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# RESILIENCE

BETWEEN MITIGATION AND ADAPTATION



edited by

**Fabrizio Tucci**

**Cesare Sposito**



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On the Book Cover: Sketch based on Erhui's work entitled Rescue (1979)

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## INTRODUCTION

The climatic, environmental and anthropic changes that characterize the beginning of this millennium increasingly are a major subject in the international debate since they influence, on the one hand, the protection of territories, landscapes and fragile urban areas, and on the other, the uses, performance and efficiency of architectural artefacts and everyday objects. Moreover, the shortage of natural resources, the global economic crisis, the mass migratory flows and the unpredictability of seismic events, are a source of continuous instability which can be dealt only with ‘resilient thoughts’ capable of answering continuous or sudden changes. In general, Resilience is considered as «[...] the property of complex systems to respond to stress events, activating response and adaptation strategies in order to restore functioning mechanisms: resilient systems, facing stressful events, react by renewing themselves but maintaining the functionality and the recognizability of their systems» (Gunderson and Holling, 2002). Within a positive dynamic process, aimed at managing events and rebuilding a new (landscape, urban, architectural, economic, social, etc.) balance, resilience does not imply the restoration of an initial state, but the acquisition of a new balance and maintenance of functionality through two approach strategies.

The first strategy is Adaptive, focused on the dynamic nature of operational methods – from ideational, compositional/design, to productive, realization, operational and management methods – in which all the elements of the built environment, from the territorial and urban scale, building, to the material and object scale, effectively adapt to new balances with higher performance levels. The second strategy is Mitigative, where research is directed to innovative technologies (process, project and product) aimed at risk prevention and minimizing any impact – concerning unsettling events due to environmental, seismic, anthropic and social change – and aiming at the realization of urban systems, buildings, objects, components and sensitive materials, with variable behaviour and in an energetic-dynamic equilibrium with climatic and environmental changes.

In this regard, the book on Resilience between Mitigation and Adaptation collects essays and critical reflections, researches and experiments, projects and interventions referred, on interscale terms, to the different dimensions of the man-made and natural environment, to which risk, fragility and vulnerability can no longer be dealt with individually by the traditional tools of sustainability, innovation, redevelopment or regeneration, but only through a systemic approach capable of supporting, integrating and fostering relationships between individual, group and community, cultural and

multi/transdisciplinary competences (urban planning, architecture, representation, history, restoration and recovery, technology, design and communication, economy, sociology, psychology, etc.) thus integrating humanistic and technical knowledge. More specifically, the main areas of interest concern:

- Landscape and Territory Area, as cross-disciplinary synthesis of systemic and integrated knowledge of the Environment, in its natural aspects (natural and naturalized signs, natural network systems, etc.) and related to anthropic uses and transformations (networks and infrastructure, etc.): a resilient landscape policy must take into account, above all, the non-material interests and desires of the population, such as beauty, biological and landscape diversity, habitats, identification with the territory, etc.;
- Urban Area: the quality of cities requires complex strategies, both for intervention scales (structural and process) and for fields of action (economic, environmental, social), to be continuously implemented over time and with respect of the characteristics of the contexts; the resilient city changes by designing innovative social, economic and environmental responses that allow cities to withstand (by changing) the demands of the environment and history in the long run;
- Architecture and Building Field: to ensure a resilient approach, Architecture must absorb, on the one hand, the principle of adaptation (to contexts, to climate, to risks), and on the other the principle of limit/envelop (to be implemented increasing the permeability and going over the partitions), and finally the principle of reduction (intended as an essential tendency towards an increasingly stronger habit of saving natural resources and as a constant research on how to minimize/eliminate pollution and more generally climate-changing emissions at all stages of the life cycle: case studies and experimental creations, in this regard, represent a privileged key to interpretation);

The papers of territorial and urban field deal with this perspective. They investigate the depopulation of small cities and inner areas of the Italian Peninsula (particularly focusing on the central-southern area), due to the growing territorial, social and productive imbalance as well as the obsolescence of local identity values. These papers identify in the cultural landscape an important asset for local communities, and analyse possible strategic scenarios, examples of good practices and experiments—already implemented or underway—on relational design through an integrated, multi-functional, multidisciplinary and multi-relational approach; some of these cases are: Clichy-Batignolles Parisian Eco-District (from deteriorated suburbs to sustainable landscape), the Farm Cultural Park of Favara (from abandoned small town to cultural landscape), Irpinia and Avellino. While for the inner areas of Sicily, the papers identify tools and methodologies to be used to draft a development plan, and outline project actions and paths to support the resilient matrix of cities, documenting case studies useful to suggest measures against their desertification.

On the fragility of coastal areas – caused by climate change – the principles, method approaches, and strategic actions of Regenerative Design are described, also presented in the development of the Guidelines for the resilient regeneration of Mari-

na di Palma Waterfront. On the resilience of Lebanon and Qatar, there are respectively some interviews carried out in the academic field that allowed to identify the current development trends in the Country and to understand its future growth tendencies, and some adaptive reuse interventions on the heritage of the Arabian Peninsula, analysed through socio-economic, socio-cultural, environmental and sustainability criteria, in relation to the preservation of traditional materials, the promotion of cultural values and local climate adaptation.

On the architectural field, there are some papers on the archaeological and building cultural heritage: on the protection of archaeological sites some innovative and reliable sheltering systems are presented, perfect examples for their architectural and construction quality, flexibility and adaptability of space, energy and environmental performance. The case studies of the Monastery Santi Severino e Sossio in Naples and of the Church Doss Sant'Agata in Trento respectively represent an example of adaptive reuse created through a Conservation Plan tool and a participatory, pragmatic and sustainable project for a systemic requalification of a complex historical heritage.

On the built heritage, there are the papers resulting from the research carried out at the Department of Planning, Design and Architectural Technology of the University La Sapienza in Rome and the STEP Laboratory of the University of Pavia, which offer two operational tools (in the preliminary and design stages) to support building retrofitting interventions, in order to reach higher levels of resilience and climate adaptation capacity and, at the same time, to increase the quality of ecosystems through urban and environmental redevelopment and renewal initiatives. On the relation between resilience and public space, another paper deals with the subject of 'resilience tactics' as a possible tool to transform urban voids into quality public spaces, considered as a 'frame' to create a new resilient city, which is able to change by building new social, cultural, economic and environmental responses that allow the city to resist the demands of the environment and history.

The relation between architecture and time is the subject of two papers. The first illustrates the variations this relationship can make on the notion of resilience, applying it to architectural design and current experimentations of Design for Disassembly. The second focuses on the important subject of population ageing and on the need to study and develop forward-looking forms of a sustainable elderly-friendly living environment in Bulgaria, suggesting potential directions for future development in the context of a resilient society. Finally, the book includes an essay dealing with the importance of new digital technologies in the transition towards a resilient and sustainable city: the document describes a new design process that allows participants to collaborate with 'virtual elements', creating specific dynamic three-dimensional systems capable of self-adapting to constraints and of evolving into new spatial configurations shaped by adaptation.

The framework of research, experimentations, projects, interventions, advanced implementation is varied, in ferment and, above all, in constant evolutionary progress. Our

era has now become aware of its limits, of the meaning of ‘living in times of crisis’, of the scarcity of available resources, of the need to move in a circular sense, of the seriousness of the threats coming from the climate crisis and the environmental and social emergencies. The term ‘resilience’, once borrowed on tiptoe from the natural and ‘hard’ sciences, is now fully assimilated and key player of action, knowledge and know-how of the disciplines revolving around the intricate and increasingly complex world of contemporary design, building and living. The line is drawn, we are starting to assume ethical responsibilities, the principles, the methods, the operational strategies and the application solutions are emerging, and – by being aware that they can never be definitively codified but rather will have to perpetually regenerate, update, adapt to changing times, conditions, spaces and contexts – we are entering the main road with those who believe in a more desirable future.

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Climate change (credit: Z. Chakrapong)



# PARTICIPATORY DESIGN MODELS

## Resilience-based re-semantization of territory

Miriam Mariani

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### ABSTRACT

Starting from the definition of ‘territory’ as a ‘complex system’, the following is a reflection on methods, processes and tools that the Design discipline can offer within projects of territory’s re-semantization. This research takes place through the analysis of two exemplary case studies of resilient design that reflect the transformation from ‘territory’ to ‘landscape’: the case of the Parisian Clichy-Batignolles eco-district (from degraded suburb to ‘sustainable landscape’) and the Sicilian Farm Cultural Park project (from abandoned province to ‘cultural landscape’). Both of them constitute Design Participatory models on the territory that see a bottom-up approach as a basis, with the intervention of the community in the design process.

### KEYWORDS

complex system, community, problem setting, design-oriented scenarios, configuration

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Reading a territory is a very complex operation, as it involves studying and interpreting a multifaceted organism which, in addition to being a symbolic archive of a shared memory, is a real and rhetorical place whose resources and goods are the result of the historical combination of environmental, human and cultural properties that have marked its life and development over time. It is, therefore, possible to associate the definition of ‘system’ to the concept of ‘territory’, in which these variables coexist and relate. More precisely, we refer to it as a ‘complex system’: an organism composed of a wide variety of components or elements that have specialized functions (De Rosnay cited in Bettini, 2013). Precisely because of its intrinsic complexity it is, in fact, difficult to investigate the territory in-depth in its entirety without first focusing on its parts. In turn, complex components and phenomena which need to be re-read, not stopping at the simple breakdown in their essential parts, but by identifying their interaction and the overall vision, including the relationship between the whole and the parts themselves (Morin cited in Bocchi and Ceruti, 2007).

Tightening the lens on the territory, in order to identify its parts, means defining ‘landscapes’ (Cristallo and Mariani, 2019), or rather focus on ‘parts of the territory that can be embraced at a glance from a certain point’ (Treccani, 2019a), each traceable in a context of stratifications and pre-existences with which it dialogues and relates. The transition of scale from generic to punctual is the first phase, within a design operation on the territory, which corresponds to the delimitation of the intervention area. Considering the ‘territorial system’ as the set of resources and characteristics of a place within which the settled community recognizes itself, re-semanticizing the territory through complex observational, cognitive and design actions (Spirito, 2015) consists in assigning again areas of meaning, recognition and belonging so that the community itself feels responsible for the protection and management of the territory it lives in.

The following is a study that starts from the analysis of possible Design Participatory approaches and methods, with the definition of the design issues, then proceeding with the reading of two pilot case studies, virtuous examples of intervention on the territory in terms of resilience-based ‘design’. The objective is to identify, starting from these guide-projects, the actions through which Design is involved in studying (as research), dialoguing (as mediation) and building (as project) those organizational structures and those tools operational that are basic, guide and orientation in a participatory design process. In order to better describe the organizational issue, it is necessary to make use of the skills of interpretation and mediation of Communication Design which, given its design nature, allows to make systematic and transdisciplinary an organizing operation of the data offered by the territory and by individuals, to elaborate possible scenarios of intervention.

**Participatory Design models for the territory: from problem-solving to problem setting** | Since this is a real ‘design problem’, that of the Design Participatory processes (intended as actions of intervention on the territory that see the active participation

of the community and in which end-users are also present in the project phases) can be considered a strategic choice as it allows the two main components (the territory and its inhabitants) to interface, through the setting of tools and methods proposed by the project discipline. The contemporary scenery, in the light of the new perceptive, cognitive, experiential and aesthetic forms, is now 'scenario' of applications and configurations that require new tools, new images, new symbols, of which the Communication Design, in its trans-disciplinary nature, becomes translator and codifier, in the elaboration of what Ratti and Claudel (2015) define 'shared patterns' that allow giving an ordering 'structure' within which to build a project, especially in the case of involvement of many stakeholders.

Faced with what is defined as a new paradigm based on the principles of systemic thinking, also called 'epistemology of complexity' (Cipro, 2015), and since designing in itself means developing 'models' (Rossi and Toppano, 2009), it is useful to reflect on what Edgar Morin calls Method of Complexity, or Method of Designing Complex Models (Le Moigne, 2007). The key question facing design is not, therefore, 'what' to design, but 'how' to do it, that is to move from a problem-solving approach to a problem setting approach. This statement applies especially in conditions of the complexity of the system in which someone operates, in this case, the territorial-system as an independent entity, capable of evolving, converting, designing and planning itself (Magnaghi cited in Villari, 2012). So, continues Le Moigne, regarding the Method of Designing Complex Models: «A [...] renewed design of complexity leads to consider the instruments of its modelling for the intervention. We must then ask ourselves about the processes of planning themselves - design - of an allegedly complex model» (Le Moigne, 2007, p. 74).

The definition of a 'model' (or several models), as result of design, brings with it the need to identify, upstream of the design activity (or rather, in the meta-design phase), not a single point of view, but multiple points, and then move from one to another and relate the various points through a mapping. According to Fritjof Capra: «Relationships must be mapped» (Luisi and Capra, 2015, p. 43), a statement that makes explicit the need for a new scientific approach to relationships (as well as individual objects), since it is not possible to measure them or weigh them, therefore quantify them, moving to a qualitative and relational approach, based on the processes' analysis. The above-mentioned 'relational logic' (Dematteis and Governa, 2009) allows, therefore, to think of places as 'nodes of relationships', according to an overcoming of the concept of 'scalarity' which goes beyond the limits of concepts such as 'global' and 'local', placing at the centre of the reflection the interaction between the whole and the parts, between the community and the individual, between politics and society. We would, therefore, say that, in terms of mapping, what we are analysing is a no longer hierarchical and vertical configuration (top-down approach, intended as a project action proposed and promoted by administrative and government bodies), but reticular and horizontal (bottom-up approach, or a project action promoted by civil society).

The comparison between the top-down and bottom-up approaches, regarding the territory's design, has for years been at the centre of the debate on the so-called 'resilient design', trying to respond as accurately as possible to the research question on methodologies, strategies and tools for the design of territorial systems capable of «preserving their quality and performance characteristics over time [...], absorbing changes and reacting to them with adaptation and reactive ability» (Conti and Tatano, 2018, p. 41). The theory of complexity «[...] indicates that resilience is a bottom-up approach, closely related to the self-organization of a system» (Tucci and Monticelli, 2018, p. 49), considering resilience as a systemic property, as it can make the system sustainable over time through «[...] behaviours that become structural in the transition of the states of the system [...] ensuring its consistency and durability» (Cantini, Mazzola and Romano, 2018, p. 128).

The relationship and balance between the two top-down and bottom-up approaches, in the management of design processes on the territory, constitutes the strategy for effective and not chaotic participatory design. In particular, halfway between the 'governmental' sphere and the 'collective' sphere, there is the junction (also, in-between), or the role of planners and in particular of Design. More precisely, in the design process coexist a series of actions that, within systemic and interdisciplinary thinking such as research, involve data management.

Within this framework, two main issues that Design must deal with are therefore brought to light: first of all, methods and tools in the problem setting phase; and at the same time the use of data through their representation, to elaborate possible 'scenarios' (built based on a previous data mapping and their interpretation in a strategic key) and to propose 'possible futures', or realistic proposals between 'desired future' and 'probable future' (Pillon, 2018). As shown by some examples of research in the field of design on the territory (including the Future Search Conference<sup>1</sup> experience and the Green City Circle<sup>2</sup> project), the role of Design is of central importance in the definition of scenarios that are Resilient-Based Models, based on a 'culture of resilience'. Two exemplary case studies that have made the participatory and 'visionary' approach the winning strategy in the transformation of the territory are analysed below.

**Clichy-Batignolles: from degraded suburb to Sustainable Landscape** | Located in the north-west of Paris (17th Arrondissement), the Clichy-Batignolles district stands on an area of about 54 hectares, whose recovery from a state of neglect and degradation began in 2002, through an operation conducted by the City of Paris, subsequently carried out by a local public company, the Paris Batignolles Aménagement<sup>3</sup>. From the beginning, the district project foresaw the transformation of the area into an eco-district, and more precisely into a model for sustainable urban development (responding to the so-called 'turquoise agenda'<sup>4</sup>; Oliver, Gascon and Thomas, 2019), placing at the project's core objectives such as multifunctionality, community, energy efficiency and biodiversity (Paris Batignolles Aménagement, 2015). More in detail, it was conceived



**Fig. 1** | Clichy\_Batignolles, Paris: View of the district's park area, detail of the rainwater harvesting basin, with attention to maintaining biodiversity (credit: M. Mariani, 2019).

as a multifunctional district within which workplaces, public services, residential buildings, green areas (Fig. 1), shops and cultural spaces coexist, studied and designed in line with the contemporary criteria of Passivhaus, or more precisely of Positive Energy Architectures (Tucci and Monticelli, 2018).

In fact, in addition to being 'zero energy', the structures built in the district are 'active' buildings because they are equipped with: technologies that allow the production of what is necessary from the sun's rays; roofs and green surfaces that contribute to the performance of the envelope by improving insulation (Fig. 2); rainwater recovery systems that are treated for their reuse (Fig. 3); a system for exploiting geothermal heat; an underground waste disposal system to facilitate the transfer and recycling of the same, while keeping the image of the environment decent.



**Fig. 2** | Clichy\_Batignolles, Paris: View of part of the park and energy-efficient residential buildings. In the background, the building of the Palace of Justice by Renzo Piano (credit: M. Mariani, 2019).

The choice of placing the Martin Luther King Public Park with its 10 hectares of extension at the centre of the project, makes Clichy-Batignolles an example of configuration, or rather, ‘transfiguration’ from a degraded suburb to a sustainable landscape, meaning the ‘landscape’ as ‘shared and communicated territory’ (Cristallo and Mariani, 2019), and ‘sustainability’ not as an objective but as a design tool and, as a ‘dynamic and evolving process’ (Fiskel cited in Cantini, Mazzola and Romano, 2018), as ‘systemic quality’ (Meadows cited in Cantini, Mazzola and Romano, 2018). The two guiding themes (communication and sustainability) are clearly and effectively found within the design process. In fact, in terms of shared methodologies and strategies, the district’s conversion initiative (Fig. 4) involved the participation of the population (around 2007) through the organization of events, parties and information events. The



**Fig. 3** | Clichy\_Batignolles, Paris: Top view of one of the rainwater collection basins with particular reference to the realization of pedestrian paths and recreational spaces in the district (credit: M. Mariani, 2019).

process has seen more than 3,000 future inhabitants in an ambitious attempt of active participation through workshops and seminars to analyse the various proposal, first in strategic terms and then evaluate and share the choices of the winning proposals.

To enable such an organisation, the role of information and communication was of fundamental importance. In fact, all information regarding events, projects, initiatives and objectives were made public and disseminated through various media and the establishment of a Project Information Centre (Maison du Projet), a structure that hosts local non-profit associations, which were entrusted with functions of support, updating and education of citizens on topics such as shared environment, energy-saving and biodiversity.

The Clichy-Batignolles eco-district project represents, from the meta-design phase



**Fig. 4** | Clichy\_Batignolles, Paris: Detail of the pedestrian square inside the district, close to the basin-lake (credit: M. Mariani, 2019).

to its realization, a ‘popular, inspiring and reproducible’ model (Paris Batignolles Aménagement, 2015), a real pilot project for recovery initiatives in areas of large urban agglomerations, with complex peripheral areas that are necessary for adaptation and resilience to environmental and social problems. In particular, it represents, to date, the final result of a balanced combination of long-term policies, innovative measures (not only on a technological and eco-systemic level but also at social level) guided by a strong vision in terms of future and realizable scenarios.

**Farm Cultural Park: from abandoned province to Cultural Landscape** | Resuming the initial question, regarding the methodological choices for resilient planning on the territory (especially about the effectiveness of top-down rather than bottom-up ap-



**Fig. 5** | Farm Cultural Park, Favara: View of one of the ‘seven courtyards’, redevelopment of dilapidated buildings (credit: M. Mariani, 2018).

proaches or vice versa), we report here the example of an entirely bottom-up urban regeneration intervention, that is the case of Farm Cultural Park in Favara (AG). Farm is, in fact, a project born in 2010 from a private, or better family initiative by Andrea Bartoli and Florinda Saieva, self-financed, which soon became a real community project<sup>5</sup>. Trying to define Favara’s project with the words of its creator, Andrea Bartoli, it emerges that «FCP [...] is a new generation cultural centre, where importance is given to the process and not to the product, to the people’s value and not to works» (Contato and Bartoli, 2015, p. 97). Two key concepts emerge from this statement: process and people. To clarify the importance attributed to the process and shared dimension of the project on the territory, which was the driving force behind the Farm initiative, Fausta Occhipinti (2017, p. 61) states: «The most important objective of the project is to develop an experimental method to form a community through the (architectural) project. A dynamic community that becomes an active part of the design process, made up of people moved by high expectations and cultural interests».

The bottom-up case of Favara, as previously stated to be entirely the result of private initiative and financing, is a pilot example in the field of urban regeneration, also in this case limited (at least in the initial phase, and subsequently extended) to the size of the district. The substantial difference from the previous Parisian example of Clichy-Batignolles, in addition to the much smaller size of intervention, is the lack of institutional support during the planning and implementation phases, which has made Farm an entirely community product, a virtuous example of ‘bottom-up’ self-managed change, which has replaced the lack of public administration intervention.

The transfiguration process of the place is evident: where before there were crumbling houses and abandoned courtyards, now new spaces of culture are sprouting (Fig. 5), where art and innovation have been the instruments of the rebirth of the historical centre of Favara: from a dilapidated province to a Cultural Landscape. Art and design (in its broadest sense of ‘design culture’) as driving forces for resilience, adaptation and development, have led to the definition of the Farm’s phenomenon as Art of the Possible (Maselli, 2012). In fact, Farm is not only a widespread museum, an open-air

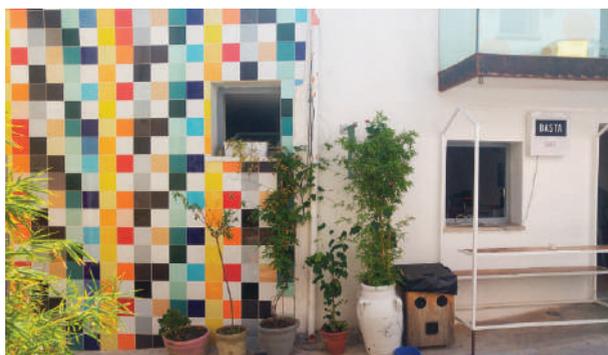


**Fig. 6** | Farm Cultural Park, Favara: Interiors of the structures that host the SOU School of Architecture for Children (credit: M. Mariani, 2018).

exhibition project, but a real ‘workplace’ (as its name suggests), a material and metaphorical space where sharing, experimentation and participation guide the activities, making use of site-specific design tools such as laboratory, learning by doing workshops, in situ teaching, cultural initiatives and events, including the settled SOU (School of Architecture for Children, Fig. 6), and the more recent Countless City – Biennial of the Cities of the World 2019 edition, on the occasion of which a new exhibition space has been inaugurated, exhibitions and artistic installations have been set up in different pavilions, animated by meetings and conferences aimed at raising awareness and deepening of important issues for the territories where we live, from the point of view of the citizen as civic leader, investor and designer of its own urban future (Pierro and Scarpinato, 2019).

The core of activities is, also in this case, a project aimed at a vision of the possible future, which can be improved through strong values of community and culture, built day after day, project after project (Fig. 7). Sharing, through contemporary communication media, also leads Farm to be considered an evolved global model, no longer only local, thanks to a not only artistic and cultural relaunch but also tourism and economic revival (Fig. 8), through a ‘global media exposure’: web, social networks, national and international TVs, Italian and foreign newspapers «[...] stimulating other realities to experiment with innovative ways of development, based on the search for new functions» (Occhipinti, 2017, p. 63).

**Conclusions** | Regarding the initial question posed on design methodologies and resilience-based processes for the territory, an attempt was therefore made to identify models that would suggest lines of intervention based on a systemic and participatory approach, led by a strong design-oriented desire. In particular, the district as a field of application is positioned at an intermediate project scale, halfway between the building and the city, which simultaneously includes the social, design and administrative dimensions (Murielle Boulanger and Marcatili, 2018). From a methodological point of view, to operate on the district as a limited area and taking into account the above, it



**Fig. 7** | Farm Cultural Park, Favara: View of one of the alleys of the Farm, with detail on the renovation of the façades and the opening of new activities and tourist attractions (credit: M. Mariani, 2018).

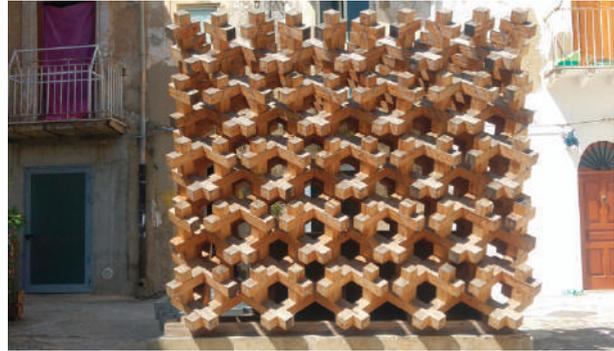
is, therefore, necessary to evaluate a procedural dimension that is systemic, multiscale and multidisciplinary.

As emerged from the study of Clichy-Batignolles and Farm Cultural Park projects, it is evident the need to develop complex models making them replicable, through a ‘configuration’ that is the representation and communication of possible future scenarios. In fact, dealing with complex systems, Ross Harrison identifies as one of the key characteristics of these systems, in addition to the ‘relationship’, their configurative nature, understood as a hierarchy of levels within the system (Cipro, 2015). Considering literally ‘configuring’ as «[...] representation of something according to a certain disposition and a certain shape similar to another object» (Treccani, 2019b) the communicative question emerges strongly, both of physical and metaphysical elements. In fact, it is necessary to remember both components, the tangible and intangible ones, which constitute the territorial system, in particular, the relationships that constitute its structure.

The theme of information, common to both case studies presented, opens a reflection in methodological terms, within the discipline of Communication Design, regarding the use of information (small and big data, open data and real-time data) within the design phases (from the meta-design to the executive phase, up to the final communication of the project). The theme of Data Collect comes into Information Design research, in particular for which concerns the role of Data Visualization within the Communication Design project. Communicating phenomena and information is one of the main objectives of Information Design discipline which, as a process of reading phenomena and returning them through visual syntheses, allows simplifying very complex information to make it accessible through a communication project.

At the same time, this visualization activity is necessary to give life to valorising processes on a territorial scale considering that, in this case, visual communication is based on the codification of narrative languages to make users able of fully understanding the described reality. The mapping operation of phenomena constitutes a tool for the survey and knowledge of the same, to extrapolate foundations, chronologies, causes and consequences, as well as forecasts, opportunities and development of im-

**Fig. 8** | Farm Cultural Park, Favara:  
Artistic installation inside one of the  
Farm's courtyards, during a temporary  
exhibition (credit: M. Mariani, 2018).



provement strategies. The goal is the creation of ‘areas of meaning’ (Cristallo and Mariani, 2019) so that the territory is, with properties and qualities, depicted for those who must operate on it through community and participatory design activities.

## Notes

1) Future Search is a participatory design method, developed by Marvin Weisbord and Sandra Janoff, based on cooperation between numerous groups of people, in three-day events (Future Search Conferences), structured as workshops (Weisbors and Janoff, 2010). The main objective of Future Search is the participatory investigation of the ‘whole system’, the reading of ‘complex’ through the experiences of the participants, to identify common areas and develop desired and shared ‘future’ projects.

2) Green City Circle is a «[...]design aid tool aimed at supporting circular assessment and design processes for existing urban districts by assessing their conditions of resilience and efficiency» (Murielle Boulanger and Marcatili, 2018, p. 203). It was developed as part of a research on the city of Bologna involving the Environment Sector of Bologna Municipality and Nomisma Society of Economic Studies, for a project on Bolognina district.

3) Paris Batignolles Aménagement (PBA) is the planning authority of the Clichy-Batignolles project. A local public company with 6 million euros of capital, owned by the city and the county of Paris. It is directed by Annick Lepetit and managed by Jean-Francois Danon. PBA holds the concessions of the Cardinet Chambre and Clichy-Batignolles urban development areas. Clichy-Batignolles was designed from the outset as an eco-district that fully meets the requirements of the Paris Adaptation Strategy (2015), having been designed to comply with it.

4) Oliver, Gascon and Thomas (2019, p. 10) define ‘turquoise agenda’ as a model of development objectives that derives from the mix of previous models of the ‘green’ (sustainable development) and the ‘blue’ (resilient development) agenda to develop a plan to deal with the consequences of climate change. According to the authors, the Clichy-Batignolles eco-district meets the development criteria of the ‘turquoise’ agenda as a ‘holistic development project’.

5) «Art and culture here in Favara are not an end in themselves, but a noble tool to give identity and future to the city and regenerate the historical centre. Architecture, art, public design, urban agriculture and many other disciplines and themes interest us more and more every day. We are particularly interested in all those issues that have to do with social innovation and generate solutions to im-

prove and make the lives of our territory's people more sustainable and ethical» (Bartoli cited in Contato, 2019, p. 99).

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