

Architecture of reconciliation. Co-evolutionary processes between communities and inner territories

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Abstract

The proposed contribution imagines architecture as a means for the development of marginal territories affected by fragilities, bringing the theme of co-evolution back to the complex and still strongly discussed one of reconciliation between communities and territories.

Removing cultural and social barriers to generate an empathetic vision of the environmental transformations taking place, through an investigation of the possibilities offered by architectural and landscape design by paying special attention to new research horizons of environmental sustainability, it is possible to generate cohabitation processes sensitive to the issues of co-evolution and co-existence between nature and humans.

The aim is to identify sustainable and effective design strategies to bridge the gap between inhabitants and territory, to trigger virtuous dynamics of demographic, productive and social revitalization in those places characterized by territorial fragilities related to depopulation.

Il contributo proposto immagina l'architettura come mezzo per lo sviluppo di territori marginali colpiti da fragilità, riportando il tema della co-evoluzione a quello complesso e ancora oggi fortemente discusso della riconciliazione tra comunità e territori.

Eliminando le barriere culturali e sociali per generare una visione empatica delle trasformazioni ambientali in corso, attraverso un'indagine sulle possibilità offerte dalla progettazione architettonica e paesaggistica ponendo un'attenzione particolare ai nuovi orizzonti di ricerca rivolti alla sostenibilità ambientale, è possibile generare processi di coabitazione sensibili ai temi della co-evoluzione e della co-esistenza tra natura e uomo.

L'obiettivo è individuare strategie progettuali sostenibili ed efficaci per colmare il divario tra abitanti e territorio, per innescare dinamiche virtuose di rivitalizzazione demografica, produttiva e sociale in quei luoghi caratterizzati da fragilità territoriali legate allo spopolamento.

Keywords

Reconstitution, fragilities, peripheries, marginalities, territories.

Ricostituzione, fragilità, periferie, marginalità, territori.

Co-evolution: the role of architecture in the reconciliation of communities and territories in fragile contexts

Co-evolution refers to the relationship of evolutionary dependence between different species, each a necessary condition for the development of the other. The term refers specifically to the concepts of transformation (the development and growth of a species), diversity (different species as a subject) and relationship (interdependence among species). The concept is of paramount importance nowadays, considering the urgency of issues related to the planet's transformations and the growing hardships affecting ever larger segments of the world's population¹. These circumstances translate, in contexts such as inner areas where the natural component is preponderant, into a concrete fracture between communities and territories that highlights a profound identity crisis of places (De Rossi, 2018, p.5), characterized by numerous fragilities determined by depopulation phenomena.

The study of the Italian inner areas is a crucial research field for the Country, based on themes of National and European relevance with a strong territorial vocation. Related theoretical debate is gaining traction not only in policy or planning, but also in the disciplines of architectural and landscape design. Identified as places significantly distant from

the centers of availability of essential services, the Italian inner areas constitute most of the National territory, including 51.1% of the municipalities, 58.2% of the surface area and 19.8% of the resident population (Cucinella, 2018, p. 263). These contexts are configured as an archipelago of small isolated centers (*ivi*, p.15) with a predominantly mountainous or hilly landscape, an important historical-cultural heritage and relevant natural and environmental components. The latter aspects, specifically, denote a strong relevance of contexts to the discipline of landscape architecture, allowing to imagine a greater social, cultural and aesthetic impact of design on the identity of places. However, they present strong topics of criticality related to socio-economic opportunities, low levels of income and productivity, environmental and seismic risks, demographic aging, depopulation and poor maintenance of buildings and landscape (Carrosio, Faccini, 2018, p. 66), features that determine a large number of discomforts and consequently lead individuals to accept a series of compromises to be inhabitants. Next to the traditional fragilities, which increasingly exacerbate the co-evolutionary and co-existential hiatus discussed above, Italian peripheries are now facing new challenges. On the one hand, the environmental and climate emergency is causing drastic changes, which make it increasingly evident that

the keys to sustainable development of the planet and the survival of metropolitan cities must be sought in rural contexts (Koolhaas, 2020, pp. 2-4)²; on the other hand, the pandemic period has widened the gap between urbanized and inner areas, increasing the urgency of interventions for territorial cohesion (Lupatelli, 2021, pp. 17-22).

In the population-territory pair, which can refer more generally to the human-nature pair, architecture seems to occupy an important position, representing a promising connection between the two elements. Conceiving architectural design as a means for the development of marginal contexts affected by fragilities by demonstrating the relevance of the quality of space (open or interior, public or private, etc.), means taking an essential first step toward the reconciliation of the two spheres, to reconstitute the broken link explained above. To do this, it is necessary to follow a methodology sensitive to transversal issues (e.g. digitization, sustainable transition, infrastructure, quality of the built environment etc.), to the multi-scalarity and multidisciplinary of themes, to the specificity of the places and to the participatory community dynamics. The goal is to best investigate the most effective design languages and tools to re-establish a co-existential and co-evolutionary relationship between settlements, territory and inhabitants.

But, first of all, we need to open a parenthesis on the meaning of the relationship between man and nature, the implications it has had in the thinking of recent centuries, and thus on the approach to reality by those who design architecture.

The relationship between man and nature in literature and philosophy: different approaches to reality

According to Remo Bodei, there are two different ideas of nature in Western culture: the first tends to elevate man to the role of absolute master of the natural space, freely disposing of it according to his

own needs; the second – widespread in the ancient world and today strongly revived – considers man at the mercy of the laws of chance just like all other living things, and is based on the prohibition to exceed the limits set by nature, which on the contrary must be taken care of (Bodei, 2008). The last view is supported by Bernard Rudofsky through his definition of architecture as an action shared by man in nature at different times, when people did not seek to conquer space, but to welcome its variety and challenges, assuming a relationship not of domination but of empathy (Rudofsky, 1964). Luigi Figini too, in his design for a house at the *Village of journalists* in Milan (1933-34), seems to view architecture as a space of reconciliation between man and nature, referring to the medieval concept of the *hortus conclusus*, a garden separated from the outside world that becomes the threshold between the natural and human spheres (Figini, [1950] 2012).

In the early Eighties of the 20th century, Giancarlo De Carlo brings the issue into focus by referring to the famous image quoted from Filarete's *Trattato di Architettura* (1460-1465), where a man covers his head with his hands to shelter himself from the rain: the purpose of architecture is not the production of objects, but to organize and form the space in which human affairs take place, developing processes. Architecture originates from a simple gesture that transforms the original conditions of a place into nature through minimal technological investment and the highest degree of economy of means (De Carlo, 1982).

Borrowing the thought of Alexander von Humboldt, we can consider man as part of that dense network of relationships between natural forces that help create the unity of the cosmos (von Humboldt, 1845): if nature is a dynamic and interconnected plural system, humans are an integral part of the system and build architectures to reconcile their existence with the natural space. The idea of a cosmos determined by pluralities and connections refers to-

day to the Anthropocene, a concept that stands for the present geological era, characterized mainly by the impact of human activities on natural processes that often result in irreversible damage. Life reproduces and maintains itself through self-regulating mechanisms in an uninterrupted link with the physical environment: nothing can exist without exchanges with a favorable environment. Provided that in the so-called “second nature” (Hunt, 1993) our way of inhabiting the planet could still be seen as a reversible co-evolutionary process, in the present situation anthropogenic influences on the Earth and the life forms that inhabit it have now become dominant and irreversible: never before has the harmfulness of a relationship between anthropogenic and natural space based on the domination of the former over the latter emerged.

An interesting perspective on the subject is that of Gilles Clément, who outlines a contemporary view with respect to residual spaces, largely abandoned by humans as unproductive. Insisting precisely on the productive-unproductive opposition and the concept of diversity, Clément accuses anthropogenic practices of causing a decrease in the number of species and varieties of behavior on which the third landscape feeds:

Current planetary exploitation practices respond massively to a market economy developed in the liberal mode and with the aim of immediate profit. The market economy developed in this way increases the quantity of consumer products, implies an ever-greater increase in consumers and therefore in inhabitants. The permanence of the Third Landscape [...] is linked to the human number and above all to the practices implemented by this number (Clément, 2004, p. 16).

The enhancement of “spaces of diversity” (*ibidem*) responds to a central concern: the protection and maintenance of life, embodied in biodiversity.

If it is true that biological difference stresses the complexity and resilience of a system, temporal diversity also increases its complexity and cultur-

al value: Valerio Romani defines the landscape as a photogram, a set of moving images rather than a static picture, a space in metamorphosis that, being characterized by living material, is subject to a continuous evolution that can be predicted only within certain limits (Romani, 2008).

In front of such a moving scenario, subject to continuous variability, how can architecture position itself by trying to reactivate co-evolutionary processes?

Architecture for co-evolution: a space of reconciliation between humanity and nature

Before dealing concretely with the ways in which architectural design can enshrine co-evolving processes, it is necessary to develop a theoretical premise, reasoning about the etymology of the term architecture. It is composed of *arché* - “principle, origin” but also “command, dominion” - and *tektonia* - “construction” (Rocci, 1939), referring on the one hand to a condition of both chronological (the first things) and logical (the excellent things) priority, and on the other hand to the ability to build (Chiodo, 2011). Architecture then, inevitably tying itself to human action determined by the *téchne*, implies both a response to prime necessities, such as the separation of man from natural space, and an excellent power, capable of dominating the very natural space. Therefore, the consolidated human-natural opposition already appears, from which we will try to depart by showing how architecture represents not only a mode to seek a separation from natural space, but also the connection between it and the sphere of human life.

Landscape design is the discipline where the point of contact is most evident: the manipulation of natural space, that is, its transformation into an “anthropogeographic landscape”, is territory of architecture (Gregotti, [1966] 2014, p. 61) and allows the application of practices capable of generating co-evolutionary processes in a space of reconciliation between the two spheres (natural and anthropic). 221





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Fig. 1 – Navelli (Aq), Italy. Antropogeographic landscape (photo: Francesco Airoidi, 2018).

Looking at well-known architectural references, such as *Allmannajuvet Zinc Museum* complex by Peter Zumthor, conceived as part of a vast plan to enhance Norway's landscape heritage, we realize how much the planning of a nationwide network, with a multi-scalar horizon and operating on landscape (open public space) and small exhibition architecture (enclosed public space), can guide processes of social, cultural and economic revitalization in areas characterized by fragilities. The *Linear Park* by Studio NOWA, in the Sicilian Val di Noto, is a synthesis and sublimation of the same approach: configuring itself as a light infrastructure carved out of the decommissioned railway track that used to connect Caltagirone to Armerina, an ancient wound for a landscape with a strong natural connotation, the project aims to unveil agricultural and natural landscapes through the construction of new viewpoints. In addition to the spatial result, what is evident is the definition of a strategy based on the possibility of intervening in different phases and over a long period of time, reconstructing the invisible links existing between landscapes, artifacts and memory, capable of stimulating a broader regeneration of resources that have been unused to date.

In the Italian landscape such study-cases are potentially infinite, and many of them can be found among the projects presented in the *Italian Pavilion* at the 2018 Architecture Biennale of Venice, dedicated precisely to inner areas, "territories that are spatially and temporally distant from large urban areas, but hold an inestimable cultural heritage, with peculiarities that place Italy in discontinuity with respect to the European urban framework" (Cucinella, 2018, p.15). This last quote implies that architecture as a space of reconciliation cannot be

separated from research and the consequent assumption of awareness of the fragilities and potentialities of a certain territory (research carried out, as mentioned above, through a multi-scalar and interdisciplinary approach): if the Italian landscape is identifiable with a system of views that are different from each other (Purini, 1991, p.46), even before an architecture attentive to processes and variability, today there is a clear need for a real culture of vision, for an awareness of the landscape capable of restoring a universal narrative of it, inclusive of each individual scene.

Today more than ever, a reflection on these issues can only be accompanied by a look at the new horizons of research, projected towards environmental, climate, energy and economic sustainability. In this logical transition, we return to talk about *téch-ne*, understood not only as a response to needs through requirements met by technical performance, but as a fundamental element of architectural characterization, becoming part of the grammar of spatial composition. Thus, while technology provides the prerequisites for a hoped-for sustainable transition – which is in itself respectful of nature – it also offers the possibility of including in the design some catalyzing solutions for co-evolutionary processes: in the choice of materials, in the formulation of goals and strategies, in the design and use of technical devices, in the use of nature-based solutions (Cohen-Shacham E. et al., 2016, pp. 2-5). The contemporary presents many architectural examples in this sense, projects in which it is the technology that designs and characterizes the space around the search of benefits for users or communities: this is the case of the *Clos Pachem Winery* in the village of Gratallops, conceived by Harquitectes as an organism capable of minimizing energy needs and the use of machines for the creation of environmental comfort, finding in the spatial and compositional choices a coherent and harmonious response with technological needs, requirements and per-



Fig. 2 – Morino (Aq), Italy. Abandoned village recaptured by nature (photo: Francesco Airoldi, 2021).

formance. Even more comprehensive is the design for the *Marika-Alderton House* by Glenn Murcutt, set in the hot and windy context in the East Arnhem Land region of Australia: combining sensitivity to local tradition with a rigorous approach to energy-efficient design, this is a building that responds to the site and its climate in a tangible and formal way, but not at the expense of aesthetics, thus generating form also with function. The materials used are nature-based, simple and sturdy, as required by the extreme conditions, and they are used in a pragmatic, no-frills manner, lending a certain spartan quality to the clean lines of the house.

The latter case studies, although belonging to the sphere of architecture of the built environment, establish an interesting dialogue with the surrounding landscape, becoming part of it and participating in its life processes and perceptual dynamics. The topics considered here are the spatialities of technology,

to be juxtaposed with the landscape design experiences illustrated above, in order to concretize effective responses to the necessities of land care, of natural, marginal and abandoned spaces design and of sustainable transition. From this perspective, open and public space of inner peripheries is seen as a crucial field of action for a necessary lexical-design redefinition based on innovative strategies that link the spheres of design and landscape (van Eekelen, 2020, pp. 14-15), interaction between anthropic and natural systems within ecological processes (Gandy, 2022, pp. 117-152). Acting on this type of spatialities in fragile conditions with the use of new technologies and NBSs, allows the effects of architectural and landscape design to be amplified, constituting an effective way for reconciliation between humanity and nature through a co-evolutionary relationship with plant and animal species (Thompson, 1982, pp. 1-5). The project *40 Squares*, designed



Fig. 3 – Corfinio (Aq), Italy. Architecture related with landscape (photo: Francesco Airoidi, 2021).

by Metrogramma Studio, concretizes some of the concepts outlined above: a dynamic network with a multi-scalar horizon, consisting of small punctual interventions in the territory between Morbegno, Sondrio and Tirano, which makes use of NBSs proposing a fully sustainable and landscape-protecting design model. Just as in the case of the *Norwegian Scenic Routes*, which we mentioned earlier citing the Zumthor's *Allmannajuvet Zinc Museum* complex, this project comes in support of the enrichment of the territory, understanding, interpreting it and finally enhancing its extraordinary heritage.

The above examples aim to identify technological and design strategies that combine technical effectiveness with spatial quality of design, promoting different types of sustainability – economic, social and environmental – in landscape architecture, accentuating the role of contemporary solutions in defining new public, open and indoor spaces. In

this field, architecture represents a key research area that can innovatively interpret territorial regeneration issues, looking at sustainable transition at a scale of action between territorial and specific: the one of landscape design. Picking up on Matthew Gandy's thinking about ecology systems and considering both the performance dimension of technological environmental issues and the cultural and aesthetic dimensions of architecture, public space is conceived as a catalyst for ecosystem benefits and services in new adaptive context, in "a simultaneous process of social and biophysical change in which new kinds of spaces are created and destroyed" (Gandy, 2006, pp. 62-72).

A possible methodology for applied-design research

Although technologies occupy a key role in the present proposal, they are understood not only as

a means of coping with the effects and preventing the causes of climate change – ensuring biodiversity, comfort, affordability and safety, etc. – but also as an element of architectural composition, with its ability to generate and condition space. The latter, measurable and experiential, constitutes the link between the performative dimension of techniques and the cultural and aesthetic dimension of architecture. These two dimensions are configured as architecture's response to the critical issues explained above and can arise from the action of three relevant design approaches, applicable in both building and landscape architecture: analytic, practical-participatory and synthetic.

Starting with the former, an analytical-synthetic approach is what brings design activity closer to the scientific method of data collection and processing (Gregotti, [1966] 2014, pp. 14-18). The architect, through multi-scalar analysis and the application of multi-disciplinary knowledge in the first phase of study, develops diagrams, schematics and mappings to formulate critical thinking. The possibility of basing architectural design on the reading of networks and systems gives the design of spaces the ability to interpret the places in which they arise (Corradi, 2018, p. 9), consolidating and enhancing the potential of environmental pre-existences and addressing their criticalities (Rogers, Molinari, [1958] 1997, p. 285). In addition, the study of technologies through a literature survey of the state of the art allows the formulation of an abacus of possible design actions to propose solutions to the former issues. Investigation is best accompanied by direct observation and analysis of case studies, identifying critical issues and potentials and formulating research and project objectives from these.

The second approach, the practical-participatory one, stems from the need to test research assumptions and hypotheses through preliminary or pilot projects, also agreed upon with local communities, governments, agencies and companies. More-

over, in places like these where communities carry strong values, it can be interesting to bridge the hiatus between the specialist knowledge of designers and the common sense of the inhabitants through a knowledge fieldwork (Bilò, 2019, p.136), with the application of Giancarlo De Carlo's thought on the topic of participatory architecture (De Carlo, Marini, 2013). Specifically, in this sphere of action, an anthropological-ethnographic view allows a fruitful dialogue between the two parts: considering the current identity crisis that the villages and mountain landscapes are going through, the proximity and the intertwining of practice and methodological reflection is seen as a necessary work, which responds simultaneously to a principle of measurement and an idea of synthesis (Navarra, 2017, pp. 108-109). Anthropology, defined as the observation, understanding and interpretation of the complex articulation of the physical and social environment, can offer a decisive contribution to architectural and landscape design, insofar as space and society are closely connected and interdependent elements. It is therefore important to recognize which signs and meanings of this environment can be translated into space through coherent fieldwork (Bilò, 2019, pp. 145-146). If a good architectural design is the result of an adequate analytical study and an effective participatory activity, the process that allows the communion of these two spheres is the translation into spatial forms of the ethnographic results of the first two approaches. Because to address the issue of the revitalization of territories, it is necessary to intertwine in every important choice local contributions and external expertise:

Il futuro dei luoghi sta nell'intreccio di azioni personali e civili. Per evitare l'infiammazione della residenza e le chiusure localistiche occorre abitarli con intimità e distanza. E questo vale per i cittadini e più ancora per gli amministratori. Bisogna intrecciare in ogni scelta importante competenze locali e contributi esterni. Intrecciare politica e poesia, economia e cultura, scrupolo e utopia (Arminio, 2013, pp. 21-23)³.

Fig. 4 – Anversa degli Abruzzi (Aq), Italy. Village, community, infrastructure and landscape (photo: Francesco Airoidi, 2021).

The last one approach represents the synthesis of the research project methodology. The critical gaze education undertaken in the first phase, applied to the observation of the spatial and social implications of the field experiences envisaged by the second, allows a transition from the particular case to the formulation of general hypotheses for similar contexts using a bottom-up method: these relate to the objectives stated at the beginning of the paragraph and aspire to help redesign lexical paradigms for a landscape architecture and design in inner areas.

While it is true that the gap between urbanized and marginal territories continues to persist, it is equally clear that the latter are no longer considered only as a problem but also as an opportunity for the future: a new and different perception that stems from phenomena such as the crisis of cities and the development model they embody, the importance of issues related to territorial security, and a profound cultural change resulting from a substantial “inversion of the critical gaze” that needs to be leveraged by applying a clear methodology to architectural-design research (De Rossi, 2018, p. 5).

In a context in which depopulation and abandonment are the most consistent socio-demographic phenomena, it is evident how the issue of inhabited space should enjoy privileged attention, and how living in co-existence with nature is a determining aspect in these places. If we conceive architecture as a possible answer to the problem of (co-)dwelling – an assumption that constitutes one of the important definitions of this discipline (Gregotti, [1966] 2014, p. 45) – the strong relationship that exists between architectural design and the social, econom-



ic and cultural dynamics that it can trigger becomes evident. Dynamics which are crucial to re-establish a connection with the territory, to bring the inhabitants back to be an integral and characterizing part of it: that is, to reconstitute communities capable of projecting their own habits, customs and ideas into space, making it a place.



Application of the methodology: a systemic approach

The case studies analyzed so far offer interesting insights into some fundamental issues of architectural and landscape design in marginal and residual contexts, introducing a set of different solutions that have particular characteristics but poten-

tial systemic use. In fact, while the poetic and spatial components of the *Linear Park* by Studio NOWA make possible a reconstruction of the landscape in a place of previous disuse and a co-existential reconstitution between man and re-inhabited nature, the cry of alarm evoked by climate and environmental emergencies makes it necessary to re-

flect on sustainability and technological performance in the field of landscape architecture as well. In this sense, the use of NBSs and low-impact materials such as those observed in *40 Squares* project by Metrogramma Studio can be juxtaposed with a study of the spatial implications of specific technologies, for example, for energy production: today, this type of design still characteristically belongs to the sphere of building architecture, but its potential on the quality of space, which is evident from experiences such as *Clos Pachem Winery* by Harquitectes or *Marika-Alderton House* by Glenn Murcutt, can also be applied in the sphere of public space and landscape. In this case, a thematic and semantic transition is outlined from the sphere of built architecture to that of the landscape one, which lays the foundations for that redefinition of language hoped for between the lines of this contribution. The proposed methodology works in this sense: it draws from both spheres too, merging them and doing justice to the role of the project, understood in all its declinations of open, natural, built space, anthropogeo-

graphic landscape, etc. Furthermore, recalling positions dear to ethnography and anthropology, there is a want to highlight the need to accompany the activity of the designer with an attention to the identity of the places, the same that allows communities to resist and to the potential of cultural and naturalistic heritage to exist.

By applying the critical process described above and verifying the implications that particular design themes entail at the general level, it is possible to construct a narrative that emphasizes and enhances the fragmented and plural nature of the Italian territory (Lantieri, Simoni, Zucca, 2021, p.40), bringing the theme of co-evolution back to the complex and still strongly discussed one of reconciliation between communities and territories and associating the concept of 'social marginality' with that of 'territorial marginality', working on some 'spatial marginalities' and thus addressing with awareness and effectiveness the themes of inner areas (Carrosio, 2019, p.66).

Note

¹ For the first time in recent history, Italy has at its disposal some economic means with enormous potential: the European funds from the *Next Generation EU* program, which consist of 191.5 billion € to be invested in various sectors for the recovery of the Country, from 2021 to 2026. The tool launched by the Italian Government to manage these funds, the *Recovery and Resilience Plan (RRP)*, considers inner areas as a privileged field of investment. Named several times in the plan's six missions, which touch on themes that cut across the entire Peninsula, fragile territories are given an entire section - number 5 - focused on sustainability, inclusion and territorial cohesion. Investments to bridge the territorial gap and funds for digitization, ecological transition, infrastructure, education and health include tens of billions of euros in addition to projects under the already active *National Strategy for Inner Areas (SNAI)* and existing territorial strategic frameworks.

² The architecture-landscape-nature trinomial in inner and rural areas can be traced in a wide range of exhibitions. Of note, in reference to the text: *Countryside. The Future*, *Guggenheim Museum*, New York 2020. Curator: Rem Koolhaas / OMA; *Arcipelago Italia*, Biennial of Architecture, Biennale, Venice 2018. Curator: Mario Cucinella.

³ "The future of places lies in the interweaving of personal and civic actions. Avoiding the inflammation of residency and localist closures requires inhabiting them with intimacy and distance. And this applies to citizens and more so to administrators. One must weave local expertise and outside contributions into every important choice. Interweaving politics and poetry, economics and culture, scruple and utopia" (English translation by the authors of the paper).

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