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SETTLEMENT PRINCIPLES BETWEEN RURAL AND URBAN Models of transformation in Italy and Spain.

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ABSTRACT

The paper focuses on the relationship between urban and rural in architectural transformations, shifting the focus away from the urban perspective. It addresses the challenge of urban and suburban expansion, which often results in inconsistent architectural styles due to the incorporation of rural and semi-rural areas into cities. The research aims to investigate alternative settlement methods in which the sense of living the "non-urban contemporary" could be integrated or not in the urban expansion. Employing analogical and comparative methodologies, the research examines how rural architectural characteristics can be transposed into urban settings, proposing various approaches to the integration of urban and rural elements. Through historical examples and case studies, categories related to "rurality" are defined and analysed compositionally. The study emphasizes the importance of qualitative analysis in the evolving relationship between urban and rural spaces, suggesting potential architectural transformations and experimental approaches for further experimentations to address contemporary challenges.

Keywords: compositional principles - rural architecture - peri-urban - typology - urban transformations **Topic**: análisis y proyecto territorial.

1. Introduction

In the latest issue of Domus particular attention is given to the future of urbanization, focusing on the formulation of a more sustainable city. Urban centers represent the future as they generate 90% of the world's wealth and 70% of greenhouse gas emissions, despite occupying only 1% of the planet's surface. It is widely believed that within less than thirty years, two out of three people will live in cities, and consequently, cities will need to grow and transform. From these data a general vision can be drawn which outlines compact city development as the only possible solution to these problems, discouraging sprawl and low density. (Foster, 2024)

Furthermore, depopulation and overcrowding are two opposite, complementary realities which demonstrate territorial imbalances: a critical look at these problems enables to reflect and make suggestions for possible strategies. Moreover, the Pandemic crisis highlighted the inadequacy of widespread settlement models to fulfil the diverse ways for people to live and to inhabit the space: it increased the progressive awareness of the environmental effects on the transformation of cities and of the territory.

However, in this study I would like to shift the focus away from the compact city model and high density proposing, instead, a possible change of perspective, seeking a more contained urban model or a possible alternative to dense urban expansion.

Looking at the urban form from the outside is the starting point for understanding whether the city recognizes the rural around it, in an integration between rural and urban. "Although largely overshadowed in terms of the attention it receives, the rural ecosystem still occupies the majority of the Earth's surface today. But the significance of rural space isn't merely quantitative" (Biraghi, 2008). In this perspective, indeed, such environment doesn't appear spontaneous, but rather regulated by precise laws that allow, in its essential character, for it to be identifiable with a particular composition in its close relationship with the territory. The premise of the research is based on the vision of rurality as the original dimension of human settlement in inhabiting the territory and space from a functional and material point of view. On the basis of these premises, it is clear the need to explore this issue from the point of view of either as alternative to the urban or in the reading of a progressive global urban continuum. The study therefore seeks to identify the modalities in which urban expansion invades the countryside and how it is possible to integrate this encounter from a design perspective that can define a solution from a typological, morphological and settlement point of view.

1.1 Objectives

This study investigates the relationship among consolidated cities, cities of expansion and alternative urban expansions in Europe. It tries to identify compositional settlement principles that bridge architectural lexicon and urban planning. By analyzing social, formal, typological and topological shifts, the study aims to discern trends toward either dispersion or concentration, demonstrating the possible permanence of these characteristics. By identifying the processes of the expanding city, the research aims to define a possible qualitative design model for urban expansion that takes the qualities and characteristics of rural architecture as its starting point, in contrast to informality. It delves beyond superficial examination, analyzing how typo-morphological elements fit into the urban architectural landscape and in the urban aggregation. This inquiry challenges the current relevance of these spaces and contemplates the integration of rural characters into urban environments in a formal, compositional framework.

This analysis focuses on two prominent southern European metropolitan areas, Rome and Barcelona, to explore this relationship. Case studies include expansion areas in Rome as well as Barcelona's suburban expansions incorporating ancient rural centers. The investigation aims to determine the feasibility of integrating rural elements into urban contexts.

From this point of view, some expected outcomes and reflections arise in relation to the general topic and the metropolitan areas under consideration, hypothesizing a tendency to the progressive integration between urban and rural, with a probable loss of the original characteristics of rural life.



Fig. 01 Cover Domus 1087, February 2024. Edward Burtynsky, Salt River Pima-Maricopa Indian Reservation, Scottsdale, Arizona, USA 2011

1.2 Currency of the topic and critical synthesis of literature

Over the last two years the attention towards rural areas has significantly increased, representing an alternative to the life in the city as research for essentiality. Renewed interest in rural area transformations stems from a quest for alternatives to conventional urban models in an interdisciplinary approach incorporating local and territorial scale.

Rural areas transformation studies acquired significant attention globally, with studies focusing on heritage cataloging, societal perspectives, and rural-urban dynamics, studies of the conversion of rural structures into tourism and historical ones. Rem Koolhas's study: "Countryside. The future" is a notable reference, an exhibition which aimed to rediscover the dynamics of the rural environment despite an inevitable urbanization. Even though over the last years the disciplinary debate has taken center stage, focusing on the rehabilitation and conservation of rural architecture, solutions in design practice and in theoretical works are as yet unsubstantial.

Moreover, the topic has gained relevance amidst environmental and climate crises. Studies in reference to the rural "regional" look at many realities, but this one attempts to give a more aware vision of possible differences and affinities. European focus on rural-urban dynamics is evident in development objectives, agricultural policies and initiatives like Horizon 2020. Policy debates, exemplified by PNRR, emphasize heritage recovery, revitalization, ecology and sustainability. Historical research, notably on the process of de-urbanization during the dictatorial phases in Italy, Spain and Portugal, define the idea of the "modern rural".

Through the recognition of the values and characteristics of the rural dwelling and its relationship with the open space, it is important to study some modalities of rural settlement in history to define possibilities of composition and alternative density. This exploration evaluates contemporary case studies to elucidate dynamics between significant cities and rural developments.

1.3 Methodology

The research method is based on the development of cognitive strategies for future reimaginations; this approach conveys a desire to seek an ordering principle where classification and selection serve as tools for controlling and defining the research thought.

The research method provides a critical awareness of selected contexts, establishing tools for applying theorical principles in urban design, fostering the debate on this relevant topic and architectural transformation frameworks for future perspectives. The holistic approach addresses complex issues, making research current

and operational. The study is being carried out by matching coordinated modalities of investigation, such as an international urban analysis, exhibitions, lessons, books, understanding of the topic's significance. Bibliographic research and drawing sources establish contextual frameworks for a better understanding of the problem. Selecting historical examples and analyzing contemporary case studies involves continuous comparison. Many architectural studies and research have been focused but very few of them have gone into depth on the compositional features. Emphasis is given to the redrawing phase, which has been used as a tool for testing and studying the original intents of the projects in their transformations and to uncover hidden details and understand architectural typology and urban morphology relationships. Subsequently, the research will be implemented by reconstructing the transformations and by recollecting a general comparative vision. This approach enables to underline different rural approaches, suggesting a trend of integration, listing among the expected outcomes a trend towards progressive integration between urban and rural, listing a possible loss of rural characteristics in favor of urban qualities.

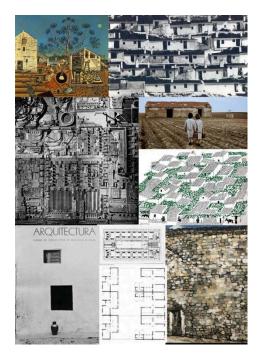


Fig. 02 *Genealogy of rural*. Composition of the author of different references. Miró J., La Masía (1921); Coderch, J. A., Photographic montage based on photos of some houses located on the outskirts of Madrid. (1961); Wright, F. L., Broadcre City (1935); Nivola C., Orani – Pergola Village, interiors, 112/ 6, january 1953, 84-85; Guttuso, R., II muro di Erice (1976); image taken from the film "El Espiritu de la Colmena" (1973); Arquitectura, Revista del Colegio Oficial de Arquitectos de Madrid (COAM).

2. In-depth study

Innovation and originality, current importance of the topic and applicability are fundamental aspects for research in architecture and this directly binds the study to the practice, never losing sight of the theoretical worth of the topic, as a mission to understand and develop social needs and values.

Urban expansion has reached the rural areas where historically peasant communities had settled; globalization has further increased urban sprawl, leading to the incorporation of rural spaces into expanding cities. This phenomenon determined the transformation of rural land into urbanized areas. Traditional distinctions between urban and rural spaces are new forms of living and interaction patterns emerging in the periphery of cities. The concept of urban periphery evolves over time, integrating once-marginalized rural areas into expanding urban landscapes. This shift prompts inquires into dual conceptions and the separation of traditional functions within metropolitan spaces. In the Mediterranean context, rural areas have emerged from and been shaped by consolidated cities, reflecting a model of social organization projected into the territory. Exploring ways of "inhabiting the non-urban contemporary" means questioning the relevance of these spaces today and how rural characteristics merge with urban environments. This allows to identify what

remains constant in the rurality and providing critical awareness of the choices made during the study phase of the selected contexts and projects.

Tracing the origin of the word is essential in understanding the problem's relevance. The adjective "rural" originates from the Latin "*rus*" meaning countryside, in opposition to "*urbs*", city, implying rusticity and simplicity. Rural architecture is linked to communities, tradition, landscape, and agricultural economy. While rural is commonly associated with agriculture, its scope extends to involve social dynamics and territorial aspects.

Referring to Pagano's studies, rural architecture embodies construction essential to necessity, rooted in a universal character that reveals through abstraction and expressive essence. This architecture exemplifies authentic functionalism and modernity, addressing human needs while also seeking profit and progress. The culture of the "rus" does not constitute a leftover because it measures the culture of the countryside.

In this context, the aim is to identify the paradigms of rurality to define which elements may belong to this group: quality space models are delineated through aggregation of these characteristics. After this analysis, the study leads to a breakdown of the principle of rural settlement, enumerating the categories which define the components for the definition of a rural architecture: the low density and consequently the distance between the buildings, the relationship with the infrastructure, the morphological structure, the architectural types of settlement, the relationship with green and open space, with the agricultural system, the relationship between private and public space. This aspects describe the rural territory through a design analysis that interprets theoretical premises in relation to a possible strategic definition of rural territory, defining possible ways to articulate this combination.

The analysis is therefore carried out with reference to some exemplary historical extrapolations of urban-rural settlements, which highlight the beginning of a concern for the control of territorial processes, with the awareness of the impossibility of addressing urban problems without considering a wider scope of the city. These investigations are referred to the general principles for establishing transformations and improving rural spaces: in Italy, the colonization of the Agro Pontino and the Sardinian cities, and in Spain, Franco's cities, which, despite their similarities, they differ in social, cultural and local aspects.

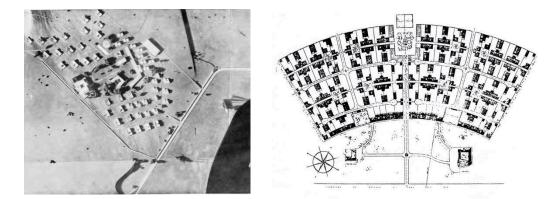


Fig. 03 and 04: Luigi Figini and Giorgio Pollini, Piano di Borgo Porto Conte (Alghero), 1951-1953; I.N.C. Alejandro de La Sota, Esquivel, Sevellia, 1952.

The study identifies a gap in re-reading and redesign, particularly in understanding the relationship between typology and settlement, morphological dimension and density issues. Historical examples form the basis for analysis of rural settlement modalities in comparison with contemporary case studies. The research conducts analytical investigations on an urban and architectural scale, exploring the "urbanizing the rural" and "ruralizing the urban" complementary and equally balanced concepts, through examples and case studies.

Subsequently, the analysis proposes a study on urban transformation models, beginning with the concept of rurality and references to several emerging cases selected for the analysis, focusing on urban expansion interventions with rural features. The case studies mentioned can be divided into two groups: the first one includes interventions on metropolises with a particular relationship with the rural, the second includes a smaller dimension in which this aspect is explicit. In the first group can be counted the example of the Aniene Garden city in Rome, the Banco Urquijo Residential Building in Barcelona (Coderch). On the other hand, the

second group counts: Coderch and Valls' Viviendas en las Forcas in Sitges (1946), the Borgo La Martella in Matera, the Villaggio Matteotti in Terni (De Carlo).

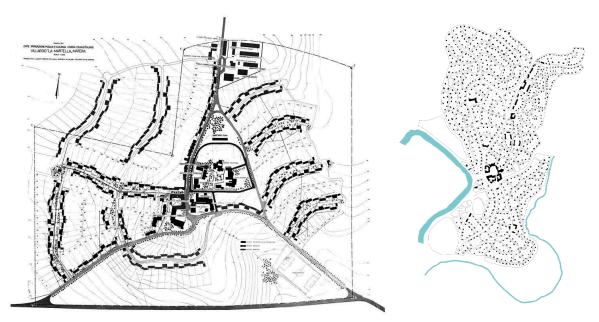


Fig. 05 and 06: Ludovico Quaroni, et al., Borgo La Martella, Matera, (1952-1954) - Gustavo Giovannoni, Città Giardino Aniene, Roma (1924) – redrawing of the original project

Starting from this study, the aim is to select specific typologies and settlement patterns typical of rural areas as alternatives to urban settings. This involves the definition of their characteristics with reference to the territory, in this case the expansion areas of Barcelona and Rome. These cities are chosen due to their sensitivity to this issue and their historical references, facilitating comparison with earlier examples. These areas, constituted by a constellation of cities in the expansion around their center, where the rural aspect is urban, are studied in the rediscovering of their relationship with the territory and identity. The analysis also examines the possibility of integration of urban and extra-urban areas from a compositional perspective. In the case of Rome, the expansion dimension offers various approaches: understanding the urban composition, building arrangement and hierarchy of aggregations is crucial. The example of the Aniene Garden city or other urban interventions relevel their theoretical significance as urban elements and impermanence of these aspects. In Barcelona the fusion of urban and rural is explored in areas where the density and the urban-peripheral boundary intersect, blurring the distinction between urban and non-urban, for example in Saint Just Desvern or El Prat Llobregat. The study raises questions about limitations, integration, and definition. In Barcelona, a new model of urban expansion prevails within the metropolis and the broader city-region context, driven by globalization's territorial expression favoring urban sprawl. This has led to the development of new economic activities, infrastructure, and decentralization of functions from medium-sized and small cities. The concept of the rural-urban continuum illustrates reciprocal relationships between urban society and surrounding rural areas in diffuse urbanization. Barcelona's central nucleus continues to expand, creating an extensive and continuous metropolitan applomeration in a dynamic and complex regional context. The polycentric urban development model is structured around the central area, with a dual reference focusing on urban redevelopment of outlying areas and coastal peripheries, alongside a multicommunal agglomeration of urban centers. This network organizes cities and territories, embracing compactness and landscape. Progressively, making the territory attractive in a contemporary context involves exploring new residential models, activities, sustainable mobility forms.

These reflections lead to the concept of peri-urban, a contact zone between traditionally opposing rural and urban areas, recognizing rural space dynamics in transforming traditional rural areas. The *diffuse* city represents a structured diffusion between medium and small cities, integrating various urban components and expressing territorial and social fragmentation. On the other hand, *rururbanization* emerges as a phase where rural areas transition to urban functions, losing agricultural components in favor of urban characteristics. This shift is accompanied by the introduction of urban facilities and activities. The discussion explores how

territorial plans can inspire the development of rural nucleolus, particularly in envisioning contemporary contexts.



Fig. 07: Sant Just Desvern area, Barcelona

3. Conclusion

This investigation aims at relating the historical-theoretical aspect with the practical one of design to understand the role of architecture in the observed transformations and in the understanding of the principles of rurality, defining different approaches through the reading of these models. Permanence is the basis of a process of mutation and transformation.

Reflecting on these case studies reveals significant conclusions in a possible future vision. The rural territory is complex and diverse, characterized by intricate dynamics and subjective perceptions shaped by social and cultural factors. While rich in individuality and heritage, rural areas also exhibit dysfunctions, impacting their attractiveness as living spaces. The recent pandemic has prompted a reevaluation of urban qualities, leading to increased interest in rural areas and migration shifts. This demands a revision of rural paradigms and architectural language for territorial rebalancing. While integration between rural and urban contexts is possible, essential rural features like agricultural work may be partially lost in the process. The result in both rural and urban development is the approach to the topic of periurban, where rural and urban areas are integrated and play complementary roles, providing guidance for future research and interventions and showing expansion paths, methodological references and skills needed for this purpose. This problem emerges as a significant process of spatial transformation for a growing population, fundamentally altering urban forms in a regional scale shift. Efforts are made to determine whether integration methods can reconcile the fractured relationship between the city and the territory, in which the typological mix inherent in urban communities plays a crucial role in establishing identity points for a community. In this broken relationship, the "rural" point of view is a privileged setting in which to observe behaviors and evolutions of urban life. All the quality aspects can be the basis for some proposals of compositional features to determine settlement principles. The dimension of the rurality characterized aspects of history and society, morphological structures of the territory, developing also with the development of infrastructure. In this context, the shape of "anonymous" architectures is built by adaptations, feeds on the changes of history and retains a character of timelessness and permanence. The architect's task at this time is the realization of a living space, with a human value, pursuing adherence to needs and a renunciation of the superfluous. It is fundamental to reconnect with a reality that is the result of sedimentation, tradition and plurality of expressions.

Rural environments, therefore, emerge as contexts that are sensitive to the ongoing processes of change, contributing to an extended urban sense that distinguishes them and requires them to find their own characteristic elements within the confines of a dialectical relationship in the essentiality of the elements of a non-predetermined order.

Therefore, the analysis seeks to highlight the relevance of this subject trying to define urban and not urban through new compositional principles. It is relevant because it puts a significant problem at the forefront and it sets various disciplines at the center of the topic, also to understand how the territory has changed over time and why the issue of rural in a system of uncertainty is a way to re-depend on those permanencies. Considering that things are changing rapidly, it is necessary to find a permanence in the structure of the territory and in the architectural language. Probably, there will be a loss of the original rural characteristics and the focus will be on the urban quality that these phenomena bring. However, all this goes to demonstrate the lack of borders, divisions between architecture and urbanism, just as there are no divisions between the city and the surrounding region: a correlation between them is necessary and it can be found embracing a future vision by revisiting the original conception of these primary settlements.

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