Chapter

Social Innovation and Environmental Sustainability in Social Housing Policies: Learning from Two Experimental Case Studies in Italy

Rossana Galdini and Silvia Lucciarini

Abstract

This chapter critically examines approaches and solutions developed by social housing to sustainably respond to the housing emergency plaguing contemporary cities and Italian cities in particular. In a broader perspective, we also investigate how housing has become 'difficult' in Europe and the poorest segments of the population run the risk of having their right to housing dramatically denied. Analysing housing in terms of its procedural dimension, we focus on two Italian case studies that evoke a new way of inhabiting the city, cases in which high standards characterised social housing and yet remain accessible to all. The Sharing hotel residence in Turin and Zoia social housing in Milan combine housing with other socially innovative measures in a framework of sustainability and avant-garde construction. These are significant examples that speak to issues such as temporariness, flexibility and the coordination of measures. These two cases both pursued objectives having to do with social, planning, architectural and environmental quality, albeit each in their own way. There are by now numerous examples of social housing in Europe and these have recently attracted growing interest in Italy as well; in this country, however, such projects represent valid instances of experimentation but are not at all widespread.

Keywords: sustainability, social innovation private-public housing policies, sharing and temporary use

1. Introduction

More and more, the image, economic logics and functions of contemporary cities reflect today's globalised society. In recent decades, however, urban designers have often produced architectural forms that are standardised and unresponsive to their context [1]. This self-referential type of architecture enjoyed success in that it met the demands of spectacularization and market logics, but it also contributed to undermining other fundamental aspects such as the representative character of a local place, community or era.

In opposition to these trends stands the concept of social architecture as a means of engaging with global phenomena, a discipline that takes cultural and social issues into account and is more in touch with the changes in economic and social structures and environmental problems characterising the twenty-first century. Architecture understood as a 'collective endeavour' entails a significant participatory component and a project of this kind must enjoy the involvement of all its stakeholders if it is to be implemented effectively and give rise to a democratic space.

Today we have an evermore urgent need for the kind of tireless ethical, political and social commitment on the part of those dealing with the city and its spaces that authors such as De Carlo [2] suggested in the past.

Architects, urban planners and scholars from all over the world support the idea, as Aravena[1] suggested, of "an architecture" that brings about concrete improvements in the lives of its various users.

Planning, innovation and new models of governance, together with a more mindful use of natural resources, are harnessed to the task of providing concrete solutions to people's needs. This approach to urban planning linked to the concept of regeneration involves a variety of different professionals, interests and aspirations and the best place to observe it at work is the arena of housing policy.

While the issue of housing represents a priority by virtue of the importance a home holds in a person's life, well-being and identity, at the same time this area is currently undergoing a serious crisis, particularly in Italy. In response to new demographic and social scenarios, the housing issue must be revisited from the standpoint of political choices and concrete responses at the local level even while taking into account a global context that brings its own effects and impacts [3].

In this context, social housing represents a heterogeneous set of measures both public and private, involving the state as well as the market, measures that consider spatial aspects in terms of their social implications and develop a variety of responses to different needs.

Social housing includes and supplements different areas: urban planning as well as architectural, economic-financial and social spheres. As a set of innovative policies for housing people, examples of social housing test out new solutions for contemporary living, paying particular attention to social, economic and environmental aspects.

The usual types of buildings we are accustomed to constructing do not always meet the housing needs of today's multifaceted society. As a result, practices of self-construction, forms of shared living, social condominiums and temporary housing are becoming more and more common in contemporary cities.

The new, widespread demand for housing pushes us to move beyond traditional patterns and find alternative solutions. And there is an increasingly wide and diversified public expressing this demand, from young people and non-resident students and workers to single-parent families, elderly people and migrants. Recently, in addition to the need for more housing, public administrations have also enlarged their urban public agendas to include measures for fostering social innovation and the ecological sustainability of buildings. In particular, the growing awareness regarding environmental issues in this area has led policymakers to adopt policies, methods and tools that focus specifically on natural and cultural habitats. There is a growing demand for spatial initiatives aimed at improving usability and

[1] Chilean architect Alejandro Aravena was the artistic director of the 15th Venice Architecture Biennale. His commitment in the field of social housing allowed him to win the 2016 Pritzker Prize and his designs are particularly focused on publicly-oriented projects with a strong social impact, committed to combining the needs of less privileged users with a focus on sustainability.

accessibility as well as making use of new materials. To apply the theme of sustainability to housing requires a set of actions that bring together spatial aspects, the social sphere, attention to resources and the overall quality of living spaces. When successful, these innovative solutions are characterised by a high degree of social engagement and give rise to virtuous practices of cooperation and sharing.

One example of this trend is the growth of non-profit organisations such as Architects Without Borders (AWB) operating in the countries of the Global South. Specifically, AWB aims to use architectural tools in the service of international cooperation. As Camillo Magni [4] notes, 'since 1998 they aim to facilitate processes of equitable and sustainable development through actions in the field of socially responsive design. They pay special attention to the investigation and spreading of appropriate and appropriable building technologies, as tools that can enable community participation and contribute to the emancipation of people in the production of their own habitat' [4]. We are seeing more and more projects designed to offer new opportunities to underprivileged people and designed to effectively face any critical issues that might arise while paying attention to energy consumption and environmental, economic and social sustainability.

In light of these considerations, in this chapter, we critically examine the approach and solutions developed by social housing to sustainably respond to the housing emergency plaguing contemporary cities and Italian cities in particular. In a broader perspective, we also explore how housing has become 'difficult' in Europe and the poorest segments of the population run the risk of having their right to housing dramatically denied.

Analysing housing in terms of its procedural dimension, we focus on two Italian case studies that evoke a new way of inhabiting the city, cases in which social housing is characterised by high standards and yet remains accessible to all. The Sharing hotel residence in Turin and Zoia social housing in Milan combine housing with other socially innovative measures in a framework of sustainability and avant-garde construction. These are significant examples that speak to issues such as temporariness, flexibility and the coordination of measures. The first project was developed to meet a temporary spike in housing demand on the part of vulnerable households; the second project aimed to build a liminal district in a site that has only recently been incorporated into the urban fabric of Milan. Both these two cases pursued objectives having to do with social, planning, architectural and environmental quality, albeit each in their own way.

There are by now numerous examples of social housing in Europe and these have recently attracted growing interest in Italy as well; in this country, however, such projects represent valid instances of experimentation but are not at all widespread. Nevertheless, the various disciplines dealing with this issue, as well as the current housing policy, clearly need to change the way they view this issue.

The recent debate on new social architecture proposes that we adopt a 'with people in mind' approach. Given their ethical and political engagement, the disciplines involved in this project prompt us to think about possible future directions. At the beginning of this century, De Carlo [2] suggested that we try turning the telescope the other way round, that is to say, modifying our customary way of reading the city. Indeed, housing and its policies require different lenses and, above all, the search for new focal points.

Considering housing policies from a sociological perspective, the focus was on the notion of social sustainability.

The content is divided in two parts. The first part of this study aimed at framing housing emergency and on the housing state-of-the-art in Europe where in the last 20 years a series of interesting measures were implemented. The primary objective of these programmes was to combine urban development with sustainable methods and approaches.

Building on these considerations, in the second part, this chapter analysed two cases of innovative housing projects in Italy, specifically the case studies of Milan and Turin, as a good practice of mixed policies: urban, socio-economic and environmental. In the conclusions, we evaluated factors that promoted these virtuous practices and the possibility to transfer these models in other contexts.

2. The housing state-of-the-art in Europe

Housing has become a strategic element of the welfare policies of many European countries as in recent years they have implemented a series of interesting measures in the effort to combine the issues of urban growth and residency policies with the objectives of sustainability. These programmes represent an initial response to the significant challenges of the present and coming decades, to the need to take suitable actions to both renovate existing buildings and build new ones. Many European countries, albeit with very different timeframes, instruments and outcomes, are dealing with a growing demand for housing. The housing situation has different characteristics depending on national contexts and local specificities, but we can nonetheless identify some common elements characterising the current housing challenge. For example, demand is highly differentiated, there is a close relationship between housing problems and the socio-economic context, and public spending in the sector is generally decreasing even while the role of the public sector is being gradually redefined, resulting in shifts in the forms and methods through which housing policies are implemented [5, 6].

The State of Housing in the EU 2017, the landmark biennial overview of Europe's Housing sector produced by the Housing Europe Observatory capitalist stresses the fact that housing has become 'difficult' for European citizens and the poorest segments of the population run the risk of being dramatically cut off from the possibility of finding a home. The report clearly shows that the challenge facing the housing construction sector has reached emergency proportions, especially in recent years. Housing is Europeans' highest expenditure. According to the 2018 Eurostat Report, 'some 11.1 % of the EU-28 population spent 40% or more of their household disposable income on housing'. Two years after the previous edition of the State of Housing Report, housing markets across the EU have begun to accelerate once again. The alarming fact is that, in most countries, house prices are rising faster than people's income. There is a direct link between growing global inequality and housing. The report also shows that the income gap between tenants and landlords is widening in a number of countries and that young people and migrants seeking to enter the housing market face ever-growing barriers. The gap between local areas is also dramatic in that finding suitable and affordable housing in places with good job opportunities is becoming increasingly difficult. In particular, large cities are facing structural housing shortages exacerbated by recent waves of migration. The political class has offered only limited responses and the housing problem will continue to represent a key challenge in the coming years [7].

As far as the Italian context is concerned, housing policies have always played a marginal role. In recent decades, first, the real estate speculation and, then, the economic crisis have contributed to the resurgence of housing problems, now affecting increasingly large swathes of the population. This critical situation, especially evident in large European urban areas, is caused by factors such as the high percentage of owner-occupied houses in the Mediterranean countries, in particular, the

scarcity of social housing, and the diminution of available housing resources.[2] In Italy, the percentage of people living in houses they own (71.9%) still overshadows the percentage of those renting (14.8%) and 9.6% do not pay rent on the properties where they live. Only 3.7% pay reduced rental rates, of which 75% live in publicly owned housing. There are 7 million unoccupied houses or second homes (ibid). Contemporary transformations are causing a process of social segmentation and fragmentation centred evermore frequently on the family and also extending to housing. The traditional household comprising a mononuclear modal family is now accompanied by other forms: singles, the elderly, young couples, immigrants and students, all individuals who have different needs and desires. Moreover, some demographic processes, such as increasing immigration and the ageing of the population in particular, also exert new forms of pressure on the demand for housing. Housing shortages are now a growing trend: the continuous increase in property prices—and, to an even greater extent, actual rental rates—has not been matched by an equally significant increase in real incomes. At the same time, public administrations in many countries have become less and less involved, putting increasing trust in market forces to meet the housing demand. The current economic recession has further exacerbated the housing issue, making it even more critical for public and private institutions and non-profit entities jointly to intervene [8]. In this context, however, it is the 'grey segment' of the population that attracts the most: those who do not belong to the poorest sections of the population and yet are unable to access the housing market. By favouring these intermediate sectors of housing demand, housing policies and social housing in particular neglect the needs of the poorest individuals or subjects who are experiencing housing marginalization [9].

Moreover, despite the benefits that housing practices may generate for some segments of the population, they also lead to more negative outcomes. A highly evident example of this is the stigma associated with the areas that have hosted the most social housing buildings in recent decades—areas lacking adequate economic and social infrastructure, spaces for socialising, afflicted by widespread urban blight stemming from obsolete structures—and related problems of alienation, segregation and vandalism. In view of past achievements and new economic and social dynamics, it is clear that social housing measures must be integrated into a broader set of public policies. Another perverse effect of these policies is that they tend to downsize the role of public agencies, reducing them to mere facilitators: when policies seek to valorise the role of private actors, they create the regulatory and economic conditions for the private sphere to consolidate its position. These aspects hamber the right to a dignified dwelling on the part of families that do not have a house and/or that risk eviction or are living in conditions of degradation [10]. In Italy, the current housing emergency calls for solutions that combat poverty and promote support strategies at the local level [8]. In this field, architecture is considered a social tool for innovation and sustainability. Indeed, we believe that architecture, art and the social sciences can contribute a great deal to exploring new strategies, improving quality of life and engaging communities in connecting people and institutions. The case studies presented here are intended to demonstrate how scientific knowledge, art and technology can influence social issues in the arena of housing projects. Considering architecture not only as a spatial concept but also a social one, we can focus on the way we relate to the society around us and

[2] The housing situation in Europe displays varied characteristics: while in Italy and Spain owner-occupied housing prevails over rented housing, in Germany the market is mainly based on rentals (57% of housing is rentals). As far as the development of social housing is concerned, Germany and the Netherlands lead the ranking with more than 30% of housing managed through social leases. In Italy and Spain, the situation is very different, with 4% and 1% of total social rental housing, respectively.

find ways to create links with the landscape and human relations. As Haiek [11] suggests, 'problematics of contemporary cities do not lie in what is technically possible, but in what is socio-culturally desired'.

As these case studies seek to show, it is more important now than ever to expand the role of social housing and put programmes, including experimental ones, in place; to support the move in this direction, it makes sense to assess and compare different initiatives at the European level, fostering an exchange of expertise and know-how among countries.

3. Social innovation and environmental sustainability in social housing policy

Today, the housing demand takes shape in a context made problematic by the need to invent different approaches to design, alternatives to the usual schemes, approaches that might lead us to develop alternative solutions. What is needed are measures acting on space aimed at improving the usability and accessibility of built environments, encouraging energy saving and facilitating their management and, above all, solutions that foster socialisation practices in part by redefining living spaces. The demand for housing involves both material and immaterial relations with the other elements of the urban system. It is a demand for infrastructure and services but also for less hasty processes that involve policy recipients through collaboration and sharing. Recent housing policies focus on housing *quality*, a broad term comprising a wide range of issues 'not only to the dwelling itself but also to the broader surrounding residential area in which people live' [12]. These planning projects combine quantitative and qualitative aspects to develop satisfactory responses to a demand that is increasing in both size and complexity. The specific objectives vary in different countries: recovering real estate stock, regenerating local areas, energy savings, and social cohesion and participation—in part because integration is the basic principle of housing.[3] One of the most innovative features that deserve to be highlighted is the fact that social housing seeks to address not so much or not only the need for housing as the need for living, in the broad sense, as a field that includes social relations, services and the quality of the urban landscape.

In recent years, the need to combine housing policies with the concerns of urban growth and objectives of environmental, economic and social sustainability has given rise to a series of interesting social housing programmes located mainly in northern and central European countries. These diverse practices all have in common the attempt to meet specific basic requirements such as the morphological and spatial quality of buildings, energy savings, cost containment, experimentation with technological innovation and other elements that are crucial to a good quality of life. Moreover, that is not all. As some of these good practices show, an environmental focus not only promotes ecologically oriented lifestyles, it also brings with it an idea of social cohesion and aids in transcending the logic of exclusion that created ghetto neighbourhoods and widespread urban blight in the suburbs of the past. Housing policies should meet the needs (geographic, economic opportunities, materials, construction processes and cultural context) of a specific community or place. The sum of these aspects is synthetically expressed in the term social innovation, a concept that has been interpreted in varying ways. The concept of social innovation is essential in light of the widespread recognition that the state, market and often civil society organisations as well prove inadequate to deal effectively with social problems.

[3] Irer final report, Creation of study paths aimed at evolving residential policies and social housing.

In her 2013 study, Czischke examines different definitions of social innovation. The Young 2010 Foundation/Social Innovation eXchange and BEPA definition, for example, highlights the fact that such innovation seeks to respond to social problems through: 'new ideas (products, services and models) that simultaneously meet social needs (more effectively than alternatives) and create new social relationships or collaborations. While "innovation" refers to the capacity to create and implement novel ideas that are proven to deliver value, "social" refers to the kind of value that innovation is expected to deliver: a value that is less concerned with profit and more with issues such as quality of life, solidarity and well-being. Social innovations are innovations that are social in both their ends and their means'.

The concept of social innovation in housing policies refers, for example, to the role and actions of the organisations tasked with providing and managing housing. They intervene in areas in which institutions, the market and civil society have shown themselves lacking, such as housing, environmental sustainability (e.g., the improvement of energy efficiency and practices of reuse), inclusion at the neighbourhood level, training and labour market inclusion for tenants, and self-help housing initiatives. The spread of the idea of social innovation has also elicited criticism from those who consider this idea nothing more than a superficial label or an attempt to obtain more funding [13]. The hope is, however, that social innovation entails a paradigm shift and promotes real empowerment for people. Furthermore, the idea of sustainable housing implies providing affordable housing: this concept includes solutions that help residents improve their quality of life and make their sense of community stronger. The concept of sustainability applied to housing policies implies three levels of action, focused on the environmental sphere, the social sphere and sustainability.[4]

Some social housing projects focus on achieving the ultimate objective of more sustainable development. These measures allow us to consider how such projects inspired by the theoretical principles described here can be implemented and how, at the same time, these projects of implementation might reveal a shift of perspective and method both in terms of conceiving new projects and throughout the process of carrying them out, from theory to practice and vice versa.

The project by Aravena that in 2003 was able to create houses for 100 disadvantaged families in Inique, a city in northern Chile is particularly innovative interesting. The architect used funding from a public programme, but the budget was only sufficient to purchase the land. In line with his approach, the solution he developed was the simplest one. The accommodations handed over to residents consisted of a series of semi-built houses that they could easily complete on their own. The project, carried out by Elemental Studio, was inspired by this principle of creating the essential elements, whatever the residents were not able to design and build on their own in keeping with high-quality standards, namely the load-bearing structure, roof, utility systems and restrooms with running water. Everything else? This, called the 'good half house' is an unbuilt space that can later be filled according to the resident's individual possibilities, needs and taste. In this case, the idea of 'elemental' is joined by the idea of 'incremental'. Guaranteeing only a percentage of the building in order to grant freedom and autonomy to its future residents is an economically strategic solution that also has a highly ecological logic

[4] The house is designed to reduce gas emissions, save water natural resources and reduce waste during the house's lifetime; "Social sustainability: the house is designed to prevent injuries through built-in safety features. 3. Economic sustainability: the house is designed to save money during construction and over the lifetime of the house. The project design is focused on bringing those aspects together. Reuse and flexibility are so important, the aspect of sustainability played a key role in the design". http://www1.indstate.edu/facilities/sustainability/

and social aims. The flexibility and reversibility of a structure is key to ensuring its sustainability, but also important for respecting individuals and their specificities. The structures in Inique were built after consulting with the people who would be living in them [14]. These practices of social architecture involve the community in implementing the design in order to ensure higher chances of success, creating a sense of ownership, social cohesion, and later even attention to the tasks of building maintenance.

This design is simple and low cost, but not easily feasible in every context. Nonetheless, the principles inspiring this project are valid and reproducible. Aravena's social housing thus represents a tool for including more underprivileged segments of the population in the credit system by offering access to bank loans. This project enjoyed a high degree of approval but has also attracted criticism: according to some concerned observers, these methods have the potential to turn social housing into a means of creating debt and thereby reproducing capitalist relations [15]. In Chile, however, the project proved successful.

Residential policies, and social housing in particular, seem to gravitate around the central idea of creating democratic tools to redistribute services and opportunities but also enlarging the scope of urban quality for collective well-being. From 'housing policies', therefore, the focus shifts to 'living policies'. The principles of interaction, collaboration, and the participation of future residents are fundamental for these policies along with the possibility of developing shared designs. As we will show here below, this idea of 'reversing' perspective to place people at the centre of the process rather than simply framing them as the end users of buildings or the beneficiaries of profit-oriented policies can also be seen in our selected case studies in Turin and Milan, analysed here in the light of the specificity of the Italian context.

4. Material and methods

The central aim of this study was to examine to what extent social innovation and environmental sustainability can coexist in social housing policies.

For this reason, the chapter critically investigated approaches and solutions developed by social housing as a response to the housing emergency in contemporary European and Italian cities. Besides meeting house needs, housing policies are expected to promote interaction, social cohesion, cooperation, civic engagement and economic development.

Social housing is generally considered as a promising model for urban development, and most empirical case studies in Europe demonstrate the potential to create active and diverse communities, promoting and maintaining sustainable living environments.

Building on these considerations, we analysed two cases of innovative housing projects in Italy, specifically the case studies of Milan and Turin, as a good practice of mixed policies: urban, social economic and environmental.

The Sharing hotel in Turin is the first temporary social housing initiative; the Zoia is an example of social and cooperative housing in Milan.

May these projects represent an opportunity for housing demands, giving at the same time responses both to people needs and aspiration for a better quality of life?

To answer this research question, we adopted a historical narrative perspective Taylor and Ramsey [35], due to catching the evolution of the phenomenon and its links to urban and socio-economic aspects. The narrative perspective was developed in the case studies, emblematic in terms of actors, spaces and organisation's mission.

The analysis of these experiences in Milan and Turin aimed to observe how the different dimension of sustainability (economic, social and environmental) and affordability that characterise the concept and the practices of social housing promote innovative and successful housing solutions. The starting point of our study is that 'sustainability is first about the people, how they make choices and the consequences of their choices' [16].

King [36] affirms that people play a central role in creating environments and institutions that support human well-being and encourage collaboration. Since well-being depends on economic, cultural, social, political and environmental aspects, an interdisciplinary vision is required to address the human dimension of sustainability [17].

For Jaberdeen [37], urban form (the physical structure of the city) is the result of different patterns (transports, water, global climate etc.) that are interconnected. They can influence social interaction and human behaviour.

A central issue of this study is the idea of social sustainability, related to economic activity, social relationships and ecological impact [18]. The concept is connected with three fundamental ideas: social exclusion, social capital and governance; they play a central role in creating sustainable communities.

As Colantonio [19] highlights, the term social sustainability has three different and interrelated components: normative (a long-term vision), strategic (a wide range of activities) and descriptive (what is). According to many authors, social sustainability lies in the intersection and implies policy interaction of environmental, social and economic issues and a long-term perspective [18]. These different aspects influence urban policies: participation, justice, democracy, social cohesion become imperative.

How can this imperative be applied to different contexts and how can they be included in housing policies?

These categories are listed in the 'Egan Wheel' [20], which can be adapted to evaluate housing policies.

We adopted and modified Egan wheel and Manzi's (et al.) adapted scheme to evaluate to what extent the selected projects of social housing in Italy

Social structures	**Spatial structures**
Promoting well-being and liveability	Provision of common open spaces
Supporting resident participation	Provision of shared spaces, playgrounds, community gardens, squares
Encouraging social cohesion and interaction	Provision of quality public and open spaces to promote events, meetings, markets
Integrating services	Provision of efficient transportation, car sharing, bikes service, services that respond to the communities' demand
Facilitating partnerships	Provision of mixed-use spaces to encourage the creation of local business, job opportunities
Ensuring safety, security	Provision of accessible and safe public areas
Promoting access to communication	Offering access to digital communication networks
Providing the condition for opportunities for all	Promoting shared and individual spaces that can be transformed into places

Sources: adapted from [20] by the authors.

Table 1.
Indicators for evaluating housing policies.

may promote through the interaction of social and spatial structures social sustainability.

For this reason, we employed and compared a set of eight indicators, using the Egan wheel scale to construct a conceptual framework. Our aim was to verify if the selected case studies could represent valid models to be transferred in other contexts. **Table 1** summarizes the identified indicators:

The conceptual framework used for our analysis took into consideration both social and spatial structures of these social housing experiences. We considered these dimensions as elements that define the context, as well as devices for framing and characterising the case studies. For this reason, our analysis was based on secondary data from different sources such as The State of Housing in the EU 2017, the biennial compass of Europe's Housing, The Egan Review, and official documents (plans, projects, photos etc.), ad hoc analyses and studies developed in Milan and Turin concerning innovative housing programmes.

Based on this material, we compared the selected case studies, giving a description of our results, highlighting reflections that are relevant to the topic under investigation.

Meeting the basic demands, offering a wide range of services, encouraging social cohesion and interaction seem to be the main goals of a valid social housing project.

5. Two case studies in Italy

As many classic authors of literature on the city [21, 22] have noted, urban agendas and the mainstream scientific-cultural sphere developed a pressing need to combine development and inclusion in order to curb the riots breaking out in North American cities in the 1980s and in Europe, particularly France, in the 2000s.

These instances of social upheavals were caused by deepening inequalities in economic and living conditions, inequality that was assuming an increasingly ethnic shape and was spatially delimited to certain disadvantaged areas.

While these moments of crisis produced a great proliferation of studies on the relationship between cities and immigration, some scholars have also focused on the need to strengthen the potential of existing urban spaces [23] in economic, social and environmental terms. These studies focus on the city's cultural sphere by consolidating material and immaterial capital, thanks in part to the role of 'creative' innovators who promoted quality development in the city, part of cognitive and professional networks that are local but globally integrated (such as in Florida, for instance).

The focus was on these two poles: on the one hand, social stability/cohesion in deprived or highly segregated areas but without considering an urban narrative of inclusion and development; on the other hand, the potential to innovate and position projects within qualified networks focused on innovation and creativity. In the European context, regeneration and renewal programmes have been put in place to change vulnerable areas by transforming them into points of strength within existing cities. These measures draw much of their justification and meaning from an approach focused on integrating spatial/environmental, economic and social cohesion aspects.

Beginning in the 1990s, these approaches and analyses have been central in a number of capitalist, urban Western contexts and have represented one of the most important and innovative lines of investment in urban areas, giving rise to a rich and complex frame of reference for studies on the city. These analyses considered spheres which deploy along three axes: horizontal, vertical and transversal.

The horizontal axis is summarised quite effectively by Donzelot [24], who distinguishes between policies aimed at the local area (place) and those for residents (people). The vertical axis, on the other hand, seeks to understand the matrix of programmes and projects, whether they are managed from above (i.e. by institutions, administrators), called top-down, or developed from below and subsequently institutionalised through the reverse process, called bottom-up. The transversal axis, which intersects all the points of convergence of the previous axes, focuses instead on governmental instruments and devices (i.e. agreements, participation) and the arena of the actors involved (public, private and mixed).

In recent years, there have been instances of innovation in all three axes thanks to a higher degree of hybridization between policies related to place and those focused on people; a widening in the scope of actors involved in regeneration projects—public, private and from the third sector—and a broader range of instruments and institutional devices through which these partnerships develop. Two significant cases of this trend in the Italian landscape are the Sharing Hotel in Turin and the Zoia district in Milan.

These two cases have a common matrix: they are both based on broad public-private partnerships led by the local administrations. In the second half of the 2000s, these local governments issued calls for tenders focused on dilapidated state-owned spaces that could be regenerated through projects that would bring these blighted spaces back into the urban fabric. The sites were a former industrial area on the outskirts of Turin and a former agricultural area incorporated into the Milan metropolitan area as the city expanded over time. Both of these sites were characterised by a state of 'abandonment' and left to sit on the economic and social margins. The idea of redevelopment underlying both projects seeks to respond to increasingly diverse housing needs, not only among vulnerable subjects but also among those with 'grey' profiles. These are individuals who find themselves suddenly vulnerable as their family situations become more fragile or their employment prospects become uncertain.

These two projects are mainly aimed at developing housing systems that combine residency with associational and neighbourhood life, guaranteeing access to urban opportunities even in areas that were previously blighted or disconnected from the city. Each of the projects also aims to achieve a specific objective: in the case of Turin, offering a temporary lease, given that this particular social need still goes unmet by the available housing supply. In the case of Milan, creating a neighbourhood for family-type settlement that would be accessible to residents who find themselves expelled from the extremely expensive housing market in more central areas of the city.

The selected case studies reveal analogies in methods and regeneration programmes, as **Table 2** shows.

The common objective of the two projects is to combine housing capable of responding more effectively to the changing needs and conditions of individuals and families with an environment rich in community opportunities, promoting cultural and economic activities in order to increase social capital. At the same

Structural dimension of urban regeneration	Milan case (regeneration of a marginal area)	Turin case (urban reuse strategy in the urban core)
Horizontal axis	Mixed 'place' and 'people' policies	
Vertical axis	Top-down programmes	
Transversal axis	Partnership: public-private and third sector	

Table 2.
Main axis of regeneration programme, strong homogeneity between the selected case studies.

time, it focuses the design's architectural canons on environmental and sustainable aspects in an effort to increase residents' awareness about environmentally 'virtuous' behaviours such as recycling, reuse and rational energy consumption.

5.1 The Turin Case

The Turin-based project 'Sharing Torino' involved founding a specific company, SHARING s.r.l., set up by a social cooperative called DOC. The component of this project consisting of apartments for the grey segment of society—students, young couples, precarious workers and mid-term commuters who are currently unable to access the 'normal rental market'—promises high social impact. The initiative originated from a public appeal by the City of Turin, which issued a call for tenders focused on the design and management of the city's first Social Hotel. Sharing Torino thus collaborates with the Turin municipal administration to host families experiencing emergency housing conditions and with other public and private bodies to implement projects of solidarity at the international level as well.

The hotel consists of two large, 9-storey-tall buildings, offering 58 rooms to be used as 3-star hotel rooms and 122 fully furnished residential units with induction cooktops and free Wi-Fi. The utilities are controlled through a home automation system. The rates and terms are different according to the length of time residents stay there, making it possible to offer housing at contained costs and thereby concretely contributing to solving the city's housing emergency and needs.

The facility also offers an intense social and cultural programme carried out in collaboration with the neighbourhood and local associations, intended to be used both by those staying in the hotel and residents of the neighbourhood that hosts the project. The 10,000-square-metre building, a former post office, was transformed into a residence for temporary social housing; after a year and a half of renovation work, today its exterior features a colourful façade reminiscent of a Mondrian painting.

Thanks to highly flexible commercial options, Sharing is able to meet the most diverse of housing demands. Residents can stay in a room or apartment for periods ranging from 1 day to a full year—although this maximum limit is only possible for those with special needs. There is the Housing Formula, offering rooms with kitchen for stays of at least 12 months; the Campus Formula, developed for not only students but also young professionals and researchers, for stays of at least 6 months; the Residence Formula, for stays of more than 14 nights; and the Hotel Formula, for shorter periods. A furnished studio apartment costs 190 euros per month; for a larger apartment, individuals can spend up to a maximum of 459 euros.

Finally, there are also rent-control options for those who meet certain requirements: people with an income lower than 12,000 euros per year, people with an income lower than 20,000 euros if disabled, separated with dependent children, or legal immigrants, people over 65, students, people participating in government assistance programmes for the relatives of individuals hospitalised in hospitals belonging to the national health system, and people participating in social care programmes. As a matter of fact, this project is also aimed at providing a testing ground for those looking to experience autonomous living before approaching the private market. For the City of Turin, it represents a cost-free solution to the housing emergency: thanks to a memorandum of understanding signed with the city involving 25 apartments set aside for the city to allocate; in the first year the facility hosted 319 people suffering from emergency housing conditions. However, it is not only the most vulnerable individuals who turn to the facility. The composition of the Sharing population is quite heterogeneous, including students (60%), non-resident workers (16%), young couples (6.6%) and tourists. This case attests to the

growing scope of that grey area of housing seekers who, although not experiencing emergency housing conditions, face serious difficulties in finding places that meet their needs on the regular market, in this case, mainly due to the temporary nature of the accommodation.

5.2 The Milan case

Zoia is a district on the outskirts of Milan, located in a former rural village that ended up being absorbed by the Milan urban area a few decades ago. It is connected to the city centre by a historic metro stop, Bisceglie, and a brand new one, San Siro; Trenno Park and Cave Park mark the border between this neighbourhood and the countryside adjacent to Sud Park. The neighbourhood itself grew out of some of isolated fragments of late modernist cities that became areas of social hardship and precariousness.

In 2008, the Municipality of Milan put eight of its property areas, granted under surface rights, out to tender with the aim of fostering the construction of social housing. The lots subjected to tender were granted 90-year surface rights for the purpose of constructing residential buildings to be rented at reduced, moderate or fixed-maximum rates and/or with use rights, with prefixed sale prices. Unlike the previous call issues by the City of Milan in 2005, 'Abitare Milano, Nuovi spazi urbani per l'edilizia sociale' (Living Milan, New urban spaces for social housing) addressed to architects, this call involving eight lots targeted actors specific to this sector, such as cooperatives and companies with internal teams of designers or technical experts.

Two cooperatives were awarded the lot in Via F.lli Zoia, one called CCL Solidarnosc and another called Edificatrice Ferruccio Degradi. The project resulted in the construction of 3 buildings—2 for sale and the third to be rented at reduced and fixed-maximum; of 95 apartments, 44 are for rent and 16 of these are for public housing.

In addition, the cooperatives were able to access regional funding from Servizi abitativi a canone convenzionato (SACC—housing services at fixed-maximum rates) for the rent-controlled apartments, thus capping rent at 79 €/sqm per year, including parking, while the public housing apartments are co-funded by the region through a framework agreement between the Municipality of Milan and the Lombardy Region. The average rent for these apartments is about 15 €/sqm per year.

The complex also includes 'creative' offices or workshop spaces and, thanks to a public competition held by the social coop Noicoop, the cooperatives assigned these spaces to a luthier, a group of set designers, an art gallery and two architects, who were committed to organising a series of activities for the inhabitants. The rental area also includes a space for professional start-ups: about 200 square metres allocated at a moderate cost to workshops/laboratories for young creative professionals and craftspeople promoting activities with a positive social impact on the neighbourhood. The complex looks out onto a private courtyard for public use as well as a public square.

The fact that the complex includes housing for both sale and rent ensures the creation of a social mix, a result which was the primary objective of the call. In this case, social housing is sustainable thanks to the low cost of the lots released by the public administration and, in particular, the fact that the area set aside for rentals only cost 1 euro; the project is also made possible by funding from the Lombardy Region dedicated specifically to social housing.

Large companies, real estate investors and public entities are not the only actors involved in transforming the city; in this case, the cooperative sector was included among the set of actors playing a leading role. Residents' cooperatives have been active in this area for decades: they built substantial components of our cities and

continue to do so through a new business model that positions the people, cooperative members, at the beginning and end of the production chain; these members are both financiers and recipients of the construction project. The specific cooperatives behind ZOIA have historically represented models, belonging to two parallel worlds but now collaborating directly.

The first type is that of 'undivided ownership', as exemplified by FerruccioDegradi, a model that stems from historical workers' mutual aid societies as channelled, in Italy, through Legacoop. In this case, the cooperatives are the owners of the properties, while the apartments are given to cooperative members at very low, advantageous rates. In general, this type of cooperative also deals with property management and, as an operational and asset guarantee often sets up systems in which the members themselves pool their savings in the form of 'risparmi sociali' or social savings schemes.

The second type is 'divided ownership', as in the case of the Solidarnosc cooperative, an offshoot of the organisation Consorzio Cooperative Lavoratori or Workers' cooperative consortium. This organisation also has its roots in labour organising and mutual aid but specifically in a Catholic framework and belongs to the umbrella organisation Confcooperative. In this case, the members become the owners of the apartments after having followed the entire planning process, which often lasts many years. Both of these cooperatives share a spirit of mutual aid, and place people and their well-being at the centre of the planning process. Members, who need a home, come into an existing cooperative or establish a new one and entrust their savings to it, thus enabling the implementation of the project. Once construction is completed, the apartments are allocated at prices much lower than the market average because they reflect the real distribution of costs, with no overhead. The cooperatives are committed to offering the inhabitants services and opportunities for socialising by setting up a common hall and shared laundries on the top floor of the rental building, organising social and community events and supporting micro-entrepreneurship through the collaborative workspaces overlooking the central courtyard.

5.3 Social and sustainable housing: comparing two logics in Milan and Turin

The comparison between these projects puts in evidence some differences regarding their logics of action, as **Table 3** summarizes.

Logics of action	Milan	Turin
Main targets	Lower middle class, expelled by the high-priced market of the city core who share the value of living in an affordable middle-class neighbourhood	Grey zones of individuals (mainly professionals) in need for temporary housing solutions
Social innovation	Focused on economic dimension, in particular the sharing or collaborative ones (co-working and fablabs)	Focused on social cohesion, fostering common spaces and collective practices inside the building
Environmental sustainability	An environmentally low-impact neighbourhood designed and built using sustainable materials and technology	Reuse strategy using eco-sustainable solutions; high energy efficiency, low environmental impact

Sources: author's elaboration.

Table 3.
Logics of action pervading social housing policies.

Goals	Design strategies (Milan)	Design strategies (Turin)
Bringing quality to the built and natural environment	Distinctive paths, nodes, edges, landmarks that help to construct a sense of identity to the community	Provision of a wide range of sizes and types of housing units, to accommodate the different family configurations
Creating a sense of community identity and belonging	Provision of social and cultural infrastructure for the community: public and green spaces, community spaces to the development of projects that encourage diversity and integration	Provision of shared spaces in the community to encourage social integration
Establishing an environmentally sensitive relationship between places and people	Incorporation of renewable energy systems and passive strategies to buildings and the urban infrastructure	Encouraging recycling and reuse
Improving economic advantages	Creating laboratories Sport and learning activities for children	Creating job opportunities Saving energies and shortage costs

Sources: adapted from [20] by the authors.

Table 4.
Goals and design strategies for sustainable housing.

These differences in the logics of actions affected the definition of goals in the two case studies. Adopting a selection of the items identified by Egan [20], we distinguished different design strategies implemented in the two contexts, as synthesised in **Table 4**.

Our analysis showed the local contexts influenced and led the way that social housing is defined. Even in programmes that have a similar structure (as **Table 1** has shown), policies are adopted in an arena of multiple actors with various perceptions that defined different design strategies to achieve the same goals.

The evaluation of these programmes has to take into account these differences and implement a meta-analysis able to better understand the links between policy, goals, strategies and their congruity.

6. Conclusion

Recent socio-economic and environmental dynamics have contributed to exacerbating the demand for housing to the point that it has reached emergency proportions, particularly in Italy. Today's difficult situation calls for a change in perspective, moving towards a type of architecture that reconnects with its socially engaged roots: an architecture built for the community, to improve quality of life for those who find themselves in situations of severe or temporary vulnerability.

The idea of social architecture links up with the need for housing policies that are 'more social'. Fortunately, projects in Europe seeking to reframe the right to housing by introducing an additional social component for the poor [9] show that this is currently a feasible objective. This new social offering is especially significant for people who have experienced conditions of exclusion and hardship, allowing them to access real housing opportunities. According to this vision, social housing represents a field of experimentation that is unquestionably effective in developing solutions that meet people's needs, projects capable of combining spatial design and economic considerations while respecting environmental constraints. Some social housing experiences contain innovation even in the methods and procedures.

The Turin case, for example, is the first example of temporary housing project. Temporariness favours small-scale and bottom-up initiative. Today, temporary use affords different actors to explore informal solutions, allow for flexible and transitory responses and simplify some bureaucratic planning procedures. Temporary uses and structures are currently getting much attention, and as the Turin case demonstrates, they are still considered as an alternative, unconventional and informal approach to development. The Turin case is an example of urban reuse: an old building was transformed into a modern and functional one, with new functions and meanings. Temporary projects seem relevant in exploring alternative scenarios and reacting to instant challenges. They often could present alternatives for filling the voids left over by failed policies.

Social housing represents a new housing paradigm that calls into question the policies of architectural design and urban development that have characterised past decades. The new cultural model brought to life through these housing projects seeks to move beyond logic focused in particular on meeting the housing needs of certain social groups. Instead, the sustainable projects of social housing connect urban regeneration with economic development and involve a range of different actors and sets of knowledge and skills in synergistic collaboration. The search for urban quality also undoubtedly constitutes a key issue in disciplinary discussions of urban regeneration issues. This space offers significant opportunities for planning, urban renewal and regeneration [3].

The analysis of the selected case studies sought to demonstrate how spatial structure and social structures are strictly interconnected to create social innovation and social sustainability.

Housing is therefore considered as a multidimensional process that involves different actors (institutions, cooperatives, agencies (private and public); different social groups, planners and local stakeholders) who interact by sharing objectives, methods and strategies.

The range of actors involved and the integration of economic, social and cultural aspects, it is the individual in all his or her complexity who experiences specific needs through a housing system that also includes other aspects of life. The cases analysed seek to create new housing models and solutions that contribute to improving the socio-economic fabric of the local area. In the Turin case, for example, there is an effort to plan, organise and collectively manage the socially useful services related to social housing facilities such as, for example, after-school programmes for children. However, this initial appraisal of the projects carried out in Italy does reveal that, unlike projects in other European countries, Italian public administrations continue to tackle the housing problem using a sectorial approach. Social housing instead increasingly calls for a multidimensional approach in which the needs and requirements of individuals, communities and society are concretely intertwined with new forms of market and governance involving financial, real estate, technological and social expertise. As these two case studies show, the range of actors involved and the integration of economic, social and cultural aspects, it is the individual in all his or her complexity who experiences specific needs through a housing system that also includes other aspects of life. These cases seek to create new housing models and solutions that contribute to improving the socio-economic fabric of the local area. In the Turin case, for example, there is an effort to plan, organise and collectively manage the socially useful services related to social housing facilities such as, for example, after-school programmes for children. In the experience of Zoia social housing in Milan, the cooperatives assigned through a competition Officine Creative spaces to the following subjects: a flautist, a group of women scenographers, an art gallerist and two architects also engaged in the design of a series of activities addressed to the inhabitants and the neighbourhood. In

Milan, children's music education courses or sports initiatives create 'an architecture of relationships' that represents one of the main aims of social housing [25, 26].

As regard to the governance models, the analysis of several cases in Italy and Europe shows that more coordination is needed with public institutions, as they can contribute positively to the success of projects thanks to the joint formulation of housing policies and services. New options financed by public/private institutions that are dedicated to social housing are emerging. They represent innovative solutions for structuring, reusing and managing social and affordable housing projects that are economically sustainable and not dependent on grants. 'These new models have not only opened the social rental sector to private and public/private investments but have also demonstrated how a virtuous intersection of the three crucial policy dimensions—housing, urban and social policies—can help redraw the boundaries of local welfare' [27]. In Europe, studies and researches highlight the emerging demand of houses and at the same time the demand of housing services: offering a house means not only producing efficient buildings but providing people with tools to improve the quality of life.

Social housing is not yet diffused in Italy. However, the experiments that are already operational do allow us to identify three main directions for new housing as 'living policies'.

First of all, people, with their specific needs and aspirations, must be placed once again at the centre of analytical thinking and contemporary design [28–34].

Secondly, living spaces need to enter into dialogue with their surrounding habitats, a relationship often neglected in housing policy that is more oriented towards quantity than quality and the market. Thirdly, it is increasingly crucial that social housing cover not only the 'grey segment' of the population but also the most marginal strata, now more than ever facing conditions of serious hardship. Tackling the housing emergency also requires greater investment in measures that not only are temporary and flexible but also ensure stable accommodations as well as job-training and employment placement assistance to the most underprivileged individuals; above all, they should provide permanent solutions. Regarding the possibility to realise in practice housing policies that can include social innovation and environmental sustainability, it seems to be an exciting direction, actually restricted in Italy to successful but very limited experiences.

Author details

Rossana Galdini and Silvia Lucciarini*
Department of Social and Economic Sciences, Sapienza University of Rome, Italy

*Address all correspondence to: silvia.lucciarini@uniroma1.it

References

[1] Gregotti V. Architettura e postmetropoli. Torino: Einaudi; 2011

[2] De Carlo G. Questioni di architettura e di urbanistica. Santarcangelo di Romagna (RN): Maggioli; 2010

[3] Galdini R. L'abitare difficile. In: La casa in Italia tra desideri e risorse. Liguori, Napoli; 2012

[4] Intervista a Camilo Magni – Architetti senza Frontiere Italia. https://www.industriarchitettura.it/2016/09/21/intervista-a-camillo-magni-architetti-senza-frontiere-italia/

[5] Clapham D. The Meaning of Housing: A Pathways Approach. Bristol: The Policy Press; 2006

[6] Hickman P, Robinson D. Transforming Social Housing: Taking Stock of New Complexities. HousingStudies. 2006;**21**(2):157-170

[7] The State of Housing in the EU 2017 Housing is still Europe's challenge Brussels, 17 October 2017 | Published in Energy, Urban, Economy, Social, Research www.housingeurope.eu

[8] Galdini R. Emergenza abitativa e pratiche informali. Il caso di Roma. In: Sociologia Urbana e Rurale, FrancoAngeli, Milano, Anno XXXVIII, n.112/2017. 2017

[9] Tosi A. Le case dei poveri. È ancora possibile pensare un welfare abitativo? Milano: Mimesis; 2018

[10] Santangelo S. Politiche per la casa: Una difficile transizione. Roma: Carocci; 2015

[11] AdminHow to Become a Social Architect: An Interview with Alejandro Haiek; 2016 . http://masteremergencyarchitecture.com/author/ad

[12] EUROSTAT, Living Condition in Europe 2018 Edition. https://ec.europa.eu/eurostat/documents/

[13] Czischke D. Social Innovation in Housing: Learning from practice across Europe' Discussion paper commissioned by the Chartered Institute of Housing on behalf of the Butler Bursary. The Netherlands: Delft University of Technology; 2013. http://www.cih.org/resources/PDF/Membership/Social%20Innovation%

[14] Crudeli A. Alejandro Aravena e l'archiettura del ribaltamento, dic. In: Architettura, urbanistica. 2016. https://www.centoventigrammi.it/alejandroaravena/

[15] Boano C, Vergara Perucich F. Architettura felice a metà; 2016. http://www.zeroundicipiu.it/wp-content/uploads/2016/04/VV04_ITA_091.p

[16] Ferreira JSW, Ferrara L. "The Formulation of a New Urban Matrix in Brazil, Basedon Socio-Environmental Justice." 3 vols. Vol. 3: Habitação social e sustentabilidade of Sustentabilidade urbana: Impactos do desenvolvimentoeconômico e suasconseqüênciassobre o processo de urbanizaçãoempaísesemergentes: Textos para asdiscussões da Rio+20. Brasília: Ministério do Meio Ambiente; 2015. pp. 55-92

[17] Cavalcante M. Lis. Re-thinking the urban form of social housing in Brazil: A search for urban sustainability. [thesis]. Rochester Institute of Technology; 2016. Accessed from: https://scholarworks.rit.edu/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=10363&context=theses

[18] Manzi T, Lucas K, Lloyd J, Allen J. Social Sustainability in Urban Areas, Communities, Connectivity and the

Urban Fabric. London, Washington, DC: Earthscan; 2010

[19] Colantonio A. Social sustainability: A review and critique of traditional versus emerging themes and assessment methods. In: Horner M, Price A, Bebbington J, Emmanuel R, editors. Sue-Mot Conference 2009: Second International Conference on Whole Life Urban Sustainability and Its Assessment: Conference Proce. Loughborough: Loughborough University; 2009. pp. 865-885

[20] Egan J. The Egan Review: Skills for sustainable Communities, Paperback, April 15. London: Riba Enterprises; 2004

[21] Florida R. The New Urban Crisis: How Our Cities are Increasing Inequality, Deepening Segregation, and Failing the Middle Class — and What We Can Do About It. New York: Basic Book; 2017

[22] Harvey D. Rebel Cities: From the Right to the City to the Urban Revolution. London: Verso Books; 2012

[23] Balducci A. Pianificazione strategica e politiche di sviluppo locale. Una relazione necessaria? In: Archivio di Studi Urbani e Regionali. Vol. 64. 1999

[24] Donzelot J. Faire société. Paris: Seuil; 2003

[25] Benetti A. Progetto Zoia. Social Housing a Milano; 2016. https://www.artribune.com/progettazione/architettura/2016/04/progetto-zoia-social-housing-periferia-milano-federica-verona-architettura/

[26] Lucciarini S. Ruolo e rapporti tra attore pubblico e privato nel governodel territorio. Il caso di Roma in Sociologia Urbana e Rurale 116; 2018

[27] Rizzica C. New social and affordable housing. 2017. https://www.friendsofeurope.org/publication/new-social-and-affordable-housing

[28] Czischke D. Collaborative housing and housing providers: Towards an analytical framework of multi-stakeholder collaboration in housing co-production. International Journal of Housing Policy. 2017:1-27

[29] Ferri G. Cambiare l'abitare cooperansdo. Milano: Mondadori; 2018

[30] Moulaert F, Martinelli F, Swyngedouw E, Gonzalez S. Can neighborhoods save the city? Community development and social innovation. London, New York: Routledge; 2010

[31] Simms JR. Technical and social innovation determinants of behavior. Systems Research & Behavioural Science. 2006;**23**(3):383-393

[32] European Union. The Young Foundation (2010) Study on Social Innovation. A paper prepared by the Social Innovation eXchange (SIX) and the Young Foundation for the Bureau of European Policy Advisors

[33] Sustainable House. http://www.gf.uns.ac.rs/~wus/wus09/Sustainable%20House%20web%20page.doc%202.htm

[34] Triveno L. The "starchitect" of the poor: The keys to Alejandro Aravena's work, Sustainable Cities. 2016. http://blogs.worldbank.org/sustainablecities/starchitect-poor-keys-alejandro-aravenas-work?CID=ECR_LI_worldbank_EN_EXT

[35] Taylor Ramsey J. The Validity of Historical Narrative, Seattle pacific University Spring June 7th. 2017. https://digitalcommons.spu.edu/honorsprojects

[36] King P. Housing Boom and Bust. Owner occupation, governement

regulation and the credit crunch. London, New York: Routledge; 2008

[37] Spinozzi P, Mazzanti M. Cultures of sustainability and wellbeing theories. Histories and Policies. London, New York: Routledge; 2018