5. Design for public engagement: merging the role of academics and neighbourhood communities

Davide Fassi, Francesco Vergani

5.1 Participatory design and community engagement

Design emerges as a pivotal driver in fostering social cohesion, providing the public realm with the tools to face the intricacies of urban living, and conceiving novel pathways for the future. Its influence extends to the creation of spaces and experiences that are not only inclusive but also accessible, fostering community engagement and supporting people to actively shape the environments that surround them (Huybrechts *et al.*, 2017). In fact, citizens bear a moral responsibility to establish physical spaces that nurture civic involvement and communal exchange (Deshpande, 2016). Their participation in the design processes stands as a fundamental part of the journey, acting as the linchpin for effecting transformative changes an inclusive and democratic way.

In this framework, participatory design stands out as a key approach steering this transformative process (Smith *et al.*, 2016), and playing a pivotal role in expanding the democratic arena by embracing diverse perspectives of the people involved. However, engaging the public sphere in participatory design while upholding an inclusive and ecosystemic viewpoint may raise some thorny issues as it is difficult to maintain a wider perspective in including all the different *voices* (human as well as non-human). Additionally, orchestrating meaningful changes on a broader scale during the collaborative process of co-designing and co-producing sustainable and equitable futures represents a complex task.

In this context, neighbourhoods, with their relatively confined dimensions, offer not only more opportunities for interaction but also serve as catalysts for meaningful conversations and the ideation of projects of any kind (Manzini, 2021). Neighbourhood communities, being convergent points for various *voices*, create a *pluralistic* context in which *agonism* (Mouffe, 2000; DiSalvo, 2010) comes to the fore (Tassinari and Vergani, 2023). Indeed, the active involvement of local stakeholders not only leads to the creation of tailor-made solutions but also fosters environmental, economic, and social transformations that inclusively and democratically benefit the community. However, to foster transformation on a neighbourhood scale requires engagement at multiple levels, ranging from grassroots initiatives boosted by the local community to top-down interventions supported by institutional bodies (Fassi and Manzini, 2021; Fassi and Vergani, 2022).

This is exactly the aim of Off Campus Nolo, a neighbourhood living lab promoted by Polisocial – the social engagement and responsibility programme of the Politecnico di Milano. Since 2020, the academic community of the Polimi DESIS Lab, the research group to which the authors belong, has been immersed in a series of projects, actions, and events within the dynamic neighbourhood of Nolo, located in the north-east part of Milan.

This chapter highlights the Off Campus Nolo ecosystem, prompting reflections on the dynamic and intricate relationship between academics and the local community, as well as the impact they have on knowledge co-production.

5.2 Nolo neighbourhood and Off Campus Nolo

Nolo, acronym for North of Loreto, is a neighbourhood that lies just beyond Milan's city centre. It has experienced an impressive transformation over the last 10 years, driven by its proactive community (Fassi and Manzini, 2021; Fassi and Vergani, 2022). Over the years, this community has cultivated a network of initiatives, activities, and projects that have breathed new life into the area. At the heart of this revitalization stands the Nolo Social District, a Facebook group launched in 2016 and managed by residents with over 13,000 online members, which played a pivotal role in connecting neighbours both online and in physical spaces, fostering anything from shared breakfasts to design projects aimed at shaping and transforming new urban areas (Fassi and Manzini, 2021; Fassi and Vergani, 2022). While, on the one hand, the virtuous and rapid transformation prompted by the citizens themselves is benefiting the context, on the other hand, it is creating challenges for the more vulnerable segments of the population who, over the years, have moved to the neighbourhood for its opportunities and housing prices. Nolo's evolution has indeed triggered a significant gentrification process (Coppola, 2019; Citroni and Coppola, 2021), inevitably raising concerns in the social fabric about issues such as the right to housing, inclusion, and accessibility.

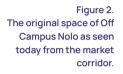


Figure 1. The iconic covered municipal market at Viale Monza 54.

Within Nolo stands the iconic covered municipal market at Viale Monza 54 (Figure 1), a landmark in the neighbourhood's transformation. Built in 1933 and designed by engineers Secchi and Massari, it was one of Milan's first concrete-covered markets. While it has performed its social and economic purpose for the community throughout the previous century, unfortunately, it is currently facing challenges owing to large-scale commercialization, with many of its commercial spaces remaining unused. Over the years, such facilities have lost their appeal for urban communities, partly due to the rise of supermarkets and online offerings, and leading to a gradual and inevitable shift in citizens' habits.

It was in this dual-speed context that in 2020, Politecnico di Milano (Polimi) decided to open Off Campus Nolo (OCN). OCN is part of Off Campus. Il Cantiere delle Periferie, an initiative promoted by Polisocial - the social engagement and responsibility programme of Politecnico di Milano - to make the university more responsible, open and attentive to social challenges, and closer to territories and marginalized communities, by activating and facilitating inclusive projects and processes with existing local communities. Polisocial promotes, on one hand, the Polisocial Award - funding and support for high-impact socially responsible research, and on the other, the Off Campus initiative. Off Campus currently involves four spaces in as many critical and fragile territorial contexts in the city of Milan. The initiative aligns with the eleventh Sustainable Development Goal (SDG) of the United Nations' 2030 Agenda as it plays a significant role in making the city of Milan more inclusive, safe, resilient, and sustainable by working directly with local communities and seeking to design solutions to urgent issues. In Nolo the living lab is located in one of the unused spaces of the market, granted free of charge to the university through an agreement between Politecnico di Milano and the Municipality of Milan (the owner of the building) with the aim of revitalizing and diversifying the purpose of the historic structure (for now only for commercial use) and acting as a catalyst for social innovation in the local community. However, the space provided required a complete restructuring, as it was totally unsuitable to host research and work activities for daily use. In this context, the research team Polimi DESIS Lab completely redesigned the space,

bringing it back to the magnificent and original architecture while also showing eventual ways to renovate other spaces in the market. Since its establishment in 2020, the space has undergone a large expansion and currently includes Off Campus Nolo +, which has become the primary venue for community/Polimi activities in the neighbourhood. Prior to this most recent opening, the lack of available space proved to be limiting in relation to the planned schedule of events. Not only did the size of the space itself (a commercial stall of approximately 30m²) present a configuration rigidity, but, above all, it did not allow the management of separate activities at the same time, significantly limiting the continuous exchange between the groups of people in Nolo and the university community (Figure 2).





5.3 The challenges of OCN

On a broader scale, the OC project has invited academics from Architecture, Urban Planning, Engineering, and Design – those disciplines included in the Polimi offer – to supervise specific places with activities and projects, asking them to be physically present on a weekly basis.

Working at OC spaces means carrying out research and teaching activities while at the same time being open to continuous dialogue with local communities, who pass by the OCN while shopping at the market. This outlines an initial task for the university community, which is to consistently engage with the society for whom knowledge is being generated. This process requires taking on a role of continuous mediation, as well as an ability to translate issues primarily related to scientific contexts for an external audience. The hybrid role of the Polimi community working at OC – the so-called *offcampusers* (Fassi and Vergani, 2022) – over the years has imagined new ways of co-producing knowledge as well as the conditions for circulating and making it available to a varied audience composed of both academics and non-academics. In this perspective, the challenge of achieving the initiative's main goal (co-production of knowledge in marginal contexts) necessitated a rethinking of the organization and action methods of its process, with the subsequent deployment of significant design, economic, and, most importantly, social resources.

On the individual space of OCN, however, despite the years preceding its opening during which the community of researchers worked with local actors in a series of laboratory activities (Fassi and Vergani, 2023), the challenges in entering a situated context like the Nolo district have been multiple from the beginning.

First, the presence of a university at a municipal market proved to be particularly challenging, especially in communicating the mission of the OC project, which is to bring the university into close contact with the dynamics of change in society, extending the university's mission to themes and social needs that arise from the context.

The same entry into social dynamics and stratifications proved to be problematic since the university is often perceived an *ivory tower* (Perondi, 2020), distant and disconnected from social issues and tensions within these fragile contexts. Consequently, in the early stages of the opening, the working group focused more on research, expanding and strengthening the network of *situated stakeholders* (Fassi and Vergani, 2022), which includes various actors in the context (citizens, associations, public institutions, foundations and companies, universities, schools, other local entities), as well as general mapping activities of the context and its characteristics (Fassi and Vergani, 2022, 2023; Tassinari and Vergani, 2023).

In this challenging process, OCN has transformed from a *presiding space* into a *collaborative platform* (Huybrechts *et al.*, 2017), that is, a place to enable continuous exchange, promoting the circulation

and birth of projects and situated knowledge. However, the hybrid nature of the space, and the lack of guidelines and a standard methodology for achieving the goal, led the *offcampusers* to question the ways in which knowledge is co-created, identifying a procedural strategy understood as an *ecosystem* developed entirely organically in relation to the context. In this framework, the following section presents the current OCN ecosystem that allows the flourishing of this type of hybrid knowledge, which is still conditioned by the close relationship between the context and academic community.

5.4 The OCN ecosystem

In imagining and developing new transformative actions with tailor-made projects and processes for the community, the dimension of *proximity* – understood as a system of close functions and relationships (Manzini, 2022) – is essential. Therefore, looking at the experience of OCN means entering an ecosystem composed of spaces (*platforms*), actors (or *agents*), and activities. This structure promotes a continuous cycle of activities that generate (and are themselves generated by) a type of knowledge produced in the situated context. Like all OC spaces, the one in Nolo is primarily activated thanks to the contribution of *situated stakeholders*, and draws on knowledge that, while similar to other Western contexts, is produced through on-site exchange (both in the physical space of the neighbourhood and the market, and in the digital space, such as that supported by the social district).

Spaces (the *platforms*)

In the co-production of knowledge directly in a local context, the spatial dimension emerges as an indispensable condition. Also, due to the COVID-19 emergency and the subsequent lockdown, the demand for physical meeting places has increased compared to the situation during the opening of the living lab. In describing the spatial and instrumental component of the space, we use the term *platform* to denote a space «to bring together a diversity of actors to exchange knowledge and dynamically generate a collective form of intelligence» (Huybrechts *et al.*, 2022). The term used in this context is not strictly tied to technological and digital systems (Graham, 2020). In this perspective, OCN is composed of:

- Off Campus Nolo (OCN): the original space opened in 2020;
- OUT. Il Cortile Sociale (OUT): the public space located in the outdoor area of the covered municipal market, funded by the Fondazione Claudio De Albertis and Fondazione di Comunità Milano, and designed by the offcampusers;
- Off Campus Nolo + (OCN+): the expansion of the original area, opened in November 2023.



All three spaces provide constant support for project development, research, events, training sessions, educational classes, and many other activities. Every day, a wide variety of actors join OCN and participate in an assortment of activities that give life to the place from morning to late evening.

However, since OCN is an ongoing endeavour with the neighbourhood community, its actions have a long-term influence on wider dimensions. Hence, we also identify both the market and the neighbourhood as *platforms*.

Actors

The spatial dimension, though essential, thrives thanks to the continuous support from a strong network of actors contributing to the co-creation of situated knowledge. Working together for the Nolo context and envisioning design concepts and solutions means involving *situated stakeholders* in all phases of the process, opening a transformative discourse that touches all different levels Figure 3. The main 3 platforms: (from the left) OCN, OUT and OCN+. and scales of the community, from individual citizens to public bodies. This process embraces all the previously described platforms and is constantly promoted using participatory approaches that foster the community's agonism (Arendt, 1958; Mouffe, 2007) in engaging and subsequently envisioning various projects (Tassinari and Vergani, 2023). OCN plays a significant role in fostering new forms of social innovation by laying the groundwork for a more inclusive and ecosystemic bottom-up approach, aimed at making the neighbourhood more proactive, sustainable, innovative, and resilient. The activities are mostly co-designed with *situated stakeholders* to best meet the needs and expectations of the people involved. Specifically, the actors revolving around OCN are:

- Offcampusers: the Polimi community, consisting of professors, researchers, PhD candidates, interns, and postgraduate students;
- Citizens: primarily beneficiaries of targeted services and participants in cultural/educational events, but also contributors to research. Their engagement has enhanced the focus of inquiries, understanding the context and its features, and the effectiveness of resulting actions;
- Retailers and shopkeepers: engaged in commercial activities from both the covered market and the neighbourhood. They have become partners and supporters for events and voluntary work, helping disseminate knowledge produced at OCN in the neighbourhood;
- Informal groups, associations, and citizen committees: groups of situated stakeholders co-designing activities and collaborating beyond the duration of single projects;
- *Extra local partners*: public bodies (such as the Municipality), companies, foundations, and private entities. The main benefit of their involvement is attracting attention and resources toward critical contexts and issues often neglected by policy agendas;
- Other universities, schools, educational agencies: working in the context of Nolo and the wider Milanese area;
- External contributors: over 200 post-graduate students from the Politecnico di Milano, using creativity and skills to design more than 30 projects for the market and the neighbourhood.

Furthermore, more than 80 experts from various disciplines (writers, linguists, artists, designers, activists, scientists, etc.) have been involved in the projects, injecting unique perspectives from outside the design world.

Activities

Since its opening, OCN and the academic community of Polimi have developed research projects, educational activities, community-making practices, and volunteer activities, giving voice to the local community, collecting stories and experiences to imagine and design new solutions for the neighbourhood (Fassi and Vergani, 2022, 2023).

The activities provided by OCN include four primary research topics which, both due to their connection to the research group and project opportunities, form the thematic backbone of OCN's work:

- Proximity: projects promoting and preserving proximity in all its forms (public space, neighbourhood networks, mobility, social relations, etc.), addressing critical issues and potentialities in close collaboration with Nolo's stakeholders;
- Food: projects focusing on equitable access to food that highlight the problems of managing, processing, and distributing food products, and promote the creation of new spaces and services to support the food supply chain in the neighbourhood;
- Circularity: projects and collaborations with associations and informal groups promoting a vision of transformation and regeneration, raising awareness in the community about reducing waste in an educational and creative way;
- More-than-human: projects that explore and challenge the concept of urban cohabitation amongst different lifeforms, including plants, animals, and viruses, in order to expand beyond the limits of human-centred design.

In terms of activities, in addition to research projects connected to more academic realms, the expansion of the living lab has had a significant impact in implementing new community activities with a rich schedule of cultural, musical, artistic, and recreational events. The activities carried out at OCN include:

• Teaching and Training: activities including innovative teaching proposals, activating educational contexts such as courses,

labs, workshops, internships, and theses, involving professors and students from Polimi;

- Services: OCN promotes the incubation of services
 to support the community, such as SOSpesa, a service
 for creating a network of local solidarity actors enabling
 the mapping of food-product flows and fundraising to provide 20 free packages per week with an appropriate combination of food (Fassi and Meroni, 2023);
- Events (solidarity, scientific, educational, socio-cultural): over the years, OCN has hosted a rich programme of events and cultural, artistic, and recreational initiatives open to the neighbourhood and the public (seminars and debates; participation in week-long events organized by the Municipality of Milan; initiatives promoted by student associations of Politecnico di Milano, etc.).

5.5 Knowledge co-production in Nolo

In the ecosystem of *platforms*, actors, and activities, the exchange and subsequent generation of new knowledge occur through *collisions* (encounters). At OCN, knowledge comes from the academic community, which, driven by multidisciplinary projects attentive to human and social development, brings forth themes and, above all, approaches directly into the context. Nonetheless, the creation of new knowledge does not follow *scientific* or strictly academic paths but arises from cues, ideas, and social movements. In this case, OCN's role lies in mediating and intercepting the potential of what happens in the face of a *collision*. The evolution of society is almost always based on an alternating relationship between issues emerging from society and ideas and guidelines introduced by politics, and the answer to a grassroots demand and requirement is met by top-down research and legislation.

However, what occurs at OCN is a medium level of involvement. A *middle-out engagement* (Tomitsch *et al.*, 2021) that brings together representatives from bottom-up and top-down initiatives. Working at this level entails largely acting as a mediator, assisting local communities in exploring new ideas on one side while intercepting top-down demands on the other. In fact, the *situatedness* of OCN plays a crucial role in shaping the knowledge generation process. Being physically present, and thus, becoming part of the community, means being touched by the impacts produced. Everything activated in the context of OCN has a daily impact on the offcampusers - not only in terms of personal satisfaction but also in terms of responsibility towards the community. For this reason, being an *offcampuser* means also developing a set of social soft skills as a mediator. Throughout this ongoing experimentation, this case constantly raises guestions on the very fundamental position of being a researcher in design. While being constantly and physically present in a specific context of application on a weekly basis, the nuanced interplay between being expert, facilitator, activist, and provocateur (Mogensen, 1992) comes to the fore. Furthermore, the potential benefits - or pitfalls - of projects being immersed in the context of application become evident.

From the academic side, this experience demonstrates how synergic work between the scientific community and the social community can bring forth new forms of knowledge that are more accessible and not confined to a university context, which is often perceived as inaccessible (Perondi, 2020). It also emerges how there may not be a particular desire on the part of the scientific community to work in situated contexts but, instead, allows itself to be contaminated by working in a continuous loop, aiming to discover, prototype, and disseminate projects directly on-site with the help of those who can daily collect the aspirations and difficulties of the community. In this perspective, it is necessary to work in the university's third mission: promoting entrepreneurial skills, innovation, social well-being, and human capital development (Cognetti, 2013; Compagnucci and Spigarelli, 2020; Auad Proenca et al., 2022); and producing social values to promote well-being and civic awareness through methods of effective cultural, social, and educational impact (Fassi and Vergani, 2020). Creating a bridge to transfer academic skills on a neighbourhood-community scale can improve the quality of actions to be developed, exploring new ways of creating and disseminating knowledge and encouraging new forms of social innovation with those communities (Fassi and Vergani, 2020).

In contexts such as OCN, a high *liquidity* in knowledge-production emerges, which is no longer solely tied to the university's first two missions (education and research).

5.6 Summing up

Over the past three years, the OCN experience has committed to building a bridge for transferring academic expertise on a neighbourhood scale: improving the quality of design actions to be developed; exploring new ways of knowledge dissemination; and stimulating new forms of social innovation with local realities and local communities. OCN managed to integrate into the neighbourhood after years of experiments, research, and educational activities carried out by the research group and the wider university, carving out a space for action through small interventions over time.

The research group, by getting into the dynamics of a transforming neighbourhood, has taken on a hybrid role – the *offcampusers* – that required the acquisition of social skills in addition to purely academic ones. Engaging with the day-to-day local dynamics allows for a better understanding of the context and can be useful in defining increasingly effective strategies.

Off Campus Nolo underscores the importance and responsibility of the university in knowledge co-production in situated contexts, addressing this experience as an ecosystem of three main components:

- spaces supporting knowledge should be understood as *platforms* rather than physical infrastructures. Their design has to be efficient and flexible enough to accommodate a wide range of activities;
- considering a context like Nolo means highlighting the complexity of the various actors that revolve around the spaces. Thinking of a neighbourhood as a network of *situated stakeholders* might be useful for imagining new coalitions to address challenges and projects on the neighbourhood scale;
- the actions to be implemented, although also driven by the expertise of the research groups involved, must be

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