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Landscape quality of farm buildings: The evolution of the design approach in Italy

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ABSTRACT

Rural buildings have undergone deep changes with the historical transition from traditional agriculture to industrial society. This paper discusses these trends in Italy, focusing on major changes in agriculture, design approach, and land-use planning, referring to some regional cases and relative building typologies. The analysis of the main historical treatises on the subject of farm building design allowed us to evaluate how the evolution of the technical approach influenced the architectural quality of rural buildings. This latter was traditionally based on a close relation between aesthetic values, functionality, and simplicity, broadly acknowledged only recently, as shown by the loss of landscape integration of farm buildings constructed in the last decades. By analysing the processes of reuse of historical buildings and construction of new farm buildings, we have found out different and time-evolving ways of referring to rural heritage and identity. In some cases, they have been considered important references, even through typological evolution aimed at combining traditional values with new needs and available techniques. In other cases, old farm buildings have been considered unsuitable things of the past, or rather have inspired new constructions based on an idealized and mystified concept of rurality. Since landscape integration of rural buildings plays a crucial role in the EU concept of agriculture, the choice of architectural quality postulates to be adopted for the design of new rural buildings is a key theme. Both consistency with pre-industrial tradition and typological discontinuity must necessarily consider consciously the relationships with historical buildings, whose important values have increasingly come to the fore over the last years. Once consistency with historical farm buildings is assumed as a design postulate, contemporary interpretation of traditional typologies through modern building techniques is a very challenging and topical field of study. Various degrees of consistency with traditional typologies are possible. Therefore, this approach calls for the development of analytic and metadesign methods aimed at decomposing rural building typologies into their essential physiognomical features, allowing designers to modulate them to meet ever-changing requirements.

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1. Introduction and aims

It is well known that various economic, social and technological driving forces play a crucial role in shaping the landscape mosaic. They have effects both on the settlement system and non-built tesserae. Focusing on the countryside, farm buildings contribute essentially to connote the overall landscape context, and at the same time, clearly embody the effects of the above-mentioned driving forces, given their functional and spatial relations with agricultural production and various resources and processes of agroforestry systems.

The work of designers – or rather constructors, referring to the empirical evolution of historical farm buildings – has always aimed at combining agricultural production needs and functional requirements with various constraints on the basis of available knowledge, thus pursuing a fragile and dynamic trade-off balance. In particular, aesthetical features and architectural quality of rural buildings represent crucial issues, since they deal with conscious interpretation of cultural and landscape contexts, besides socioeconomic and technological issues already mentioned above.

Rural buildings have undergone deep changes with the transition from traditional agriculture to industrial society, due to the evolution of all the above-mentioned contexts, whose joint effect outlines the field of action of creation of rural architecture. This paper aims at discussing such evolution in Italy, through the analysis of the main historical treatises on the subject of farm building design. We focus on changes in architectural features in relation with main trends in agriculture, design approach, and land-use planning (Fig. 1). We consider both farm buildings and rural houses, in mixed-function forms, in most cases typical of the

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¹ Daniele Torreggiani set up and carried out the research and the analyses and wrote the text.

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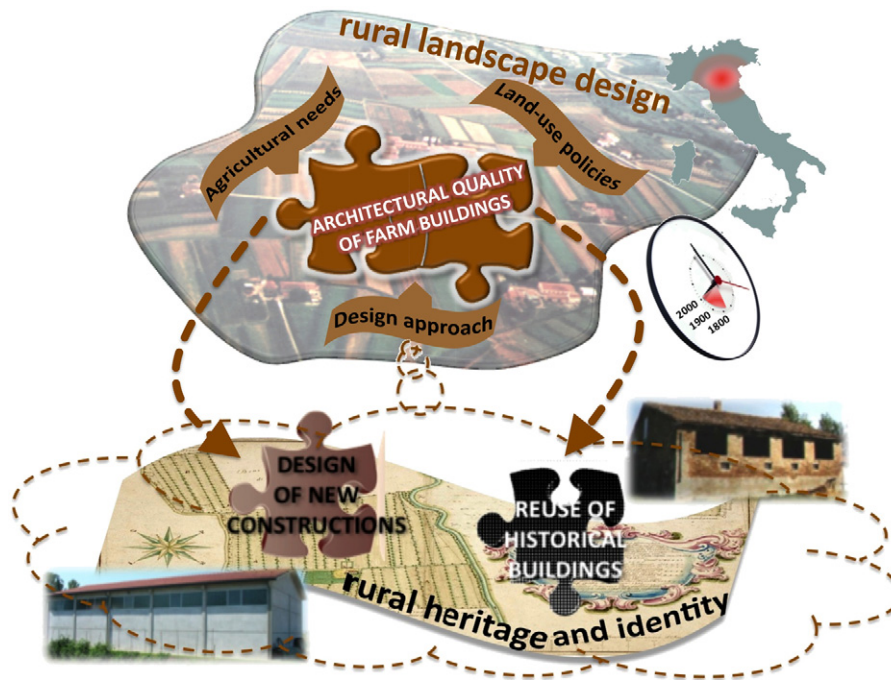


Fig. 1. The structure of the work at a glance: both reuse of historical buildings and construction of new farm buildings and their relationships with rural heritage and identity influence architectural quality.

historical building heritage, as well as specialized forms, which have become widespread after industrialization.

2. From traditional to modern agriculture: impacts on the landscape pattern and built system

The study of the evolution of rural buildings must first of all refer to major changes in agriculture and rural landscapes. Given the theme under discussion, we necessarily need to refer to a certain time span, suitable for the goals of the study. After World War II, those landscapes which in the previous four centuries had undergone deep but gradual changes started experiencing the first signs of what we may define a break, which anticipated more recent well-known discontinuous trends in agricultural techniques and management systems, and – more generally – in landscape [1–3]. We thus mainly refer to the 20th century, since it proves the most interesting period in relation to the above-mentioned discontinuities. The ultimate decline of traditional agricultural society and the gradual but rapid development of modern industrial society prove fundamental milestones in the evolution of Italian agriculture, as regards its crucial contribute to the definition of the current rural landscape mosaic. However, our discussion also refers to those architectural and functional characteristics of rural building typologies, which evolved earlier. They still nowadays prove meaningful, given the heritage and identity values of well-preserved settlements and landscape signs.

Even within the Italian context, which represents our general reference in this paper, agriculture is broadly varied. Landscape itself represents the most exhaustive result of such structural and processual articulation. Thus, apart from those macroscopic aspects, which prove generally valid, referring to smaller geographic areas allows to pinpoint peculiar features. Therefore, below we will refer to some regional cases in north-central Italy, through examples and related graphic documentation, selected on the basis of the expertise of the authors, which have long studied theories and techniques of analysis or rural landscape and architecture, also in collaboration with local institutions. In those areas, historically

bound up with agriculture, after the decline and decay of the landscape mosaic driven by the political, social and economic contexts, during the Medieval commune age landscape was widely characterized by the so-called “piantata”, an ingenious system to make viticulture possible even in the low-lying heavy soil of the Po Valley [1]. The piantata consisted in a particular agricultural hydraulic arrangement based on the repetition of a module composed of two adjoining rectangular plots of land, 80–120 m long. Convexing allowed water to drain from longitudinal central lines towards ditches along longer sides of each plot. The smaller plot of the module was 4–5 m wide and was used for vine cultivation. Vines were sprawled over rows of trees (elms, maples, mulberries. . .) which were planted along the longitudinal centre line of the plot. The largest plot, 25–35 m wide, was used for cultivation of herbaceous plants. The above-mentioned longitudinal ditches along longer sides of each plot of land channelled water into a transversal main ditch along shorter sides of plots (Fig. 2). Main ditches, in some cases, flanked headland access paths [4]. This cultivation system was also closely related to other important agricultural activities, such as sericulture (leaves of mulberry trees used to support vines were used to feed silkworms) and cattle breeding (vegetal residuals from those trees were used to feed cattle). Moreover, pruning residuals allowed farmers to obtain firewood for heating rural houses. This cultivation system gradually evolved in the following centuries. It reached its maximum extension in the 19th century, and remained stable until the mid-20th century. Afterwards, an incessant need to reduce the costs of agricultural activities led to a widespread increase in mechanization and cultural specialization and to a decline of traditional crop rotation. Such modernization of farming techniques has caused deep changes in the way of life of countrymen, and the abandonment of traditional use of wood for heating houses and sericulture, thus leading to a progressive decline of the piantata. This system in some contexts was still well preserved at the end of the 1960s [5] (Fig. 3, referred to an area close to that depicted in Fig. 2, shows how slight changes occurred over a period of more than two centuries); however, it had been rapidly disappearing since the 1970s. Fig. 4 clearly shows major changes, which occurred over the following decades. Among the

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