

# Architectural Materials between Rural and Urban Models of Settlement Principles in the Urban Transformation

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*Lede:* TThe article focuses on the relationship between urban and rural in architectural transformations. It demonstrates through an analytical process the transposition of the characteristics of rural architecture into urban expansions

Urban and suburban expansion has led to the incorporation of the margins of cities and rural centers, determining an inconsistent architectural lexicon. This issue has become increasingly common, both because of the overcrowding of the city and, on the other hand, because of a progressive focus on rural areas following an escape from the urban. Both aspects respond to a social problem, especially related to the pandemic crisis which highlighted the inadequacy of widespread settlement models to fulfil the diverse ways for people to live and to inhabit the space, also increasing the progressive awareness of the environmental effects on the transformation of cities and territory. For these reasons rural areas are now regaining more visibility. It is therefore clear the need to explore this issue from the point of view of either an alternative to the urban or in a progressive global urban continuum, to define ways of a possible integration. From the compositional point of view, this ambivalence outlines the relevance of a doctoral research in architecture. In fact, all these issues directly bind the research to the practice, never losing the vision of the theoretical value of the topic, as a mission to understand and develop social needs. More specifically, 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. The research is being carried out through an analogical and comparative methodological investigation among a collection of examples of transformations starting from the category of rurality in urban changes. The paper inquires the relevance of the thesis underlining the values of settling principles. In this way, it is possible to focus on the importance of the practical and theoretical section of the research responding to social changes. This research tries to go beyond a generic vision studying the ways in which typological elements fit into the urban aggregation, questioning the sense of these spaces today and the ways in which the characters of rurality become part of the city. This method of research provides a critical awareness of the selected contexts, establishing tools for applying theorical elements. Through this analysis it is possible to point out the importance of a qualitative approach, fostering the debate on this relevant topic for contemporary studies and suggesting a possible reading key, a formal method in architectural transformations, to open up to future experimentations.

### 1. Introduction

Invertire lo sguardo. Guardare all'Italia intera muovendo dai margini, dalle periferie. Considerare le dinamiche demografiche, i processi di modernizzazione, gli equilibri ambientali, le mobilità sociali e territoriali, le contraddizioni e le opportunità, per una volta all'incontrario (De Rossi 2018)<sup>1</sup>

Shifting the glance, looking at the margins, moving the borders, 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. It is possible to understand the characteristics of rural settlements that could be integrated in an urban expansion.

The term rural as opposed to urban is introduced into this research with the aim of reversing the perspective where the attention is primarily on the city. The focus is on those architectural elements whose typological character provides for an aggregation of function in relation to open space. The definition of rural is the starting point of this process. Rurality is seen as a way to understand the essential structure of architecture in its principles, functionality, spatial experience, transformations and its basic language is studied in the relationship between form and function. 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. It is based on an anthropological research of the essentiality of architecture which demonstrates the permanence of these issues and characters over time through analysis that can highlight aspects not yet fully addressed. 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. In both cases, what are the architectural elements which can be maintained in an urban transformation?

The research aims to investigate alternative settlement methods to the urban model, starting from the identification of the sense of living the non-urban contemporary, to understand possible developments taking into account dispersion or concentration trends and to propose a principle of transformation. In this way, it is possible to focus on the importance of the practical and theoretical aspects of the research, responding to social changes on human and territorial scale. The analysis tries to go beyond a generic vision studying the ways in which typo-morphological elements fit into the urban architectural landscape and in the urban aggregation, questioning the sense of these spaces today if the characteristics of rurality should become part of the city. This method of research provides a critical awareness of the selected contexts, establishing tools for applying theorical principles, pointing out the importance of a qualitative approach in urban design, fostering the debate on this relevant topic for contemporary studies and suggesting a possible reading key in architectural transformations, to open up future perspectives.

## 2. Actuality of the Topic and Critical Synthesis of Literature

Depopulation and overcrowding are two opposite and complementary realities which demonstrate territorial imbalances: the population distribution is linked to the country-city duality and the concepts of concentration and dispersion. A critical look at these problems enables us to reflect and make suggestions for possible strategies. Undoubtedly, a look from the territorial mosaic city concept makes it possible to implement new articulated structures that can result in a more interconnected scenario to channel these imbalances. 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 the territory.

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. This aspect has led to the rediscovery of the values of rural areas. While researching this aspect, it is possible to understand the direction of the architectural composition not regarding the consolidated city or its margins but changing the perspective to define ways of a possible integration. The transformations of rural areas are the subject of renewed attention due to a search for answers to alternative needs to urban models and it involves the deployment of an interdisciplinary approach with references to the local and territorial scale, taking into consideration the social and anthropological relationships within the transformations of existing when planning in the future.

Even though in 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 become more important also from the point of view of the environmental and climate crisis. Studies in reference to the rural "regional" look at many realities, but this one attempts to give a more organic, aware vision of possible differences and affinities, in a European context as a physical margin. Europe has included among the main objectives of the development of cities the relationship between town and country, as well as promoting Community agricultural policies and a wider programme such as Horizon 2020. Currently, the debate of policies which focuses precisely on the recovery of this heritage is both significant and very active. The PNRR and also the research areas related to the current topic are mainly related to revitalization, ecology and sustainability.

In an emerging framework of discussion, research on the topic concentrates mainly on these phenomena, with regional variations. It is becoming more and more important the need to make a point of what is affecting some areas, as well as cataloguing existing rural heritage and collective and social action. Other research focus on mainly historical themes, in particular relating to the process of de-urbanization which occurred during the dictatorial phases in Italy, Spain and Portugal, defining 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. The relevance of these "historical" examples is fundamental for analyzing the situation today through the choice of contemporary case studies.

# 3. Methodology

The research is being carried out by matching different and coordinated modalities of investigation, such as an international urban analysis about the topic, exhibitions, lessons, books. All these aspects have helped to understand in which way and why this issue is becoming quite primary at this moment in time.

The first stage of the research was carried out in libraries searching for reference and bibliographic sources and in archives looking for the original drawings in order to set up a stable contextual framework as accurate as possible for a more precise and comprehensive understanding of the problem. The literature is wide and varied, and it was fundamental to choose the right bibliographic reference to gradually enrich and build a guideline for research. Secondly, the research follows a practical methodology, based on analysis carried out by drawings. Many architectural studies and research have been focused but very few of them have gone into depth on the compositional features. Thus, a key role is given to the redrawing phase, which has been used as a tool for testing and studying the original intents of the projects chosen as examples and cases study in their transformation. Redrawing of the original project follows, in order to grasp any hidden details not deducible from the first one and to have a better comprehension of the original intent concerning the relationship between architectural typology and urban morphology.

Subsequently, the research will be implemented by observing and reconstructing the transformations and by recollecting a general comparative vision. After combining the matrices, solutions are proposed, in order to understand what has happened and what could happen.

In this way it is possible to propose different approaches to rurality through the reading of models, listing among the expected outcomes a trend towards progressive integration between urban and rural. Probably, there will be a loss of the original rural characteristics and the focus will be on the urban quality that these phenomena bring in the spread of an urban and their influence. The contribution takes into account a holistic approach, necessary to address complex problems and capable of making research current and operational.

### 4. In-depth Study

Innovation and originality in response to social problems and current debates are two of the aspects which nowadays define the relevance of a doctoral research in architecture. It is also important to refer to the originality but also to the current nature of the research, the applicability, and the consideration of the problem as an aspect "to be solved". This directly binds the research to the practice, never losing sight of the theoretical worth of the topic, as a mission to understand and develop social needs and values.

The purpose of the study is to investigate the relationship between consolidated cities, cities of expansion and alternative urban expansions in Europe, through the search for compositional principles of elementary settlement between architectural lexicon and urban plan, to understand possible developments with respect to dispersion or concentration trends, in accordance with social, formal, typological and topological changes and demonstrating the possible permanence of these characteristics. Through this paper, I would like to define the problem as a formal reference in which I am looking for its formal expression.

Searching for ways of "inhabiting the non-urban contemporary" means questioning the sense of these spaces today and the ways in which the characteristics of rurality become part of the city. 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. It orientates the survey to the definition of the continuity with the past in future construction, examining the settlement dimension and the relationship with the methods of inhabiting the territory. In this way it is possible to enumerate among the expected outcomes a tendency to the progressive integration between urban and rural, with a probable loss of the original characteristics of rural life.

Through the definition of a "genealogy of the rural" (Figure 1) it is possible to summarize the set of inspiring ideas for a background, a collection of images and projects, related to the idea of "rural". Rural is "the white between the dots"<sup>2</sup>, rural is synonymous with marginality, disadvantage, dependence, which presents itself as the opposite pole to the principle of agglomeration. An important first step to define the relevance of the problem consists in analyzing the definition of the term and its etymology, from which emerges a vision of rurality as a sort of "escape route" from the chaotic city. Commonly used as a synonym for "agriculture", the term "rural" has a more extensive meaning: while the term "agriculture" is, in fact, more used to indicate the activities inherent in the cultivation of land and the breeding of animals, the term "rural" also embraces the social sphere and the territory. Rural architecture is in fact, in its definition, linked to communities, tradition, landscape, as well as to the agricultural economy. The term rural as an adjective opposed to urban is introduced in this research with the aim of reversing the perspective with respect to the primacy of attention to the city, focusing the interest on those elements of architecture where typological characteristic provides an aggregation of functions in relation to the open space at the beginning of this analysis. (Figure 2) Referring to Pagano's studies, rural architecture represents the expression of the construction in the essential of necessity. They are characterized by a universal ratio of order opposed to the disorder of architecture. Pagano finds the "reason" of rural architecture in the permanent condition as a character of universality that will substantiate in a process of abstraction, linguistic reduction, expressive essence. This kind of architecture testifies models of authentic functionalism and modernity which also inclu-

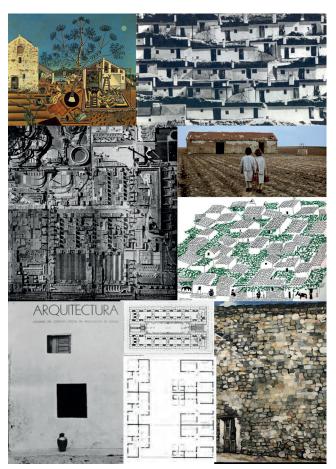


Figure 1: Genealogy of rural. Composition of the author of different references. Miró J., La Masía (1921); Coderch, J. A., Photographic montage based on photos of some houses located on the outskirts of Madrid. (1961); Wright, F. L., Broadcre City (1935); Nivola C., Orani – Pergola Village, interiors, 112/ 6, january 1953, 84-85; Guttuso, R., Il 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).

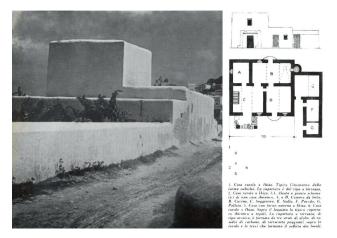


Figure 2: Photo and typological plan of a popular architecture in Ibiza. In: Moretti, L. (195, July-August). Tradizione muraria a Ibiza, Spazio, 5, 35-42. Retrieved from: arti.sba.uniroma3. it/rivistaspazio/.

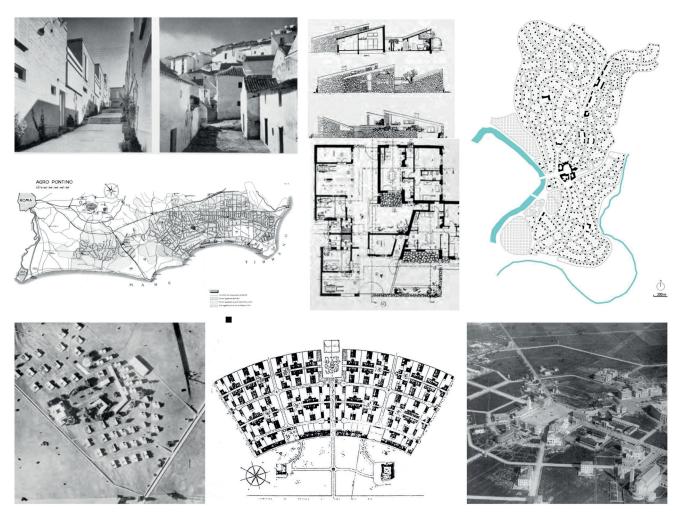


Figure 3: 1. Street between row of houses; in comparison: typical Spanish village street., Spanish Architektur und Kunst, June 1962. 2. General plan of the colonization of the Agro Pontino. Leujeune 2016, 178. 3-4. Luigi Figini and Giorgio Pollini. Piano di Borgo Porto Conte (Alghero) 1951-1953. Revista Nacional de Arquitectura, n. 188 (agosto 1957) 5. I.N.C. Alejandro de la Sota. Esquivel, Sevilla, 1952. 6. Redrawing of the original project of the Aniene Garden City by G. Giovannoni. in Bianchi M., Ogliani E., Città Giardino Aniene. A persistent experience of quality in urban design, in ISUF 2022 7. View of Littoria (now Latina), 1934. Archivio fotografico TCI

de the search for wealth to profit and progress, interested in human needs.

After presenting the definition of rural and the starting reflection, the thesis is structured by carrying out the effort to define what is the category of "rural" according to the categories of architecture. This leads to a breakdown of the principle of rural settlement. The categories which define the components for the definition of a rural architecture are 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; the artifacts are studied through these aspects, elements through which the category of rurality is read and which defines the permanence of the rural. Starting from these considerations, it is likely to define the quality models of space starting from the rurality, trying to understand the ways of aggregation of the different characteristics to outline "matrices" and "combinations".

After this classification, the research is aimed at carrying out an analytical investigation on an urban and architectural scale, through the study of the double point of view "urbanize the rural and ruralize the urban" in some examples and case studies. Referring to the studies on rural architecture in Europe and worldwide and to the state of the art, we must say that the transformations of rural areas are the subject of great attention in the emerging framework of discussion: there are studies of cataloguing the existing rural heritage, collective and social visions, analysis of the process of defining neo-rural areas with respect to metropolitan borders, studies of the conversion of rural structures into tourism, in addition to fundamental historical ones. An important reference is Rem Koolhas's study: "Countryside. The future", although it is claimed that increasing urbanization is inevitable. The exhibition explores something that until now is little explored, or changes in rural areas through a collection of old and new ideas that aims to rediscover the dynamics of the rural environment. It is therefore important to emphasize that this exploration is in continuity with these intentions, conducted through an analogical and comparative survey in which the critical redesign of the cell type in relation to the urban structure constitutes the fundamental analysis method to understand such relationships. Further research focuses on mainly historical themes, in particular relating to the process of de-urbanization occurred during the dictatorial phases in Italy, Spain, Portugal, defining the "modern rural", straddling the ideal reality and built reality composed of significant cities and rural developments.

With reference to some historical examples that must be studied, analyzed, and broken down, the research is being carried out through an analogical and comparative metho-

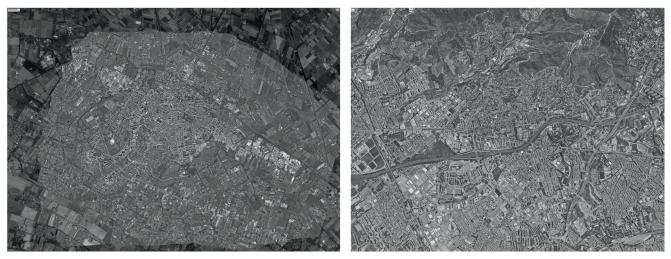


Figure 4: The city of Latina and Sant Just Desvern (Barcelona). Google Maps.

dological investigation. The examples are analyzed from the point of view of urban settlement and architectural language. The historical ones count: the colonization of the Agro Pontino, in particular Latina, Sabaudia, Pomezia, the case of the Sardinian cities, Carbonia-Arborea-Fertilia, Franco's cities in Spain in particular, Poblenou del Delta – Sucs - Gimenells and Colonias Agricolas in Portugal. (Figure 3) These examples, similar but however very different for social, local, cultural aspects, are taken as a reference of urban installations of a rural character and are studied from the point of view of their historical meaning, urban plan and housing typology. These cases have already been extensively studied but it is possible to read them in a way that may be useful for interpreting some aspects not been studied from this point of view. There is a gap in the re-reading and redesign, in the study of the relationship between type and settlement, between cell and urban structure, studying the morphological dimension and settlement, to understand how they structure and are structured and what is important considering density as a fundamental issue.

The fourth part proposes a study on urban transformation models starting from the category of rurality and the references of the examples mentioned above, proposing a subsequent analog-comparative study between the contemporary case studies. It was decided to propose some emerging cases about the issue on which to focus, or exemplary urban expansion interventions that contain features of rurality. These are useful to understand and analyze the differences between them and, above all, to understand what it connotes, what differentiates urban and rural. These cases are: Città Giardino Aniene, Rome (Giovannoni); Banco Urquijo Residential Building, Barcelona (Coderch); Barbican Center, London; Villaggio Matteotti, Terni (De Carlo); Siza, Intervento SAAL, Maugueira, Evora (Siza).

This comparative study made by bibliographical collection, archival research, systematic survey and graphic elaborations, is essential to retrace the origins, the transformations and the excerpts of the original situation in the role of the house in relationship with the private and public external area.

The choice of these cases is due to a selection of cities and areas in Europe that are currently more sensitive to this issue and to which previous historical examples also refer, with respect to which it is possible to compare all the features mentioned before. The choice related to some preferential areas of study with respect to which the author has been closer from the point of view of studies and research and believes that they may be hybrids that can prove this thesis quite well.

It is precisely the relevance of the historical examples the basis for analyzing and defining some modalities of rural settlement in a comparison with contemporary case studies. Moreover, the hypothesis of the areas of application of this fusion between urban and rural considers two areas: the city of Latina, an isolated urban plan in its relationship with the rural context, and one or two areas in Barcelona: Saint Just Desvern or El Prat Llobregat where is possible to analyze density on the limit of urban peripheric area, between urban and non-urban read in the relationship with the rural environment. (Figure 4)

#### 5. Conclusions

The research objectives are aimed at linking the historical-theoretical aspect with the practical ones of design, defining an operational indication and understanding the role of architecture in the transformations.

The detailed study of these examples will lead to a comparative vision through which it will be possible to confirm or not the hypotheses that have been carried out in this article. I think that this integration is possible but that some of the features which define the rurality in its essentiality, as the ones linked to agricultural work, will be partially lost in a possible integration with the urban context.

In the past decades, I have noticed that while much of our energies and intelligence have been focused on the urban areas of the world—under the influence of global warming, the market economy, American tech companies, African and European initiatives, Chinese politics, and other forces—the countryside has changed almost beyond recognition. The story of this transformation is largely untold (...). (Office for metropolitan architecture, 2020)<sup>3</sup>

Starting from a different point of view means understanding how architecture is possible today both outside and in urban expansion. This is a privileged setting in which to observe behaviors and evolutions of urban life, a sort of incongruous stage from which to distill information for the future of the cities. All the quality aspects should be considered with respect to the analysis made and they can be the basis for some proposals of compositional features to determine settlement principles. The result in both rural and urban development is the approach to the theme of periurban, where rural and urban areas are integrated and play complementary roles, providing guidance for future research and interventions and showing development paths, methodological references and skills needed for this purpose. The dimension of the rurality characterized some 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, collects memory but at the same time retains a character of timelessness and permanence. "No son genios lo que necesitamos ahora"<sup>4</sup>, the architect's task at this time is not to create a special architecture, but the realization of a living space, with a human value. Architecture can develop genuinely, without genius, following the union of knowledge and techniques, pursuing adherence to needs and a renunciation of the superfluous, seeking essentiality. It is fundamental to reconnect with a reality that is the result of sedimentation, tradition and plurality of expressions and with the idea of the "fence" as a "founding act" of the home and the city, proposing a model of urban and territorial transformation with respect to the canons of rurality.

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.

Therefore, the analysis seeks to highlight the importance of this subject. Its relevance derives by the consistence with current needs and topics, but at the same time from the effort of 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 puts various disciplines at the center of the topic, also to understand how the territory has changed over time and why the issue of rural, of returning to the princes in a system of confusion and 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. This thesis therefore seeks to respond to the definition of architecture as both a social and technological aspect as well as a formal problem. The study underlines what architecture can do in reality facing these problems, looking for possible formal rules and trying to find answers from the questions the paper started with.

#### Endnotes

1. "Reverse the gaze. Look at the whole of Italy moving from the margins, from the peripheries. Considering demographic dynamics, modernization processes, environmental balances, social and territorial mobility, contradictions and opportunities, for once". (De Rossi 2018).

2. Sotte, F. (2016). Scenari evolutivi del concetto di ruralità. Proposte e ricerche, XXXVI/71, 122-144.

3. Office for metropolitan architecture, 2020. Introduction

4. "It's not geniuses what we need now." (Coderch, 1961).

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