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## **The 15-minute approach as a strategy to regenerate publicness of marginal districts: reflections from a case study**

*L'approccio dei 15 minuti come strategia per rigenerare la dimensione pubblica dei quartieri marginali: riflessioni a partire da un caso studio*

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### ABSTRACT AND KEYWORDS

#### **The 15-minute approach as a strategy to regenerate publicness of marginal districts**

The 15-Minute City has been significantly successful, partly as a result of the pandemic's impact on urban living, following the well-known application in Paris. It is argued that, once the pandemic is over, promoting proximity-led living becomes a strategy to restore quality in neighborhoods where it is structurally lacking. Standard facilities of the public city need nowadays to be restored in light of housing rights related to climate well-being, health, inclusion and, more broadly, sustainability. Where public administrations lack political and/or economic power, as well as sufficient human resources and technical capabilities to promote the extensive model of the 15-Minute City, a more localized approach is preferable. This approach should prioritize spatial and environmental justice criteria in the transformation process. Therefore, we present analysis and interpretations useful for enhancing the "15-Minute Neighborhood Approach" in a periphery where clusters of unfinished or abandoned facilities provide an opportunity to experiment with forms of resistance to marginalization.

**Keywords:** 15-minute neighborhood, public city, standard facility, collaborative governance, tactical urbanism

#### **L'approccio dei 15 minuti come strategia per rigenerare la dimensione pubblica dei quartieri marginali**

La città dei 15 minuti ha avuto – anche a seguito dei riflessi della pandemia sul modo di vivere le città – notevole successo, sulla scia della nota applicazione parigina. Si sostiene che, una volta lasciata la pandemia alle spalle, l'idea di promuovere l'abitare di prossimità diventa una strategia per riportare qualità nei quartieri dove manca strutturalmente. Le attrezzature da standard in dotazione alla città pubblica necessitano oggi di essere rivisitate alla luce di diritti all'abitare connessi al benessere climatico, alla salute, all'inclusione e, più in generale, alla sostenibilità. Laddove le amministrazioni pubbliche non abbiano forza politica e/o economica, né tantomeno risorse umane e competenze tecniche sufficienti a promuovere il modello estensivo dei 15 minuti, è auspicabile preferirgli un approccio situato che, prioritariamente, applichi criteri di giustizia spaziale e ambientale alla trasformazione. Diamo conto, pertanto, di analisi e interpretazioni utili a valorizzare "l'approccio del quartiere dei 15 minuti" in una periferia dove l'addensarsi di attrezzature incomplete o abbandonate offre l'occasione per sperimentare forme di contrasto alla marginalizzazione.

**Parole chiave:** quartiere dei 15 minuti, città pubblica, attrezzature da standard, governance collaborativa, urbanistica tattica

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## 1. Premise

The annexation of the rural villages of San Giovanni, Barra, and Ponticelli to Naples in the mid-20th century aimed to address the city's urgent need for expansion. However, this decision triggered an ongoing urbanization process in the eastern plain of Naples. The sporadic and inconsistent implementation of public facilities, combined with premature failures in managing the associated services, distorted the urban behaviour of residents, pushing them to seek refuge in isolated residential enclaves. This phenomenon has led to the persistent marginalization of areas such as Ponticelli (Berruti & Palestino, 2023). The entire plain, affected by stalled or suspended plans and programs throughout the 1900s, experienced a withdrawal of residents from public spaces. According to oral testimonies, this retreat has fostered lifestyles that could be described as “anti-urban”.

This paper examines the potential application of the “15-minute neighborhood” concept to the three residential settlements now governed by the Sixth Municipality of Naples. It draws on the results of previous participatory surveys that explored local communities' perceptions of territorial strengths and weaknesses.

For instance, one interviewed stated:

“One of Ponticelli's main characteristics is its composition of several distinct ‘residential islands’ without any connecting bonds. If you talk with people, you will realize how significant the socio-cultural gaps are among areas like Rione INCIS, Parco Conocal, and San Rocco. Each of these areas is completely different from the others. The increasing stigmatization between zones is also due to the fact that, while each of these places is well connected to the city of Naples, none of them is easily reachable by public transportation from the neighbouring ones. We know it seems like a paradox, but it looks as if the road infrastructure exacerbates the fragmentation of the district” [1].

In our opinion, this “anti-urban” culture is not only a result of deeply rooted agricultural traditions (Palestino, 2022) but also stems from a weak institutional approach to modern urban planning. This inadequacy lies in the failure to integrate the design of facilities with broader welfare planning. The tendency to establish long-standing construction sites without simultaneously managing the services intended for the under-construction buildings has resulted in the accumulation of “ghost buildings” across the plain over the past forty years. Consequently, we observe today the ruins of modern urban planning efforts, which, though developed under the urban planning standards outlined in the Italian Decree 1444/68, have rarely become operational.

## 2. Methodology

The paper draws on knowledge and interpretations developed in the past few years within the UniNa Climate Action Laboratory (CAL), together with urban planning students and teachers who were engaged in service learning and action research. In particular, reflections and maps we are going to present here are the result of the recent collaboration between the CAL and the Smart and Sustainable Mobility Task Force (SUM) from University Federico II. The SUM is a multidisciplinary research group aimed at investigating the applicability of the 15-minute city model by Carlos Moreno in the context of East Naples.

Participatory approaches and active listening were adopted in order to address challenges coming from the area under examination. Four phases were put to work:

1. Context and perceptive analysis.

Selected testimonies from the local community were involved through participatory interviews with residents, administrators, and local stakeholders, who were involved during feedback sessions organised by SUM.

#### 2. Mapping public infrastructures.

GIS tools, field surveys, and qualitative information about places were employed in order to generate a comprehensive and updated knowledge on public facilities, while discussing with municipal authorities. The process produced a map of the existing infrastructures, categorised by type of service and user scale (local or supra-local).

#### 3. Urban morphology assessment.

The urban fabric was observed and scrutinized in order to identify barriers to pedestrian and cycling mobility. Major obstacles to active mobility and potential opportunities within the urban fabric were identified by comparing urban plans with on-site observations.

#### 4. Collaborative design.

During this stage students were involved in selecting innovative and flexible uses for local schools, parks, and sports centres. Thematic maps and pilot projects were proposed and developed, not only as research and educational outputs, but even as tactical experiments of collaborative governance. Outputs include sustainable mobility pathways for transforming schools into proximity service hubs.

### 3. Stop-and-Go urbanization of Eastern Naples

Originally a marshland, the eastern plain where San Giovanni a Teduccio, Barra, and Ponticelli are located developed a thriving agricultural economy over the centuries, thanks to the fertile volcanic soil at the foot of Mount Vesuvius. Centuries-old land reclamation projects (Di Martino, 2013) allowed the territory to harness its humid conditions, transforming Barra and Ponticelli into centres for floriculture and horticulture that served Naples. Meanwhile, San Giovanni, with its coastline facing industrial plants since the Bourbons era, became home to factories and a steel plant (Rubino, 2011).

In 1925, after being annexed to Naples, even Ponticelli was coerced into addressing the city's practical needs. However, the prolonged period over which this transformation occurred allowed Ponticelli to coexist with its earlier rural culture, as the demand for low-cost housing led to the gradual consumption of fertile soil (Palestino, 2022).

During the transition from independent rural villages to industrial districts of Naples, documents on the area's urban development revealed a long series of postponed decisions and unfulfilled promises by the institutions responsible for governing the territory. This resulted in significant repercussions on liveability, arising from a complex mix of technical-administrative and political errors, the transformative impact of organized crime, and forced coexistence with environmental risks [2] (Palestino, 2022).

Unsurprisingly, the timeline of suspended decisions and half-completed projects from the 1960s to the present reflects various contradictions—from inconsistencies related to local urban plans passed in 1968 and 1979 (Cerami et al., 1994) to the attempted adjustments during post-earthquake reconstruction (Mangoni & Pacelli, 1981; Dal Piaz, 1982). Additionally, there were significant delays in an urban redevelopment plan that stretched over more than twenty years and an unfulfilled promise to establish a cultural centre for children, which stalled around the turn of the millennium. We must also note the stringent building restrictions imposed in southern Ponticelli due to a delayed designation of the Vesuvian risk areas. As a

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result, the Vesuvian red zone invalidated several urban development plans intended to encourage private initiatives, further delaying the construction of a regional public hospital. This series of unresolved actions—due to suspensions, postponements, or stalemates—has paralyzed Ponticelli and the rest of the eastern plain, leaving them in a state of perpetual limbo.

#### **4. Public buildings as ruins**

It has been argued that the gap between decision-making and implementation, compounded by continuous emergencies, has turned Ponticelli and its surroundings into a landscape of plans, programs, and projects characterized by cyclical impasses and sudden restarts. The outcome is a collection of unfinished public works that were rendered obsolete by the time they were completed, resulting in a surplus of facilities and services that, lacking adaptive flexibility, were abandoned even before being fully completed. These projects often took twenty years or more to finalize, without the necessary updates to meet evolving user needs, leading to deterioration even before their use began.

These “frozen” construction sites, scattered throughout public spaces, have created a strong centrifugal force on the neighbourhood. Consequently, many of these non-places, instead of attracting potential users, have served as powerful deterrents. The presence of 58 public schools still functioning as territorial anchors is an exception. These schools have become social hubs in the absence of more traditional meeting places like piazzas, which are particularly lacking in these areas.

Given that the implementation of essential services has rarely kept pace with modern city expansion, how can we address the incompleteness that still threatens the vitality of these peripheral districts? Strategies aimed at reclaiming unused facilities and enhancing those that remain viable can only be devised by rethinking urban publicness in a contemporary context. From this perspective, emphasizing road layout and mobility as organizing principles emerges as a promising approach to refocus on the unresolved urban relationships that plague all problematic peripheral areas.

Thus, it is worthwhile to explore the unique relationship between residential enclaves and ruined standard facilities, attributing contemporary functionality to these unfinished infrastructures.

#### **5. Reconsidering traditional urban planning instruments**

Scholars and practitioners highlight the urgency of a national reform of the Italian Ministerial regulations concerning the so-called “standard urbanistici” (urban planning standards in English), starting with in-depth reflections on the relationship between allocated spaces and provided services. The goal is to recapitalize existing assets and respond to new needs by recognizing public space as a driving force for social innovation (Bifulco and Vitale, 2003; Caravaggi and Imbroglini, 2016; Bricocoli and Sabatinelli, 2017). In fact, what scholars emphasize is how, whenever urban planning standards have embodied strategic visions that go beyond simply spatial provisions defined by law, this approach has proven effective in shaping social practices and contributing to their success (Bricocoli and Savoldi, 2018). To develop and enhance shared paths of theoretical and operational research, public spaces designed to accommodate urban planning standards appear to offer opportunities for new ways of living in cities by supporting larger and more diverse

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communities. With this perspective in mind, during 2021, the Laboratory on Standards (Baioni et al., 2021a) proposed reinterpreting the Ministerial Decree 1444/1968, by adding quantitative requirements alongside the need to regenerate the existing [1].

According to this framework, public facilities, such as parking areas originally designed to support the car use, are being reimagined to shape sustainable mobility. Beyond the redesign of major streets (Fabian et al., 2017), a wide range of green areas, interstitial zones, and open spaces can be reclaimed – partly adjacent to major streets, or diverging from them – in order to follow new linear trends. Meanwhile, those facilities are also being redefined to enhance collective health and promote social inclusion. Common goods, along with practices of care, and participatory experiments of tactical and sustainable urbanism are re-evaluating the role of religious, cultural, healthcare, administrative and educational facilities, while green spaces are increasingly recognized for providing a variety of ecosystem services (Granata and Pileri, 2012; Pileri, 2016; Pavia, 2019; Settis, 2010).

While promoting welfare sharing (Caravaggi and Imbroglini, 2021), ecosystem services, and active mobility (Baioni et al., 2021b; Formato, 2021; Basso and Marchigiani, 2021; Munarin and Tosi, 2021; Fabian et al., 2021; Turi, 2021), those reviewed urban standards also underline the role of public schools in providing civic services and acting as potential bridges between clusters of public facilities (Renzoni and Savoldi, 2021).

Furthermore, during the Covid-19 pandemic, there was a growing focus on enhancing proximity relations in urban regeneration (Alberti and Radicchi, 2022).

It is interesting to highlight how the value of proximity, always appreciated by urban planners, can be enhanced by the implementation of the “15-minute city” concept promoted by the “Agenda for a Green and Just Recovery” from the C40 network (Alberti and Radicchi, cit.; C40, 2021). From this point of view, accessing essential functions of daily life within a set amount of time, and doing so without relying on cars, would ensure a fair distribution of urban regeneration policies, thus facilitating environmental resilience (Moreno, 2016; 2021). Optimizing movement, in fact, will reduce pollution caused by vehicular traffic, diversify economic activities, and enable spaces to adapt to sustainability and efficient time planning in the city.

## **6. Measuring how the public city fits the 15-minute approach**

We mentioned that Italian public cities – some more, some less – convey the European urban planning culture of the mid-20th century. This culture connected residential areas through “neighbourhood units,” which are sets of autonomous residential cells that provide primary education, healthcare, leisure services, and daily supplies.

According to the analytical planning studies by Patrick Abercrombie, who planned the future development of Greater London during the Second World War, a well-balanced group of dwellings, green spaces, and local services was intended to serve a population between 5,000 and 10,000 inhabitants (Gaeta et al., 2018). Despite the fact that the proportioning and allocation of services in Italian public cities were theoretically precisely calibrated for these numbers, the incompleteness of our public facilities, or delays in their realization, today requires their completion through robust urban policy integration. Under these circumstances, restricting the 15-minute formula to the public city of the 20th century, rather than applying it to the entire urban scale, seems more realistic than an extensive application of the model.

That is why the case study we are going to present interprets the 15-minute formula as a localized approach instead of a more extensive urban model, proposing it as a means to address vulnerabilities in those fragile cities (Selby and Desouza, 2018) where local administrations are necessarily forced to neglect public facilities. In such contexts, prioritizing the management of services and the care for open spaces alongside the efficiency and refurbishment of facilities becomes crucial, combining physical regeneration with project management of individual functions or clusters of them, ultimately capable of attracting user flows. Safeguarding the territory is, in fact, crucial to ensuring the care for public space by boosting urban vitality (Murgante et al., 2024). The latter has to be connected to the concentration of activities and the density of inhabitants, by applying spatial and environmental justice criteria such as density, proximity, and diversity, to offer a variety of high-quality, both collective and individual, activities and to support contemporary living through spatially and relationally diversified services (Garau and Annunziata, 2022; Mouratidis and Poortinga, 2020, Pucci et al., 2023).

Therefore, once we have measured the under-used buildings and open spaces brought to attention, we will deconstruct the nature and performance of facilities in order to assess their unexplored potentials [3]. It is considered, in fact, that detailed knowledge about the size and typology of facilities not only allows for the renewal of public housing, but also activates collaborative approaches to experimental governance (Bulkeley and Castan Broto, 2013) to dedicate to contemporary “social grouping” formulas.

Starting with these reflections, the 15-minute approach is tested to rethink schools, parks, theatres, libraries, civic centres, and/or sports centres, or specific combinations of such facilities, so that, once adapted to innovative demands for use, they can offer different functionalities depending on the daily, weekly, or seasonal service cycle, aiming to meet unsatisfied requirements or emerging needs. Next, we will show how the challenge of “reinhabiting proximity” (Manzini, 2021), by integrating spatial proximity and deep connection processes among persons, communities, and the surrounding environment, can offer opportunities for revisiting the purely aesthetic and recreational functions of greenery, or for overcoming the excessive use of cars and their spatial impact, in favour of new values such as health and well-being. We clarify, finally, that inventing creative formulas for sustainable mobility could encourage neighbourhoods to connect with each other, enhancing public facilities, both individually and in clusters, as cornerstones of new urbanities.

## 7. Applying the 15-minute approach

The desired anchoring effects can reverberate to create a general enhancement of microclimatic well-being at the city level, by establishing new centralities and simplifying traffic flow to the urban core. A further effect of downscaling the 15-minute approach at the neighbourhood level is that it encourages new storytelling of sub-urban lifestyles, far beyond the stereotype of peripheral areas as dependent on the city core.

Nowadays, as cities are shrinking, loosening this dependency means reconsidering the strengths of the public city to satisfy aspirations and lifestyles that have dramatically changed over time. The aim is to promote the modern city in a contemporary key, compensating these neighbourhoods for the losses and damages they have suffered (Roberts and Pelling, 2020) in the name of urban economic development.

To experiment with the efficacy of this thesis (Berruti and Palestino, 2023), and to



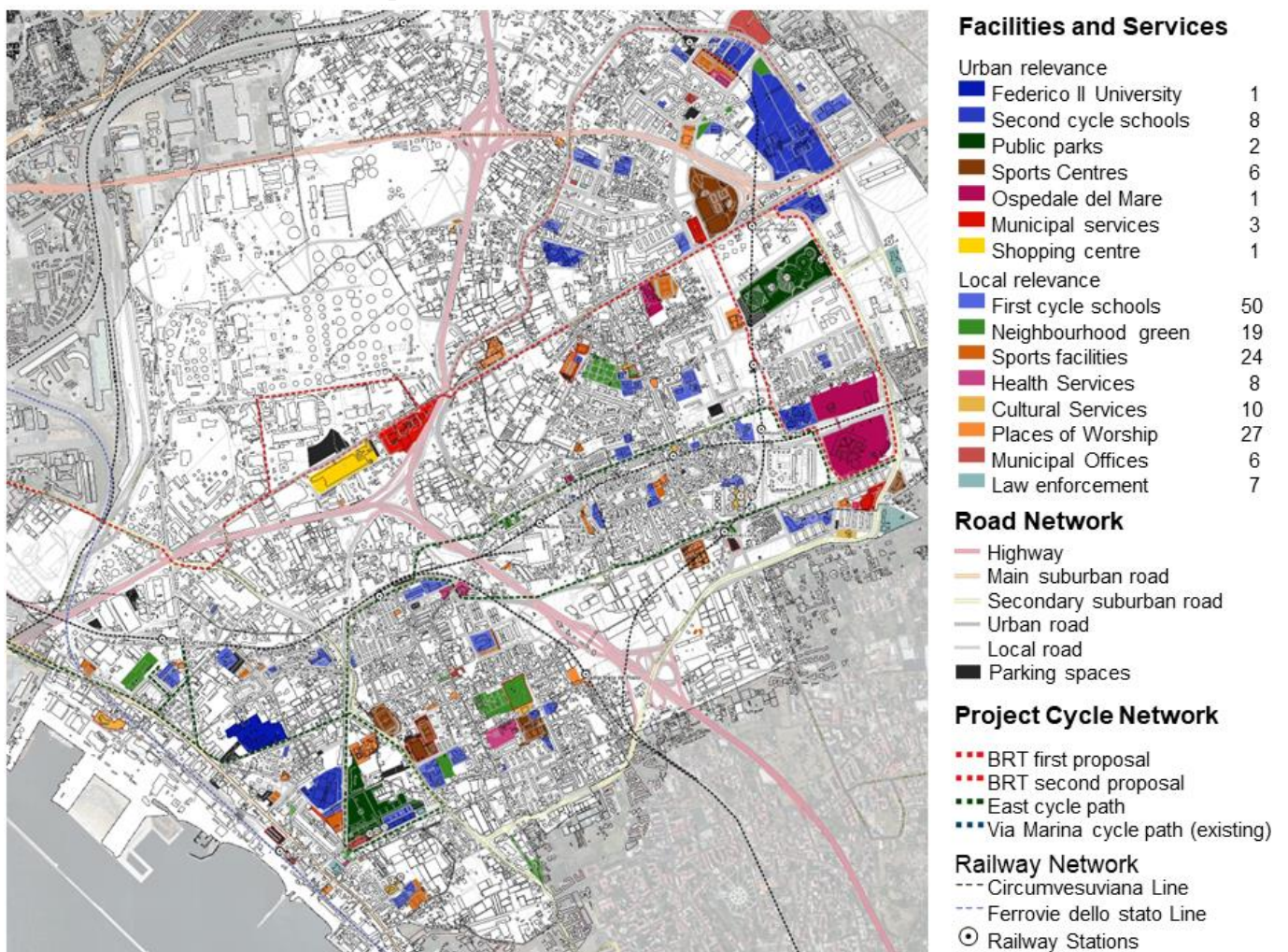
test the applicability of the 15-minute approach to the Sixth Municipality of Naples, we began by mapping the main public facilities shown in Figure 1, with the aim of assessing their functionality.

We remind the reader that, in addition to relying on the efficacy of mobility projects, the feasibility of the 15-minute neighbourhood revolves around the following socio-spatial aspects:

- Type-morphology of urban spaces;
- Social structure of neighbourhood units;
- Quality of services.

It is clear that, due to their diversified socio-spatial features and capital values, the 15-minute approach applied to those living in the historic city core is very different from the same approach applied to residents of peripheral areas. Here, in fact, the predominant public city makes the social structure uniform and ties the quality of services to public actors' managerial skills, while the size and volume of major roads act as deterrents against social encounters and sustainable mobility. On the other hand, green and sports spaces are larger than in the historic city. Moreover, both in peripheral areas and in the core city, the success of the 15-minute approach depends on innovative governance models, as well as on stakeholders' ability to use collaborative and experimental procedures that aim at governing the best managerial protocols.

**Figure 1. Public services and standard facilities in the Sixth Municipality of Naples**



Source: Authors' elaboration, 2024

It should be finally emphasized that the vitality of a modern neighbourhood is a function of planning focused on urban times, considering that a well-scheduled life cycle for facilities will allow them to provide differentiated services throughout 24 hours (daily/afternoon/night service), a week (weekday/non-working day service), and across seasons (winter or summer service).

## 8. Deconstructing the urban fabric

According to Carlos Moreno, theorist of the 15-minute city model (2016), local services should be organized around functions such as: living, working, educating, caring, shopping, and enjoying leisure time. On closer inspection, this is the contemporary interpretation of the modernist functions of living, circulating, working, and enjoying oneself, as proposed by CIAM in the Charter of Athens (CIAM, 1933).

It is exactly to accommodate these functions, however, that the modern settlements of San Giovanni, Barra, and Ponticelli were planned. Let's now reconsider the modernist functions through the lens of the 15-minute formula.

**Living:** means having close access to primary education, daily goods, personal care, and neighborhood leisure. Moreno recommends adding a dimension of care that involves conscious and participative ways of living.

**Circulating:** means reducing obstacles to daily distances, making them more accessible, available, and enjoyable from the perspective of pedestrian movement. We see that Moreno doesn't consider "circulating" as a function to be performed within the 15-minute city, preferring to integrate it into different functions.

**Working:** means taking advantage of well-regulated commuting flows, having playschools and primary schools near the workplace, or, alternatively, enjoying locations suited for smart working. The function of education, as suggested by Moreno in the 15-minute city model, could also be associated with working.

**Having fun:** means ensuring a variety and quality of leisure services, preferably close to residences. Entertainment and shopping are part of this function.

Being the sixth Municipality of Naples, populated by about 100,000 people, to restore the neighborhood formula by Abercrombie, we should bring back into use between a maximum of twenty and a minimum of ten residential cells endowed with their own facilities. To satisfy housing rights, these cells should be prepared to offer nursery and primary schools, healthcare and sports services, neighborhood parks, and a diverse offer of local shops. Such services should be functional, efficient, accessible, and reachable within 15 minutes.

Given that the size of accommodations is usually minimal in public housing areas, and the quality of technologies and construction materials is poor, these facilities should also operate on weekends and during the summer, offering spaces for interaction and climatic comfort that private accommodations are not able to ensure. Concerning the real quality of the services offered by the sixth Municipality, our survey shows how the 15-minute concept is made easier or hindered by the following factors:

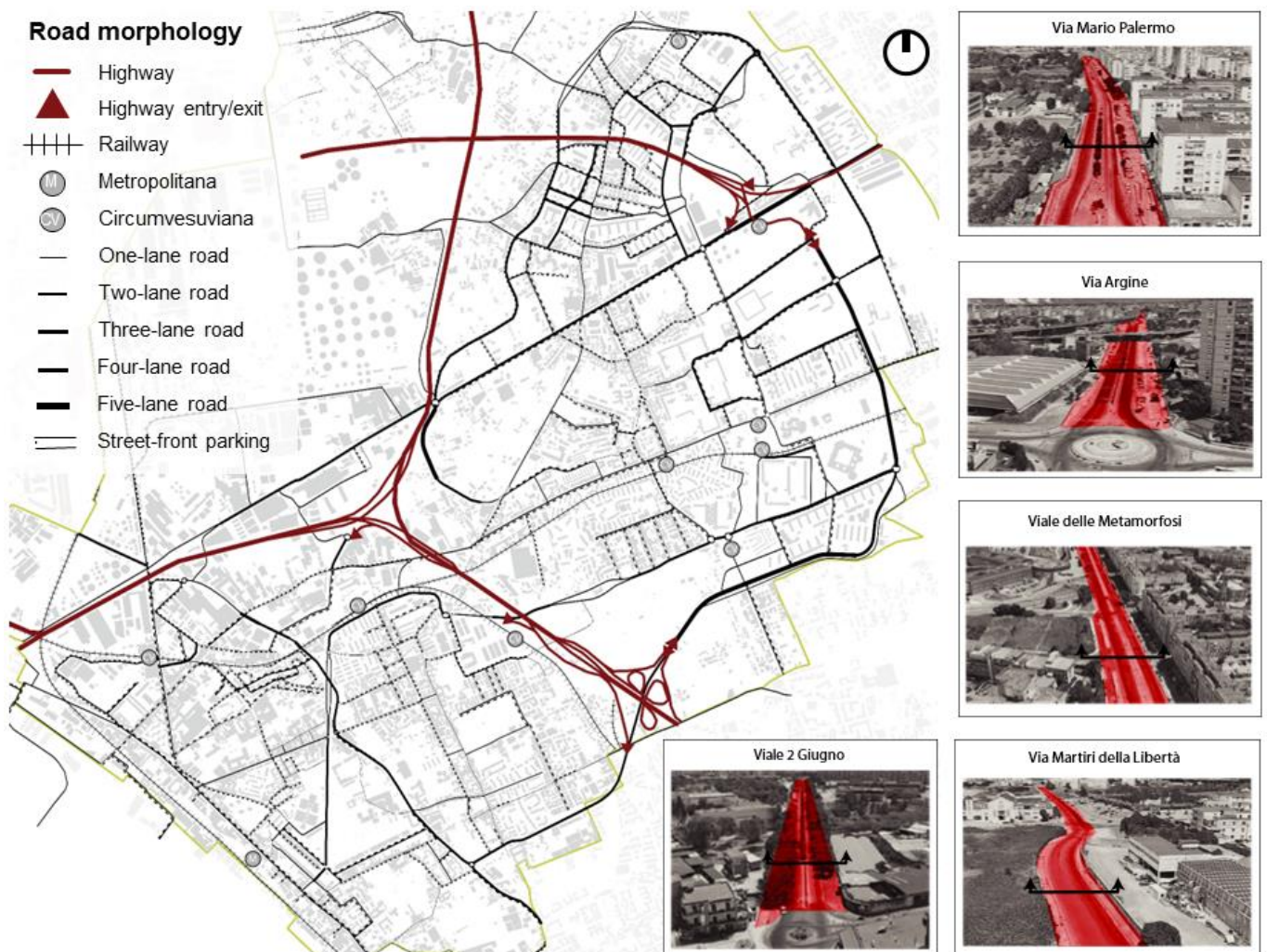
- a. Despite the relative fluidity of private road transport compared to the rest of the city, as well as a good supply of public parking lots, it is not possible to enjoy spaces equipped with benches, projecting roofs, cycle paths, wider parking areas, sun and rain shelters, and supervised crossing points that encourage pedestrian circulation and public transport;
- b. Consequently, the lack of security, control, safety, quality, and maintenance of streets impedes a pleasant trip within the 15 minutes;

c. A morphological analysis of the street plan—produced by comparing planimetric interpretations and territorial surveys—shows that a large part of the street plan was designed to encourage private car mobility, with few roads dedicated to slow mobility (see Figure 2). The latter are mainly present in historical villages that pre-exist modern settlements, while in the modern fabric, they connect residential lots with each other.

So far, therefore, the urban form functions as a deterrent to active mobility, while the frequent presence of major roads prevents possible ways of social aggregation due to a lack of squares and pathways that encourage access to common goods and ecosystem services. However, it should be added that such a form can be easily reconsidered through strategic projects aimed at enriching the transport infrastructure with pedestrian and bicycle tracks.

Furthermore, it should be highlighted that outside historic villages, there is an opportunity to reach at least a primary school, sometimes a railway station, as well as isolated facilities such as urban parks, health care centres, or sports complexes. Inside historic villages, there are several retail shops in addition to public facilities that are nonetheless not enough to meet the demand for goods and services of the individuals. Public road transport is insufficient in San Giovanni-Barra; it is almost non-existent in Ponticelli.

**Figure 2. Morphology of the Existing Road Network**

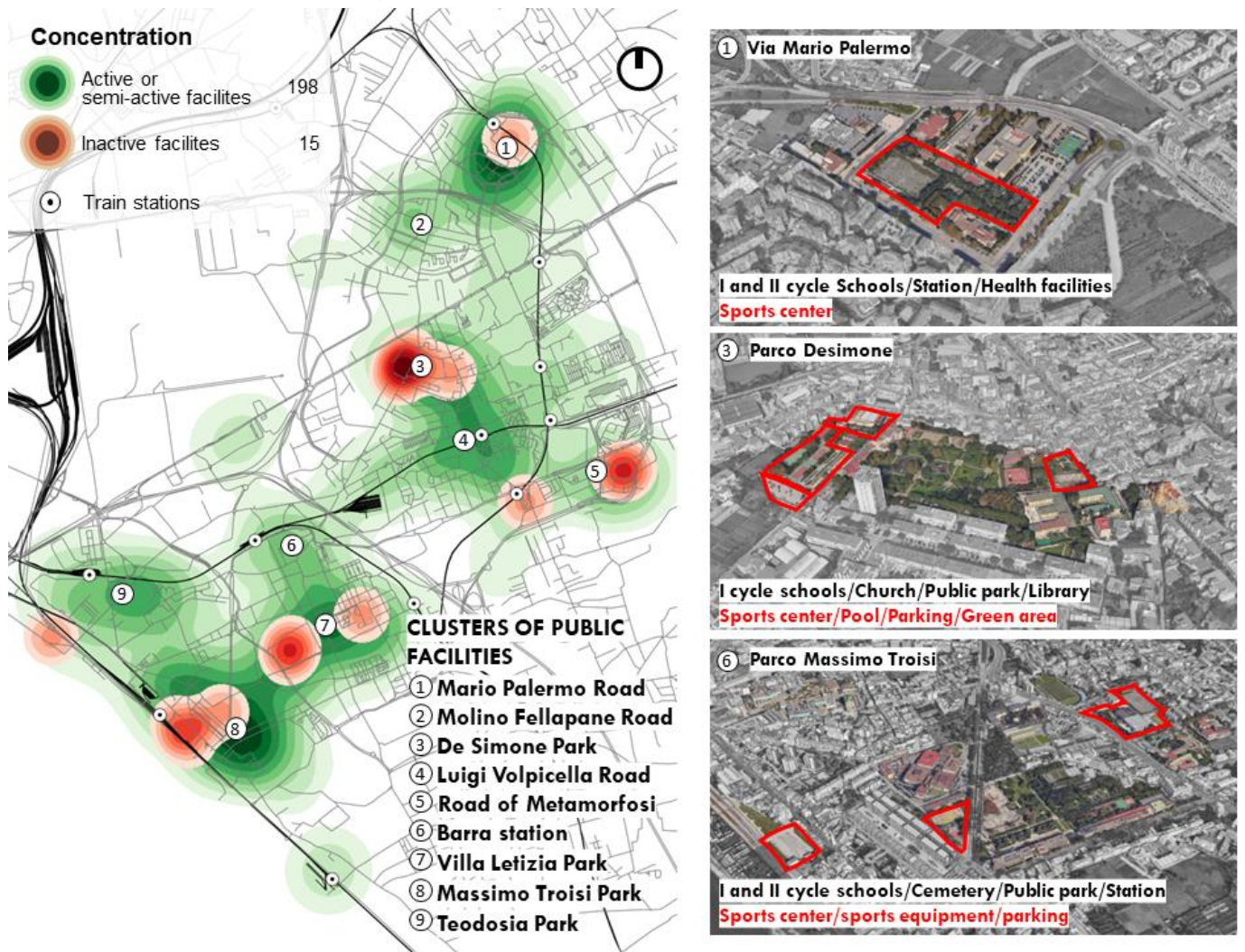


Source: Authors' elaboration, 2024

The map in Figure 3 shows the knowledge developed through interaction with the council members for public works and sports of the Sixth Municipality, thanks to in-depth interviews that enabled us to provide a list of at least fifteen abandoned public facilities dedicated to the functions of “living” and “having fun” (Palestino and Cuntò, 2024).

More broadly, it has been noted that when public facilities are in a state of decay, this phenomenon hampers the feasibility of the 15-minute neighbourhood. If we mark the existing stock of deteriorated services with the letter B, and the starting points to reach these destinations with the letter A, we can easily understand why every route from A to B will be discouraged before even starting. This dynamic is due to the fact that the poor condition of B turns it into a destination that, instead of motivating the route, discourages it.

**Figure 3. Clusters of Active and Non-active Facilities**

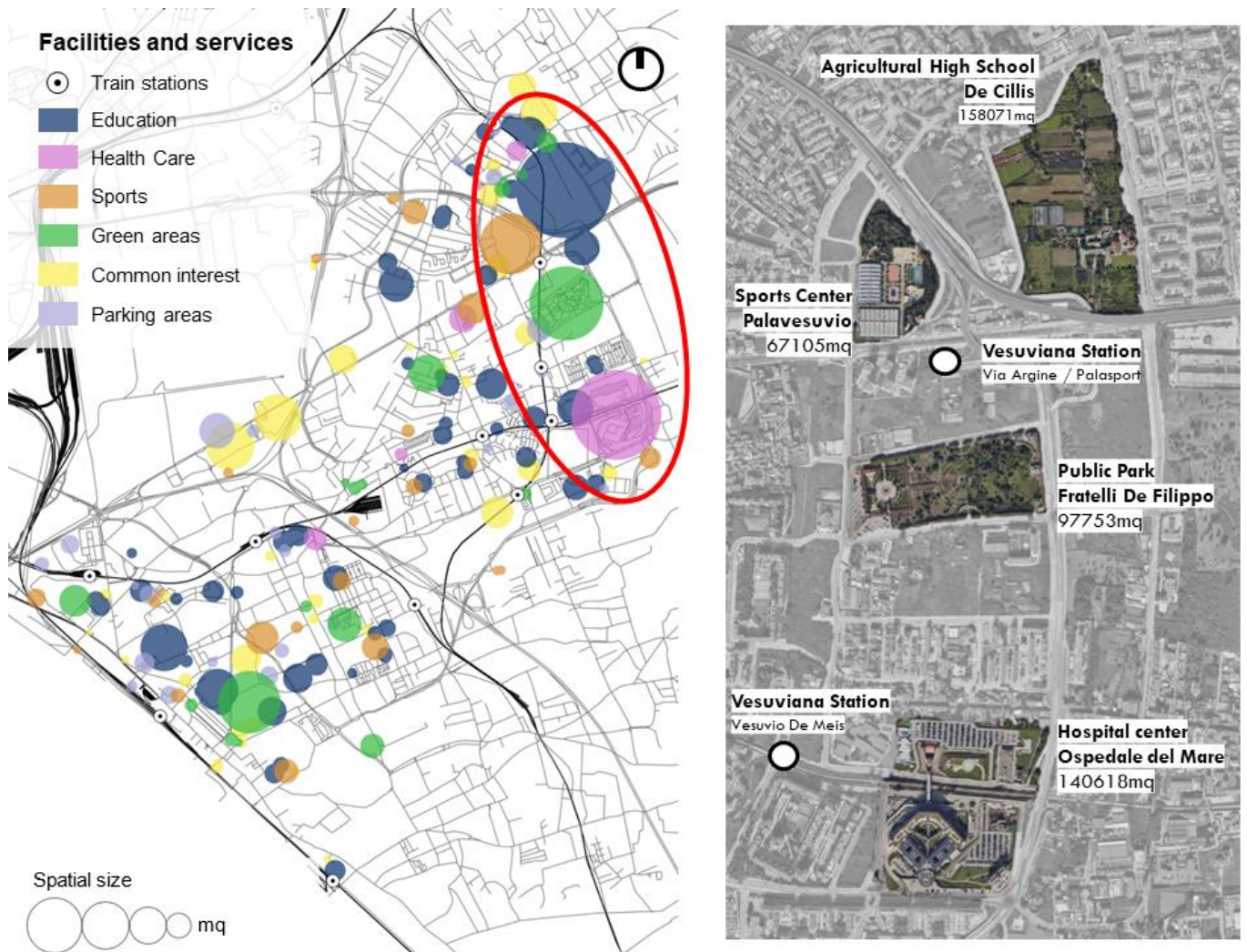


Source: Authors' elaboration, 2024

The concentration of operating facilities, visible in Figure 3, was analysed to measure the existence and location of multifunctional clusters. By comparing functioning facilities with neglected ones, the effects of the abandoned functions on the spatial performance of facilities and services have been measured. In order to identify facilities in proximity to each other, a range has been given to every service, starting from the centre of the geometries describing facilities, covering a radius of

500 meters, and intensifying colours where proximity among facilities increases. Whereas, observing the map in Figure 4, which abstractly describes the spatial distribution and size of parks, schools, stations, parking lots, offices, civic centres, facilities for education, sports, health, and daily uses, we notice the existence of isolated urban macro-facilities surrounded by a myriad of small-scale neighbourhood services. In the apparent lack of a hierarchy among facilities, we discover a principle of order through the distribution of 58 public schools along a kind of strip that goes through the three neighbourhoods. Data surveys and field observations confirm the hypothesis that this particular strip can be seen as an opportunity for rebalancing neighbourhood services, making schools the cornerstone of the 15-minute project. Aggiungere

**Figure 4. Spatial Distribution, Size and Typology of Services**



Source: Authors' elaboration, 2024

**9. Encouraging the 15-minute approach through tactical urbanism and collaborative governance**

As a preliminary step to test East Naples through the lens of the 15-minute approach, we focus on enhancing routes to schools that connect San Giovanni and Barra to Ponticelli. A suitable socio-ecological infrastructure would turn public schools into

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a system of new central hubs by means of a network of streets and squares which, at least in the first stage, could be tested, according to recommendations from the Highway Code 2020, with interim uses. As stated in Clause 7, subsection 11 bis of the quoted code, the so-called “school zones” could arise—via traffic limitation measures—under the direction of the Mayor of Naples, anchoring the cycling mobility project expected from the Urban Plan for Sustainable Mobility to schools. Considering also that the city administration is planning to supply the eastern peripheral plain with a Bus Rapid Transit service provided with a bike lane alongside its track.

To improve this action, the EAV and AMN companies, which manage urban and metropolitan railway lines, should simultaneously be pushed to accommodate functions for daily use in the stations located along the major roads depicted in Figure 2. As a matter of fact, personal care shops, bike and car-sharing services, and/or minimarkets can activate “eyes on the street” (Jacobs, 1961).

The investigation of the proposal set out in Figure 5 could usefully refer to numerous ongoing projects in European cities, such as: “Piazze Aperte per ogni scuola” in Milan, “Bologna Città 30”, “Cours Oasis” in Paris and “Refugios Climáticos en las Escuelas” in Barcelona (Palestino et al., 2022). These are, in fact, proposals whose effects, being already evaluable, could provide useful information, fostering public imaginaries aimed at co-design opportunities.

Schools re-envisioned as arrival and departure points for home-work journeys in the morning and home-leisure journeys in the afternoon, on weekends, or during summertime could be served by pedestrian plazas devoted to entry points and break areas (Palestino et al., 2020), as well as connected to local railway stations upgraded to function as hubs. Once systematized, schools could thus evolve into something more than a local infrastructure—into something, for example, capable of reacting against existing segregation (Palestino et al., 2022).

We suggest investing in a cycle-pedestrian infrastructure that, while connecting the three neighbourhoods, repurposes residual spaces of schools and recovers abandoned lots and road arteries. This should also include investing in the re-naturalization of school surroundings. Schools could thus be reimagined as meeting places for local communities and climatic oases during educational activities’ breaks.

It should not be overlooked that this is a very ambitious project, requiring detailed preparation for school staff to competently engage in educational pacts aimed at the collaborative management of spaces, as well as significant efforts from local administrations. The goal is to expand housing services, enhance the offering of sports facilities, open-air classrooms, and green areas for students and teachers, and to also provide afternoon and seasonal uses, giving a strong boost to the idea of Eastern Naples as a 15-minute neighbourhood.

In addition to creating an urban infrastructure among neighbourhoods, schools could activate regenerative processes at the neighbourhood unit scale, leveraging—depending on whether they are located in historic villages or modern settlements—clusters of critical facilities which reflect neglect and underconsumption in their surroundings.

To explore this further hypothesis, we have examined one of the richest cluster of public facilities in Eastern Naples that—as shown in Figure 6—lies in the northern Ponticelli, between the two social housing districts known as ‘Parco Conocal’ and ‘Rione Incis’. Here, the 15-minute approach challenges local public schools to function as real “central places” by experimenting with collaborative planning processes aimed at incubating shared visions of integrated public facilities and a new interpretation of the related functions.

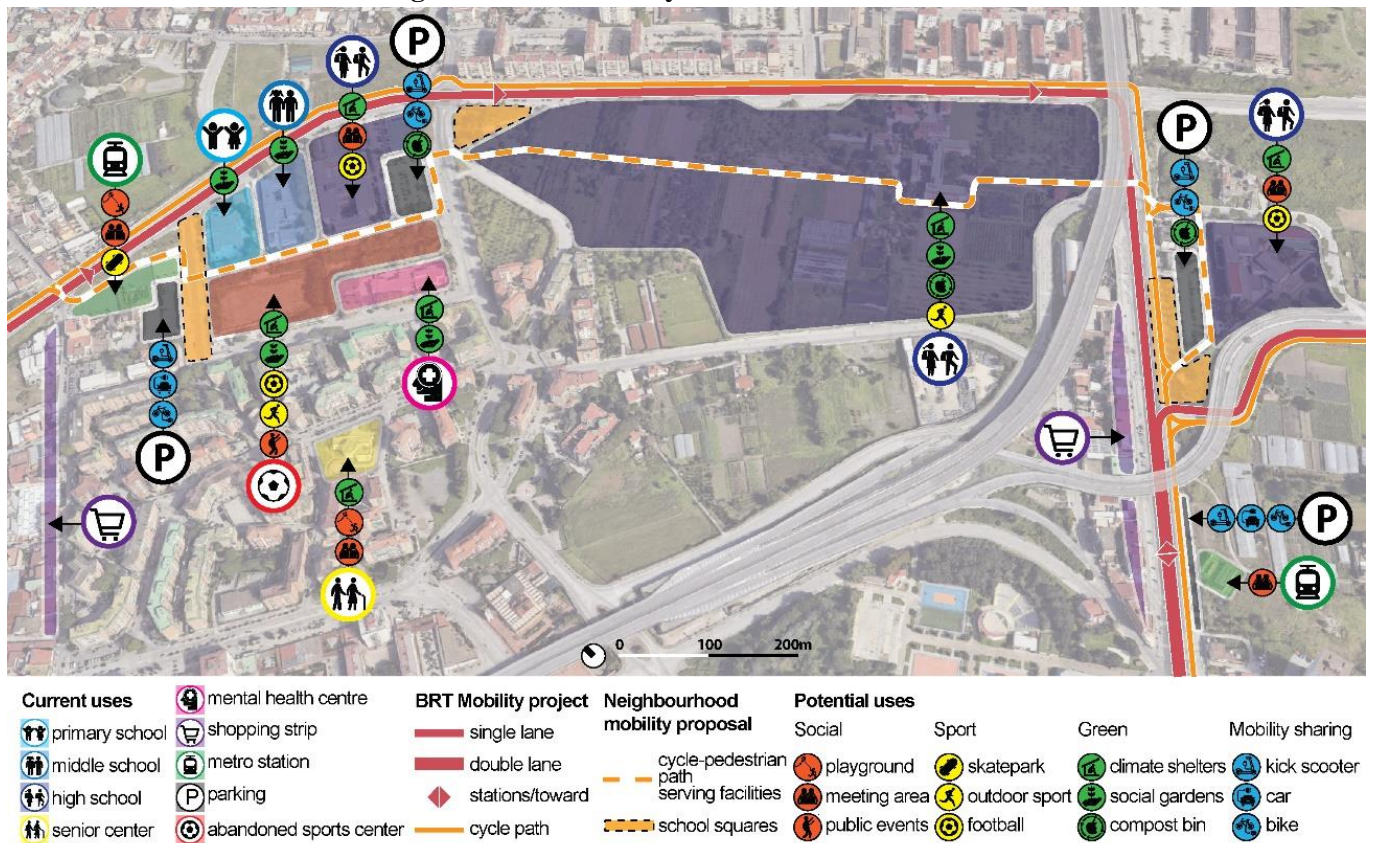
**Figure 5. System of Public Schools and Sustainable Mobility**



Source: Authors' elaboration, 2024

In this particular cluster of public facilities, primary and high schools with large and mainly open and cultivated spaces are accompanied by two local railway stations, a Mental Health Centre, and a neglected Sports Centre. These could interact programmatically to generate interesting synergies. Supplementary services, compared to the existing road network, and resources aimed at educating local communities about sustainability, could transform the railway station called “Madonnelle” into an intermodal hub, relying on the strong school community living here as a guarantee of tangible and constant demand for alternative mobility. Utilizing the rich potential of the ecosystem services offered by the green surfaces of schools, it would also be possible to remove school enclosures by creating crossing routes for cycling and pedestrian green mobility. These routes would provide better quality and safety compared to major and disorienting roads like Mario Palermo Road, which carries both through and local traffic. Using the same approach, even the areas around neglected sports facilities could finally be recovered by creating local places where school users can engage in extracurricular activities; the therapeutic community can rehabilitate patients; private investors can promote sustainable mobility services; and local administrators, once they delegate stakeholders for the care and routine maintenance of obsolete spaces, can define regulatory frameworks with rewards and penalties for the network of actors, promoting co-financing from both public and private sectors.

Figure 6. Cluster Analysis on Mario Palermo Road



Source: Authors' elaboration, 2024

### 10. Conclusions

The thesis put forward is that the 15-minute city model does not necessarily need to be adopted as a planning challenge for the entire city, particularly when adoption depends on a fragile city both in terms of human resources and capabilities within public administration.

The case of a fragile city such as Naples (Palestino and Molinaro, 2024) has been selected to illustrate this thesis. An ongoing multidisciplinary survey of the public housing districts located in the eastern plain of Naples has documented how, when economic power and institutional skills to implement the model city-wide are lacking, the 15-minute city approach can still be desirable.

The dynamics of living connected to the public housing of Eastern Naples have been intentionally explored to highlight how the modern settlements of San Giovanni, Barra, and Ponticelli were left unfinished or abandoned after short life cycles.

We have argued that the denial of equitable distribution of public spaces, as well as a coherent system of collective services, has negatively influenced the lifestyles of local communities, leading to their marginalization. Moreover, the long sequence of unfulfilled promises and unfinished projects by failing institutions, more due to inefficiency of technical services and bureaucracy than political decisions, has undermined public trust regarding possible regenerative formulas directed by public actors. The problematic nature of the situation described prompted us to experiment with the 15-minute lens to deconstruct the strengths and weaknesses of public peripheral areas, in search of interpretations of the existing city to share with inhabitants, to determine how to appreciate the unfinished facilities and/or revitalize



the abandoned ones in a participatory way.

The background reflections concern how to prevent the denial of modern spatiality from producing popular alienation against contemporary settlements, resulting in the abandonment or sabotage of public spaces. The launch of participatory planning processes aimed at analysing local publicness' failures, if shared, can thus serve as a prerequisite for imagining future scenarios that could inspire recovery efforts. In this perspective, the paper presents a set of maps that should be considered as tools for informing and involving users and local administrators in collaborative processes.

It has been argued that the 15-minute approach provides exploratory tools to examine the texture and structure of neighbourhoods built in the mid-twentieth century. Since settlement patterns the 15-minute city model is inspired by are directly related, according to modern urbanism, to residential cells organized through neighbourhood units, this interpretation becomes simpler and more effective in the first urban fringe. Conversely, the complex settlement rules of historical urban cores, along with urban rent issues, necessitate more laborious analysis.

For all the reasons listed so far, adopting a strategic approach to analysing modern neighbourhoods according to the 15-minute city model seems particularly recommended to reveal or rediscover foundational values related to the twentieth-century periphery project. The idea of encouraging inhabitants and operators to rethink the modern in light of needs and future-oriented aspirations seems, at the moment, to find more room outside the historic city, where, even due to overtourism, space for relations and the collective life of inhabitants is becoming increasingly limited.

### Notes

1. Interview to Lilliput Daycare Centre operators, Ponticelli May 2019.
2. We refer to both the Vesuvio's vicinity, according to which Ponticelli falls within the risk delimitation, and to the presence of the Site of National Interest for reclamation called "Napoli orientale".
3. As for the Sixth Municipality of Naples, although 18 square meters of standard facilities per capita due by regulation are locally achieved, these facilities are unevenly distributed. A spatial data analysis, compared to the local population of 99,473 residents (see 2021 ISTAT census), shows the inadequacy of parks, playgrounds, and sports facilities. As a matter of fact, the aforementioned services offer only 5.2 square meters per capita instead of the 9 square meters stipulated by law. Parking areas, furthermore, provide just 1 square meter per capita, far below the required 2.5 square meters. On the contrary, common interest' facilities—such as religious, cultural, social, healthcare, and administrative ones—far exceed the 2 square meters per capita required by law, reaching 9.1 square meters per capita. The oversizing is significantly influenced by the presence of large-scale facilities of supra-local importance, home to University Federico II, a large agricultural high school, and a public hospital of regional interest.

### Author Contributions

Collaborative paragraph writing: all authors contributed to paragraphs 5, 7 8, 9; Maria Federica Palestino wrote the Premise and paragraphs 2, 3 and 6; Stefano Cuntò wrote paragraph 1 and 4 and processed figures and data.

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### Conflicts of Interest

The authors declare no conflict of interest.

### Originality

The authors declare that this manuscript is original, has not been published before and is not currently being considered for publication elsewhere, in English or any other language. The manuscript has been read and approved by all named authors and there are no other persons who satisfied the criteria for authorship but are not listed. The authors also declare to have obtained the permission to reproduce in this manuscript any text, illustrations, charts, tables, photographs, or other material from previously published sources (journals, books, websites, etc).

### Use of generative AI and AI-assisted technologies

The authors declare that they did not use AI and AI-assisted technologies in the writing of the manuscript; this declaration only refers to the writing process, and not to the use of AI tools to analyse and draw insights from data as part of the research process. They also did not use AI or AI-assisted tools to create or alter images and this may include enhancing, obscuring, moving, removing, or introducing a specific feature within an image or figure, or eliminating any information present in the original.

## References

- Alberti, F., & Radicchi, A. (2022). La prossimità nei progetti urbani: Una analisi comparativa fra Parigi, Barcellona e Milano. *Techne*, 23, 69-77.
- Baioni, M., Basso, S., Caudo, G., Franzese, A., Marchigiani, E., Munarin, S., Renzoni, C., Savoldi, P., Tosi, M. C., & Vazzoler, N. (2021a). *Diritti in Città. Gli standard urbanistici in Italia dal 1968 ad oggi*. Donzelli, Firenze.
- Baioni, M., Caudo, G., & Vazzoler, N. (2021b). Suoli e strumenti. In Laboratorio Standard (Eds.), *Diritti in Città. Gli standard urbanistici in Italia dal 1968 ad oggi* (pp. 55-66). Donzelli, Firenze.
- Basso, S., & Marchigiani, E. (2021). Questioni di accessibilità: Gli standard per un progetto di formazione urbana più sana e inclusiva. In Laboratorio Standard (Eds.), *Diritti in Città. Gli standard urbanistici in Italia dal 1968 ad oggi* (pp. 43-54). Donzelli, Firenze.
- Berruti, G., & Palestino, M. F. (2023). Turning urban fragilities into resources for a just climate governance. In M. Armiero, S. P. de Rosa, & E. Thurnam (Eds.), *Urban Movements and Climate Change: Loss, Damage, and Radical Adaptation* (pp. 121-142). Amsterdam University Press.
- Bifulco, L., & Vitale, T. (2003). Da strutture a processi: Servizi, spazi e territori del welfare locale. *Sociologia Urbana e Rurale*, XXV(72), 95-108.
- Bricocoli, M., & Sabatinelli, S. (2017). Città, welfare e servizi: Temi e questioni per il progetto urbanistico e le politiche sociali. *Territorio*, 83, 106-110.
- Bricocoli, M., & Savoldi, P. (2018). Standard. In L. Bifulco, V. Borghi, M. Bricocoli, & D. Mauri (Eds.), *Azione pubblica. Un glossario sui generis* (pp. 133-138). Mimesis, Milano.
- Bulkeley, H., & Castan Broto, V. (2013). Government by experiment? Global cities and the governing of climate change. *Transactions of the Institute of British Geographers*, 38(3), 361-375. <https://doi.org/10.1111/j.1475-5661.2012.00535.x>
- C40. (2021). Available at: [www.c40.org](http://www.c40.org) (accessed 21 August 2024).
- Caravaggi, L., & Imbroglioni, C. (2016). *Paesaggi socialmente utili. Accoglienza e assistenza come dispositivi di progetto e trasformazione urbana*. Quodlibet, Macerata.
- Caravaggi, L., & Imbroglioni, C. (2021). Rilanciare rapporti tra spazi e servizi. In Laboratorio Standard (Eds.), *Diritti in città. Gli standard urbanistici in Italia dal 1968 ad oggi* (pp. 87-94). Donzelli, Firenze.
- Cerami, G., Cunsolo, A., & Visalli, A. (1994). Il Piano di Zona di Ponticelli. In G. Cerami (Ed.), *Progettazione urbana e processi decisionali. Napoli: Il nuovo centro direzionale e il piano di zona di Ponticelli* (pp. 33-53). Clean, Napoli.
- Chaskin, R. (2001). Building community capacity: A definitional framework and case studies from a comprehensive community initiative. *Urban Affairs Review*, 36(3), 291-323. <https://doi.org/10.1177/10780870122184876>
- CIAM. (1933). *The Athens Charter*. Available at: <http://modernistarchitecture.wordpress.com/2010/11/03/ciam%E2%80%99s-%E2%80%9Cthe-athens-charter%E2%80%9D-1933/> (accessed 21 August 2024).
- Comune di Napoli - Dipartimento di pianificazione urbanistica (Eds.). (2008). *Il nuovo PRG per Napoli 1994-2004, Variante*

generale – *Relazione*. INU Edizioni, Roma.

- Dal Piaz, A. (1982). Il programma straordinario nel quadro delle vicende urbanistiche della città. *Edilizia Popolare*, 166, 10-21.
- Di Martino, D. (2013). Bonifica e riciclo della piana campana. *Piano Progetto Città*, 27-28, 212-231.
- Fabian, L., Magnabosco, G., & Nicosia, C. (2017). Riconquistare lo spazio dell'automobile. Una riflessione sugli spazi della mobilità cinquant'anni dall'approvazione della legge nazionale sugli standard urbanistici. In *Strumenti/scale e progetti. Atti della XX Conferenza Nazionale SIU, Urbanistica e/è azione pubblica. La responsabilità della proposta* (pp. 895-903). Planum Publisher, Roma-Milano.
- Fabian, L., Magnabosco, G., & Nicosia, C. (2021). Riconquistare lo spazio dell'automobile. In Laboratorio Standard (Eds.), *Diritti in Città. Gli standard urbanistici in Italia dal 1968 ad oggi* (pp. 79-86). Donzelli, Firenze.
- Formato, E. (2021). Nuovi standard: Boschi, radure e altre terre comuni. In Laboratorio Standard (Eds.), *Diritti in Città. Gli standard urbanistici in Italia dal 1968 ad oggi* (pp. 137-146). Donzelli, Firenze.
- Garau, C., & Annunziata, A. (2022). A method for assessing the vitality potential of urban areas. The case study of the Metropolitan City of Cagliari, Italy. *City, Territory and Architecture*, 9(1), 7. <https://doi.org/10.1186/s40410-022-00145-1>
- Granata, E., & Pileri, P. (2012). *Amor loci. Suolo, ambiente, cultura civile*. Cortina Editori, Milano.
- Jacobs, J. (1961). *The Death and Life of Great American Cities*. Random House, New York.
- Mangoni, F., & Pacelli, M. (1981). *Dopo il terremoto la ricostruzione*. Edizioni delle Autonomie, Roma.
- Manzini, E. (2021). *Abitare la prossimità. Idee per la città dei 15 minuti*. Egea, Milano.
- Mouratidis, K., & Poortinga, W. (2020). Built environment, urban vitality and social cohesion: Do vibrant neighborhoods foster strong communities? *Landscape and Urban Planning*, 204, 103951. <https://doi.org/10.1016/j.landurbplan.2020.103951>
- Munarin, S., & Tosi, M. C. (2021). Tra servizi ecosistemici e mobilità attiva: Standard come progetto di suolo. In Laboratorio Standard (Eds.), *Diritti in Città. Gli standard urbanistici in Italia dal 1968 ad oggi* (pp. 31-42). Donzelli, Firenze.
- Palestino, M. F., Molinaro, W. (2024). Fragilità urbane ed experimental governance. Cantieri di terapia socio-sanitaria come occasione di cura per lo spazio pubblico di Napoli. *Atti della XXV Conferenza nazionale SIU-Società Italiana degli Urbanisti, Transizioni, giustizia spaziale e progetto di territorio*, Cagliari 15-16 giugno 2023, pp. 144-149.
- Palestino, M. F., & Cuntò, S. (2024). Exploring the potential of the 15-minute city model in the eastern neighbourhoods of Naples. In M. Sepe (Ed.), *Inclusive Cities and Regions, 14° Biennale of European Towns and Town Planners*, pp. 234-235.
- Palestino, M. F. (2022). *La forma dell'invisibile. Per un'ecologia politica dei territori fragili*. CLEAN, Napoli.
- Palestino, M. F., Visconti, C., Prisco, M., Cuntò, S., & Molinaro, W. (2022). A ruota libera: Una didattica sperimentale per la messa in rete di servizi socio-ecologici nel territorio di Napoli Est. In *XIII Giornata Internazionale di Studi INU Oltre il futuro: Emergenze, rischi, sfide, transizioni, opportunità, Urbanistica Informazioni*, Special Issue 306, pp. 294-298.
- Palestino, M. F., Amore, M., Cuntò, S., & Molinaro, W. (2020). Reinventare le scuole come hub di rigenerazione socio-ecologica. Una ricognizione sulle potenzialità degli spazi aperti degli istituti superiori di Napoli. In *BDC*, vol. 20, numero 1, 181-196.
- Pavia, R. (2019). *Tra suolo e clima. La terra come infrastruttura ambientale*. Donzelli, Roma.
- Pileri, P. (2016). *Che cosa c'è sotto. Il suolo, i suoi segreti, le ragioni per difenderlo*. Altreconomia, Milano.
- Pucci, P., Lanza, G., & Carboni, L. (2021). Measuring Accessibility by Proximity for an Inclusive City. *Available at SSRN* 4376789.
- Renzoni, C., & Savoldi, P. (2021). Geografie delle dotazioni pubbliche: Luoghi e patrimoni. In Laboratorio Standard (Eds.), *Diritti in Città. Gli standard urbanistici in Italia dal 1968 ad oggi* (pp. 21-30). Donzelli, Firenze.
- Roberts, E., & Pelling, M. (2020). Loss and damage: An opportunity for transformation? *Climate Policy*, 20(6), 758-771. <https://doi.org/10.1080/14693062.2019.1680336>
- Rubino, G. (2011). *Le fabbriche del sud*. Giannini Editore, Napoli.
- Selby, J. D., & Desouza, K. C. (2018). Fragile cities in the developed world: A conceptual framework. *Cities*, 91, 180-192. <https://doi.org/10.1016/j.cities.2018.08.001>
- Settis, S. (2010). *Paesaggio Costituzione e cemento*. Einaudi, Torino.
- Turi, P. (2021). Scuola e spazio urbano. In Laboratorio Standard (Eds.), *Diritti in Città. Gli standard urbanistici in Italia dal 1968 ad oggi* (pp. 187-198). Donzelli, Firenze.

