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Co-design of public spaces for pedestrian use and soft-mobility in the perspective of communities reappropriation and activation

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Abstract

Safe mobility in urban areas can be approached by the point view of urban design oriented through community integration and development. At the scale of the neighbourhood mobility, it is assumed as key access for the comparison and the linking between local mobility policies and redevelopment of public space by the one hand, spontaneous reappropriations of public spaces as emerging since the pandemic, by the other. A peculiar case study, a neighbourhood in the north of Milan (Dergano), is useful to challenge pedestrian mobility policies in relation to co-design of safer and liveable street spaces. It is part of an ongoing research related to the identification and design – in collaboration with local partners and citizens – of an emerging ecosystem made of innovative practices, format of services, spatial devices and forms of collaboration. Spatial and environmental criticalities in the area are caused by scarce presence of green and pedestrian spaces, car prevailing streets – but also overabundance of abandoned and underused former productive sites. The context is experiencing, in the last years, a phenomenon of re-appropriation of urban open spaces through the organization of cultural and educational small activities in support of the categories which are suffering more the pandemic's restriction such as children, elderly people, mothers and parents in general, poor families, foreign new inhabitants. Those practices could be integrated into a wider reorganization of mobility and in the redesign of more comfortable streets, which is partially ongoing by means of the Milan Municipality, in the perspective of the achievement of the 15-minute city model, accessible and rich in services. The paper describes policies and emerging practices in order to produce a more comprehensive representation of this double perspective. The result is narrative of the neighbourhood by the point of view of pedestrian safer areas and of new possibilities to connect traditional public services and new uses of the site. In this direction, the proposed approach could be further tested through the application of immersive understanding and of similar design tools in broader contexts and situations, verifying the effectiveness of an open methodology to shorten the distance between bottom-up and top-down initiatives regarding pedestrian and public space.

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1. Introduction. The 15-minute city perspective as a trigger for inclusiveness of urban transformation

The perspective of the “15-minute city”, a term that identifies various measures that in the urban domain promotes the strengthening of proximity of local services and pedestrian accessibility at the scale of the small agglomeration, such as an urban district, is bringing the dimension of public space back at the center of debates and investments. The idea of streets as human oriented spaces is rooted in relevant approaches to public space design, such as the liveable streets researches (Appleyard, 1980), or the design of the streets in the northern European tradition of “woonerf” with the reduction of car speed for the coexistence with pedestrian uses (Ben-Joseph, 1995).

The issue has been debated and got great diffusion in relation to the first measures of reorganization of the open spaces and soft mobility in European capitals, in response to the health emergency of 2020. The City of Paris, where a “*Stratégie Paris Piéton*” was already started in previous years (2017) by the Mayor Anne Hidalgo developing the idea of reorganizing public spaces from the pedestrian’s perspective (with the achievement of 224 pedestrian streets, 150 streets with enlargement of pedestrian paths, 80 new area to meet, 14 “Rues aux enfants”), assumes the concept of the 15-minute city (*ville du quart d’heure*, fig.1) as a guideline for the reorganization an extensive program to support the development of services and equipment for communities located on the scale of the neighborhood, stimulated by recent publications (Moreno et al., 2021).

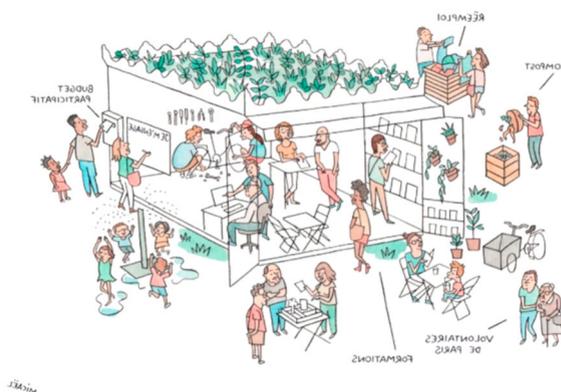


Fig 1. New services for the neighbourhood. (Source: <https://www.paris.fr/dossiers/paris-ville-du-quart-d-heure-ou-le-pari-de-la-proximate-37>)

The same line is undertaken by other municipalities in Europe (Barcelona, Copenhagen, etc.) and Milan as well, developing different aspects under the same topic and objective (Pisano, 2021). It has to be mentioned that the theme has, actually, more distant origins at the intertwine of different approaches, linked to the idea of the self-sufficient neighbourhoods of Modernism Movement, declined through the achievements of social housing districts which, for example, in Italy deposits a huge heritage as read in some major cities (Laboratorio Città Pubblica 2009, Infussi 2011), or in the perspective of the 80’ sustainable Eco-Neighbourhoods of northern Europe, and so on.

Despite the origin and the actuality of the argument *per se*, the interest here is to verify the possibility of considering the current state as a crucial moment to challenge and promote policies and projects for the redevelopment of public space (and a *nouvelle vague* of potential interests-investments) as a key factor to enhance inclusivity and integration. I refer, in particular, to the possibility of targeting those policies for the benefit of a part of the society that is normally excluded from interaction, while synergizing with the ones that are capable of civic engagement and activism. The idea, then, is to test some design tools that promote integration of civic dynamism within wider institutional program and funds. The approach refers to the possibility of conceiving “action” as the key factor to enhance programs and process, leading towards more inclusive and sustainable urban contexts, in the perspective of sustainability transition (Loorbach, 2016).

To elaborate this hypothesis the paper uses the case study of a city that is applying, as many others in Europe, the

concept of the 15-minute city, by the one hand, and where civic activism and local initiative are promoting re-appropriation of public space at the scale of the neighbourhoods. The reference is to the Municipality of Milan and to the initiatives and policies developed in Dergano neighbourhood.

The contribution will describe some current institutional policies and the transformative effects, affecting the redevelopment of the main central square and streets in the inner part of the neighbourhood, started within a pre-Covid19 frame. Then it will illustrate recent emerging practices affecting public spaces that can be read as a phenomenon of re-appropriation of urban open spaces through the organization of cultural and educational small activities in response to the pandemic's restrictions. Finally, the possible integration between the two perspectives will be verified in order to conceive some operational tools that could eventually be exported within other neighbourhoods in the city or abroad.

2. The 15-minute Dergano in Milan

2.1 The area

Dergano is an urban area in the north of Milan (fig. 2) that can be observed in the perspective of the 15-minute city, as shown in the fig. 3. The site has a clear local identity, historically recognizable in the central inner and dense urban fabrics. Part of its identity is connected to the presence of old manufacturing plants (Zaini, Mapei, Fernet Branca, Bovisa Gasometri, etc.) and more recent investments due to the settling of universities and research and innovation agencies since the '90s (Mario Negri Research Institute, Politecnico di Milano, Polihub, Polidesign, etc.), mostly in the northern part (the so called Bovisa neighbourhood). The area, at a wider scale, has to address a series of critical spatial and environmental issues, mainly caused by a scarce presence of green urban and pedestrian spaces but also overabundance of abandoned and underused former productive areas, car prevailing streets.



Fig 2. (a) Time map, around Piazza Dergano with 5-minute range (Source: openrouteservice.org). (b) Overlapping of the 10 and 15 minute circles on public services in the neighbourhood (in black education, social, cultural, health care buildings; in green parks and open space in public facilities).

From a socio-demographic point of view, it is one of the highest culturally mixed zone of the city (about 34% of foreign presence, while in the Municipality of Milan the average is 19% - Source: Municipality of Milan, 2019, PGT-NIL) where some inhabitants are suffering from economic difficulties and disparities. In terms of services and facilities, the neighbourhood offers a quite relevant number of traditional services, in particular related to education and social services. The so far reasonable cost of residential properties has recently attracted new families and young entrepreneurs. This new urban population is characterized by healthier and sustainable behaviours and could be the medium to spread a contemporary view of an ecological and smarter approach to urban life.

2.2 The 15-minute city as a local institutional policy

The local authorities have recently promoted in the city of Milano many activities that are open to dialogue and citizens involvement on emerging needs, such as cooperation in managing public spaces (*Contracts for Commons / "Patti per i beni comuni"*), and cooperation on fundamental needs (*Milano Helps / Milano Aiuta*).

In relation to urban space redevelopment the Municipality has started a quite relevant initiative devoted to the enlargement of the pedestrian public space through light and temporary interventions.

The project "Open squares/Piazze Aperte" is realized in collaboration with Bloomberg Associates, National Association of City Transportation Officials (NACTO) and Global Designing Cities Initiatives. It is a program based on the idea of public space as a place for meeting and socializing, which started in 2018 and plan to affect about 15 squares (10.000 sqm) in town, reaching some of the goals of regeneration and sustainable mobility, contained in the recent local plan "Milano 2030" and in the Sustainable Mobility Plan of the "Piano Quartieri".

The first projects are then followed by more proposals and interventions collected through a public call for ideas, where the Municipality asks associations and civic society to use the same kit and format and act with their support in the temporary pedestrian transformation of other squares. In the same line, at the beginning of the present pandemic phase the Municipality uses a similar tool to involve citizens in the activation of other pedestrian areas through the "Milan 2020 Adaptation strategy" (Municipality of Milan, 2020) that is an open document to the city's contribution" and the "Open Streets Call", where citizens could improve the idea of a pedestrian city suggesting ideas, sites and hypotheses.



Fig. 3 Images from the "Milan 2020 Adaptation strategy" about mobility and insertion of bike lane in existing streets (here C.so Buenos Aires, in the north of the Municipality); and an iconic image showing the enlargement of public spaces also in relation with commerce and activities.

The projects pursue the idea of putting the "15-minute city" idea to work through the redevelopment of a new center in each district, as mentioned by the Deputy Mayor for Urbanism. The tactical approach to design those "centers", used by the Milan Municipality, consists in providing simple but significant interventions in restoring a space for pedestrian use, through the insertion of low-cost materials and furnishings. The origin of this approach can be found in bottom-up actions, generated by local activism, capable of a great impact with respect to the effective uses and presence of people in shared spaces. The term "tactical urbanism" is, for example, described in a publication by Mike Lydon and Antony Garcia (2010) where the authors trace the origins of this "methodology" reaching in the past a coherent line, in different cases of transformation of the city through "tactics" rather than "strategies".

2.3 The tactical piazza Dergano and the long-lasting transformation

The first site where principles of the so-called "tactical urbanism" has been applied is the core of Dergano neighbourhood, piazza Dergano (together with another site, piazza Angilberto II in another district of the city), mostly used as a car parking lot. The two squares were inaugurated on 22nd of September 2018, after the creation of a coloured soil, the installation of bike-sharing stations, the positioning of benches, green pots and ping-pong tables.

After the pedestrianization, the Municipality launched moments of interaction with the inhabitants within the

activities of the "Piano Quartieri". On these occasions, citizens are invited to an informal dialogue regarding the hypothesis of a more lasting redevelopment and the selection of furnishings and flooring from a series that is proposed, to be preferred. The activity actually appears to be quite unstructured and to have a light interlocutory role.

After the pedestrian experimentation of Dergano square, the City designed and approved the long-lasting transformation of the square. The projects create wider and more usable pedestrian spaces by expanding the regeneration of the square to some streets, creating a continuum pedestrian use in the historic and commercial heart of the district. The presence of cars has been limited, as the number of parking lots along the street, and the existing "calm zone" ("zona 30"), which for some years had secured some pedestrian crossings, has been confirmed, while any other street, other than the central square, is actually made completely pedestrian. In particular, the project replaces large parts of asphalted soil with more valuable stone pavements; inserts new elements of street furniture, within a construction site inaugurated at the end of 2020 and which will last for several months.

The outcome, partially already visible in an intermediate phase of the works in progress, generates a real improvement in the quality of the places. The streets appear as more hospitable spaces, thanks to the construction of a continuous paving section at the same level for cars and pedestrians, separates by small *pilotis* (from the catalogue of urban furniture of the Municipality). The appearance of the greenery, apart from the area of Piazza Dergano where it is most present, as well as the insertion of new urban furnishing equipment appears to be somewhat in the background. On the other hand, a very clean design of the road section emerges, preferring a reduction and subtraction of elements, materials and cars rather than addiction. The uniform aspect of the space and of the ground in particular, makes the mineral dimension of a small historic center prevail, which actually appears consistent with the characters of the place.

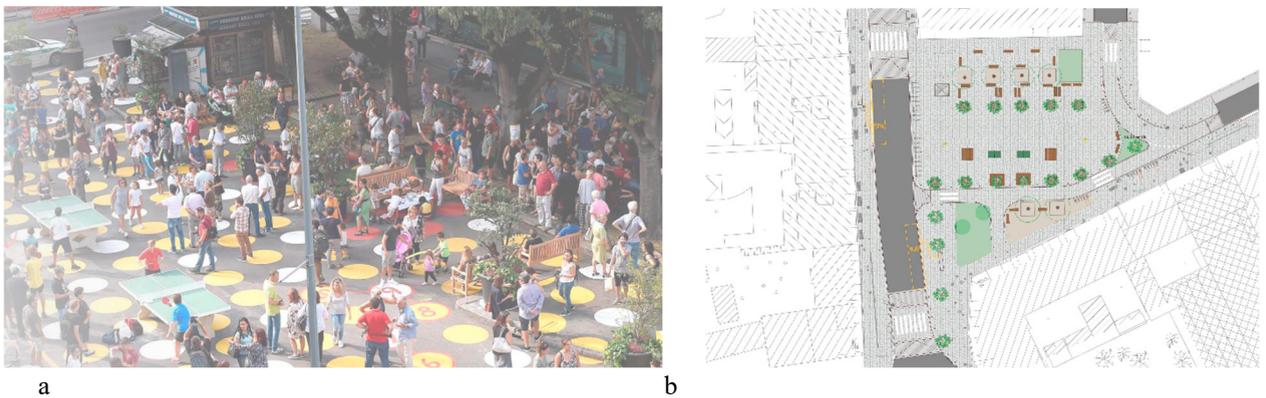


Fig. 4 (a) Phase 1: temporary intervention (b) Phase 2: definitive project and ongoing transformation

3. Temporary uses and the potential reorganization of mobility

3.1 Local initiatives in the public space

Dergano neighbourhood and the surroundings, despite some fragile features, is experiencing a renewed interest of citizen in respect of the public spaces and services. It can be eventually described as a tension towards the re-appropriation of urban open spaces through the put in place of spontaneous or frugal temporary activities. Some are cultural and educational small activities in support of the categories which have and are suffering more the pandemic's restriction such as children, elderly people, mothers and parents in general, poor families, foreign new inhabitants. Some others are fragmented, non-structured uses which are becoming stronger.

Table 1. Bottom-up activities related to public space in Dergano neighbourhood.

Name of the Activity	Promoter	Typology	Structure of the initiative	Space and period
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1. Everybody out for the school	Via Dolce Via association is the formal main supporter, while many different professionals are active within the organization and the reflection on implication of outdoor education at the scale of the neighbourhoods (in collaboration with DASTU-PoliMi).	Education-oriented initiative, born during the first Italian lockdown, to answer to children's and young people's needs, stimulating outdoor practices connecting schools with association.	Realized in one first edition, involving many association and institutions, applied within other calls and funding, the project is interacting with many other initiatives but it is not yet planned to be a permanent measure.	Public parc (N. Savarino) and close streets/Summer 2020. Presented in a public seminar hosted by the local Municipality, in autumn 2020.
2. Out with Books	Mamusca Café and Library is the organizer of regular and informal free meetings, that can be booked by buying a few books.	Reading of books and novels in open spaces, aimed to involve small group of children and young people and to sensibilize on the potential role of open air activities.	Through the website of the book café and through a private group communication the activities are planned. The promoter, owner of the library (Francesca Rendano) has built a small portable library on her bicycle to ride all around the city.	Playgrounds, parcs, inner courtyards, schools courtyards. Winter 2020-ongoing: the activity is organized within a partial lockdown and each time, rules about distancing and public are redefined.
3. Artistical Raids	Informal network of women from the districts of Dergano and Bovisa in Milan. Active since the beginning of the Pandemic in supporting the essential needs of the district and creating opportunities for exchange and sharing.	Mini diffused art and performance festival, in support of culture sector. The performances have a short duration, maximum 30 minutes.	Thanks to low structured organization, skills that the group shares and availability of local artists, in a few weeks the event is organized with a simple and reproducible format (1 event, 1 artist, 3 families to assure a minimum funding).	Inner courtyards, under-used or neglected public spaces in Dergano and Bovisa. February and May 2021-ongoing: the activity is organized within a partial lockdown, the performances take place following distancing and sanitary measures.

I provide an overview of three more representative and relevant actions, in terms of implications for the pedestrian use of the public space (see table 1). The described practices appear to be effective in citizen-driven mobilization towards innovation, inclusion and experimenting of new services and uses of the public open space of the neighbourhood. The risk at the moment is that since they are depending on bottom-up activation, thing that requires auto-organization and efforts, they could be episodic and stop at any moment.

3.3. Tools for mapping and co-designing a pedestrian oriented neighbourhood

The initiatives are enlightening new potential underused public and domestic spaces, strategic for the activation of a system of hotspots and relations, built around everyday life movements of people in the area. Those paths and practices could echo together in a wider representation of the public life of a community, as the map tries to suggest (fig. 5), interlacing existing built services (schools, cultural hubs, private and social spaces, etc.) and their open spaces with the central Dergano renovated square, connecting through the already mentioned Guerzoni road, partially redeveloped by the project of the Municipality.

Guerzoni street, today represents the backbone for the access to many public facilities: health and educational services, local crafts, associations, and some cafes. The road was partially redeveloped in the northern side (denser with functions), while the remaining southern part of the street was essentially maintained on its current condition: a wide road, with double sidewalks, car parks along the road, not very hospitable due to the predominance of asphalt and the complete absence of draining materials and trees. An underutilized space facing sparse public functions, which today represents a great potential for pedestrian use.

The Public Administration appears partially aware of the role of this road as a connector and distributor of pedestrian flows, which are very large if read in relation to the presence of a kindergarten (*asilo nido Guerzoni*), a

primary (private) school and a youth center (Amico Charlie) in proximity to the main public park of the district (Parco N. Savarino hosting health and psychological support services), which make the area a potential place for the extension of schools, in order to create a safe and walkable space for all categories, but in particular by children and young people, users of the main public services.

Finally the area should also benefit from the extension of the net of pedestrian paths (*in bordeaux red*), the integration and requalification of other underused spaces (*dashed bordeaux areas*) and the broader connection to cycle lanes reaching the major metropolitan park of the area (Parco Nord Milano).

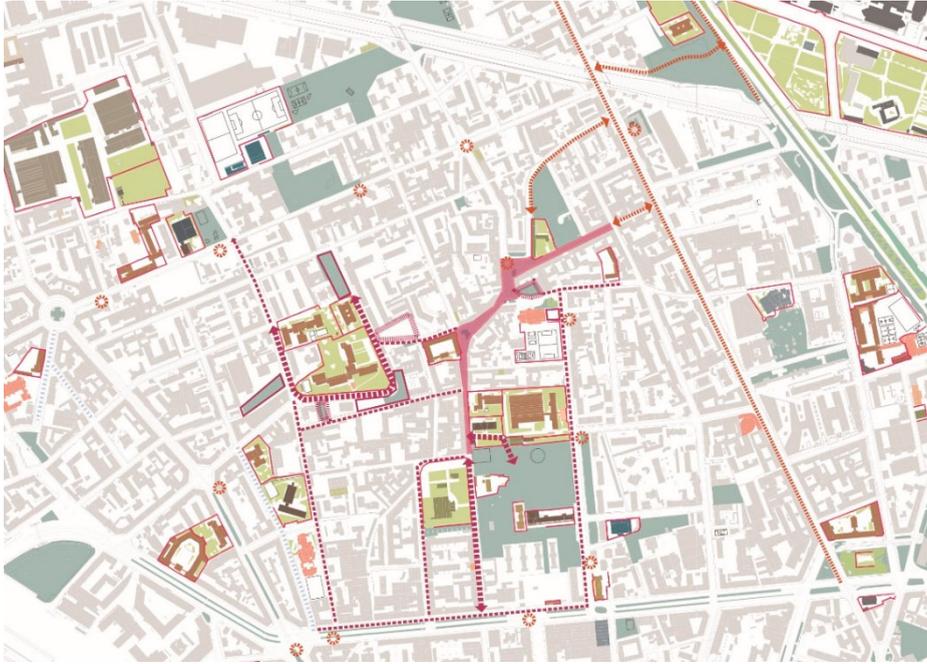


Fig. 5 Enlargement of the pedestrian 15-minute strategy for Dergano, to a broader network of pedestrian practices, linking public facilities, supporting local activation of public space.

4. Conclusion. Diffused appropriation and activation in Dergano as an approach to public space design

The aim of Dergano case study, described so far, is to test some tools to support the growing wave of interest and in-first-person activation of citizens to be part of a conscious re-appropriation of urban open spaces, adopting healthier behaviors and safer uses. Currently, the context is conducting interesting debates about the use of abandoned former industrial sites, or underused public spaces, or imagining a new functioning of inner courtyards as spaces for sharing, socializing, cultural activities, building a stronger sense of community. The responses given so far by the context, albeit full of innovation and capable of engaging in a capillary way individuals and families who do not make full use of traditional public resources and services, have further development potential. For now, the above-mentioned activities are still segmented and often carried out without any support from public decision makers.

By the point of view of public policies, the case highlights how an approach to design understood as a “form of research”, could conceive an occasion of a tactical and temporary projects – such as the “Open Square” policy from the City of Milan – as a strategic tool to test the (social, physical and material, functional and users centered) response from a context, or validation/adjust of the final redesign of public space in a more consistent way with places.

In the perspective of the 15-minute city, and considering the recent communitarian policies about a Green Deal of people, with special role to inclusivity and community by the New European Bauhaus (Bason, Conway, Hill, Mazzucato, 2020) a mature community could play a more equitable role, by integrating its voice within public ongoing policies. And politics should be ready to synergize profitably with communities.

In this perspective some tools and methodologies in use in the Dergano “laboratory” could be suggested for other fragile contexts, whenever traces of community are tangible and reachable. They have been used within the frame of two ongoing researches: a collaboration with the already mentioned “Tutti fuori per la scuola” (see table 1) to study public spaces in relation with outdoor education and “CO.RE. Connessioni in Rete” 2021, by Rob De Matt association, dealing with the mapping of cultural, artisanal, commercial and productive activities and realities in the site (where the author is responsible for DASTU). They are made by the integration of the twofold perspective to space and uses, and consist in:

- immersive surveys and on field trips,
- opening-up of a continuous dialogue with the community,
- time-space analysis to study different rhythms and frequencies of uses around schools and public facilities,
- enlargement of the traditional service analysis, including associations and private stakeholders and the spaces they manage or use.

This approach will lead to three major results:

- identification of ambassadors, or representative citizens within a given community,
- identification of mostly used paths and circuits of pedestrians,
- identification of local points of interests.

Those outcomes can be promising in the adjustment of public space design redefining major points of interventions, choosing more used and recognizable paths for connections or, by another point of view, even affecting the phasing of the entire process, towards a co-design activity achieved through the multiplication of the occasions of dialogue with the community or with chosen representatives.

Moreover an open approach to public space design, oriented to community in terms of process, could better integrate social policies, coping for example with local activism or voluntary programs, in order to gain a deeper urban regeneration affecting spaces and providing services and measures linked to the different uses and rhythms of the city.

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