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PERIURBAN LANDSCAPES, VULNERABILITIES AND POTENTIALS FOR REGENERATION

Abstract

Outside the compact city, settlements dramatically expanded, without developing facilities and public services, disregarding social vulnerabilities and natural risks. Today, after decades of demographic decline, this has resulted in urban abandonment and decay, and the lack of livable and healthy environments. Big opportunities still are present due to the abundance of neglected, unbuilt areas.

Regeneration of decaying periurban territories tries to restore landscape values and identities within inhabiting communities.

The unbuilt parts of periurban areas are the first testing ground. The paper presents a double-speed strategy in a case in the south of Italy, consisting of a long-term reclaim of urban fabrics and a short-term, prefigurative, urban gardening in unbuilt spaces, with the direct involvement of communities, institutions, and university researchers.

Keywords: periurban; agricism; planning; community

Introduction¹

This article is based on research on the spatial model of the Metropolitan Area of Naples periurban areas, exploring those processes that generate the different structures of places, risks, and their relations. Thus, it refers to morphologies, governance, and uses of the urban and ecological landscape.

The case study approach helps in decoding methods from experiences, reflecting on the role of site-specific challenges, data sources, and human behaviors, and then on potential perspectives for further exploitation.

The activities developed in a main focus area are presented: the municipality of Casoria. This specific case is relevant because of the variety of challenges it encompasses. Casoria is a demographically declining city, characterized by urban abandonment and decay after the deindustrialization process of the 1980s and 90s. On the one hand, the urban core is a high-density context, where big residential public buildings, built for decades post-war, are now in a state of abandonment and lack in social facilities. On the other hand, the periurban landscape is composed of uncultivated fields, abandoned public areas, neglected open spaces along the infrastructures (Fig. 1).

The methodology explained in the following paragraphs builds on didactic and applied research experiences². The case study approach allows the exploration of complex issues in real-life settings as researchers have worked



Fig. 1. Abandoned peri-urban areas in the Metropolitan Area of Naples (photo credits: Alessandro Capozzoli).

with students and local administrations on strategic frameworks and pilot actions.

Background

In the last decades, *drosscapes* [1] emerged in the Western countries 20th century's areas of expansion: the city started shrinking within its limits, the periurban fringes. These borders changed their role; no longer just dividing lines, they became areas belonging to various regions at the same time, shaped by local meanings from different sources [2]. Periurban areas function as *liminal spaces* [3] and in-between [4]: being neither part of the compact city, or its outskirts, but interacting with both.

Compact cores in metropolitan urban models changed in shape and size in the past century [5]. Outer areas witnessed a concentration of functions: infrastructures, productive settlements, logistics areas, industrial activities. Periurban areas became the working machine of metropolitan areas: the industrial pattern expanded, compressing all the empty spaces of the urban fringe, cutting the continuity of natural landscape values with hard borders made of railways and highways, causing social exclusion and economical gaps within the neighboring communities in comparison to higher standards of living in the compact city.

The linear model of growth seriously affected the environment with resource scarcity (land consumption, energy dissipation, etc.) as the most patent effect and other undesirable side effects, such as effects of disruptive hazards on vulnerable territories, exacerbated by climate change and the threat of pandemics on fragile communities [6].

Periurban areas identified a vulnerable urban morphology lacking in material and immaterial welfare [7], in accessibility to services and functions, in socio-economic diversity, and in safety and resilience of public spaces.

As the direct consequence of linear growth, periurban areas have been characterized by waste and decline [8], but during the "deindustrialization era", urban expansion came to a standstill: the city shrunk to its limits [9], revealing *drosscapes* deeply saturated by official and unofficial uses waiting for a transformation to happen.

Periurban areas appeared as a "no man's-land", open to everyone experiences, to new meanings and uses, representing still a valuable resource for territories [10], in order to reinterpret urban culture and lifestyles for a different kind of growth [11].

All around Europe, looking for new growth in abandoned areas has produced gigantic

regeneration efforts: Hafen City in Hamburg, La Confluence in Lyon, Over the Ring in Antwerp, or Superkilen in Copenhagen are just a few of recent successful examples. But close interrelation between local uses and new transformations is needed in order to protect fringes of transition from disappearing into a landscape completely different from the past one. Consequently, the challenge is to accommodate and/or to attract a growing population by carefully increasing densities and functions within the existing limits. The aim is to develop a strategy for *growth by regeneration* and *reconversion*, by uncovering the identity and potentials of existing periurban areas, trying to support *third landscapes* [12] in voids and abandoned areas, rather than manipulating it [13].

Design initiatives such as urban farms and urban gardens present themselves as green infrastructures of the city in which solutions with aesthetic, pedagogical, and ecological dimensions are experimented, recapturing uncultivated and degraded spaces. The periurban areas of the city become places for a new rurality; community gardens and agricultural parks heal the polluted environments on the edge of the city, connecting the society with the design of their own life context.

In the periurban landscape, the employment trend and the demography are closely related. The movement of the population from rural to urban areas has decreased in almost all industrialized countries and has even reversed. Since the 80s, services companies (e.g. working on information technologies) are often located in suburban and rural areas where the availability of land is greater and the cost is reduced. As a result, the opportunity of employment stimulates the movement of the population, from metropolitan areas to rural ones, attracted by an environment interpreted as healthier and in reaction to chaos and urban pollution (*rurbanization*) [14, 15, 16, 17]. Thus the *Peri-urbanscape* takes shape as a vast territory in which city and countryside, urban space and agricultural space can coexist [18, 19, 20].

This landscape can assume new forms, functions, and performances to sustain the production of public, semi-public, or common goods. The strategic functions for the city and for the urban ecosystem, such as water supply, hydraulic safety, waste treatment, loisir and teaching, give multifunctionality to periurban open spaces.

Furthermore, the reintroduction of agriculture within the urban system can trigger virtuous processes also from a social point of view. *Agri-civism* seeks an attempt to cross agricultural activities with urban reality, promoting synergies between the inhabited area and the rehabilitated ecosystem and the foundation of a new sense of belonging and responsibility in citizens, towards the urban space and the landscape [21].

Methodology

The research method is built on two main dimensions in the framework of (a) spatial analysis and (b) strategic urban design, interacting with the multidisciplinary scientific knowledge related to education activities and the technical and organisational structures of

institutions and communities tackling actual challenges and actions.

The integration of didactical experiences with real-life settings establishes an open process of learning by doing: (i) students contributed to basic research activities and worked on real-life projects on multidisciplinary teams; (ii) researchers analyzed interactions and patterns of behaviors from local communities and institutions, working on pilot projects; (iii) students and researchers implemented temporary uses of public spaces with the communities; (iv) eventually they composed strategic regeneration frameworks, to take even further the efficacy of the social innovation process with local communities and other stakeholders.

The basic research gathered the dynamic relationships between physical, social, and economic characteristics of periurban areas, focusing on the environmental aspects of communities ecological awareness and resilience: e.g. constructive behaviors in the use of public spaces, spontaneous care and maintenance of neglected residential settlements, etc. The strategic framework for change is meant to stimulate a co-creation process with stakeholders and communities, ensuring that the developed knowledge will be relevant and applicable by local communities. It is possible to create a continuum of co-creation, with validation of specified researchers' analysis, through: co-mapping activities of challenges and solutions; co-design of solutions; co-evaluation of results; temporary uses and prefigurations.

The focus area

In the Metropolitan City of Naples, periurban areas coincide with a fringe of medium-sized inhabited centers, such as that of the Municipality of Casoria, a medium-sized city, among the densest in the Metropolitan City, with an area of approximately 12 km² and 80,000 inhabitants.

Casoria had a massive demographic growth between the 1950s and the 1990s due to the concentration of chemical and metallurgical industries: the resident population grew from 19.786 (1951) to 79.907 (1991). In the 1980s and until early 2000s, while industries were being dismantled (the manufacturing sector is now almost absent), large entertainment and business facilities were built: cinema and bowling complexes, shopping malls, and office buildings. Eventually, with the financial and economic crisis and because of the competition produced by new spectacular and attractive shopping centers in outer metropolitan areas, the entertainment and shopping facilities faced a gradual decline. In addition, the recent construction of new highways has diminished the advantages of Casoria's proximity to Naples' city core, now easily accessible from external towns, where the environmental quality is better (due to the presence of larger green areas) and the housing market is more competitive. Consequently, the resident population in Casoria started to decrease: a gradual move - *emigration* - from the congested and low efficiency city is currently occurring. The periurbanscape is negatively characterized by the presence of huge infrastructural networks crossing the territory and

considerably affecting the environment and the quality of the landscape. The urbanized environment is often marked by commercial and productive "enclaves" and large parking areas. However, a more detailed analysis of the area shows a largely underestimated potential: the presence of about 3 sq km of undeveloped areas, topologically located on the fringes of the infrastructures, which are not far from the urban systems and very close to big commercial malls. These wide open spaces are fragmented and impenetrable, "natural" accumulation areas of resources (land, water, air).

In 2013, the administration of Casoria started the drafting of a Municipal Urban Plan by building a small team involving young graduates and employees of the municipality in the sector in close collaboration with researchers from the Department of Architecture of the University of Naples "Federico II" and external professionals. Later on, the administration and the Department joined the URBACT III project, called "Sub>urban. Reinventing the fringe" (2015-2018), focusing on the regeneration of fringe and periurban areas³.

In this framework, researchers organized educational activities (Urban Planning courses in Bachelor and Master's degrees, graduation thesis, stages) aimed at analyzing the current conditions and promoting strategic change.

In the past, the administration suffered from lack of strategic insights, in the management of EU fundings (European Regional Development Funds - 2007-2013). Therefore, during the urban planning process, planners and researchers acted as facilitators, managing communication and visualizations of information, supporting debate with the communities, and design and assessment of alternatives, but also dealing with the relationship between short-medium term interventions and bigger ambitions.

Results

The Municipal Plan and the Local Action Plan proposed a regeneration that crosses several intervention scales, using the time variable as a device between structural forecasts (valid indefinitely) and tactics (contained in operational plans). In this way the areas of transformation are verifiable in a flexible process which considers socio-economic and technical sustainability, political support, the relationship with public and private investments, etc.

For the periurbanscape, the strategies are mainly based on:

- *Transformation from drosscapes to resource-scapes*. The abandoned open areas becomes a network with the design of a large urban park (about 3 km²): a forest with isolated vegetable gardens and public buildings, to strengthen rural identities in periurban areas, working on its ecological patterns and public uses.
- *Local Community Engagement*. Temporary uses (urban gardening) immediately transform two former military areas into public parks, in order to increase the trust among communities towards institutions, to regain a sense of belonging for abandoned places [22] (Fig. 2).



Fig. 2. Urban gardening: former military area transformed into a public park - URBACT III "Sub>urban. Reinventing the fringe" (photo credits: Alessandro Capozzoli).

- *Make no little plans.* The general strategy is supported by the integration of different forms of financing, at different scales and with different time spans (funds from the municipal budget; funds from private entities, involved through sponsorships and agreements for the redevelopment of small areas; regional and county funds, as well as European funding).

The research analyzed the focus area as a set of physical and social relationships in a dynamic approach, taking into account the change of uses in public areas. Degraded periurban areas, unbuilt and clearly defined by collective uses, are "contaminated" within networks of interrelations, establishing meeting points, as neighborhood centres for social aggregation. On the basis of the long-term strategy of the Municipal Urban Plan, the Municipality of Casoria participated in the URBACT network. It is an active and innovative method of involving the population, with a reading / solution of problems obtained through creative comparisons, by overturning consolidated decision-making models.

Civic participation is stimulated in each project for the redevelopment of neglected peri-urban areas or in risk of abandonment. Furthermore, to make each project feasible and responsive to collective needs, the participatory planning process embedded an interdisciplinary work (urban planners, community psychologist, agrotechnicians, etc.). The final outcome is the

increase of the level of collective awareness, spreading *good practices and behaviors* in the use of public spaces.

The co-design process produced a collective image for change, starting from the identification of objectives for the transformation of the current negative condition towards a positive future one, with a view to redeveloping public spaces as real *commons* [23].

Furthermore, this orientation encourages public-private hybrids, as well as the search for funding programs, provided by institutional and incentive mechanisms for synergistic processes. It is necessary to pursue inter-institutional and inter-departmental work which aims to balance rules and freedoms.

Conclusions

The research and the experience in the case study show the inhabitants' ability to operate as innovative agents of urban change starting from a series of established rules. These practices are configured as urban microprocesses that start from the active involvement of the inhabitant and his responsibility in the management of the free spaces. The inhabitant becomes a co-producer taking charge of the neglected, abandoned public spaces, defining new uses, sometimes temporary and ephemeral, which enhance collective and individual empowerment. The process starts from the collective re-

appropriation of urban interstices, spaces defined by "conviviality" and by the "value of the bond" in the system of relationships, generated from *nothing* [24].

Therefore the case study approach helps the analysis of emerging questions: how is it possible to "make room" between peri-urban, interstitial *leftovers*, apparently insignificant public areas and commons? To what extent are these commons ideal spaces for active citizenship practices?

The collective spaces built through gardening, horticulture or the simple use of the green area are considered "participatory landscapes" that encourage sharing. The gardening activity, lived in a recreational sense, both as leisure and in a functional sense as production for self-consumption (agri-civism), becomes a device capable of initiating the process of re-appropriation of the territory. This twofold value, which puts procedural aspects and tangible results in tension with urban tactics and experiments, are man-made micro-actions in which utopian charge and concrete satisfaction coexist profitably. These process-actions constitute qualities that give an immediate sense and a more concrete satisfaction to dealing with one's daily living space, circumscribing it around one's main habits [25].

In Casoria, therefore, actions were planned on areas where there is no green infrastructure, where there was a need for social cohesion and

the urgent need to provide space for marginalized groups, guaranteeing them the *right to the city*. The inhabitants felt part of the community in which they live by making proposals for the organization of the common spaces, reducing the social inequalities produced by the unfair distribution of the possibility of access to services and by the presence of conditions of risk and environmental degradation (Fig. 3).



Fig. 3. Communities and institutions urban gardening - URBACT III "Sub>urban. Reinventing the fringe" (photo credits: Alessandro Capozzoli).

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NOTES

1. Anna Attademo and Maria Gabriella Errico together wrote Introduction and Results, Anna Attademo wrote Methodology, Maria Gabriella Errico wrote Conclusions.
2. The paper refers to didactics and researches developed since 2013 by professors and researchers of the Department of Architecture of Naples (scientific coordinator: Prof. Michelangelo Russo; project coordinator: Prof. Enrico Formato; assistant coordinator: Prof. Anna Attademo), with the support of the Public Works and Urban Planning Office of the Municipality of Casoria and several local associations.
3. The resulting Local Action Plan is currently the basis for the re-draft of the planning instrument and the development of several urban regeneration projects (Integrated Program for a Sustainable Casoria, funded with ERDF 2014/2020), co-designed with the scientific support and consultancy of the Department of Architecture of the University of Naples.