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MAPPING SAN SIRO LAB:

EXPERIMENTING GROUNDED, INTERACTIVE AND MUTUAL LEARNING FOR INCLUSIVE CITIES

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Abstract

The paper proposes a reflection on the Mapping San Siro experience, a five-year action learning project, promoted by the Department of Architecture and Urban Studies in collaboration with Polisocial, the public engagement program of Politecnico di Milano. The project is currently ongoing in one of the largest public estates in Milan, known as San Siro. It aims at experimenting a pedagogical environment based on grounded, interactive, action-oriented and hybrid learning, reflecting how new approaches can enrich the experience of educational practices for the inclusive city. The paper addresses a series of issues, which emerge from this experience, reflecting on situated learning, the co-production of knowledge with community partners, and an action-oriented teaching practice. In this paper, a reflection on the pedagogical and social outcomes of the experience is also proposed.

Keywords

Action learning, situated approach, knowledge, public housing, inclusive cities

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1. Introduction

It is widely acknowledged that contemporary cities and related urban challenges require new approaches to teaching and learning. In Higher Education, an innovative approach to urban planning education, which acknowledges the limits of conventional coursework, is "action learning" – a process in which students, teachers, and local partners share learning experiences while working on projects for a specific community.

The aim of the paper is to test this approach through some theoretical reflections and describe the challenges faced and tools implemented within a marginal context, sharing findings from an experience on the ground. The paper describes the theoretical framework, and the opportunities and impacts of action learning through six stages: first, proposing a reflection on the approach and its guiding principles (par. 1); secondly, describing the urban context within which the action learning experience is taking place (par. 2); thirdly, briefly presenting the different phases of the implementation of the Mapping San Siro project (par. 3), and then, describing the approach developed within San Siro (par. 4; 5). Finally, the paper proposes a reflection on the pedagogical and social outcomes generated by action learning experiences (par. 6). The roles of students, teachers and communities are explored through an actual and on-going example – the Mapping San Siro Lab in Milan.

2. Action Learning for Inclusive Cities: Co-producing Knowledge and Co-designing Paths of Change

Contemporary cities and linked complex urban dynamics require new approaches to teaching and learning, related to how to manage and plan more inclusive cities. This is especially important given the recent economic crisis and the already existing pressures that welfare states have been subjected to. Cities, and especially deprived neighbourhoods, are suffering from a strong stigmatized representation that hinders an understanding of the complexity of social and spatial issues and the diversity of needs expressed by communities residing or moving there. For example, the provision of housing and welcome policies for vulnerable groups and their societal integration is an ever-existing challenge that has become one of particular urgency, especially in those deprived and marginal parts of cities. Planning cities for social inclusion requires innovative methods to understand the urban phenomenon, and new skills on the topic which trainers and students have to improve.

More recent pleas for the development of synergies between social and spatial understandings of 'superdiversity' (Vertovec, 2014; Marconi and Ostanel, 2016; UN-Habitat III, 2017) are coming to the fore, albeit not necessarily with a prime focus on hospitality and social inclusion in relation to providing housing and social facilities for marginal and vulnerable communities. In the academic context, this challenge calls Higher Education Institutions (HEIs) involved in teaching Urban Design and Planning into particular account. HEIs are called upon to assume new awareness, as actors committed to the treatment of urban and social issues, and to take on new social responsibilities (Jiusto et al., 2013; Mitrasinovic, 2015). Relevant teaching tools and methods need to be refined; novel competences are required; and new narratives and representations need to be developed in order to produce a more in-depth knowledge of urban phenomena, prepare urban practitioners to tackle them, and contribute to the development of more incisive urban policies towards more just cities.¹

Two questions arise. First, which principles could guide an innovative method aimed at addressing this complexity? Secondly, how could this innovation enrich the experience of educational practices tackling inclusive cities?

¹ On this specific issue the authors are involved in the Designing Inclusion project (Erasmus Plus KA2 – Strategic partnership - www. desinc.org) with University of Sheffield (UK) – coordinator, KU Leuven (BG), Politecnico di Milano (IT), Architecture Sans Frontieres International (FR) and Housing Europe (BG). The underlying motivation of the project is to produce new pedagogical approaches and tools, addressing the interface between architecture, urban design, urban planning education for inclusive urban spaces in European cities. In the framework of the project, one of the outputs has been a Massive Open Online Course (MOOC) (www.pok. polimi.it – Action Learning for Inclusion) which explains how to develop planning, urban and architectural design teaching with an action-oriented approach, by describing the meaning, and possible methods and tools of action-learning. It focuses specifically on engagement with vulnerable and marginalised populations.

The approach discussed here is based on four principles: it is a situated, interactive, action oriented, and hybrid approach. We can see these features in more detail in the next points.

2.1. Grounded Learning

Urban design and planning are commonly understood as interventions conceived from above: plans, programmes and urban policies are designed on different scales by one or more experts who analyse problems and recommend solutions. Often, analysis is also developed through secondary sources, such as statistical data, technical maps, photographs, and documents. This set of methodologies assumes that a city is made up of physical spaces and formal aspects, which can be shaped and designed through this approach.

On the contrary, a city is an assemblage of institutional, social, physical and infrastructural components that are produced and reproduced both on a daily basis and in the long term (Sassen, 2008); we have to consider the territory as a palimpsest made up by different signs not only related to the morphology. For this reason, students are invited to include in their planning activities elements which refer to material and immaterial aspects, for instance: space uses, perceptions, rules, traces, imaginations, powers and so on. Through this approach, it becomes crucial to understand intangible and non-visible aspects of the context, such as the general atmosphere, sound and visual qualities, signs of political tensions, and cultural characters, as well as daily challenges and desires.

For students, this requires a patient and situated observation activity to understand daily life conditions, living practices and challenges, and provides an opportunity to observe shades and changes in different times of the day as well as over time. This very immersive experience, particularly in a marginal context, addresses issues affecting spatial and social justice, starting with the recognition of the many forms of inequality and diversities which occur inside communities.

Through this method, students strengthen their proximity to the context, not just being critical observers but also taking part in the everyday life of the given community. Their presence in a marginal context also offers them the chance to broaden and reinforce personal relationships with inhabitants and local actors.

The ability to face these issues usually involves context-based ethical sensitivities. In other words, students that want to work with marginal communities for the enhancement of their quality of life need to develop a sort of empathy that often comes only with experience.

2.2. Interactive Learning

The learning approach for an inclusive city starts from the certainty that the urban environment is an increasingly complex arena, within which different stakeholders own different interests and kinds of knowledge.

Many persons populate the agora, in the name of their relationship with a city and territory, and they are legitimated or demand to be recognized as bearers of urban knowledge: an agora in which policy makers, entrepreneurs, grass-roots organisations, social workers and members of third sector agencies come together, often unconsciously. The acknowledgment of this arena leads to the need to re-compose different forms of knowledge (expert, ordinary, experiential, interactive).

The establishment of live teaching environments and the organisation of multi-stakeholder debates are the core of action learning activities in which students and trainers are involved. The whole process is rooted in immersive field experiences and in the creation of horizontal learning environments.

From this perspective, the learning process gains from the interpretation of common sense and acts to refine, expand, and make more accessible contents and possibilities of action.

This suggests a kind of circular process in which knowledge is refined during the interactive process, and in which there is no instrumental difference between scientific and common knowledge. On the contrary, there is an exchange between different kinds of knowledge, and the roles of recipient and giver are not preestablished (Cognetti, 2014).

The idea is that knowledge, which is local and specific, is generated through a practice of collective inquiry that leads to the construction of shared interpretations.

These understandings are connected to a specific network of actors at a specific moment (often temporary and unstable), and they acquire value when they are useful to all those who have participated in the exchange.

Producing such understanding, in a complex and marginal situation (such as non-transparent conditions in terms of rights, duties, sense of responsibility, and also issues of competence and professionalism), implies the use of different interpretations and views, both formalized and non-formalized.

In this sense, the chance to interact with common and specific knowledge becomes central. From this perspective, the understanding process happens through experience, life situations and the individual practices of everyday makers (Bang, 2005), and everyday cognition (Lave and Wenger, 1991). Relationships of a close and pragmatic nature with these individuals are not simple, but nevertheless provide enrichment for students, especially when they are able to build links between scientific knowledge and common knowledge, thereby making a city not just a field in which to apply knowledge, but also an environment to co-produce knowledge. This moves away from the idea of a city as an object, to the idea that a city is a partner, which we can build a co-designed path with.

2.3. Action-oriented Learning

This teaching method can be called action-oriented because it is linked to the possibility of producing transformation by promoting a collective learning process.

This is very important in those contexts where calls for not doing prevail over the calls for doing: marginal contexts are frequently characterised by a level of inertia and it can seem quite difficult to activate paths of change. The same perception of local community organisations and inhabitants is pervaded by a sense of their having an inability to challenge the currently accepted logic, which consequently causes distrust and abandonment.

For this reason, any contribution related to the possibility of introducing new elements seems central, both directly (through the same student group as promoters of transformations), and indirectly (when community partners have the capacity to become promoters of concrete interventions). This path explores the possibility of improving the quality of teaching through 'the imperative to act' (Parnell and Pieterse, 2010), alluding to the urgency of addressing development issues in a time of severe crisis for cities and general loss of rights. In this sense, the emphasis is on the results that new production of knowledge can induce in terms of change (social, perceptions, desires, space, and politics).

This approach is interrelated to the themes of action research; in this approach, research findings are seen as a common heritage for the territory, and are able to produce actual impacts and foster local activation.

In recent years, issues of action research have been taken up in urban disciplines as a 'family' of participative, experiential, and action-oriented approaches to planning (Reason and Bradbury, 2001; Reardon, 2006; Saija, 2014). In these contributions, action research opens up the possibility that urban planners can influence a set of elements, regarding both the perceptions and awareness of inhabitants and community partners. They have the opportunity to express different values and interests, the ability to perceive and draw new design strategies, and reimagine ways of undertaking transformation scenarios. Action research is one important framework for

bringing researchers and community stakeholders together as members of a knowledge production collective that focuses on effecting social change.

2.4. Hybrid Learning

In this method, students can have the opportunity to work closely with senior researchers and professionals, in an innovative process of exchange. The learning environment and pedagogical tools inherent within this approach propose both formal contexts of interaction and informal moments of exchange that come from the chance to experience neighbourhoods from the ground level.

This process is a 'peer to peer learning' process (Perrone, 2015) where students can take part in the whole research process, and experience elements of uncertainty, improvisation and hindrances, typical aspects of an undefined situation.

Within this approach, the learning process of students encompasses not just the use of participatory tools, but also an understanding of how the research process is actually developed in a marginal and undefined environment. In these terms, the relationship between research and pedagogical dimension is dialogic; both research and teaching are intended as processes of mutual learning, where different degrees of maturity and experience find place.

In this framework, the learning process is a hybrid process where research and teaching practice are connected, and the focus is on how the co-creation of knowledge can generate action and impact. A virtuous circle between practice – experiential and situated – and theoretical elaboration takes shape. Through a circular relationship between direct action and reflection on actions, the case study described here promotes an interplay between two dimensions (practical and theoretical), that are traditionally separate.

We deal with two parallel action research cycles, which influence and support each other (see Figure 1), where the production of knowledge and the treatment of problems are the results of a continuous interaction between research, learning, action, and reflection (Dewey, 1938; Kolb, 1984; Kolb and Kolb, 2005).

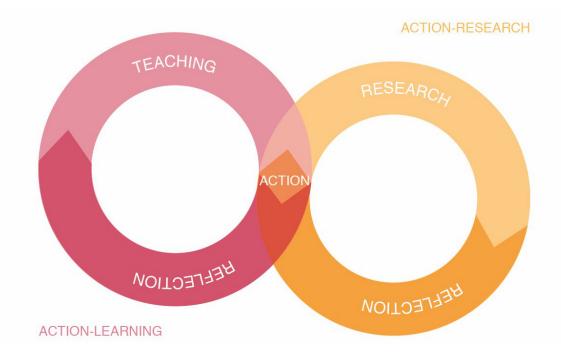


Figure 1 - The Method: Two Action Research Cycles in Parallel, Influencing and Supporting Each Other

3. The San Siro Neighbourhood as a Learning Context

The neighbourhood of San Siro has been the object of our activities and has acted as the learning environment that the action-oriented learning approach has been experimented in.

San Siro is a paradigmatic situation to look at: an urban marginal context placed close to the central part of the city; a changing historical neighbourhood that attracts a variety of living demands; a rich and active environment within which civil society takes action, promoting interventions and projects, in terms of social innovation, practices and bottom up responses to its needs, desires and expectations.

Nowadays, the neighbourhood is crossed by processes of change related to different themes and issues. It represents a complex reality to decode, which sometimes finds us unprepared, not only as researchers but also as citizens, questioning both our ability to understand and our attitudes towards living together.

San Siro is one of the largest public housing neighbourhood in Milan, built between the 1930s and 1950s and composed of about 6.110 dwellings, held and managed by the Regional Agency for Public Housing of Lombardy (ALER). There are around 11,000 residents, 40 percent (40%) of whom are immigrants (doubling the city's average); another consistent percentage are elderly people (mostly living alone), and people with psychological disabilities.

It is characterised by strong socio-spatial inequalities, intercultural/intergenerational conflicts, and a progressive lack of maintenance of the housing stock - in large part due to the financial problems of the public property owners.

For these reasons, even though San Siro is located in a quite central and well-connected part of the city, it is a marginal and problematic area in terms of living conditions: urban decay and blight exacerbate already existing problems, such as disadvantage, social exclusion, poverty, and the coexistence of different populations and cultures.

Thus, what usually emerges is a problematic picture on many fronts; they share a common denominator of low quality ordinary and daily life in which residents and local community organisations adopt 'survival tactics' in order to address the conditions they face (De Carli, 2014; Cognetti and Padovani, 2017).

The past and recent history of the neighbourhood suggest the existence of a net of potentialities, sometimes implicit, sometimes visible, that could be seen as resources for addressing some of the urban and social challenges that the neighbourhood faces. In this multidimensional and multi-problematic frame, we consider the strong and connected network of local organisations as one of the main resources.

The network consists of a rich array of community groups, non-governmental organisations, and local institutions which work towards the improvement of living conditions in the area, promoting social inclusion and social cohesion and also trying to build a different and more complex representation of a highly stigmatized neighbourhood. It is a grass-roots and fragmented network, composed of different souls and attitudes which, with scarce resources, is playing a dual role: dealing with everyday problems, and having a proactive role in terms of the production of shared visions for the future transformation of the neighbourhood.

Other resources are linked to some still timid and fragile initiatives promoted by local public institutions in order to face the new articulation and fragmentation of social needs. Moreover, a variety of practices are promoted by residents to cope with the everyday necessities of life.

For all these features, practicing within this kind of urban environment gradually allowed teachers and students to immerse themselves in a marginal context; this proved to be a fundamental learning opportunity.

4. Mapping San Siro Lab: The Action Learning Experience in Brief

Mapping San Siro (MSS) is an on-going action research and action learning project, in the public housing neighbourhood of San Siro. The project seeks to implement a live teaching project based on knowledge-

sharing between academia and the neighbourhood, thereby complementing research activity and teaching practice with civic engagement.

Supported by the Department of Architecture and Urban Studies (DAStU) – Politecnico di Milano, and by the university's public engagement program Polisocial,² the experience started in January, 2013 with a two-month workshop that took place in the San Siro neighbourhood.³ The primary aim of the workshop was to study the complexity of the neighbourhood through an action-oriented approach, which was able to keep together the several dimensions of that reality: social, cultural, spatial and political. Central to the approach was a focus on how the co-construction of a specific knowledge of the context, interactively built both by students/ researchers and local partners, could contribute to identifying ways for more inclusive and effective forms of urban transformation to be developed.

Through the involvement of over thirty students and ten teachers, (from several different disciplines and universities, and in partnership with several local community organisations),⁴ the workshop aimed to examine the underlying conditions, policies, physical and institutional spaces that enable or constrain the social and urban transformation of the neighbourhood.

At the same time, through a multidimensional, intercultural and cross-disciplinary path, the experience aimed at consolidating the educational process of students: by encouraging them to develop new social competences and stimulating them to operate as critical thinkers embracing the complexity of urban and social contexts in which they normally have to operate (Castelnuovo and Cognetti, 2013).

At the end of the workshop, a group of about twenty people (students, young researchers and teachers), decided to stay in the neighbourhood and develop further activities. This need emerged from two different orders of reasons; on the one hand, two questions emerged clearly from the group: how could our knowledge, expertise and competencies support the activation of inhabitants and community partners? How could teachers and students contribute to produce a new and pertinent representation of the neighbourhood in order to make urban and social dynamics more understandable, and to transform the residents' living conditions in San Siro?

On the other hand, and arising from the workshop's activities, new issues for additional investigation and actions emerged, as well as new requests from the community partners.

From this, a second phase of work started that was more focused around three thematic axes: living conditions; courtyards and public spaces; and empty residential spaces. Four key objectives have defined the dual nature of the project and have guided the activities undertaken in this second stage:

- Understanding the complex dynamics of decision making and social practices which drive the living conditions in the neighbourhood
- Reshaping the image of San Siro to improve public opinion by highlighting its positive side
- Building up a different relationship with institutions with the purpose of influencing the public agenda
- Providing tools for more effective initiatives and actual projects, such as project design and management, fundraising, and spatial planning.

² Launched in 2012, Polisocial is the public engagement program of Politecnico di Milano. The aim of the program is to extend the university's mission to social issues and activate new collaborations with civil society organisations. The purpose is to place the university in close contact with the dynamics of change in society, extending the university's mission to social issues, thereby building a "model" of public engagement that puts the social role of the university at the heart of the educational and research processes.

³ Beatrice De Carli and Francesca Cognetti initially promoted the workshop. See also: Mapping San Siro, Un'esperienza di ricercaazione nel quartiere di edilizia pubblica San Siro a Milano - Anno 2013 (English subtitles) https://www.youtube.com/watch?v=2cY8klsBS0

⁴ The local network is composed of three different groups of inhabitants (Ass. Vivere San Siro, Comitato di quartiere San Siro, Comitato Abitanti San Siro); some local associations and third sector organisations (Ass. Mamme a scuola, Ass. Tuttimondi, Cooperativa Dar Casa, Coop. Tuttinsieme); a local civic institution (Laboratorio di Quartiere – Comune di Milano).

After a year, the group originating from the workshop thought that a condition for the research activity to be carried on would be to set up a steady base in the neighbourhood. Therefore, in May, 2014, the group asked to ALER, the Regional Agency for Public Housing of Lombardy that owns and manages the housing stock, to provide a space for working and developing activities within the neighbourhood; a thirty square metre former shop was available in Abbiati 4, and has become the workspace of the group, called Trentametriquadri (see Figure 2).



Figure 2 - Trentametriquadri Space

In a short time, with the voluntary help of many students, friends and residents, Trentametriquadri has become a living place of exchange, interaction and dialogue between the University and the neighbourhood, where local partners and residents have access to information, data, facts and products about the dynamics occurring in the neighbourhood.

Setting up a base, activating an otherwise empty space, has marked an important change in the group's work, in terms of both the research methodology and the social and civic value/engagement of the project.

The space is currently the pivot of all activities related to the Mapping San Siro experience - such as teaching and research activities, public events, meetings with community partners, public debates, pilot projects and so on.⁵

Looking back over the past five years, this experience has helped the group of teachers to question the methods and tools that they use in their teaching practice related to planning and urban studies; Trentametriquadri has become an innovative pedagogical environment.⁶

⁵ See also www.mappingsansiro.polimi.it; www.sansirostories.com

⁶ With this approach, the project received the AESOP Excellence in Teaching Award 2015 and the Design Ignites Change Educator Grant in 2014.

In addition, this experience has allowed us to refine our reflection on the approach and the tools developed, as well as on the impacts generated (see Figure 3). In particular, the approach has focused on three main dimensions, which we explain further: situating, inquiry, and acting.

GOALS	THEMES	APPROACH	TOOLS	LEARNING ACTIVITIES	OUTCOMES	IMPACTS
Understand complex dynamics and social practices in the neighbourhood Reshape the image of San Siro to improve public opinion Build up different relationships with institutions and	Housing & Living conditions	SITUATING	setting up a base local dialogues networking local education	/evaluation with local partners /situated exibitions /caffè san siro (local open lessons) /learning activities	for students develop new sensitivities and awareness develop new	on the neighbourhood tighten new alliances and networks
	Vacant & empty spaces	INQUIRY	participatory mapping map stories san siro 1:1 communication	/interviews /observation /neighbourhood walks /workshop with local partners /storytelling (www. sansirostories.com)	capabilities and soft skills (teamwork, communication abilities, cognitive & emotional empathy, problem-solving abilities)	acquire more awareness and new knowledge
Provide tools for more effective initiatives and actual projects	Public & common spaces	ACTING	micro interventions pilot projects scenarios	/micro-actions in public space /co-design activities /working tables	be able to understand urban & social dynamics in a critical way	micro transformations of space

Figure 3 - The Scheme Represents Our Approach, Tools and Impacts

5. Situating, Contingency and 1:1 Inquiry

The presence of a stable base within the neighbourhood plays a fundamental role in the work. Over the years, the space has acquired different roles and meanings, becoming increasingly a sort of 'live lab' (Karvonen and Van Heur, 2014; Concilio, 2016).

The Lab submerses students into marginality through contact with very problematic issues and many different fragile populations in line with other experiences of learning centres that have a similar approach – in Europe and all around the world.⁷

The presence of a base helps to practice a dimension that we call contingency (Karvonen and Van Heur, 2014): a specific circumstance that takes shape in the *here and now* and defines a collective process of learning which is related to specific dynamics, facts and relationships. The place, dealing with the unexpected in the contingency, helps to reproduce unexpected results and fosters the use of the most diverse materials to collect clues.

The challenge has been to fine-tune a way of doing and acting which, according to Ingold (2013), we can call 'the art of inquiry'. In the art of inquiry, the interaction with the 'urban materials' with which we work and our reaction to them leads to a growth of our thoughts – "these materials think in us, as we think through them" (Ingold, 2013, p.6). In this perspective, as the author points out, each inquiry is an experiment: not in the sense of testing predetermined hypotheses, as usually happens with other sciences – such as natural ones – but more with regard to finding new research paths, identifying new partners and following their traces.

In this process we learn by observing, listening, and perceiving what the world has to say.

⁷ For instance, we can quote the Live work experience of the Sheffield University – School of Architecture; the Pratt Center promoted by the Pratt Institute in New York; the African Center for Cities – University of Cape Town – Faculty of Engineering and Built Environment; or PUKAR - Partners For Urban Knowledge Action & Research in Mumbai.

Therefore, learning takes place not as a process of accumulating information or doing sophisticated exercises of description and representation, but through a form of correspondence with the research materials and the questions that emerge from the field of study. The learning practice has a holistic connotation which involves knowledge but is not exclusively cognitive and linear. For example, information and skills can be acquired through a variety of practices, experiences and failures, as well as by the researcher.

Learning, in this way, embraces "a transformation of knowledge, and/or perception, and/or self" (McFarlane, 2011, p.15).

In addition, the base is a place of exchange within which activities are available to the most diverse people. Seminars, workshops and open lessons are tools for working in the live lab as an educational environment in which students are immersed (see Figure 4). The base can be used as open classrooms, where activities normally held in education related buildings (lessons, seminars, book presentations) are brought outside schools and universities and enlarge their public from scholars to social actors and inhabitants.

This represents a choice concerning the emancipatory role of education/pedagogy, in which an active and dialogic approach to the production and transfer of knowledge becomes a condition for the development (Freire, 1970). Freire developed the idea of 'Knowledge-Creation', conceived as an educational process able to develop and disseminate new capabilities and awareness, strongly criticizing the idea of education as a process of transfer of pre-established knowledge.



Figure 4 - A Group of Students Developing Projects for Urban Regeneration

Students have been working to put together different types of information by collecting data, stories, perceptions, interviews, and so on, with the aim of giving a voice to people, facts, and dynamics. Through this operation a 'multiple sources' observatory has been created to view the picture with different lenses. It brings

a clear identification of the problems and allows teachers, students and community to obtain a more realistic and usable representation of San Siro.

We call this operation *S.Siro 1:1*, in the belief that it is possible to obtain an accurate representation of the situation.

At the same time, understanding deeply this peculiar situation becomes a window to better understand the general trend of the city of Milan, regarding the issues of marginal neighborhoods and the crisis of housing policies.

Students contribute to the construction of this representation of San Siro by promoting surveys through interviews on specific topics (such as stories of a block, or gathering information on the living conditions of elderly people or foreign women), or through photo essays of daily life moments, or even through the elaboration of maps, data and schemes and their public dissemination.

From a pedagogical point of view, this process concerns the possibility of understanding and learning how to deconstruct complex phenomena through a dialogic and situated approach, getting close to fragile populations and their different perspectives. A second aspect deals with the possibility of critically reinterpreting what is emerging from communities' knowledge and returning it through synthetic forms of writing and representation. The third aspect concerns the development of accessible forms of communication, making the experts' knowledge obtainable by community partners and inhabitants. In this direction, a set of tools and devices of communication are developed (such as noticeboard, maps, flyers, website, maquettes - see Figure 5), paying attention to their usability (e.g. doing translation in multiple languages), for widespread dissemination.⁸

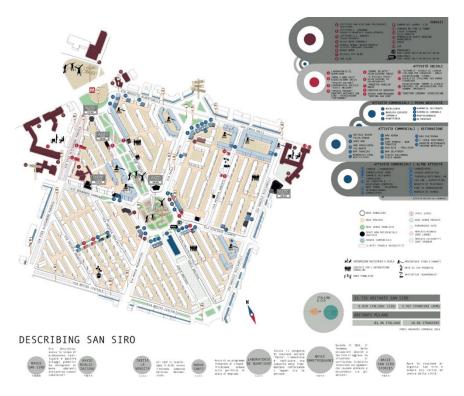


Figure 5 - An Example of Representation: The Map of Social Actors and Activities

⁸ An effort in this direction has been to produce reports and products accessible to community partners, experimenting with forms of representation as tools that could be easily understood: examples of this effort are what we called the Issues that are similar to newspapers, where the use of pictures and info graphics allow a better understanding of urban phenomena and social dynamics.

6. Taking Action!

The other goal is to act on concrete projects and activities co-designed with local community partners (formal or not) and inhabitants. In particular, the project aims to use the exchange experience with the local community to develop projects, in some cases involving actual design, in others, the design of urban masterplans, and consultation exercises. The overall goal is to start a design process to elaborate alternative urban regeneration hypotheses for the neighbourhood, stimulating a critical reflection about which resources could be activated.

Through co-designed activity and participatory practices, the group of students provides technical skills to explore new opportunities in order to implement concrete interventions in the area. Local groups and organisations are also involved in defining alternative future scenarios and in building development trajectories.

The proposed strategies and scenarios for San Siro put together the tangible and intangible resources of the neighbourhood in a complex picture. They envision collaborative and shared mechanisms of local activation, promoted by local or external partners for reactivating the neighbourhood.

Another output of the work on the ground has been the design of future scenarios (see Figure 6). Directions and programs have been designed in order to encourage community partners to reflect on the development of new perspectives of urban and social transformation. In particular, a scenario shows chances for development, highlighting tangible and intangible resources and their desired interplay.

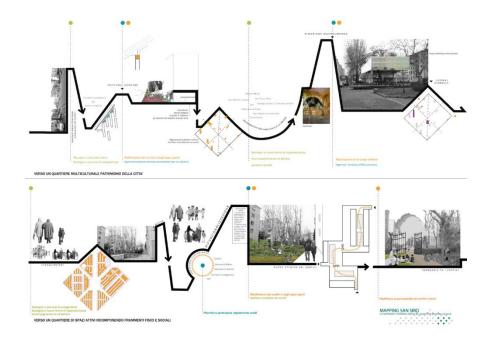


Figure 6 - Building Scenarios for San Siro

The design of these scenarios identifies *levers for change* conceived as *concrete steps*, and draw a different picture of the future of San Siro.

Through this projective design process, community organizations achieve a better awareness of their capability for activating these *levers for change*, in order to improve common goods, promote the social re-use of empty spaces, and introduce new rules shared as much as possible by all inhabitants.

For instance, a scenario that the Mapping San Siro project is working on identifies strategies for the regeneration of abandoned and vacant spaces (commercial and public spaces, empty dwellings) with the aim of suggesting a set of actions in order to reactivate and reuse them. In particular, this projective design process

involves different stakeholders (institutions and local networks) who are working together to define desirable transformations.

A second way to work on transformation is to promote concrete interventions designed to modify the consolidated setting of situations and places by directly intervening in physical space (see Figure 7).

Through a tangible action, the design activity is perceived as a transformative gesture, which leads to the reappropriation of places.

Interventions, intended also as experimental actions, show a new quality of urban environment in which all the features and equipment of public and collective spaces can enhance and support social practices and new uses.

By activating a variety of competences and resources, these interventions might also become a learning opportunity to change urban discourse and policies in marginal contexts. Urban design projects with an incremental and non-invasive nature have the chance to empower community partners involved in the design process. These fragile social actors are mainly considered to be recipients of social and welfare policies.

This kind of intervention does not have the ambition to solve all the community's needs, but it is a device to enable local communities to assert themselves and give voice to their aspirations. While stimulating the imaginaries of change of many people, actual actions are signals of desirable futures for San Siro and, more generally, for public housing neighbourhoods in the city. Moreover, through the implementation of 'soft' actions (e.g. small projects on public spaces, or activities with children and foreign women, or guided walks to explore the neighbourhood, and so on - see Figure 8), the design practice has the chance to intervene on critical spaces and with regard to the empowerment of capabilities.



Figure 7 - Micro Project in the Public Space

Such actions are an attempt to construct new meanings, starting from the direct sharing of 'things to do' related to interests and common goods. These activities of place making (Silberberg, 2013) that combine very different elements (uses and practices, mechanisms of appropriation, transformations and functional

structures) do not necessarily refer to the design of spaces, but to design processes – in a broad sense – that start from places such as a small garden, a disused building, an event in public space, a community centre (Cognetti, 2014). It can be called "a cultural process starting from places" (Hannerz, 1996), and it concerns the dimension of relations, in which places often become the scenarios for local micro-processes based upon direct involvement and upon the opportunity of configuring new spaces of action in the city. It also refers to the possibility of establishing new links with the territory based upon the construction of collective spaces of identity, re-appropriation and self-representation (Cellamare, 2014).



Figure 8 - Neighbourhood's Walks: Understanding and Producing New Knowledge

7. Engaged Learning: Outcomes, Legacy, Perspectives

The experience of Mapping San Siro has tried to make a shift – both methodologically and in terms of meanings – from a traditional research and teaching practice toward forms of inquiry and experimental learning based on: the proximity to territories, practices of listening, dialogue and knowledge co-production with a local community, and a multidisciplinary approach.

The Mapping San Siro Lab is, in the first place, a pedagogical environment, a hybrid research/teaching project that moves among different academic and non-academic dimensions, trying to adapt tools and purposes of teaching practice within an experience on the ground conceived as a basis for learning.

Moreover, the Lab is an environment in which students, teachers, and community partners work together, a joint research for solutions, sharing ideas, desires, and expectations, producing new knowledge and strategic thinking with the aim of facing social challenges and promoting a more inclusive and equal city. All participants are involved in a process of interaction and they are committed to the enhancement of an innovative learning process.

As several scholars observe (Wiewel and Broski, 1997; Butin, 2003; Fourie, 2003; Oldfield, 2008), action learning experiences are usually assessed solely by appreciating their benefits in pedagogical terms. However, with

the engagement of social groups and communities being a key element in action learning processes, the effects on these participants are as important as the educational ones. This is a key element for understanding potential impacts of action learning and their implications on both pedagogical and societal sides. Indeed, the engagement in an action learning experience generates a variety of outcomes that, on the one hand, affects teachers and students, and on the other hand, affects community partners involved in the process.

Concerning students, action learning gives them the opportunity to develop new sensitivities and awareness. According to Nussbaum (2010), immersion in a real context and the chance to be involved in the complexities of real-life problems is a way "to make a classroom a real-world space continuous with the world outside – a place where real problems are debated, real practical skills evoked" (Nussbaum, 2010, p.65-66).

Such immersion shapes new capabilities and stimulates the development of soft skills such as teamwork, communication abilities, cognitive and emotional empathy, problem-solving abilities and so on. Through interaction and commitment, individual and collective abilities can be tested into reality; individuals can gain new critical perceptions and awareness of the world where they live and act.

These capabilities, developed within a situated learning practice and through interaction, are complementary to the competences acquired in traditional educational practice, and become increasingly necessary to face complex and multiple social needs (Gronski and Pigg, 2000).

Experimenting in this type of learning environment, students have the opportunity to develop new ways of looking at urban and social issues, questioning the social utility of their role both as practitioners and as individuals, within a process of civic growth. In pedagogical terms, such outcomes reveal the potential of action learning as a training device for future professionals, who become through it more attentive and responsible, and able to critically understand social and urban phenomena.

At the same time, it stimulates the development of new ways of approaching complex issues. According to Schuetze (2012), this learning process "entails a different, critical pedagogy moving from a 'banking' approach of education that sees the student as a 'receptacle' of knowledge, to a 'problem-posing' model. In such a model, there is a constant interplay between consciousness-building, analysis and action, simultaneous learning by teachers and students, and a direct link to practical problems of community development." (p.72).

This reflection underlines the socially engaged attitude of action-learning practice, based on the fundamental idea of establishing an interplay between the teaching activity (usually developed within the university) and the experience on the ground: students and teachers are involved in dealing with concrete issues, cooperating with social actors, questioning the social utility of educational practice.

This kind of learning environment is a key condition for the educational process, if we consider that this process has to provide means for responsibly acting in the domain of social practices, contributing to their course and their change, in order to develop awareness and generate virtuous processes of civic growth. An idea of education that recalls Dewey's assertion that both the purpose and process of education have to be connected to social action (Dewey, 1938).

Concerning community partners, action learning produces a positive legacy too. Central to such experience is a community-centred approach in which communities are not just passive recipients but also active agents in shaping their own life environments. They are relevantly involved in co-design and the implementation that follows thereafter. This consideration entails a shift: from a focus on physical space – often the main task for architects, urban designers and urban planners – to a focus on processes and interaction with communities.

According to Wiewel and Broski (1997), there are "several kinds of knowledge" (p.2); community partners own and develop part of them. For instance, they play a crucial role in making specific issues understandable. They are local experts with a specific know-how of their context and, along with teachers and students, they contribute to creating and recreating knowledge. In this process, knowledge is co-produced and is seen as a legacy able to support the empowerment of communities and provide tools for its action. The way forward is to build knowledge that may support a strengthening of full public awareness. This could be an opportunity for the growth of civil society organisations. Community partners can use this knowledge in order to better understand their living environment and be more aware of the chances that exist to improve their living conditions.

In other words, a community can benefit from a more accessible and usable knowledge, intended both as a knowledge to understand complexity and a knowledge to act within it. In this sense, they can use it to equip themselves with new intervention tools, for instance the design of a new service or a feasibility study, built together with teachers and students as the output of a shared path.

Moreover, local actors acquiring knowledge and new awareness are even more able to influence the redistribution of power and legitimize single roles. For instance, they become more aware of the new relationships that need to be built and the networks which need to be created or strengthened, improving their social and political capital and feeling increasingly recognized in their role.

In conclusion, a reflection on the university's role: action-learning experiences are a good example of how a university can fulfil the task of empowering societal actors who are directly facing social issues and challenges. Indeed, the university plays a crucial role as a knowledge bridge (Benneworth and Cunha, 2015), an enabler, legitimatizing local competences and capabilities as local expertise. Working with communities and supporting them also entail collectively taking responsibility for social issues, reinforcing the role of academia as a responsible actor among other actors. This also means opening up a reflection about what the role of university as a cultural and scientific institution should be, and how it can operate to support those parts of civil society, often marginalized, toward a more inclusive and just city.

These issues recall the contemporary debate on the public and civic commitment of universities, in the field of their third mission activities. Even if there are still some tensions between a traditional idea of universities as ivory towers and the new idea of socially engaged universities (Tapia, 2012), there are many different experiences⁹ all over the world which testify as to how universities are increasingly engaged and attentive to urban, social and economic developments.

Thus, in our own view, being an engaged University means operating on different levels. This includes a need to: build scientific democracy where knowledge does not become a factor of social exclusion, but is a key factor for inclusion (Cognetti, 2016); experiment engagement as interaction, supporting social actors toward the co-production of public goods. Finally, creating new opportunities of learning based on three core aspects: it has to be grounded, interactive, and mutual.

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⁹ For instance: the Extension Programs in South America; the Campus Engage, the Irish civic engagement network in Ireland; the National Co-ordinating Centre for Public Engagement (NCCPE) and the Beacons for Public Engagement in the United Kingdom. In universities of North America: the Public Service Centre at MIT; the Public Service & Community at Berkeley University of California; the Public Engagement Unit at the Cambridge University; the Engaged Learning + Research at the Cornell University, just to quote some of them.

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