The Urban Book Series

Nele Aernouts

Francesca Cognetti
Elena Maranghi Editors

Urban Living Lab for Local Regeneration

Beyond Participation in Large-scale Social Housing Estates

OPEN ACCESS



The Urban Book Series

Editorial Board

Margarita Angelidou, Aristotle University of Thessaloniki, Thessaloniki, Greece

Fatemeh Farnaz Arefian, The Bartlett Development Planning Unit, UCL, Silk Cities, London, UK

Michael Batty, Centre for Advanced Spatial Analysis, UCL, London, UK

Simin Davoudi, Planning & Landscape Department GURU, Newcastle University, Newcastle, UK

Geoffrey DeVerteuil, School of Planning and Geography, Cardiff University, Cardiff, UK

Jesús M. González Pérez, Department of Geography, University of the Balearic Islands, Palma (Mallorca), Spain

Daniel B. Hess, Department of Urban and Regional Planning, University at Buffalo, State University, Buffalo, NY, USA

Paul Jones, School of Architecture, Design and Planning, University of Sydney, Sydney, NSW, Australia

Andrew Karvonen, Division of Urban and Regional Studies, KTH Royal Institute of Technology, Stockholm, Stockholms Län, Sweden

Andrew Kirby, New College, Arizona State University, Phoenix, AZ, USA

Karl Kropf, Department of Planning, Headington Campus, Oxford Brookes University, Oxford, UK

Karen Lucas, Institute for Transport Studies, University of Leeds, Leeds, UK

Marco Maretto, DICATeA, Department of Civil and Environmental Engineering, University of Parma, Parma, Italy

Ali Modarres, Tacoma Urban Studies, University of Washington Tacoma, Tacoma, WA, USA

Fabian Neuhaus, Faculty of Environmental Design, University of Calgary, Calgary, AB, Canada

Steffen Nijhuis, Architecture and the Built Environment, Delft University of Technology, Delft, The Netherlands

Vitor Manuel Aráujo de Oliveira, Porto University, Porto, Portugal

Christopher Silver, College of Design, University of Florida, Gainesville, FL, USA

Giuseppe Strappa, Facoltà di Architettura, Sapienza University of Rome, Rome, Roma, Italy

Igor Vojnovic, Department of Geography, Michigan State University, East Lansing, MI, USA

Claudia Yamu, Department of Spatial Planning and Environment, University of Groningen, Groningen, Groningen, The Netherlands

Qunshan Zhao, School of Social and Political Sciences, University of Glasgow, Glasgow, UK

The Urban Book Series is a resource for urban studies and geography research worldwide. It provides a unique and innovative resource for the latest developments in the field, nurturing a comprehensive and encompassing publication venue for urban studies, urban geography, planning and regional development.

The series publishes peer-reviewed volumes related to urbanization, sustainability, urban environments, sustainable urbanism, governance, globalization, urban and sustainable development, spatial and area studies, urban management, transport systems, urban infrastructure, urban dynamics, green cities and urban landscapes. It also invites research which documents urbanization processes and urban dynamics on a national, regional and local level, welcoming case studies, as well as comparative and applied research.

The series will appeal to urbanists, geographers, planners, engineers, architects, policy makers, and to all of those interested in a wide-ranging overview of contemporary urban studies and innovations in the field. It accepts monographs, edited volumes and textbooks.

Indexed by Scopus.

Nele Aernouts · Francesca Cognetti · Elena Maranghi Editors

Urban Living Lab for Local Regeneration

Beyond Participation in Large-scale Social Housing Estates



Editors
Nele Aernouts
Department of Geography, Cosmopolis
Centre for Urban Research
Vrije Universiteit Brussel
Brussel, Belgium

Elena Maranghi Milano, Italy Francesca Cognetti Department of Architecture and Urban Studies Politecnico di Milano Milano, Italy



ISSN 2365-757X ISSN 2365-7588 (electronic)
The Urban Book Series
ISBN 978-3-031-19747-5 ISBN 978-3-031-19748-2 (eBook)
https://doi.org/10.1007/978-3-031-19748-2

© The Editor(s) (if applicable) and The Author(s) 2023. This book is an open access publication.

Open Access This book is licensed under the terms of the Creative Commons Attribution 4.0 International License (http://creativecommons.org/licenses/by/4.0/), which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this book are included in the book's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the book's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

The publisher, the authors, and the editors are safe to assume that the advice and information in this book are believed to be true and accurate at the date of publication. Neither the publisher nor the authors or the editors give a warranty, expressed or implied, with respect to the material contained herein or for any errors or omissions that may have been made. The publisher remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

This Springer imprint is published by the registered company Springer Nature Switzerland AG The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

Funding Details

The research project that was at the base of this book—SoHoLab—was supported by ERA-NET COFUND Smart Urban Futures under Project No. 7102886.

A cofounding of LAB-U Laboratory of Urbanism, EPFL ENAC IA LAB-U and ERA-NET COFUND enabled to publish the book as Open Access.

The authors wish to thank the funding bodies for this support.

Contents

1	Introduction: Framing Living Labs in Large-Scale Social Housing Estates in Europe Nele Aernouts, Francesca Cognetti, and Elena Maranghi	1
Part	t I A Critical Overview on Urban Living Labs in Large-Scale Social Housing Estates	
2	Beyond a Buzzword: Situated Participation Through Socially Oriented Urban Living Labs Francesca Cognetti	19
3	Governing with Urban Living Labs Serge Wachter	39
4	Urban Living Labs: Insights for Institutionally Promoted Urban Policies Alice Selene Boni	53
5	Adapting the Living Lab Methodology: The Prefix 'Co' as an Empowerment Tool for Urban Regeneration in Large-Scale Social-Housing Estates Francesca Cognetti and Elena Maranghi	69
Part	t II Positioning Research(ers) in Large-Scale Social Housing Estates	
6	Beyond the Presence: Dwelling with People and with Their Places Ferdinando Fava	85
7	1,460 Days of Love and Hate: An Ethnographic Account of a Layered Job	99

viii Contents

8	The Inside and Outside of High-Rise Social Housing: The Broken Institution	109
9	From a Community of Practice to a Community of Planning: The Case of the Sansheroes Network in the San Siro Neighbourhood in Milan Elena Maranghi	127
Par	t III Approaching Space in Large–Scale Social Housing Estates	
10	Marginalization Through Mobility and Porosity: How Social Housing Dwellers See and Live the City Lucia Capanema-Alvares	141
11	Peterbos: Living in the Park, Inhabiting the City Paola Viganò, Bertrand Plewinski, Guillaume Vanneste, and Nicolas Willemet	155
12	Participation and the Architect: Creative Partnership or Communication Breakdown? Dominique Lefrançois	175
13	Confusing the Spatial with the Social: Can Ethnography Offer a Way Out? Jeanne Mosseray and Nele Aernouts	191

Abbreviations

ENOLL European Network of Living Labs ENSUF ERA-NET Smart Urban Futures

ESF European Social Fund ULL Urban Living Lab(s)

PRASS Plan régional d'affectation du sol

SHP Social housing provider

Chapter 5 Adapting the Living Lab Methodology: The Prefix 'Co' as an Empowerment Tool for Urban Regeneration in Large-Scale Social-Housing Estates



Francesca Cognetti and Elena Maranghi

Abstract In recent years, Urban Living Labs (ULLs) have acquired an ever greater resonance in the field of spatial and urban regeneration. Indeed, the promotion of a collaborative approach turns out to be decisive if one wishes to include a multiplicity of social actors in these processes, an indispensable aspect today of promoting effective physical and social transformations of the urban environment. However, which specific adjustments must a ULL make in order to be configured as a truly inclusive tool within marginalized urban areas, such as public-housing neighbourhoods, where access to decision-making processes is structurally limited? Departing from a European perspective, reinterpreted through the specific Milanese context of the San Siro district, the paper reflects on the approach of ULLs in marginalized areas: material and immaterial work platforms where different languages, knowledge, values, and visions meet through an active—even conflictual—encounter which is crucial for the promotion of local regeneration processes.

Keywords Urban Living Labs · Codesign · Urban regeneration · Capabilities · Social-housing estates

Department of Architecture and Urban Studies DAStu, Politecnico di Milano, Milan, Italy e-mail: francesca.cognetti@polimi.it

F. Cognetti (⋈) · E. Maranghi

5.1 Introduction

In the last years, the Living Lab approach has been increasingly applied in socially oriented urban research agendas, as the example of the Joint Programming Initiative (JPI) 'Urban Europe' shows (Bylund et al. 2020; Franz 2014, 2015). Even if the Living Lab tool is widely considered capable of promoting social innovation and participation in urban environments, the academic debate on Living Labs in urban studies remains underdeveloped (ibid.). Only recently has the methodology been applied to urban and planning fields (see Rizzo et al. 2021), especially thanks to the expansion of networks such as the ones promoted through JPI's programmes. However, it still struggles to be adapted to deprived² or marginalized areas of our cities.³ Yet, the approach seems promising for tackling some of the main challenges related to these contexts. As will be argued, Urban Living Labs (ULLs) share certain common elements (Malmberg et al. 2017, p. 12) that are particularly relevant in relation to the characteristics of large-scale social-housing estates, including a more effective involvement of residents in the design and implementation of urban regeneration processes. Indeed, ULLs are a set of methods that can change mindsets, processes, and material solutions (Bylund et al. 2020). Thanks to their experimental and inclusive perspective, they appear to be useful for tackling the so-called 'wicked problems' (Rittel and Webber 1973) which typically characterize these contexts and, more broadly, deprived urban areas.

Starting from these considerations and basing ourselves on the results of the SoHoLab project, we here reflect on the conditions that need to be fulfilled to adapt the Living Lab methodology to the regeneration of large-scale social-housing estates in European cities. Embracing an action-research methodology, the SoHoLab project focused on the development of field research through the improvement of an existing

¹ The programme launched the ERA-NET Cofund Smart Urban Futures call within which the SoHoLab project was founded. In 2017, fifteen projects were approved in the ERA-NET Smart Urban Futures (ENSUF) call, a collaboration between JPI Urban Europe and the European Commission, to address urgent and long-term urban challenges by cocreating ideas and projects. Stakeholders in over seventy cities and twenty countries were involved in the projects and published project results in a variety of forms. They reflect on 'smart urban futures' by analysing how learning, narratives, and place development are currently practiced in European cities, where current approaches are taking us, and by suggesting new ways forward through uncovering the added value of their results and integrated approaches. About half of the ENSUF projects have engaged in methods central to ULLs, with some projects even showing signs of 'Urban Living Labs 2.0'—an effort in the JPI Urban Europe community to further advance the transformation capacities of ULLs (Hawlik and Berger 2021).

² By using the term 'deprived areas', we refer here to the fact that these territories house a population that accumulates and faces social and economic difficulties mainly due to its institutional context (the social-housing context), such as being outside the official world of work (unemployed and retired), being a one-parent household, or having a disability.

³ According to JPI, one of the main challenges in the development of ULLs is equity and inclusion (Bylund et al. 2020).

ULL and the implementation of a new one, both located in social-housing neighbour-hoods in Milan and Brussels. In this contribution, we will mainly focus on understanding if and how user engagement and cocreation processes, which are considered central elements of the Living Lab methodology, and foster the development of fragile contexts, focusing especially on the role of residents. In this regard, we will see how ULLs could function as devices in which participation is promoted through the consolidation of project platforms and the enhancement of local competences and know-how.

5.2 Fostering Capabilities as a Device for Urban Regeneration

Even though social-housing estates are often characterized by social exclusion and high levels of socio-economic fragilities, they at the same time represent 'local tanks' of competences and social resources that often tend to remain invisible. This is especially true for the most 'unheard' part of the population living in these estates (youngsters; women, especially with a migratory background; people in precarious economic situations or with severe health problems; elderly people, etc.). As far as this part of the population is concerned, ULLs can potentially function as 'activators' of knowledge and competencies through the development of codesigned regeneration paths. But if, on the one hand, this is a promising possibility, on the other hand, its success depends on the extent to which regeneration policies are able to recognize and support local capacities and on the conditions under which ULLs are capable of being effective in this regard.

We propose here to consider competences as a way to express oneself and access society, both in terms of socio-economic inclusion and of full participation in citizenship. So, competencies could be described as individual qualities often linked not only with personal characteristics but also primarily with an environment that allows

⁴ According to the *Living Lab Methodology Handbook*, even if there is no single Living Lab methodology, a few characteristics can be identified as the core of the methodology: multimethod approaches, user engagement, multistakeholder participation, a real-life setting, and cocreation. The characteristics are defined as follows: 'User engagement: this is rooted already in the origins of Living Labs, the key to success in any activity is to involve the users already at the beginning of the process. Multi-stakeholder participation: even if the focus is on users, involving all relevant stakeholders is of crucial importance. These include all the quadruple helix actors: representatives of public and private sector, academia and people. Real-life setting: a very specific characteristic of Living Labs is that the activities take place in real-life settings to gain a thorough overview of the context. Co-creation: typically, especially in technology projects, activities are designed as top-down experiments, benefiting from users being involved as factors rather than actors. There is an increasing recognition that this needs to change so that users become equal contributors and cocreators rather than subjects of studies. The Living Lab approach strives for mutually valued outcomes that are results of all stakeholders being actively engaged in the process from the very beginning' (Malmberg et al. 2017, p. 12).

⁵ In the sense of struggling to be heard and considered in policymaking.

and encourages people to employ their skills and to act. Several pedagogical theories have demonstrated that often, public policies have inhibited people from becoming bearers of 'practical' knowledge linked with an active role. The recurring risk is to establish a 'disabling' relationship between institutions and residents, particularly in marginal contexts (Freire 1970). This means that institutions often place people in a position of 'passive receptacle': they are frequently referred to as the 'target' of an intervention (a term that originated in the field of marketing but is often used in public policies as well), meaning that they share common characteristics, and are associated with a predefined set of goals to be achieved. The target is the person to whom the intervention is addressed; the person who is the 'object' of the policy. This phenomenon is more evident in social-housing neighbourhoods, where welfare systems are often linked to mechanisms of institutional dependence.⁶

On the other hand, this seems to be exactly the point: competencies are not only a personal attribute but also a process 'under construction', a sort of 'practical reason' (Nussbaum 2011) as a combined capacity resulting from a continuous reassembly of the individual's capacity and external conditions. So, we must consider whether a whole territory, as a complex system of norms, powers, and actors, can contribute to recognizing, allowing to emerge, and valorising unexpressed and diffused skills.

In this perspective, there are two nuances of the term 'competencies' we should consider. The first is contained in the term 'capability', which links the concepts of 'ability' and 'action', suggesting a vision of know-how as an ability directly related to the type of action to which it is applied. Hence, the link between ability and action emphasizes the possibility that someone can be capable in a particular field and absolutely not capable in another; it depends on the taken type of action, as introduced by Sen and Nussbaum (Nussbaum 2002; Sen 1985, 1990; Sen and Nussbaum 1993).

The consequence of this statement, like the previous one, is still 'relational'. One holds a competence if it is useful for improving or developing a situation. Thus, competence depends on the environment in which it acts and on the person who holds it. In this perspective, not only does the 'effective' action itself demonstrate the existence of a consequence, but the degree of public or institutional formalization and recognition of the competence is also one of the elements that helps it to emerge and be properly developed. Moreover, there are often 'implicit' competencies (e.g. interpersonal mediation, language skills, leadership, etc.) that are not fully recognized as 'useful' competencies even by those who possess them. Competence therefore emerges and develops also in a mutual act of recognition. Often, the skills possessed by fragile and insecure populations are not recognized. It is therefore important to work on their emergence, 'formalization', and reinforcement.

⁶ Institutional dependence is for example related to social services and access to housing and linked to a strong bureaucratization of interventions. These aspects are accentuated by the concentration of socio-economic fragility and the intersectionality of the causes of these fragilities. In these contexts, the combination, settled in space, of norms and assistance systems, personal profiles, life trajectories, concentration, and isolation makes it difficult for people to take an active role and therefore to develop and implement their skills.

Second, competence is also related to a process reinforcing citizenship, meaning the ability to act and actively participate in urban creation and urban life (Holston 1998; Isin 2009), which is usually weakened in large-scale social-housing estates. These areas are characterized by 'weaker forms of citizenship': 'traditional citizenship' does not allow many people to be represented and to have a voice in collective matters. Moreover, these places are characterized by a high presence of 'unnamed figures' (Isin 2009), whose voices fail to be reached or to emerge. These are certainly migrants, especially those with an irregular status living in precarious housing conditions (cohabiting in overcrowded conditions, squatting, etc.), but also and more broadly people living in precarious situations (such as the above-mentioned categories of elderly and fragile people, e.g. people with disabilities or psychiatric pathologies, etc.), regardless of their national background. The discourse on citizenship here is deeply connected to the discourse on the 'right to research' (Appadurai 2004), which is the right to access tools to increase knowledge capital, which is essential to fostering local claims and encouraging participation—at different levels—in policy arenas.

In the disadvantaged areas of our cities, people experience lower levels of access to opportunities and information compared to people in other parts of the city. Hence, many do not even know that they can aspire to be engaged in projects, activities, training, etc. which would potentially promote their personal development and potentiate their know-how. In this regard, Appadurai highlights the need to look at rights not only as a formal status but also by measuring the ability of different subjectivities to effectively put them into practice. In this sense, the development of competencies is intended to reinforce and stimulate the participation in society of people who have always been excluded from it and from the possibility to contribute to transforming their own environment. In this perspective, the author identifies the potential of protest as the main tool that can enable subordinate groups to 'critically participate' in public life and, consequently, in institutional life.

Working with and on local skills then represents an integrated approach oriented towards highlighting, reinforcing, or building individual competencies, not only for the sake of personal paths but also in terms of reinforcing each person's contribution to community life. In this regard, working on competencies not only acts at an individual level but also functions as a vehicle to promote collective reflections, directly involving local people and their personal expertise of experiences and knowledge of larger renewal processes. We depart here from the framework of urban regeneration defined as a social process and a policy establishing a relationship between space and society. Urban regeneration is a 'cultural approach', as Appadurai (2013) points out, as capacities are never isolated and are always part of a local set of means and ends, values and strategies, experiences and hypotheses put to the test. Therefore, a deep empowerment process should consider the relational character of urban regeneration, in order to be complete and more focused on a comprehensive development of the self.

5.3 Urban Living Lab: An Everyday Cultural and Plural Spatial Approach

Applying the lens of urban regeneration to the above considerations means to embrace a perspective focused on locally expressed (or unexpressed) individual and social skills, especially those of fragile residents, as an active component of the revitalization of large-scale social-housing estates. In the field of urban regeneration, as explained above, employing the ULL approach has been seen as promising in relation to the possibility to enlarge urban governance and effectively provide social actors access to participatory processes (Nesti 2018; Steen and van Bueren 2017). Indeed, ULLs seem to be able to develop and reinforce people's ability to reflect, imagine, aspire, and take action for the transformation of their life context, becoming real agents of change (Bylund et al. 2020).

But under which conditions can this activation take place, especially in poor and deprived contexts such as large-scale social-housing estates? Here again, relying on the ULL literature, it can be stated that it is crucial to recognize residents not only as beneficiaries of the interventions but also and primarily as coproducers, looking not so much to the response to needs but to the search for people's key aspects for engagement. In this perspective, ULLs become devices of inclusion if they are able to strengthen and improve local development and promote activities that are everyday, cultural, and plural, as will be articulated below.

First, activities should be everyday, because they directly connect to the practices of dwelling and living: day by day, they can mature within the direct experience of a space, a service, or a set of relationships. From this point of view, acknowledging the aspirations of residents means co-planning micro-interventions that are widespread with small targets, which would significantly improve the quality of everyday life. For example, the reactivation of small commercial spaces, the daily use of large green areas, the establishment of new recreational services (such as cultural activities) and services for families (such as after school activities), or the recycling of bulky waste abandoned along the streets of the neighbourhoods. Codesigning these opportunities to support the needs and wants a system of residents could be a starting point for initiating more structured solutions that address daily living.

Second, activities should be cultural, because they refer to the imagination that people cultivate with respect to their possibilities to change their life context; and the possibility the context itself allows them to be changed (Lazzarino 2017). In this sense, urban regeneration can work on the recognition of one's own and others' aspirations. Working on aspirations also means translating desires into instances of action for oneself and for the community. The role of imagination is fundamental, since it enables people to think differently and critically about common and recurrent situations. It would mean improving educational programmes and peer-to-peer initiatives, valorizing training events, and bringing out local leaders and representatives of the community. The training and strengthening of skills become two areas of intervention directly connected to the improvement of daily life, as they invest in social

roles and professional paths, affecting both the 'from inside' position of residents and their ability to generate income, gain work experience, and build opportunities for socio-economic redemption.

Finally, activities should be plural: they must be diversified because they are a sign of belonging to different social groups and refer to very different life and work projects. Different groups of residents, with different characteristics, can be represented and identify themselves with the neighbourhood if activities are plural; emancipation paths must in fact be based on accompaniment and support, respecting the singularity of profiles and life paths. This implies a strong relational attitude, linked to individuals or small groups in a larger community.

In addition to these daily, cultural, and plural dimensions, the core element of urban regeneration promoted through the ULL method is the transformation of space, as a keystone capable of bringing together the everyday trajectories, cultural characteristics, visions and social complexity that distinguish social-housing estates. Hence, the transformation considered here is not so much the object of urban regeneration but is indeed its subject, as it assumes the role of 'collector' of forces and intentions, capable of bringing together the neighbourhoods' latent and diversified resources linked to a social and cultural challenge. Space is also a device for developing social self-representation, often humiliated and flattened within marginal contexts, through processes capable of preserving and reactivating small or medium portions of space as common goods. Underused buildings, abandoned public spaces, back courtyards and degraded green areas then become devices with which to aggregate and enable people and communities. The very typical and problematic characteristic of the social-housing estate's landscape—the widespread presence of run-down spaces —becomes a local resource, fostering the post-growth paradigm that aims to define development outside of growth, without building new space and consuming more resources (Cox 2017; Rydin 2013). Indeed, the challenge is to imagine forms of 'return' (of resources, spaces, centrality, and importance) to the territories that more than others have suffered the negative effects of dominant development models.

ULLs therefore consolidate 'social infrastructures of everyday life', in which people are enabled to take action driven by a desire for recognition and equity. The transformation refers to a multiplicity of uses, activities, and practices and is aimed towards the strengthening of open and welcoming spaces, which can speak different languages to a variety of audiences and protagonists. They focus on articulated dimensions of change pertaining to different fields: mechanisms for activating people as individuals or as groups; forms of consolidation of networks, roles, and powers within urban and local communities; and new shapes and functions of spaces and the landscape. We are referring to a circular relationship that puts in tension two poles of a possible change: on the one hand, how people and subjects place themselves in a new political and community dimension and, on the other hand, how places welcome and shape these renewed social aggregations through hubs and networks.

5.4 Frugality as a Tool for Participatory Urban Regeneration: The Case of the SoHoLab Pilot Projects

As noticed in the introduction, the ULL approach associated with urban regeneration has rarely been applied to very marginalized neighbourhoods. Therefore, the involvement of extremely fragile populations has hardly been experimented with, despite the large diffusion of the Living Lab theories and practices. For this reason, in the framework of the SoHoLab project, a set of activities was dedicated to the development of small pilot projects, intended to stimulate and activate the empowerment of local actors and residents through their direct involvement in colearning, codesign, and cocreation. Indeed, a socially oriented ULL—intended as. process-centred rather than product-centred (Franz 2015)—appears to be a space of 'empowerment through innovation' and 'innovation through empowerment'. Such a Living Lab is methodologically innovative, for it involves often excluded and marginalized populations in the design of projects with the aim of reinforcing their voice and competencies. At the same time, however, the ULL method is innovative in the development of more effective solutions to certain problems, for these are codesigned together with their own future users.

Indeed, because of its own nature, the ULL constitutes a tool which represents *par excellence* the possibility of testing innovation on a small (even micro-) scale, on the one hand enhancing the abilities and know-how of the people directly involved and on the other giving rise to solutions that can possibly be scaled up and transferred to other contexts or a wider scale. Regarding this aspect, Concilio (2016, p. 12) refers to the concept of frugality elaborated by Molinari:

[...] experimented solutions use small amounts of resources and are frugal [...] from two different points of view. To begin with, they are developed with resources available in the specific problem contexts and do not require relevant additional economic or physical resources (citizens are more prone to mixing resources than professional designers). Secondly, they are developed and tested in spaces of proximity and localities. They are situated and consequently frugal in dimension and do not require large investments. This frugality adds to these solutions being reversible and effective in urban environments.

In this regard, ULLs—meaning places/processes in which to 'test' local solutions (pilot projects)—represent powerful devices in large-scale social-housing estates in at least two respects: first, in spatial contexts with a structural lack of public investment, small and 'frugal' projects targeting local problems have to absolve the function of 'testing' possible responses which—when successful—could encourage further public (or even private) investments and support a scenario of change, while offering concrete 'solutions' (even if restrained in scale) to residents. Second, the small scale and profoundly flexible methodology, characterized by the development of codesign and cocreation (as will be described in the next paragraph), offers the possibility of triggering and encouraging more effective local involvement, especially when dealing with populations that are structurally excluded from traditionally promoted forms of participation. In other words, as user-centred open innovation ecosystems (Pallot 2009), ULLs are 'sensitive' to the specific characteristics of the different

users, which in the case of urban regeneration processes are the residents of a certain neighbourhood. As previously underlined, this specific feature of the methodological approach here considered is particularly relevant in large-scale social-housing estates, since it seems more effective when dealing with profiles characterized by multiple and layered identities (Association for Women's Rights in Development [AWID] 2004) and fragilities. On the one hand, working with competencies in the regeneration of large-scale social-housing estates is, indeed, potentiating and valorizing existing local knowledge, mostly referring to the valuable 'dwelling competence' employed by residents (La Cecla 1993); on the other hand, it means reinforcing and strengthening personal competencies and skills that are not yet fully expressed or recognized as vehicles to promote empowerment and stimulate local regeneration in terms of socioeconomic improvement for residents and communities.

Within the SoHoLab framework, as already mentioned, several pilot projects were developed by the two research units in charge of implementing existing (Milan) or new (Brussels) ULLs. Both in the Milanese (San Siro neighbourhood) and in the Belgian (Peterbos neighbourhood) case, two of the three pilot projects activated in each neighbourhood directly involved residents, in the design phase as well as the implementation phase. The San Siro case, these pilots were respectively directed to the regeneration of a very compromised public space (Green Living Lab) and to the mapping/strengthening of the skills/competencies of a group of women of foreign origin⁸ living in the neighbourhood ('Ghe pensi mi', which means 'I will take care of it' in Milanese dialect). In the Peterbos case, the pilots which directly involved residents dealt with the production of a new multimedia narrative of the neighbourhood (Digital Storytelling) and with the activation of a repair/upcycling lab (Brico Recontre) managed by residents. It is worth noticing that, on the one hand, the Green Living Lab and the Digital Storytelling pilot projects were more focused on the valorization of already existing 'nonexpert' local knowledge (colearning), while on the other hand, 'Ghe pensi mi' and Brico Recontre were particularly concerned with the emergence of new or not fully expressed competencies through an empowerment process (cocreation). Even so, these different phases are deeply linked to one another: as in the case of action-research approaches, with which the Living Lab methodology shares certain characteristics (Cognetti and Maranghi 2019), the pilot project tool (action) is crucial for gathering actionable knowledge (Argyris 1995) on a certain issue, advancing its understanding (research) in order to produce more effective solutions (action again).

 $^{^{7}}$ In both cases, the third pilot was dedicated to the development of a local network of third-sector organizations.

⁸ A population which is particularly relevant in San Siro neighbourhood, not only numerically (half of the neighbourhood's population is of foreign origin, more than double the city average) but also in terms of being very active yet unheard by local and city-level institutions and also often 'socially invisible'; see Castelnuovo and Maranghi (2018).

5.5 Adapting the Living Lab Methodology: The Prefix 'Co' as an Empowerment Tool

Following the example of Franz (2015), who proposes a conceptual translation from technologically centred into socially centred Living Labs, we focus here on understanding which dimensions and tools proposed by the ULL methodology seem to be more relevant and effective in its 'socially oriented' definition applied to deprived areas of our cities. First of all, as illustrated in the above paragraph, it could be stated that pilot projects function, in these particular areas, as designed boundary objects (Concilio 2016) capable of activating different social worlds. Especially in large-scale social-housing estates, where many different cultures and backgrounds meet—many of which struggle to be fully expressed—these objects should be concrete (a space, a problem) rather than abstract (a concept) and clearly defined in space and time. Therefore, they usually function in a 'frugal' dimension and are capable of activating small groups of people at a time, who share a particular and concrete interest.

Through the development of such pilots, social ULLs becomes part of an empowering process which tackles the exclusion and disadvantage in at least two respects: on the one hand, it stimulates a sort of 'everyday' and individual activation; on the other, it impacts the empowerment of citizens in a wider scenario of urban change and regeneration. Indeed, through the direct involvement of their knowledge and know-how, people are stimulated to recognize certain abilities in themselves and see these abilities as tools to trigger the possibility to improve their living conditions in a certain area (typically work related). Moreover, as these pilots are part of an integrated and wider vision of regeneration for the area, they also stimulate residents' capacity to 'be citizens' and, for instance, actively participate in the redevelopment of local spaces and economies or the advocacy of a certain issue at the institutional level, with effects on the community as a whole. As an example, referring to the above-described SoHoLab pilot project, this was the case of the 'Ghe pensi mi' project, through which each woman of the group involved became more aware of her needs and competencies related to the job sector and, at the same time, became an active part of a wider appeal to institutions and local organizations to consider their struggle to be involved in the labour market, with an effect on the development of new policies and projects taking into account this perspective.

To be effective in these regards, in this typology of the ULL approach, particular attention should be paid to the relevance of the prefix 'co', since ULL deals with places and people with restricted access to decision-making processes. Here, indeed, specific attention should be paid to effectively 'include' local knowledge and voices. Although in the existing literature, it is not so widely described, when coping with marginalized contexts, codesign and cocreation should be based on a solid coresearch phase: it is, indeed, the phase which opens up the process and in which empowerment begins to take place through the development of colearning and the valorization of mutual learning. One of the most powerful characteristics of the Living Lab methodology is, indeed, the fact that it takes all different types of knowledge that

very different actors bring to the process (activist knowledge, usage knowledge, nor professional knowledge, and so on, see Nez, quoted by Lehmann et al. 2015) into profound consideration. To make this possible, the Living Lab should configure itself as a 'space of encounter' in the areas in which these different pieces and types of knowledge actually 'meet', according to Franz, taking place where targeted residents already exist and interact. In this regard, we recall the importance for the social ULL to be 'situated', so as to cultivate *geographical embeddedness* (Voytenko et al. 2016) as an element which fosters and nourishes the process of colearning through *contingency* (Karvonen and Van Heur 2014).

5.6 Conclusions

As underlined in the contributions, ULLs are capable of mobilizing material and immaterial elements simultaneously: the dimension of social bonds and the ways in which a person becomes a resource within an inclusive and proactive experience, gaining a role in micro-local community dynamics and the dimension of the space that becomes a 'thickener' of different tasks, functions, and meanings, sometimes even feeding new forms of local economy.

In these regards, the codesign and cocreation of small and incremental pilot projects, which engage institutions, local organizations, and residents, is indeed a powerful tool to rebuild a learning-friendly context (usually previously compromised in large-scale social-housing estates by long-lasting conflicts), fertile for acquiring the capacity of working together and generating new forms of governance. Moving, as suggested, between spaces and communities and working with incremental dimensions of change has proven to be effective but it takes time; it also keeps together what is already present in the territories in terms of resources or opportunities of a spatial and social nature and new trajectories of a contemporary city. We are referring to the interface between the actions of ordinary people seeking to change the places of their daily life and urban regeneration, between balanced planned intervention

⁹ 'Activist knowledge [...] is based on formal and informal knowledge of the administrative and political processes. From an individual perspective, it involves knowledge transfer and know-how acquired through one associative membership and belonging to informal networks. From a collective perspective, this type of knowledge is associated with the level of proximity and interactions between citizen collectives and the administrative institutions' (Lehamann et al. 2015, p. 1095).

^{10 &#}x27;Usage knowledge is derived from a refined local knowing of citizens about a particular territory, which comes from repeated usages of product, infrastructures or services over time. This type of knowledge is usually externalized through stories and testimonies, revealing the particularisms of a given territory as well as usages conflicts over it. Collectively, this kind of knowledge will be formalized through public debates and the expression of "common sense" (ibid.).

^{11 &#}x27;Professional knowledge is derived from the technical skills of particular stakeholders in the LL. While experts often generated this type of knowledge, it can also emerge from layperson whether from their belonging to a particular group, formal or informal (i.e. makers) or from professional skills acquisition in the LL itself along the road. This knowledge can also emerge from the interactions between stakeholders within the LL leading to collective professional knowledge' (ibid.).

and self-organized practices. Urban regeneration is a long-term process that must be anchored to the genius loci of a place and should focus on urban software (the community) and not only on its hardware (urban space) (Ostanel 2016).

In this respect, ULLs able to stimulate empowerment are somehow an apparatus for 'insurgent regeneration' (De Carli and Frediani 2016; Holston 1998; Miraftab 2009; Paba 2002). They function as 'radical devices' capable of wisely putting in place a delicate balance between the present and future (Cancellieri 2019). On the one hand, the regeneration project, by its very nature, is necessarily strongly oriented towards change and therefore towards a projection forward with respect to possibilities. On the other hand, it must be able to intercept and support what the territory already expresses in everyday life and within the experience of places, often starting from existing projects and ongoing processes. This means creating a future projection by anchoring itself to current conditions, in search of a difficult balance aimed at introducing new elements that support change as well. In this way, the ULL should function both as a long-term framework and as an everyday activator, flexible enough to adapt to unexpected events.

Hence, regeneration becomes a process and is no longer a preventive intention but an idea that is substantiated by being implemented, configuring itself as an open and evolving form within which the Living Lab becomes a tool that effectively supports the contribution of different stakeholders and social actors to the process. Within this delicate balance, the issue of the structural lack of basic social policy (housing, education, labour market, etc.) remains open; in other words, the development of such a process should not hide the fact that, in some cases, democracy and participation must be pursued with a surplus of 'very social policies' (Tosi 2017), tuning it to the demand of poorest or which even the most innovative projects alone are not enough. In this sense, however, ULLs seem to be promising, as long as they are able to empower communities and individuals to activate themselves not only in producing innovation but also in claiming their rights.

References

Appadurai A (2004) The capacity to a spire. In: Held D, Moore HL (eds) $\it C$ ultural politics in a global age. One world Publications, pp 29–35

Appadurai A (2013) The future as cultural fact: essays on the global condition. Verso Books Argyris C (1995) Action science and organizational learning. J Manag Psychol 10(6):20–26

Association for Women's Rights in Development (2004) Intersectionality: a tool for gender and economic justice. Women's Right and Economic Change 9:1–8

Bylund J, Riegler J, Wrangsten C (2020) Are urban living labs the new normal in co-creating places? In: Smaniotto C, Menezes M, Mačiulienė M, Romeris M, Goličnik Marušić B (eds) C3Places, culture & territory, vol 4. Lusófona University Press, pp 7–21

Cancellieri A (2019) Attrezzi per una rigenerazione urbana radicale. In: Balbo M, Cancellieri A, Ostanel E, Rubini L (eds) Spazi in cerca di attori/attori in cerca di spazi. La rigenerazione urbana alla prova dell'innovazione sociale. Master U-Rise, in collaboration with cheFare, Tipolitografia Pavan

Castelnuovo I, Maranghi E (2018) Forme dell'abitare femminile migrante. Il quartiere come occasione di capacitazione? In: Cognetti F, Padovani L (eds) Perché (ancora) i quartieri pubblici. Un laboratorio di politiche per la casa. Franco Angeli, pp 97–114

Cognetti F, Maranghi E (2019) Adapting the Urban Living Lab approach to marginal contexts and urban regeneration: the case of Mapping San Siro Lab. In: Proceedings of open living lab days conference 2019. Co-creating innovation: scaling-up from local to global. European Network of Living Labs, pp 200–206

Concilio G (2016) Urban living labs: opportunities in and for planning. In: Concilio G, Rizzo F (eds) Rethinking the interplay between design and planning. Springer, pp 21–40

Cox KR (2017) Revisiting the city as a growth machine. Camb J Reg Econ Soc 10(3):391-405

De Carli BA, Frediani AA (2016) Insurgent regeneration: spatial practices of citizenship in the rehabilitation of inner city São Paulo. Geohumanities 2(2):331–353

Franz Y (2014) Chances and challenges for social urban living labs in urban research. In: Proceedings of open living lab days conference. European Network of Living Labs, pp 105–114

Franz Y (2015) Designing social living labs in urban research. Info 17(4):53-66

Freire P (1970) Pedagogy of the oppressed. Herder & Herder

Hawlik R, Berger K (2021) Era-net cofund. Smart urban futures, Synthesis report, Urban Europe. https://jpi-urbaneurope.eu/wp-content/uploads/2021/09/ENSUF-Synthesis-Report-AIT-FINAL-211103.pdf

Holston J (1998) Spaces of insurgent citizenship. In: Sandercock L (ed) Making the invisible visible. A multicultural planning history. California University Press, pp 37–56

Isin EF (2009) Citizenship in flux: the figure of the activist citizen. Subjectivity 29:367–388. https://doi.org/10.1057/sub.2009.25

Karvonen A, Van Heur B (2014) Urban laboratories. Experiments in reworking cities. Int J Urban Reg Res 38(2):379–392

La Cecla F (1993) Mente locale. Per un'antropologia dell'abitare. Eleuthera

Lazzarino E (2017) Mercato Lorenteggio. Un approccio culturale alla rigenerazione urbana. In Andorlini C, Bizzarri L, Lorusso L (eds) Leggere la rigenerazione urbana. Storie da 'dentro' le esperienze. Pacini Editore, pp 57–64

Lehmann V, Frangioni M, Dubé P (2015) Living Lab as knowledge system: an actual approach for managing urban service projects? J Knowl Manag 19(5):1087–1107

Malmberg K, Vaittinen I, Evans P, Schuurman D, Ståhlbröst A, Vervoort K (2017) Living Lab methodology handbook. Zenodo. https://zenodo.org/record/1146321#.YiUAG9_SJpQ

Miraftab F (2009) Insurgent planning: situating radical planning in the global south. Plan Theory 8(1):32–50

Nesti G (2018) Co-production for innovation: the urban living lab experience. Policy Soc 37(3):310–325

Nussbaum M (2002) Giustizia sociale e dignità umana. Da individui a persone. Il Mulino

Nussbaum M (2011) Creating capabilities. The human development approach. Harvard University Press

Ostanel E (2016) Urban regeneration and social innovation: The role of community-based organisations in the railway station area in Padua, Italy. J Urban Regener Renew 11(1):79–91

Paba G (ed) (2002) Insurgent city: Racconti e geografie di un'altra Firenze. Mediaprint

Pallot M (2009) Engaging users into research and innovation: the living lab approach as a user centred open innovation ecosystem. Webergence Blog. https://web.archive.org/web/201205090 81658/, http://www.cwe-projects.eu/pub/bscw.cgi/1760838?id=715404_1760838

Rittel HWJ, Webber MM (1973) Dilemmas in a general theory of planning. Policy Sci 4:155–169 Rizzo A, Ståhlbröst A, Habibipour A (2021) Transformative thinking and urban living labs in planning practice: a critical review and ongoing case studies in Europe. Eur Plan Stud 29(10):1739–1757

Rydin Y (2013) The future of planning: beyond growth dependence. Policy Press Sen AK (1985) Commodities and capabilities. North Holland

Sen AK (1990) Development as capability expansion. In: Griffin K, Knight J (eds) Human development and the international development strategy for the 1990s. Macmillan, pp 41–58 Sen AK, Nussbaum M (1993) The quality of life. Clarendon Press

Steen K, van Bueren E (2017) The defining characteristics of Urban living labs. Technol Innov Manag Rev 7(7):21–33

Tosi A (2017) Le case dei poveri. E' ancora possibile pensare un welfare abitativo? Mimesis Voytenko Y, McCormick K, Evans J, Schwila G (2016) Urban living labs for sustainability and low carbon cities in Europe: towards a research agenda. J Clean Prod 123(1):45–54

Open Access This chapter is licensed under the terms of the Creative Commons Attribution 4.0 International License (http://creativecommons.org/licenses/by/4.0/), which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

