



The development of the flour-milling industry in Spain: analysis of its historical evolution and architectural legacy

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Abstract

The second half of the 19th century, along with the first three decades of the 20th, saw the building of hundreds of flour mills in Spain, all based on new milling and sieving machinery developed after the industrial revolution. Unfortunately, very few of these early mills are now in use: most have disappeared, and many of those that are left have been abandoned. The present work examines the growth of the flour-milling industry in Spain from the mid-19th century, and discusses the typology, design and constructional features of its associated buildings. The information presented is the result of the study of a representative sample of these mills in central Spain, and could serve as a basis for the conservation, rehabilitation and reuse of this important agroindustrial heritage.

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Buildings are physical expressions of the history, culture, technological level and way of life of a territory. From its origins, in the 1920s, cultural geography has scrutinized architectural forms and building technologies in one way or another. Early work in this vein was carried out by Carl Sauer (1889–1975) and some other American cultural geographers, who privileged the material presence of vernacular buildings to look for relationships between the evolution of architectural styles and other folk or cultural manifestations, such as agricultural technology, customs, dialects, etc.¹ For the last two decades, however, there has been an explosion of new approaches to the analysis of the built spaces and the interpretation of their meanings. Geographers Jon Goss, Loretta Lees, Mark Llewellyn and others highlight the multifunctional role of architecture and emphasize the need for a critical analysis of issues such as the globalization of architectural design, the symbolic value of buildings, the socio-political context in which they are erected and the influence that design exerts on the people who inhabit the buildings.²

This article focuses on the architectural characteristics of the flour mills built in Spain between 1850 and 1950. These were the earliest industrial buildings in the Spanish countryside and they had a significant influence in modernizing construction techniques in rural Spain. The paper also examines the technological and socio-political constraints that catalysed the emergence of these early industrial premises.

Wheat has long been an essential component of the diet of Mediterranean peoples – indeed, its processing for making bread has been of vital importance since prehistoric times.³ The arduous task of making flour by manual milling with rudimentary stone mortars or by the friction of two stones, eventually gave way to the use of animal traction systems. Thus came about the Roman mill, called *molla-asinaria*, which essentially consisted of two grindstones (one stationary and one mobile) moved by a mule, a horse or even a slave via a wooden structure.⁴ Later, waterwheels and sails harnessed the power of water and wind to move the grindstones, rendering mill-making a recognised trade. Water and wind milling

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