- ES Reactivación colaborativa del entorno construido: Una perspectiva sociocultural
- EN Collaborative Reactivation of the Built Environment: A Socio-cultural Perspective
- ITA Riattivazione collaborativa dell'ambito costruito: Una prospettiva socioculturale
- FRA Réactivation collaborative de l'environnement bâti: une perspective socioculturelle
- POR Reativação colaborativa do ambiente construído: Uma perspectiva sociocultural

Daniele Fanzini, Irina Rotaru, Gianpiero Venturini, Angelo De Cocinis, Cristiana Achille & Cinzia Tommasi

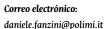
Collaborative Reactivation of the Built Environment: A Socio-cultural Perspective

Recibido: 3/10/2019; Aceptado: 18/12/2019; Publicado en línea: 14/09/2020.



DANIELE FANZINI

Associate professor, Department of Architecture, **Built Environment and** Construction engineering (ABC), Politecnico di Milano.





IRINA ROTARU

Presidente, Cities on the move Bucarest Correo electrónico: ynarina@yahoo.co.uk



GIANPIERO VENTURINI

Doctorando, Politecnico di Milano.

Correo electrónico: gianpiero.venturini@polimi.it



ANGELO DE COCINIS

Director, E-Making Srl. Correo electrónico: angelo.decocinis@e-making.it



CRISTIANA ACHILLE

Associate professor, Department of Architecture, **Built Environment and** Construction engineering (ABC), Politecnico di Milano.

Correo electrónico: cristiana.achille@polimi.it



CINZIA TOMMASI

Research fellow, Department of Architecture, **Built Environment and** Construction engineering (ABC), Politecnico di Milano.

Correo electrónico: cinzia.tommasi@polimi.it

ABSTRACT (EN)

This paper focuses on the relationship between the reactivation of the built environment and social innovation. This theme is investigated through the triad: "project, technology and creativity", which at the operational level of research, leads to the paradigm of the active protection of patrimony. The research documents possible ways of using common goods to produce lasting socio-spatial effects, strengthening the ecosystem of creative and cultural businesses and contributing to qualitative improvement. The aim is to understand how it is possible to trigger a virtuous renewal process of both the content activities and the containing structures, combining the production of new culture and the regeneration of spaces. This process should be nourished by the continuous exchange between tangible and intangible culture, public and private interest and the crossover between old and new cultural production. Special attention is given to initiatives that support the renewal of vocations and the building of new strategies for various realities in crisis.

KEYWORDS: Urban regeneration, Reactivation, Cultural Heritage, Participatory planning, Codesign.

RESUMEN (ESP)

Este artículo se centra en la relación entre la reactivación del entorno construido y la innovación social. Este tema se investiga a través de la triada: proyecto, tecnología y creatividad, que, al nivel operativo de la investigación, lleva al paradigma de la protección activa del patrimonio. La investigación documenta posibles maneras de utilizar los bienes comunes para producir efectos socioespaciales perdurables, fortaleciendo el ecosistema de las industrias creativas y culturales y contribuyendo a un mejoramiento cualitativo. El objetivo es comprender cómo es posible desencadenar un proceso virtuoso de renovación, tanto

de las actividades de contenido como de las estructuras que las contienen, combinando la producción de nueva cultura con la regeneración de los espacios. Este proceso debe alimentarse a través del continuo intercambio entre la cultura tangible y la intangible, el interés público y el privado y la interacción entre la producción vieja y la nueva. Se presta especial atención a iniciativas que apoyan la renovación de vocaciones y la construcción de nuevas estrategias para diversas realidades en crisis.

PALABRAS CLAVE: regeneración urbana, reactivación, legado cultural, planeación participativa, diseño conjunto.

RIASSUNTI (ITA)

L'articolo tratta della relazione fra la riattivazione degli ambiti costruiti e l'innovazione sociale. La ricerca si sviluppa dalla triade: progetto, tecnologia e creatività che, nel livello operativo della ricerca, porta al paradigma della protezione attiva del patrimonio. La ricerca documenta i possibili modi d'utilizzare i beni comuni per produrre degli effetti socio spaziali durevoli, per rendere più forte l'ecosistema delle industrie creative e culturale, e anche per contribuire ad un miglioramento qualitativo. L'oggettivo è quello di comprendere com'è possibile iniziare un processo virtuoso di rinnovamento delle attività di contenuto e anche delle strutture che le contengono, mettendo assieme la produzione di una nuova cultura e la rigenerazione degli spazi. Il processo così si deve nutrire attraverso lo scambio constante tra la cultura tangibile e quella intangibile, gli interessi pubblico e privato e l'interazione fra la produzione tradizionale e quella nuova. Si mettono in rilievo nella relazione, in modo particolare, le iniziative che aiutano la rinnovazione delle vocazioni e la costruzione delle nuove strategie per le diverse realtà in crisi.

PAROLE CHIAVI: rigenerazione urbanistica, riattivazione, lascito culturale, pianificazione partecipativa, design assieme.

RÉSUMÉ (FRA)

L'article traite de la relation entre la réactivation de l'environnement bâti et l'innovation sociale. Le thème est abordé à travers la triade "projet, technologie et créativité" qui, au niveau opérationnel de la recherche, conduit au paradigme de la protection active du patrimoine. La recherche documente différentes manières d'utiliser les biens communs pour produire des effets socio-spatiaux durables, en renforçant l'écosystème des industries créatives et culturelles et en contribuant à une amélioration qualitative. L'objectif est de comprendre comment il est possible de déclencher un processus vertueux de renouvellement, tant des activités de contenu que des structures qui les contiennent, en combinant la production de culture nouvelle et la régénération des espaces. Ce processus doit être alimenté par l'échange continu entre culture tangible et culture intangible, intérêt public et intérêt privé, et l'interaction entre production ancienne et production nouvelle. On accorde une attention particulière aux initiatives qui soutiennent le renouvellement des vocations et la construction de nouvelles stratégies pour diverses réalités en crise.

MOTS-CLÉS: régénération urbaine, réactivation, héritage culturel, planification participative, conception commune.

RESUMO (POR)

Este trabalho centra-se na relação entre a reativação do ambiente construído e a inovação social. Este tema é pesquisado através da tríade: "projeto, tecnologia e criatividade", que no nível operacional da pesquisa, leva ao paradigma da proteção ativa do patrimônio. A pesquisa documenta possíveis formas de utilização de bens comuns para produzir efeitos socioespaciais duradouros, fortalecendo o ecossistema dos negócios criativos e culturais e contribuindo para a melhoria qualitativa. O objetivo é entender como é possível desencadear um processo virtuoso de renovação tanto das atividades de conteúdo quanto das estruturas que as contêm, combinando a produção de nova cultura e a regeneração dos espaços. Este processo deve ser alimentado pela contínua troca entre cultura tangível e intangível, interesse público e privado e o cruzamento entre a velha e a nova produção cultural. É dada uma particular atenção às iniciativas que apoiam a renovação das vocações e a construção de novas estratégias para as diversas realidades em crise.

PALAVRAS-CHAVE: Regeneração urbana, Reativação, Patrimônio cultural, Planejamento participativo, Codesign.

NTRODUCTION

Economic development is heading towards models of creative cities and regions that represent the physical expression of the post-industrial economy. The sector of cultural and creative industries is young and has still to delineate its boundaries, identify its own excellence field, estimate its quantitative weight, and structure itself and its infrastructures. However, it already represents a large segment, which at European level involves 300,000 direct employees and 7 - 8 million indirect ones, 19% of which are in Italy alone (Symbola, 2018). On the other hand, it has a very fragmented structure, dominated by individual forms of production and organizational models marked by impermanence, which makes commitment to innovation more difficult.

Creativity comes from the minds of individuals and cannot be artificially generated. It is possible, however, to propose suitable living and working conditions for creative minds when deciding to operate on a given territory. Therefore, local administrations aiming to invest in these economic sectors must attract the corresponding workflow through the provision of favourable spaces and contexts. In this sense, the possibility of using abandoned sites, often located in the central areas of cities, represents an important opportunity. In Bologna alone, a city that stands out for its focus on culture and its related economic sectors, about 200 such buildings have already been mapped. This situation is similar for many other cities in Italy (Milan, Naples, Padua, Turin) and Europe (Paris, Lisbon, Brighton, Berlin, Cluj, Petrila) where there are cases of successful re-use. The experiences are numerous and diverse, distinguished by their social innovativeness as well as by the opportunity they provide for learning and improving both institutions and the actual buildings, nurtured by a common purpose. They are the result of project and logistic coordination for experts in the field, also representing a good opportunity for wealth production.

Social perspective is important not only for the economy, but also for increasing the potential of creativity. As Montanari (2018) points out, creativity has always been interpreted as a romantic activity, carried out by brilliant minds accustomed to working alone. However, now this view is being questioned by an ever-increasing number of scholars, "che a partire dagli studi di Brass, Perry Smith e Shalley condividono la creatività come processo sociale, nella quale cioè le relazioni costituiscono una component così importante da diventare imprescindibile" (who, starting from the studies of Brass, Perry Smith and Shalley, share creativity as a social process, in which relationships are such an important component that they become indispensable" (Montanari, 2018, p.57). The social perspective through which to look at the creativity phenomenon assumes particular relevance in the design processes, especially if referring to urban scale cultural interventions.

A SOCIO-CULTURAL PERSPECTIVE FOR THE REACTIVATION OF THE BUILT ENVIRONMENT

Adopting a social perspective means guaranteeing the active involvement of citizens in strategic decisions, especially if these concern the city and the territory, in order to increase their awareness and civic responsibility, but also to create new opportunities for citizens themselves, as well as for their administrative organizations. Following this logic, participation takes on a new meaning with respect to the past. Overcoming the rather demagogic forms of some top-down approaches, the main purpose of which is to promote decisions which have already been taken, and other intentionally polemical and instrumental bottom-up methods, which merely defend preconceived positions; participation that is also understood as a collaboration between public and private helps to find the right mechanisms and the necessary resources to respond in a new way to community needs.

Understanding participation as an organizational form to operationally and collaboratively shape the relationship between politics, citizens and their associative structures is fully consistent with the objectives and principles of European cultural policies (European Commission 2018). According to which, common interest should prevail over private individual concerns. Furthermore, they emphasize the importance of acting respectfully, responsibly and with transparency, favouring community projects and enhancing the existing resources, as well as activating the skills and energy that the community is able to express and make available.

Regarding participatory processes, the European Union also emphasizes the need to steer the various corresponding practices towards the development of integrated policies in terms of: 1 - sustainability; 2 - development; 3 - resilience. Understood as the capacity of individuals to withstand change and react to threats of various kinds, social resilience is undoubtedly fostered by the assumption of a collaborative and voluntary attitude when facing the future, also in terms of culture. At the same time, pre-active (anticipating the foreseeable changes in order to take advantage of them) and proactive (causing the desired mutations) behaviour involves institutions, citizens, associations and enterprises building the change together, instead of being limited to enduring its consequences.

The application of participatory processes permits the isolation of examples and relevant operational aspects of the collaborative project in the administrative endeavour:

- a. definition of methodologies and tools (including telematic) for participation, complemented by the activation of the facilitating subject that will act as a contact between the administrative system and citizens.
- b. mapping of resources present in the territory that could be involved in participative actions regarding common interest strategic issues.
- c. applying verified participatory planning processes and advancing widespread topics in the construction and management of the territory, to foster creative collaboration between inhabitants and public administration and create new skills for an outstanding citizenship.

In all cases, increased involvement understood as coresponsibility, is an indispensable premise for reducing conflict in the adoption, maintenance and effectiveness of urban policies.

THE ROLE OF PLACE: FROM URBAN REGENERATION TO REACTIVATION

In order to encourage the emergence of new value ecologies, it is necessary to adopt a systemic approach and design projects that address the city as a whole, pursuing urban quality which is considered in its complexity. This is true especially in the case of often abandoned, diffuse and minor cultural heritage, which is of no interest to big public and private operators, but may represent a great opportunity for people living nearby, especially for the younger citizens. By using the most modern

digital technologies, new generations can express original content and innovate, thus feeding the more traditional production sectors.

One of the engines of this combination is "urban reactivation", a special type of regeneration, the purpose of which is to re-establish contextual resources in order to produce long-term and broad socio-spatial effects (Ostanel, 2017). The characteristics of urban reactivation derive from the association of several factors:

- the extension of the coverage of urban regeneration to economic revitalization and the strengthening of social cohesion;
- the integration of local development policies, which also involves the definition of effective governance systems and digital engagement;
- the enhancement of cultural and environmental heritage, with the combination of participation in cultural life as well as in the production of new culture.

In the field of reactivation, the traditional barriers between public and private, clients and users, financiers and executors, experts and workers are overcome, and the design of the interventions is often a complex and shared activity, the nature of which is not linked to standard processes and methods valid in all circumstances.

Shared policies and strategies, participation, co-design, or forms of design that also involve ordinary people and periodically adapt depending on the context, are at the core of discussions. Hence technologies (including digital engagement tools) become the facilitators of information exchange between different roles, expert and non-expert knowledge, but also the means to build new sense and value around heritage. The goal is relevant for cultural operators as well as for companies in the urban planning and construction sectors. This includes those related to social innovation and the third sector, which through a regenerative approach different from that of simple building intervention, can revive and transform parts of the city.

Activation is very much related to creativity and culture, facilitating the transformation of an ordinary, more or less old building into a landmark for the local community or for a larger group of people and eventually even its listing as part of local or universal cultural heritage. A relevant example of this is provided by the case of Reitschule in Berne, Switzerland, a former riding school that, after having changed function many times and been abandoned, became an alternative socio-cultural centre. Although in the beginning it was regarded with unconcealed reluctance by local authorities as well as

by the more conservative inhabitants, it finally obtained public funding and in 1988 it was even listed as a historic monument.

AN URBAN REACTIVATION PROPOSAL BETWEEN CREATIVITY, CULTURE, INNOVATIVE **TECHNOLOGIES, AND CO-DESIGN**

Urban reactivation processes require effective mechanisms to share the development of common initiatives and allow the usually numerous participants involved in these interventions to perceive each other as partners. While there are different apps enabling online contribution, there are no specific digital instruments for the creative involvement of people and citizenship activation.

Architectural and urban scale design has adopted comprehensive public participation procedures to manage complexity and limit the failure of interventions. Citizens' involvement is increasingly acknowledged as an important success factor, able to contribute in all phases of the project, from the initial stages of problem setting to the subsequent development and actual implementation. To describe this particular type of endeavour, the terms codesign and user-centred design (stressing the involvement of end users from the early stages of the process - fuzzy front end) have been introduced. The evolution of user involvement models, from participatory formulas to real co-design, has changed the role of professional designers, and obviously also that of the users of the project, establishing new creative domains.

As noted by Jannak et al. (2015), the real challenge of future co-design environments is to enable communication and collaboration between large numbers of experienced citizens and professionals, ensuring a more creative, targeted and secure design process for projects of public interest. In other words, there is a need for collaborative tools and environments enabling creative professionals to capitalize on the ingenuity of the public, to follow opinions, feelings, values and exploit diffuse intelligence.

A fundamental problem with participation and codesign practices has always concerned the forms of public involvement (Ostanel, 2017). New solutions to overcome these limits result from crowdsourcing approaches, co-creative digital media and neo-geography tools. In some contexts (Germany, France, the Netherlands, etc.), massive co-design methodologies have been developed (Meroni, 2018). By using specific computerized solutions, they are able to capitalize on diffuse intelligence for

creative processes. There are interactive systems that facilitate public participation by anticipating problems and allowing creative interaction between experts, local communities and the various stakeholders. These technologies represent a possible solution to solve the problem highlighted above, provided that there are forms of intermediation between professional and nonprofessional operators as well as between professional operators of different disciplines.

Within the Forum "Cities of the future: new perspectives for a sustainable urban environment" organized by the Emilia Romagna Region to update its smart specialization strategy, the Polytechnic of Milan and Azienda Casa Emilia Romagna (Acer), developed a design proposal for a reactivation experiment in the public housing of a historic neighbourhood in the city of Piacenza. Dating back more than 50 years, these districts are recognised by locals as part of the historical heritage of the city. However, their value is unfortunately severely challenged by neglect and the progressive degradation occurring over time. The massive migration phenomenon that has affected the city of Piacenza, together with the demographic reduction of the natives, has caused a large substitution of the inhabitants of the neighbourhood in question. Consequently, today there is a very diverse mix of different ethnic groups, which while on the one hand represents an undeniable cultural richness, on the other, causes co-living problems.

The core idea of the proposed experiment was to create an urban laboratory for co-designing the district by addressing social, environmental, and even cultural, architectural and building problems together with locals directly involved in this process.

The fundamental components of this system inspired by the research of Jannack et al. (2015) are:

- a. a data platform (public project playground) designed for sharing the information elements of the intervention context (environmental and social data, value system, etc.). In this sense, the continuous flow of data helps to dynamically describe the operational system in terms of reactivation;
- b. co-design interfaces to collect and exchange ideas, including those of non-experts. The co-design interface should enable both the intuitive representation of possible design solutions, and the interaction with them to support co-creation by non-experts;
- c. project spaces for professional users (professionals' playground) who lead and finalize the contribution of the work phases in an orderly and interactive manner.

Related to the first point, the idea of citizens as territorial sensors enabling through their real-time input, a fast and current diagnostic of the situation in different cities or parts of cities, has been considered on a theoretical level by Boyde et al. (2015). It is now being investigated operationally at Bologna University by a group of researchers working on the concept of the mutant city (Celaschi et al. 2019).

Regarding the second and third points on the list above, Building Information Modelling (BIM) could turn out to be the effective expert instrument in similar cases. The intermediation of information exchange using the computer model of the real-life building, would allow for a better understanding of the planned intervention, opening-up the design process for different stakeholders not necessarily familiar with specialized representation conventions. As part of the proposal, BIM is therefore the enabling technology proposed for linking different information, from the conscious and effective expression of stakeholders, to the broad and operational sharing of the reuse project, also helping foster new uses for the built environment. In addition to the responsible use of technologies, special attention is needed for the configuration of methods and processes for the creative involvement of users. In other words, computer skills have to be combined with an in-depth knowledge of collaborative design practices that can specifically involve the ingenious and creative contribution of users.

Over the past two decades, notably in France, there have already been numerous participatory design experiences concerning the rehabilitation of social housing estates, even though in the beginning most of them could only ensure a minimal level of effective involvement. Among these, many were part of a larger programme developed through ANRU (National Agency for Urban Renewal). Five of these pilot participative rehabilitation experiences are now the object of the ERANET research "SoHoLab - The regeneration of largescale social housing estates through living labs" initiated by several architecture schools and other partners in Ile de France (France), Italy (including the Polytechnic of Milan) and Belgium. The aim of this ongoing study is to assess and advance participatory practices regarding urban renovation through the qualitative assessment of the already finalised operations of this kind in the partner countries, followed by the development and testing of dedicated living labs and participation instruments. In a way similar to the initiative proposed for Piacenza, the experiences considered here as a departure point are those where the rehabilitation project is not already designed and presented to the inhabitants, but built and validated together with them. The professional team is

only responsible for the definition of the framework, presentation of the general concept and translation of people's ideas into operational plans.

The proposal of participatory urban reactivation assisted by computerized instruments is only in the initial stages, but has already attracted the attention of some private operators in the cultural and creative industries sector. In addition to the Polytechnic of Milan and the Acer agency in charge of the management of the neighbourhood, -the New Generation cultural association will also collaborate, being particularly active in the field of participatory and cultural initiatives for the reactivation of common goods, together with the e-Making company, which will implement the Design Thinking methodology in the BIM environment in the construction sector and verify the possibility of developing the technology on an industrial scale.

CONCLUSION

"Decline" is a word often used to describe the current condition of old industrial Western economies, impoverished by the economic crisis and still in search of a future role as yet to be defined. It is a term frequently used without considering the advancement of innovation, and the great potential of the changes taking place (such as the digital revolution), the effects of which could be very significant if translated into new projects.

Developed around the novel concept of "cultural sustainability" considered in reference to built heritage, this paper investigates the possibility of promoting an economy of symbol, preparing the ground for new models of innovation. The different experiences analysed show that in order to face the current challenges, a new ecology of culture and creativity systems is needed, in which the individuals and the macro structure hosting them may evolve towards more advanced forms of urban living. Furthermore, te territory itself should be regarded as a patrimony inspiring innovation and guiding development.

The extensive participation of various stakeholders and especially of end users is key to the progression from regeneration to the reactivation of built heritage. This enables the various assets to be comprehensively and sustainably identified and used, focusing on the common problems and aspirations of communities instead of pursuing the individual political interests of big private or public players. The core element in the development of new models of innovation is the diffuse intelligence of the masses enhanced by network organisation and the use of digital technologies. Undeniably faster and thus

better adapted to the current frequency of changes and emergency situations, the third sector is progressively present on the urban improvement and management scene, marking the initially informal grassroots reactivation of built heritage as one of the most promising practices in the field.

In addition to enabling new forms of participation in the territorial transformation processes, the provision of specific tools and skills by local economic entities could increase local economic growth, especially in relation to the creative and cultural sector.

REFERENCES

- BAULE G., CALABI D. A. &, SCURI S. (2014). Narrare il territorio: Dispositivi e Strategie d'Innovazione per gli Spazi Percepiti. In Coletta C. et al. (eds.), A Matter of Design. Making Society Through Science and Technology, Proceeding of the 5th STS Italia. STS Italia Publishing.
- BOYD E., NYKVIST B., BORGSTROM S. &, STACEWICZ I. (2015). Anticipatory governance for social-ecological resilience. In AMBIO, 2015, 44 (Suppl. 1):S149-S161. DOI 10.1007/S13280-014-0604-X
- CELASCHI F., FANZINI D. &, FORMIA E. M. (2019). Tecnologie abilitanti per la progettazione continua ed interdipendente. In E. Mussinelli, A.E., Lauria & F. A. Tucci (Eds.) (2019). La PROduzione del PROgetto. Santarcangelo di Romagna: Maggioli Editore.
- CIRIBINI, A. C. (2016). Information Modeling Management. BIM e digitalizzazione dell'ambiente costruito. Palermo: Grafill.
- EUROPEAN COMMISSION (2018). Participatory governance of cultural heritage. Report of OMC working group of Members States experts Study. Retrieved from https://bit. ly/2JZrDH3
- JANNACK A., MUNSTER S. &, NOENNING J. R (2015). Enabling Massive Participation: Blueprint for a Collaborative Urban Design Environment. In G. Schiuma, Proceedings of IFKAD 2015 (pp. 2363-2380). Lugano: International Forum on Knowledge Asset Dynamics. Retrieved from https://bit.ly/3b7QohE
- MERONI A., SELLONI D. &, ROSSI M. (2018). Massive Codesign. A Proposal for a Collaborative Design Framework. Milano: Franco Angeli.

- MONTANARI F. (2018). Ecosistema creativo. Organizzazione della creatività in una prospettiva di network. Milano: Franco Angeli Editore.
- SYMBOLA (2018). Io sono cultura 2018. Retrieved from https://bit.ly/34GdAzG