of shadow can impact the overall ambiance and usability, especially in warm climates.

NON-CLIMATIC ADAPTATION

The lack of climate adaptation in the design fails to account for environmental conditions, potentially making the space uncomfortable or unsustainable. Without adjustments for local climate, the area may be less resilient and harder to maintain.

ABSENCE OF SPORTS AREA

The absence of a sports area limits opportunities for physical activity and organized recreation. This lack of space can hinder community engagement and reduce options for active lifestyles.



### WHO IS RUDOLF ARNHEIM?

Rudolf Arnheim (1904–2007), a German-born theorist, integrated Gestalt psychology with art and visual studies, exploring how humans perceive and interpret forms, influencing the study of art, design, and media.



### PERCEPTION THEORY

Rudolf Arnheim's Gestalt-based theory explains how visual elements like paths and focal points shape perception, balance, and emotion in landscapes, helping architects design harmonious, navigable, and engaging spaces.



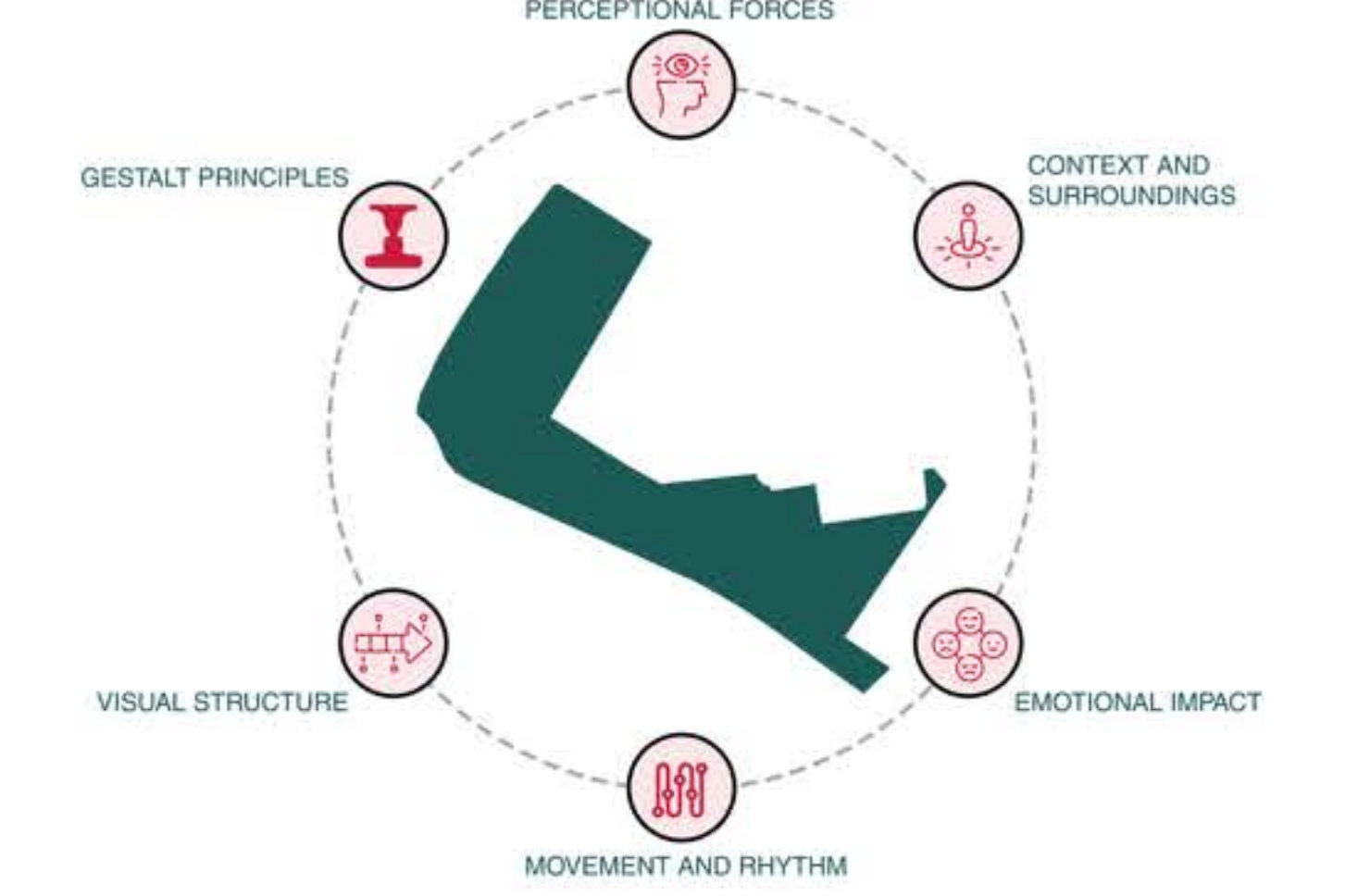


Max Wertheimer (1880–1943), a Czech-born psychologist and founder of Gestalt psychology, emphasized that humans perceive objects and patterns as wholes, influencing psychology, art, and design.

### ARNHEIM'S VISUAL PERCEPTION ANALYSIS

Rudolf Arnheim's theory in landscape architecture highlights how visual elements shape perception and experience in outdoor spaces. Key principles include:

- Perceptual Forces:** Features attract attention through size, color, and placement.
- Gestalt Principles:** Harmonious arrangements create stability and comfort.
- Visual Structure:** Defined pathways guide seamless movement.
- Movement and Rhythm:** Component interactions ensure coherence.
- Emotional Impact:** Contrast in color, texture, and form elicits emotion.
- Context and Surroundings:** Designs should integrate with their surroundings for continuity.



PERCEPTUAL FORCES

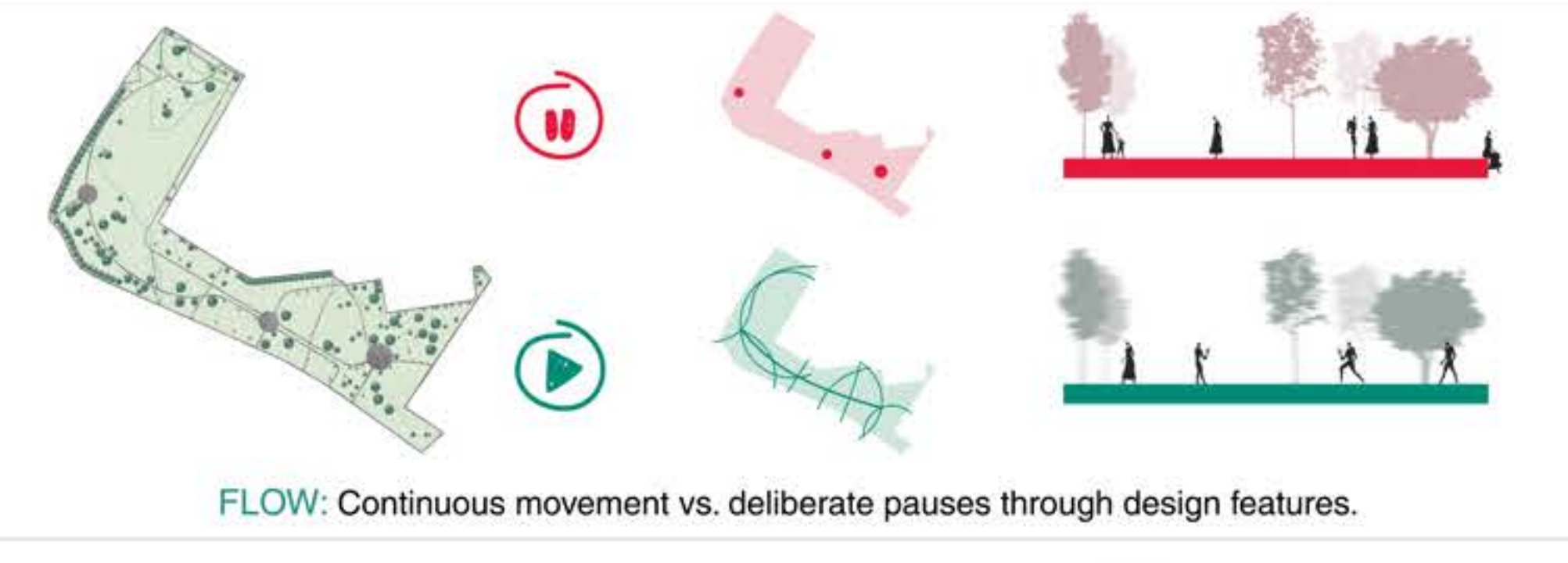
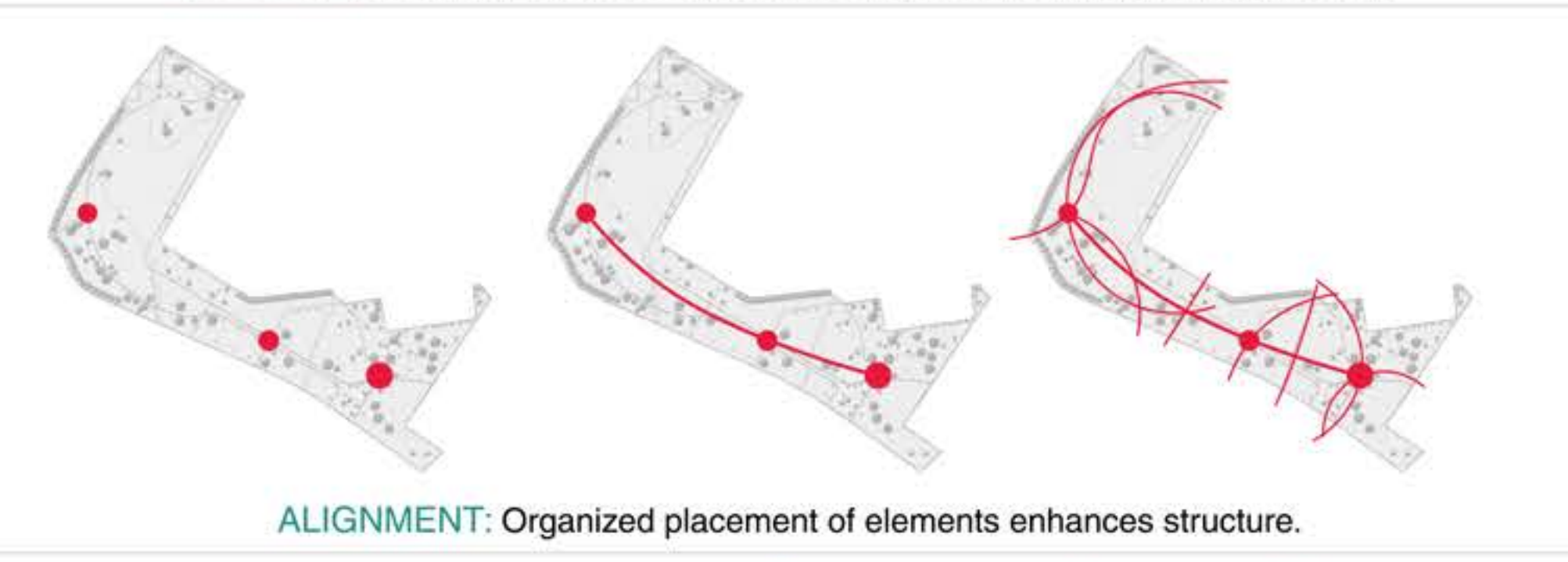
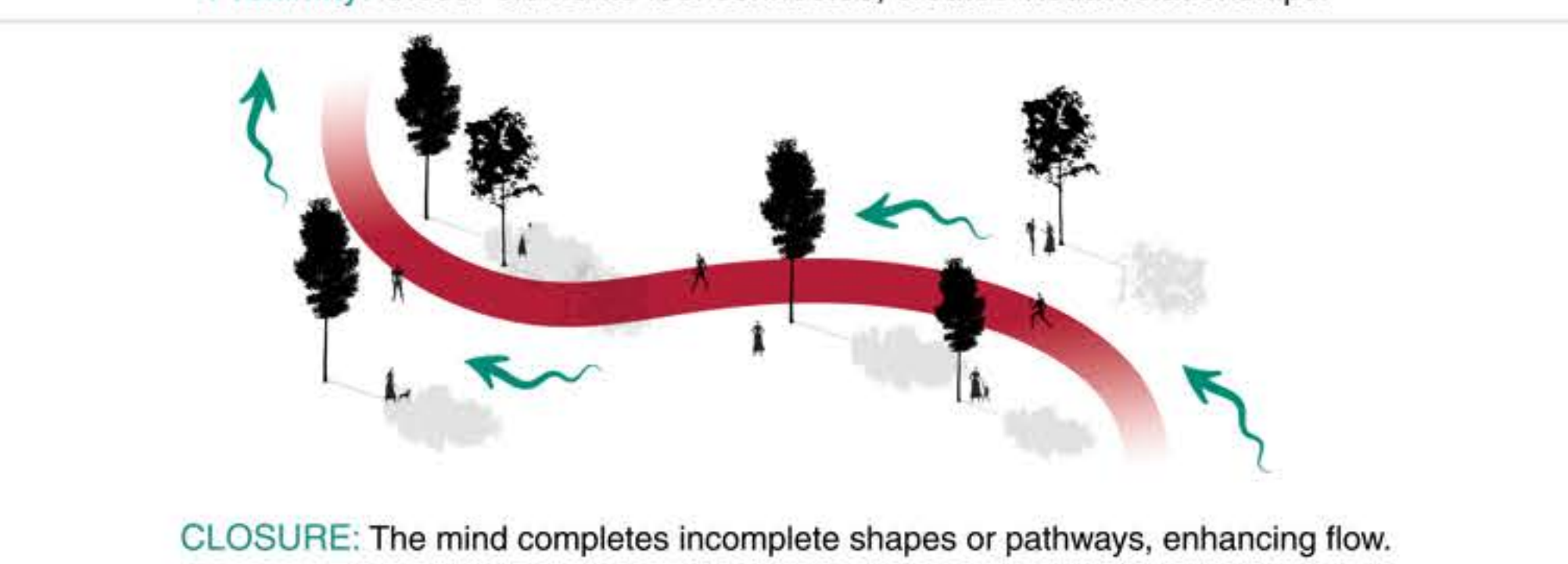
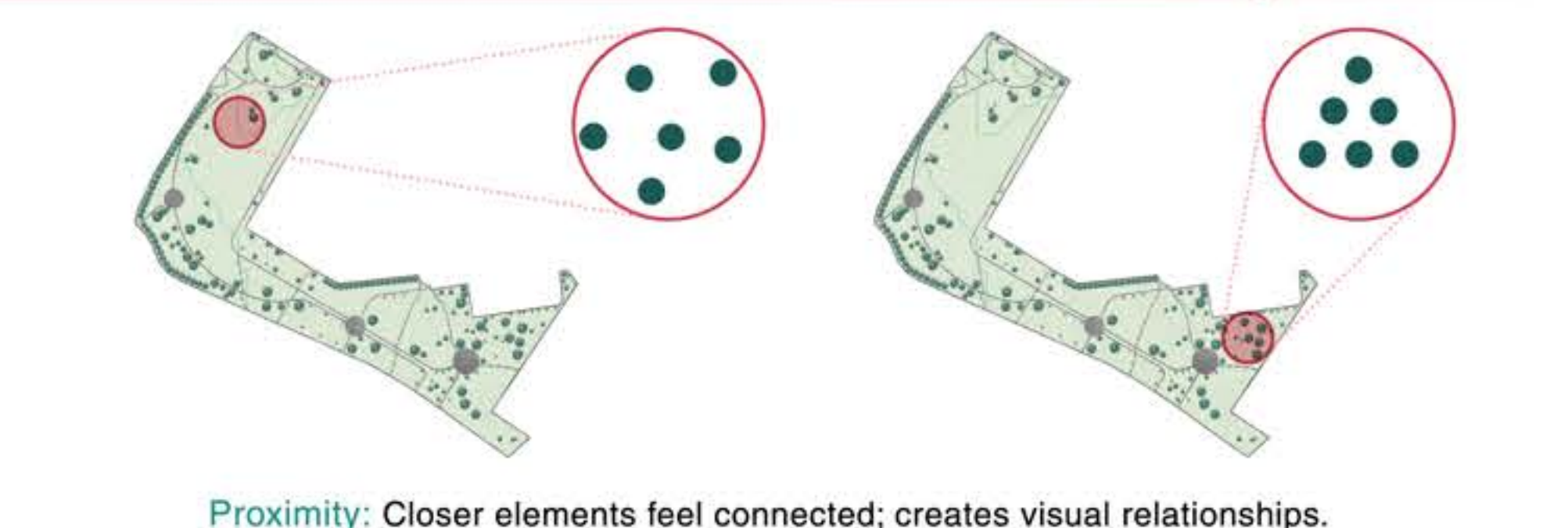
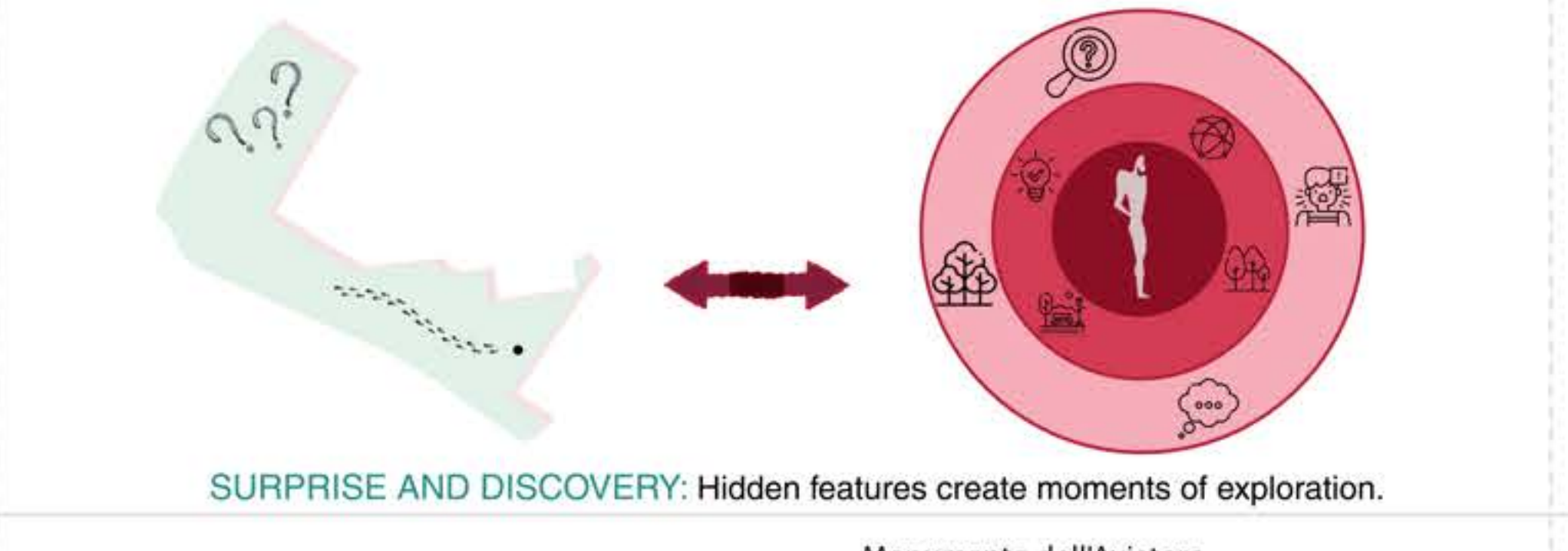
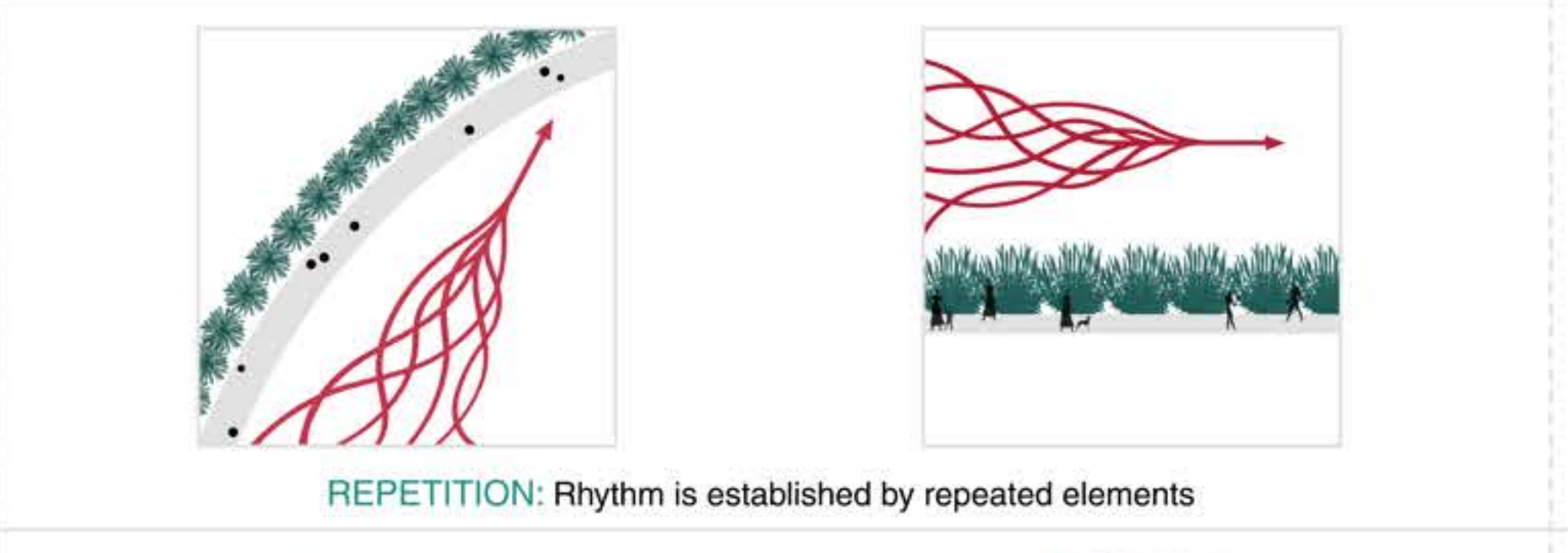
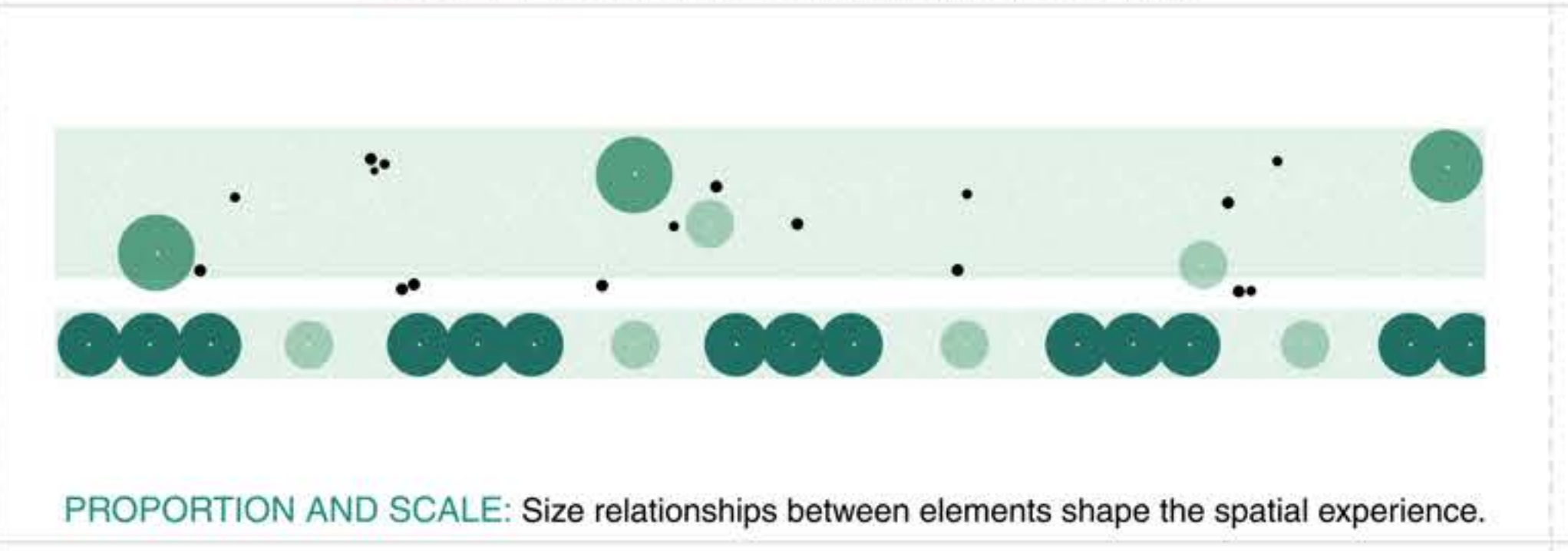
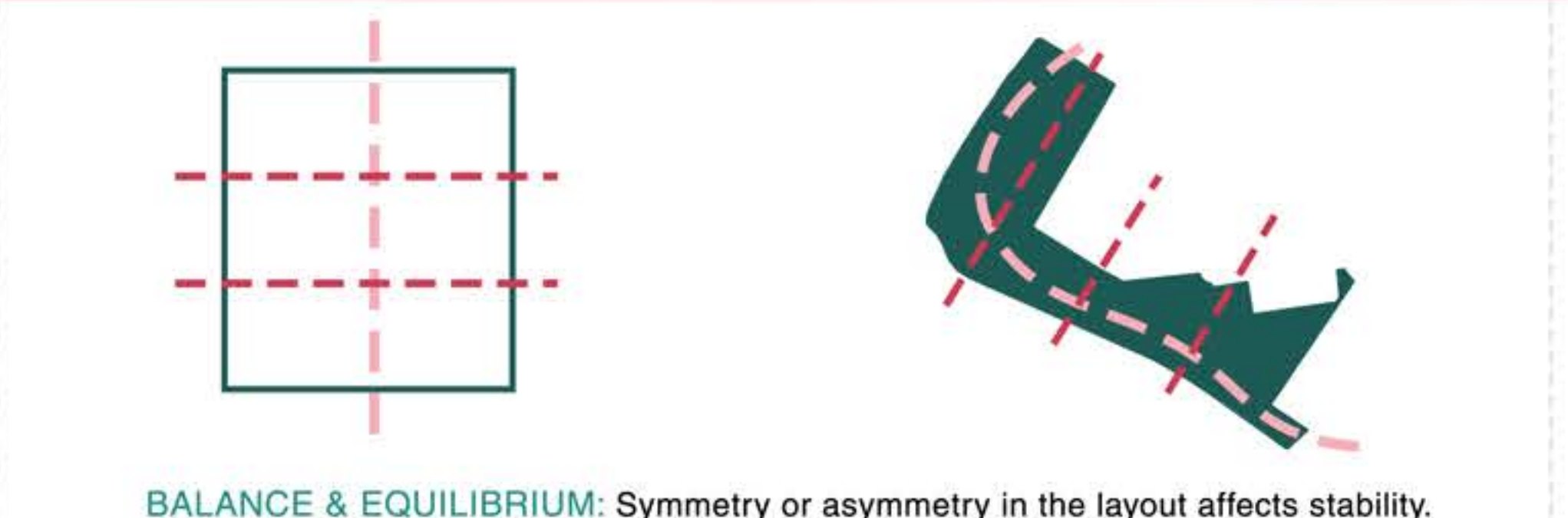
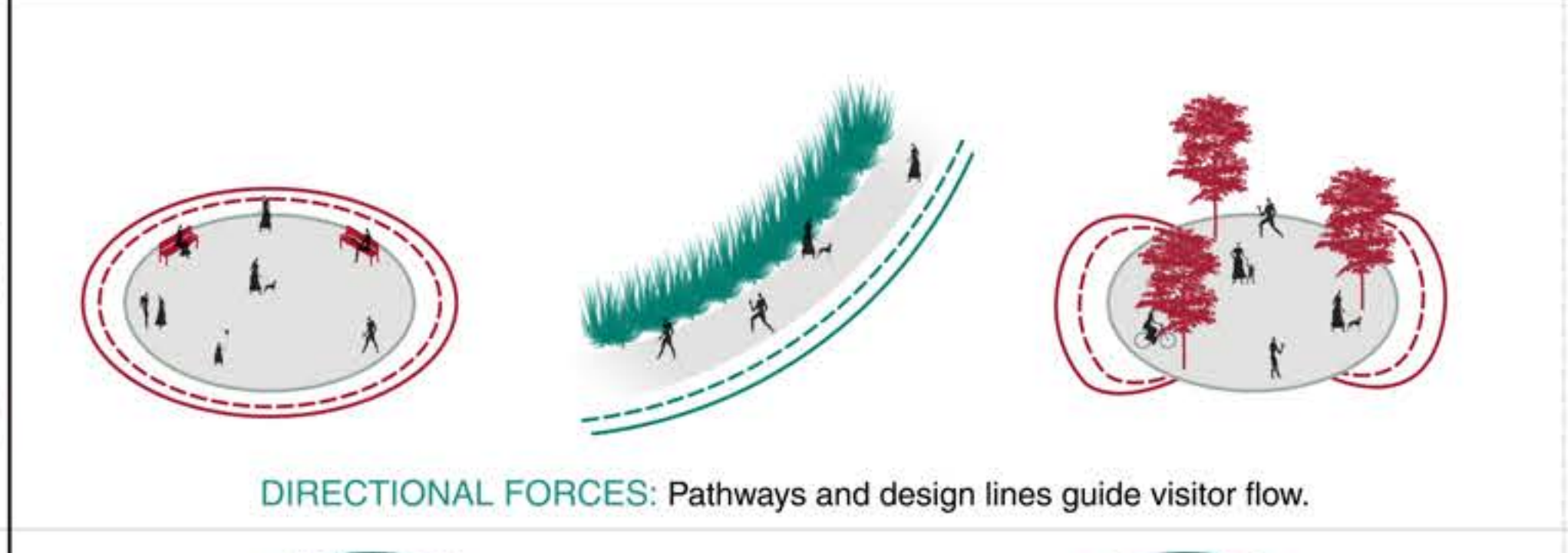
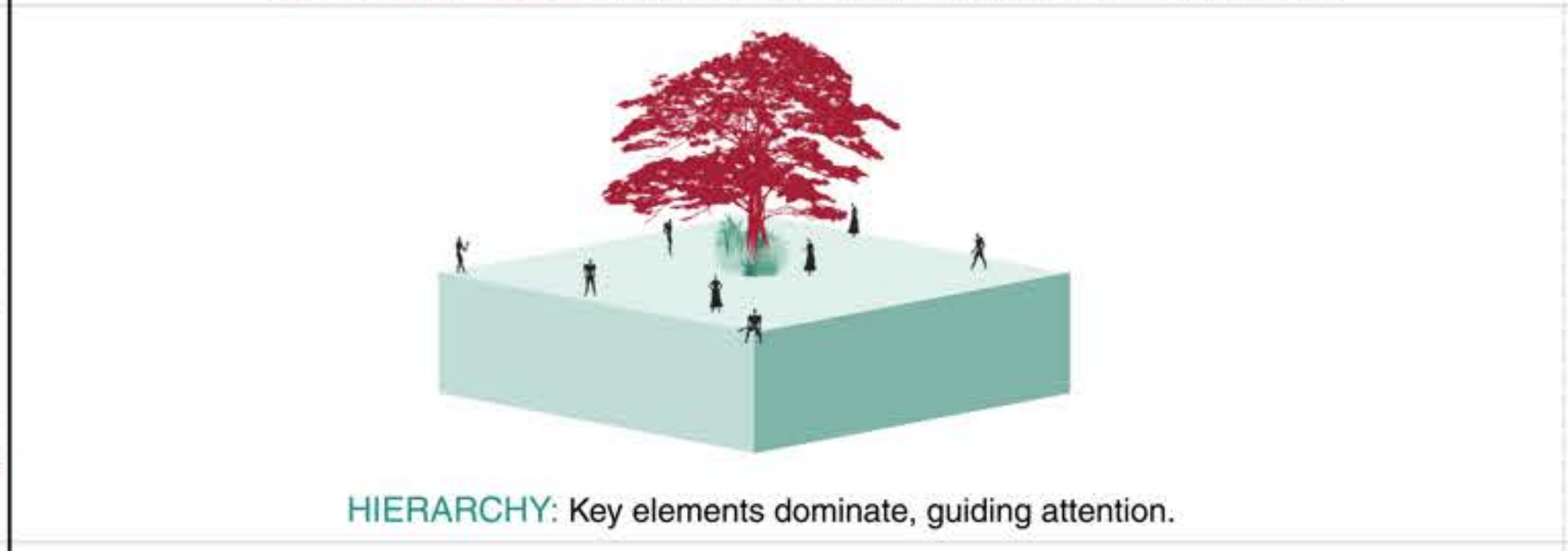
GESTALT PRINCIPLES

VISUAL STRUCTURE

MOVEMENT AND RHYTHM

EMOTIONAL IMPACT

CONTEXT AND SURROUNDINGS





In Stage 5, the design blends natural pathways with straight lines. Entrances are connected using circles, with straight lines reflecting geodesign principles and curved paths preserving nature's organic flow. This stage emphasizes the harmony of opposites, uniting them through deliberate imperfection.





## CONCEPT

**IMPERFECTIONISM** in landscape architecture is a design approach that values the organic, irregular, and evolving aspects of natural spaces, rather than aiming for rigid precision or symmetry. It embraces the beauty of natural imperfections, such as uneven topography, varied plant growth, and the gradual aging of materials like stone or wood. This philosophy allows landscapes to change and mature over time, fostering a sense of authenticity and connection to nature. Imperfectionism contrasts with highly controlled, manicured spaces, instead celebrating spontaneity, natural decay, and the unique character that arises when a landscape is allowed to follow its own course.

### SEAMLESS BIKE CONNECTIVITY HUB

**Focus:** Bike Lane & Park Connectivity  
**Challenge Addressed:** Integrating safe bike lanes within the park and improving connectivity with surrounding urban areas.  
**Outcome:** Cyclists feel safer and more encouraged to pass through the park, which also helps reduce vehicular traffic and integrates the park better with the city.

### DYNAMIC WATER MANAGEMENT LANDSCAPE

**Focus:** Sustainable Water Management  
**Challenge Addressed:** Managing seasonal flooding and water retention in an urban park setting.  
**Outcome:** Water is managed more effectively, reducing the risk of flooding, supporting local plants and animals, and creating an appealing environment for visitors.

### COMMUNITY SPACE INSPIRED BY SESC PRINCIPLES

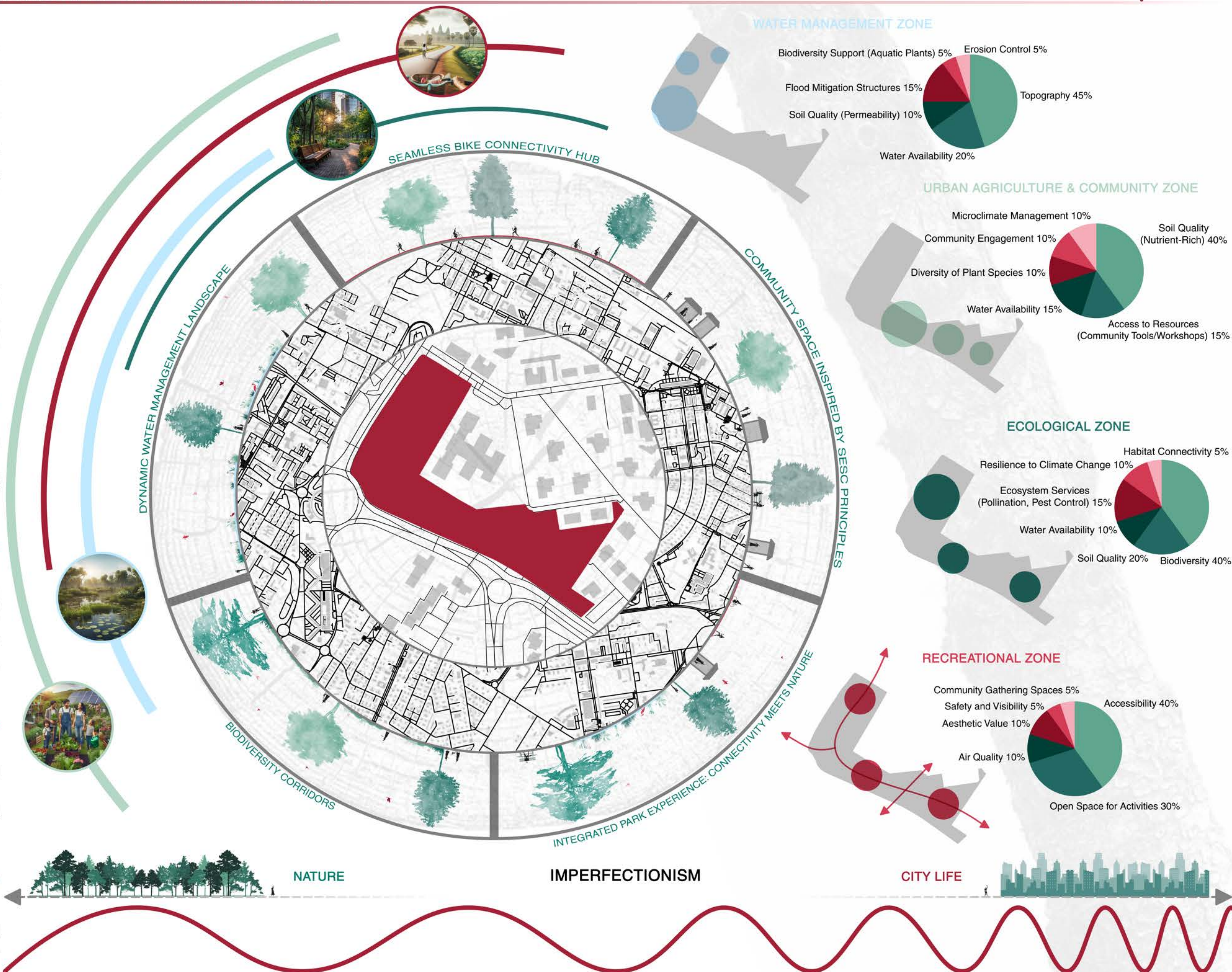
**Focus:** Engaging Community Spaces  
**Challenge Addressed:** Creating a vibrant social space that promotes cultural, recreational, and educational activities, inspired by the SESC model in Brazil.  
**Outcome:** The park becomes a hub for community life, offering spaces that encourage social interaction, cultural activities, and a sense of belonging, much like SESC's inclusive approach.

### BIODIVERSITY CORRIDORS & POLLINATOR PATHWAYS

**Focus:** Enhancing Urban Biodiversity  
**Challenge Addressed:** Supporting local wildlife and plant diversity in a highly urbanized area.  
**Outcome:** The park becomes a biodiversity hotspot, supporting local wildlife while providing educational opportunities for visitors about the importance of urban ecology.

### INTEGRATED PARK EXPERIENCE: CONNECTIVITY MEETS NATURE

**Focus:** Holistic Park Experience  
**Challenge Addressed:** Integrating all zones and solving the park's connectivity, community, water management, and biodiversity issues in a cohesive design.







# GREEN REBIRTH

ROZHAN TEYMOURTASHLOO

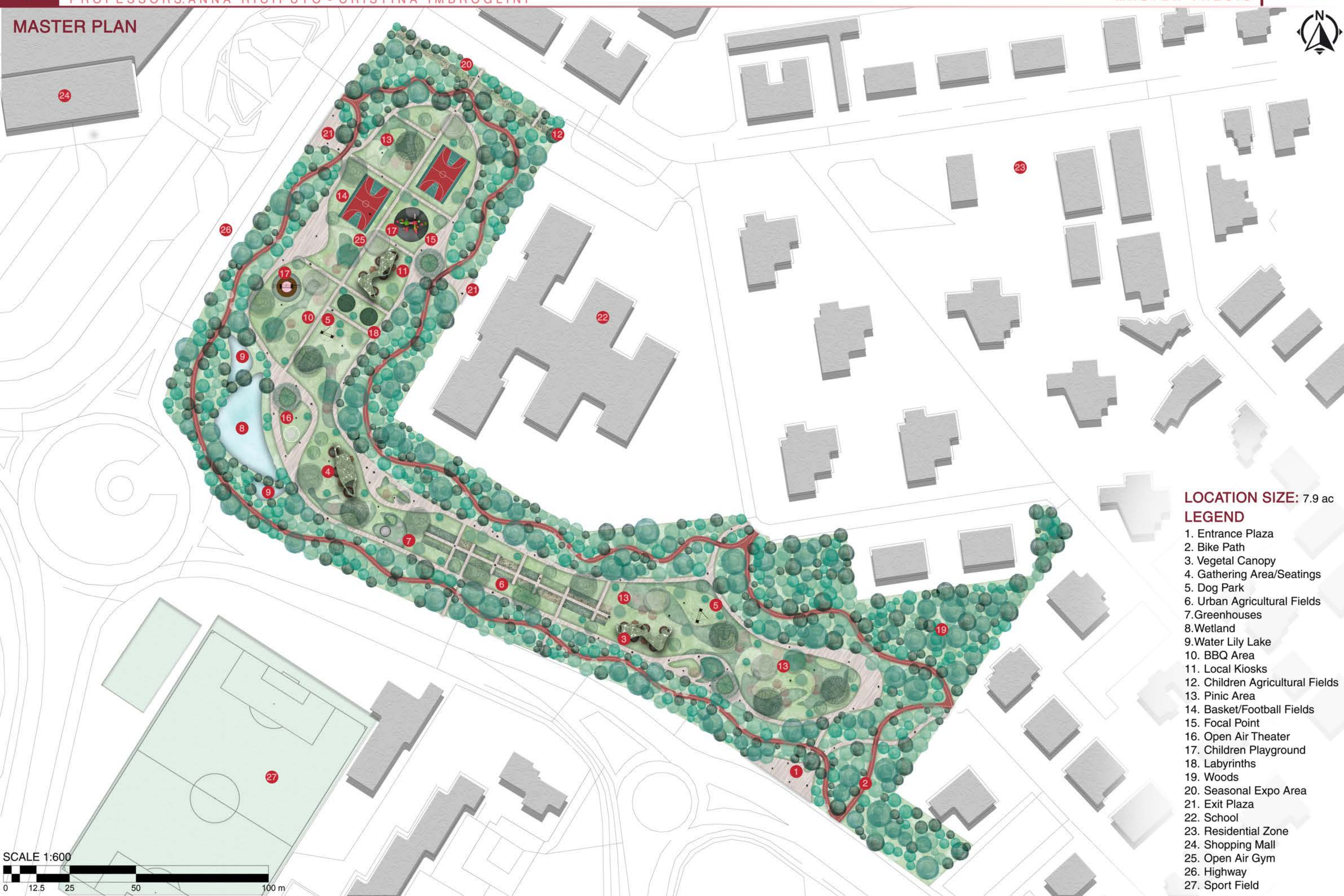
PROFESSORS: ANNA RICIPUTO - CRISTINA IMBROGLINI

SAPIENZA UNIVERSITY OF ROME  
LANDSCAPE ARCHITECTURE  
MASTER THESIS

08



## MASTER PLAN

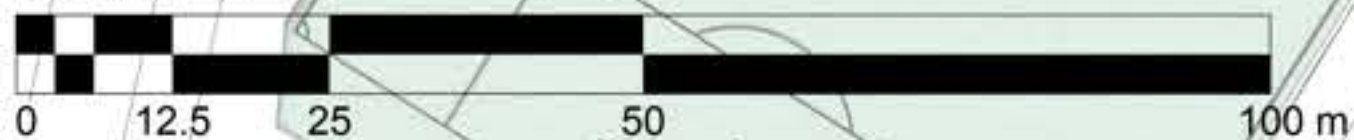


LOCATION SIZE: 7.9 ac

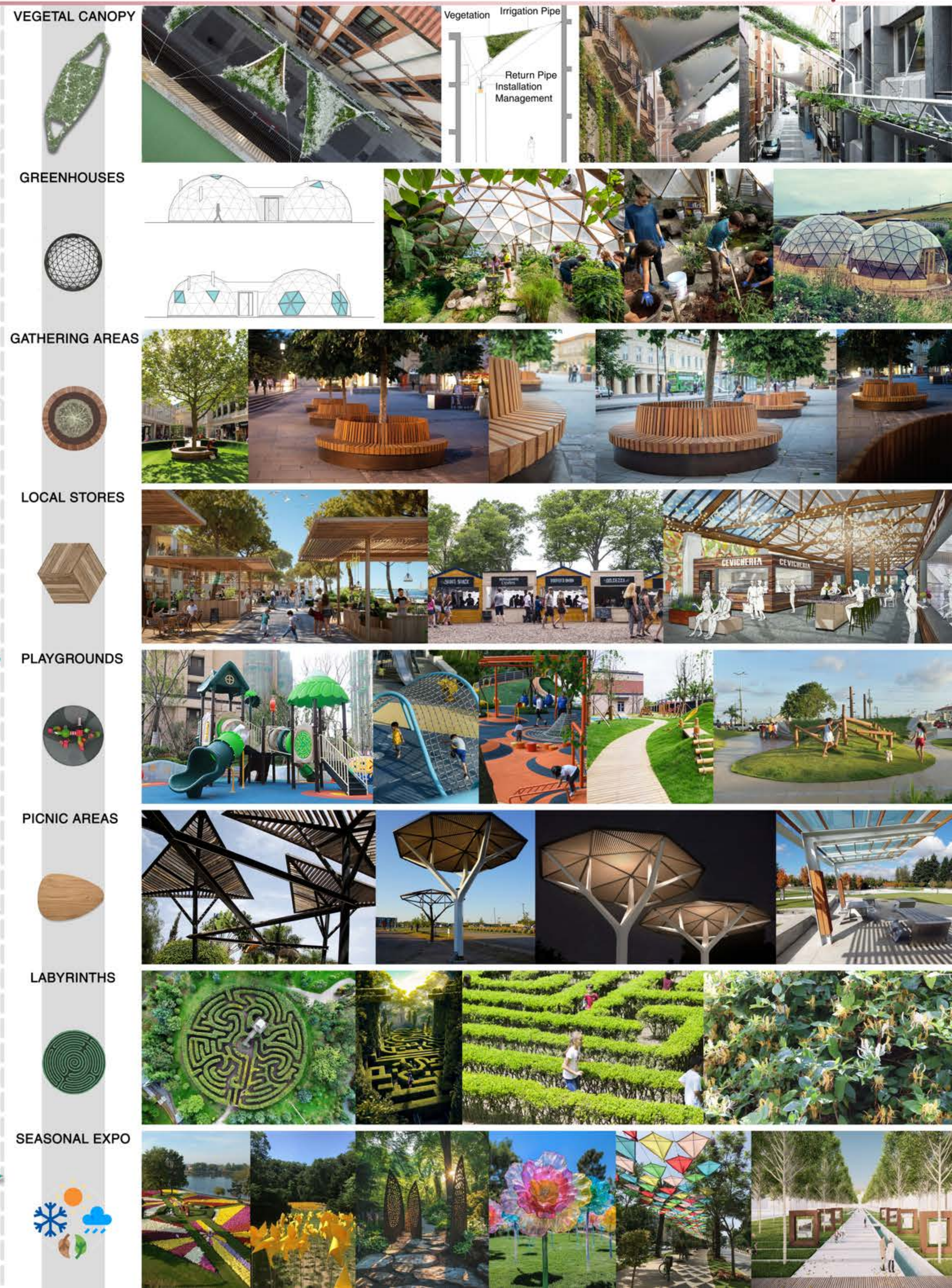
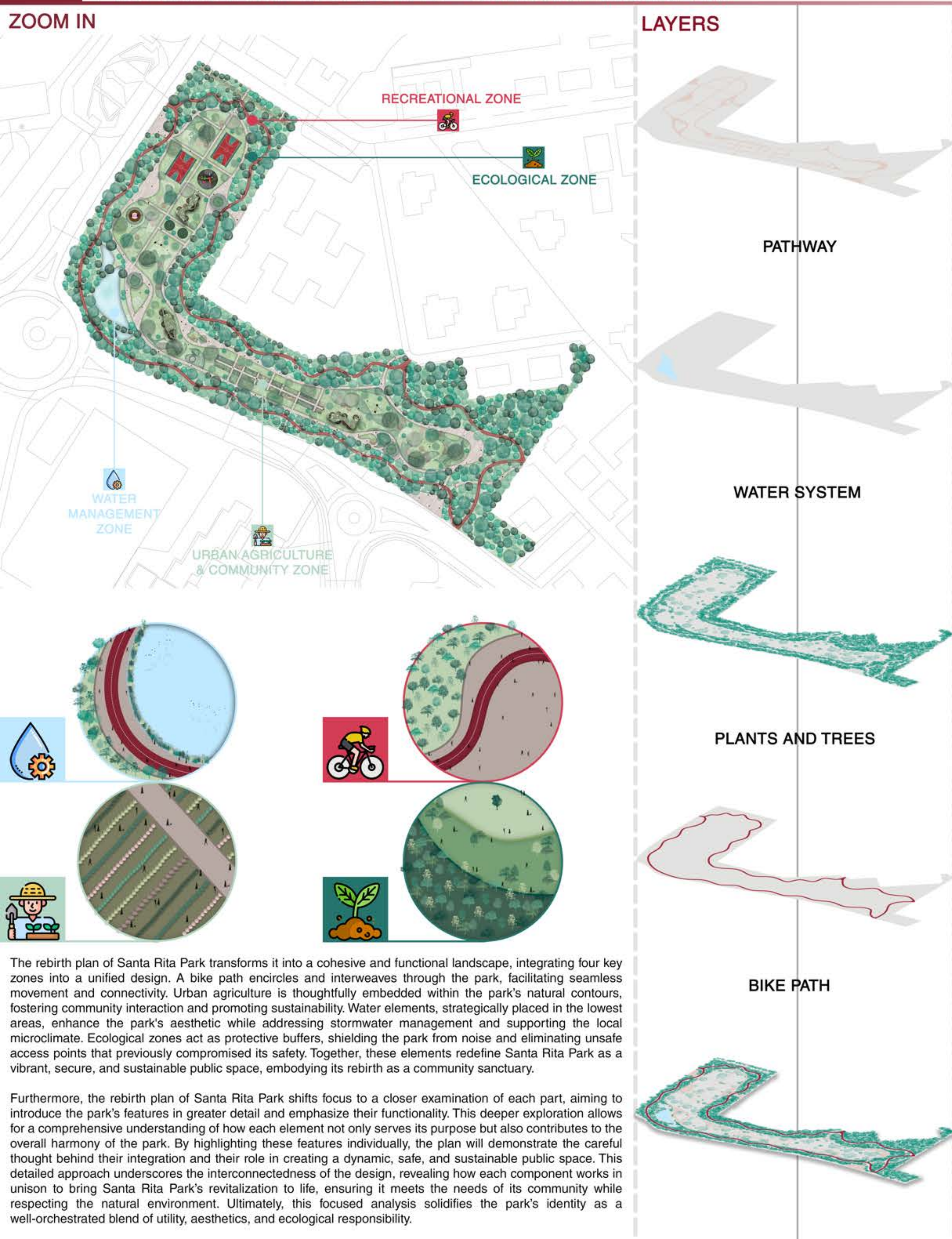
### LEGEND

1. Entrance Plaza
2. Bike Path
3. Vegetal Canopy
4. Gathering Area/Seatings
5. Dog Park
6. Urban Agricultural Fields
7. Greenhouses
8. Wetland
9. Water Lily Lake
10. BBQ Area
11. Local Kiosks
12. Children Agricultural Fields
13. Picnic Area
14. Basket/Football Fields
15. Focal Point
16. Open Air Theater
17. Children Playground
18. Labyrinths
19. Woods
20. Seasonal Expo Area
21. Exit Plaza
22. School
23. Residential Zone
24. Shopping Mall
25. Open Air Gym
26. Highway
27. Sport Field

SCALE 1:600



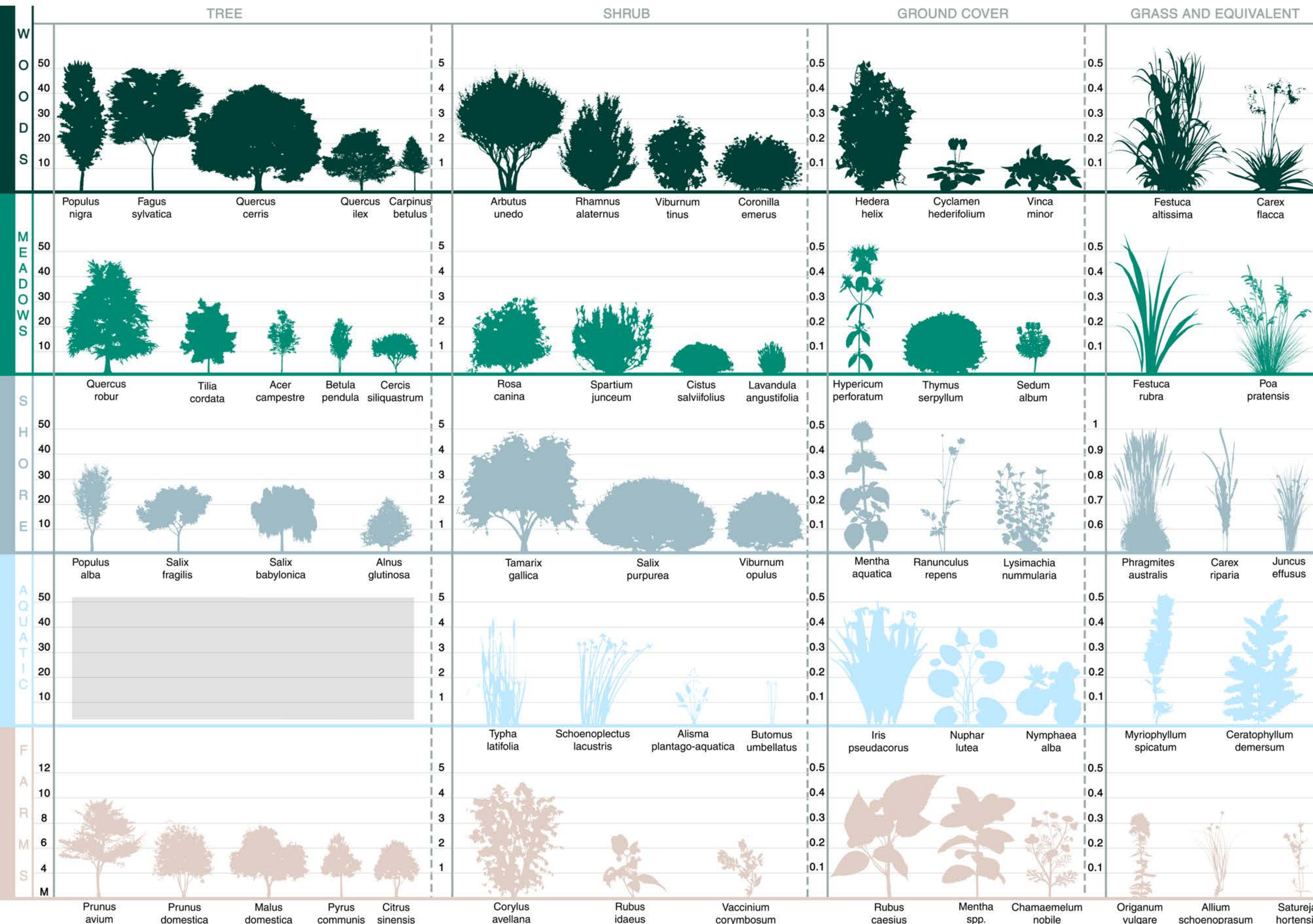








VEGETATION



WOODS



MEADOWS



SHORE



AQUATIC



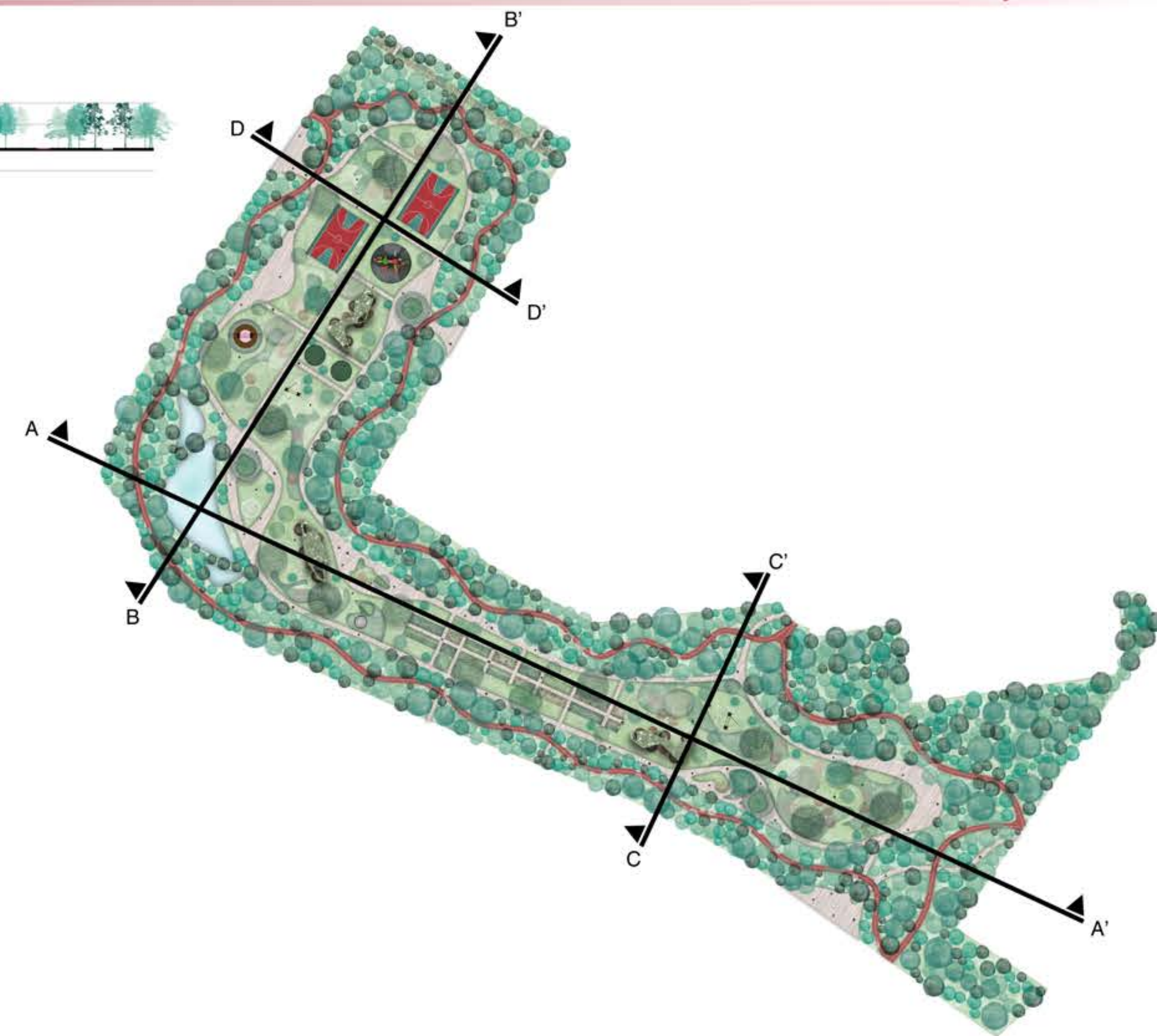
FARMS

Using geodesign principles and GIS technologies, a detailed analysis of the site's ecological factors, including soil composition, hydrology, topography, and microclimates, was conducted. This data-driven approach enabled the selection of native plant species suited to specific landscape categories—woods, meadows, shorelines, aquatic environments, and farms—to address challenges like soil erosion and rainfall runoff. In wooded areas, plants with deep root systems were chosen to stabilize the soil and reduce runoff. For meadows, species with fibrous roots were selected to prevent erosion and improve water retention. In shoreline and aquatic environments, plants were focused on preventing soil erosion and filtering runoff. In farms, native plants support sustainable farming practices by improving soil health and water infiltration. This approach ensures ecological resilience by enhancing soil stability, improving water quality, and promoting biodiversity. By incorporating native vegetation tailored to each environment, landscapes are created that are not only more sustainable and functional but also contribute to long-term environmental health and ecological balance.





## SECTIONS AND VISUALS



### URBAN AGRICULTURAL FIELDS

Urban agricultural fields cultivate fruits such as apples, sweet cherries, pears, and citrus, complemented by seasonal herbs and vegetables. These spaces promote sustainable food production, enhance urban greenery, and provide communities with fresh, locally sourced produce.

### BASKETBALL/FOOTBALL FIELD

Basketball and football fields are vital recreational spaces designed for sports, fitness, and community engagement. These facilities provide athletes and enthusiasts with well-maintained surfaces to practice and compete, fostering physical health and teamwork. Beyond sports, they serve as hubs for social interaction, promoting a sense of community and encouraging active lifestyles.

### WETLAND/LAKE

The wetland or lake, the park's lowest point, supports wildlife, improves water quality, sequesters carbon, and enhances biodiversity.

