

TYPO-MORPHOLOGY TRANSFORMATION OF INDUSTRIAL ARCHEOLOGY IN TREVISO: FORNACE GUERRA GREGORJ AS AN EXAMPLE

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ABSTRACT

This paper studies the typo-morphology transformation of industrial buildings in Treviso area, based on Fornace Guerra Gregorj's extensions from 1840 to 1965, a historic brick kiln in the suburb of Treviso. As one of the first industrial site, the Fornace has been extended many times since its establishment, which had an important urban morphological significance. Its functions transferred from brick production to artwork production, the exquisite ceramic artwork brought important social and economic status, as well as international influence to Fornace.

After diachronic research, the author studies the transformation in the spatial form of buildings and sites during Fornace's several extensions, and the interaction with the industry building in the surrounding Treviso area. Based on the study of architecture typology, unique evolution processes are discussed. And from the perspective of functional transformation, the author analyses the distribution of the Fornace's production of art as well as the areas of artists activity, aiming to find the artistic value from the urban level. Finally, the author summarizes the renovation strategies as an industrial archeology, and the possibility of re-combination of industry and art.

In conclusion, the weaknesses and strengths of industrial archaeology are analysed by integrating the factors of architecture typology, urban morphology, and function transformation, which have certain reference significance for the formulation of renovation policies in other industrial area in the world.

Keywords: typo-morphology, industrial archeology, treviso

INTRODUCTION

With the advent of the post-industrial era, formerly glorious industries are becoming sites. The study of the transformation of industrial archaeology is typical of the large number of industrial sites around the world. This paper studies the typo-morphology transformation of industrial buildings in Treviso area, based on Fornace Guerra Gregorj's extensions from 1840 to 1965, a historic brick kiln in the suburb of Treviso. Fornace Guerra Gregor, as a representative of the many industrial buildings in Treviso, is a microcosm of an era. As one of the first industrial site, the Fornace has been extended many times since its establishment, which had an important urban morphological significance. After a theoretical and practical investigation of the changes in the industrial heritage of the whole region, we found that different individuals of the same type, as well as between the different types, have been able to create their own industrial heritage. The network of industrial heritage in the Treviso region is unique and has influenced each other. The study of the formation, development, variation and decline of the network is an important part of industrial archaeology.

BACKGROUND

Treviso is an important industrial town in the province of Veneto in the north of Italy, which began to develop gradually in the nineteenth century, due to the late arrival of the Industrial Revolution and the relatively late industrialization of Italy.

The industrial heritage is a material form that has emerged as a result of the economic and industrial restructuring of the city and is a worldwide phenomenon of economic development. Common phenomenon. It refers not only to the physical remains of sites, buildings, workshops, mechanical equipment, etc., but also to workers' dwellings, industrial and commercial premises. The landscape, the products, the technical and technological processes, and the history of the industrial society. The industrial complex of Treviso, after the completion of the production functions of the industrial era, has left behind a number of types of industrial buildings, factory buildings, and a number of industrial buildings. The machines, the intangible culture of the region and the intangible cultural heritage of the region have a very unique historical value.

Most of the industries of the Treviso region are focused on the primary processing of raw materials and are at a lower stage of industrialization, with the water infrastructure and the water supply. The main industries are mining, ceramics processing, brick kilns, agro-food factories and lumber mills. In terms of distribution, the industries are mostly located in rural areas far from the cities. Some of the factories are located near the source of raw materials, such as mining sites and water plants. Because of the distance from cities, the transportation of industrial raw materials and products is crucial, and the distribution of industries is highly dependent on water and road networks.

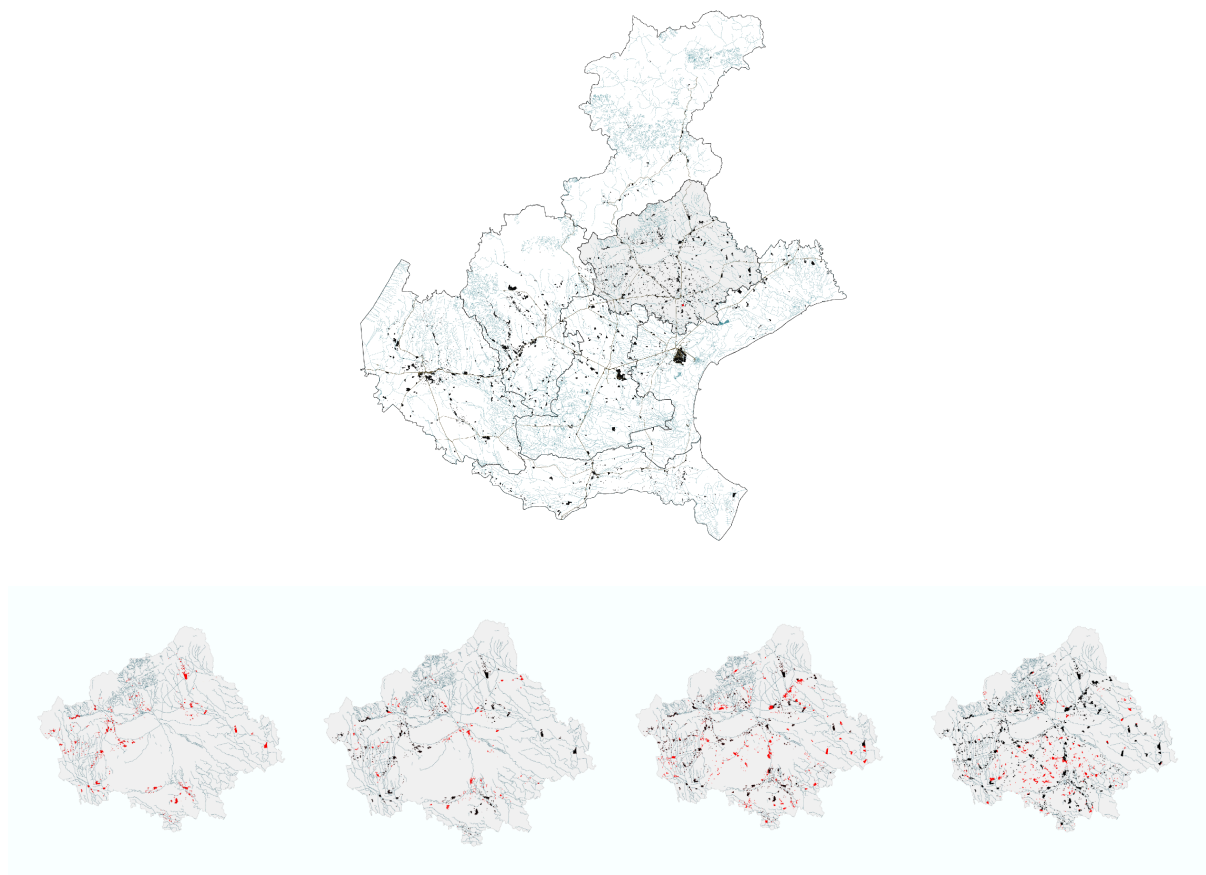


Figure 1. Distribution of industrial heritage and water networks in the Treviso region, from 18th century to 21th century

After nearly a hundred years of development, only a small part of the industrial areas in Treviso continued to produce. The majority of the industries, due to turnover and technological backwardness, close down and are abandoned, their relationship with the city slowly changes from production-consumption to relative isolation and even abandonment as wastelands.

Therefore, this paper explores the relationship between the change of architectural typology and the urban form, with regard to the preservation and reuse of industrial archaeology in Treviso. How the function of accommodation changes in the process of physical space change, and new ideas of revitalization.

METHODOLOGY

By analyzing the cities and extracting the types, we selected the cities in which the problems of industrial heritage conservation and utilization were identified. Selection of the representative Fornace Guerra among the many industrial archaeological projects in the Treviso region Gregorj, through a chronological analysis, examines the changes in morphological types and their causes during their development, as well as their industrial functions. Then, we analysis the special value of artistic interventions and explore the possibilities of the revitalization of industrial heritage with a heritage workshop. Finally, summarize the advantages and characteristics of industrial heritage reuse in the face of the crisis of industrial transformation.

FINDINGS

We take Fornace Guerra Gregorj as a case study, which is a famous industry archeology in Treviso.

Firstly, we analyse the interaction with the industry building in the surrounding Treviso area. The morphological and typological analysis of the industrial complex of the Treviso region was carried out. The industrial heritage of Treviso includes agro-food factories, timber mills, etc. (Figure 2 below). The industrial heritage of the Treviso region is characterized by the following features: 1. strong clustering, each factory is formed by a group of buildings, including Production workshops, warehouses, management houses, staff dormitories, etc., mostly industrial complexes. 2. A few are closely related to the road and water networks and are linear rather than block-like.

Secondly, we analyse the transformation in the spatial form of buildings and sites during Fornace's several extensions. Its functions transferred from brick production to artwork production, the exquisite ceramic artwork brought important social and economic status, as well as international influence to Fornace. As can be seen in Figure 3, the brick kiln was initially built in 1781, and by 1842 the construction of the main Hoffmann brick kiln was completed, which was the first of its kind in the world. In this phase, the main focus was on the paper and industrial bricks, with a simple settlement and a brick kiln as the core. During the period 1887-1940, the building was expanded to include a carpentry, brickworks, artist room, tool shed, etc., the function of this room. The main space of the brick kiln is further strengthened by the transformation from industrial tiles to artistic tile production and processing, and the creation of artists. A stronger sense of identity. After 1940, its status as a center of industrial art declined, and its buildings ceased to be used as an industrial archaeological site.

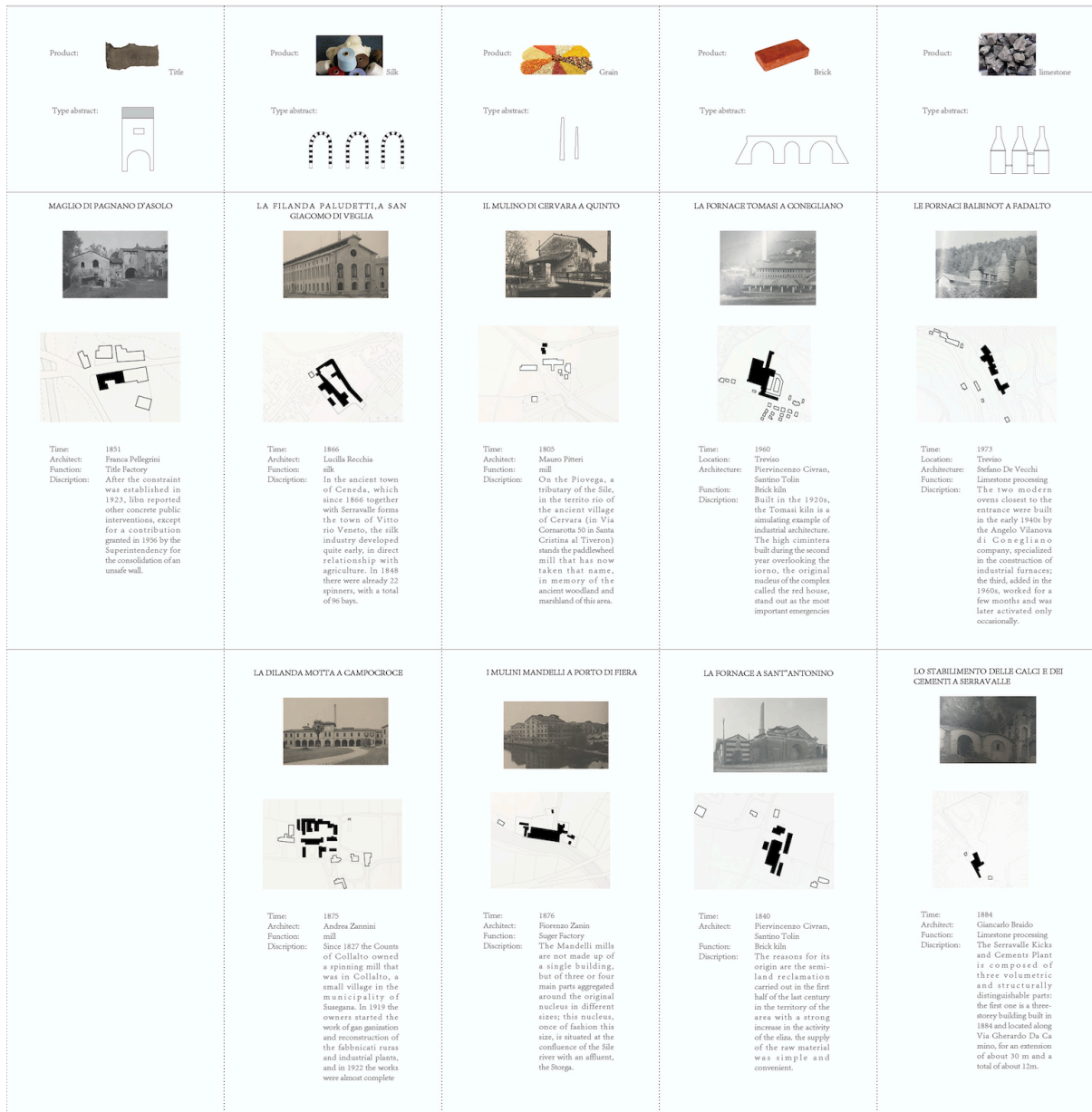
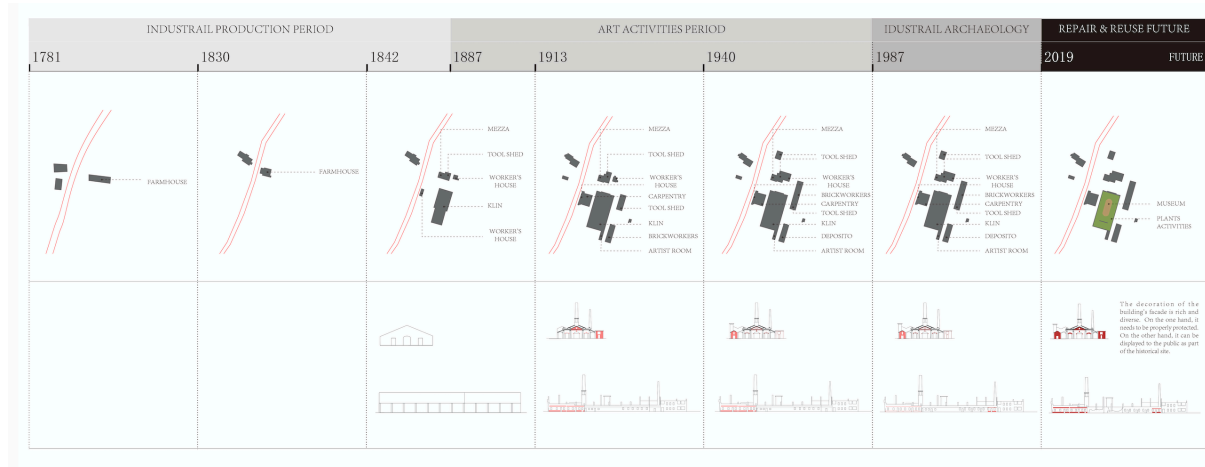


Figure 2. Analysis of morphological patterns of industrial heritage in the Treviso region



The brick kiln is first and foremost a typical industrial heritage of Treviso's industrial age, with its step-by-step expansion, its complex functions, and its relationship to the road town. It is typical. At the same time, the combination of industrial production and artistic creation is different from the ordinary industrial heritage, which is unique. Therefore, it is the focus of this study to find out how to revitalize it and how to take advantage of its advantages to protect and reuse it in the future.

And from the perspective of functional transformation, the author analyses the distribution of the Fornace's production of art as well as the areas of artists activity, aiming to find the artistic value from the urban level. We have preserved and enhanced the clustering mechanism of the factory, which functions as an industrial site museum, and designed the public space of the site in a landscape approach, with entrance plazas on the north and west sides, and enhanced its connection to the road and accessibility. The core of the site, the brick kiln, is not restored to its original form, but rather its spatial typology is highlighted in its current state of deterioration. The main kiln in the middle and the ancillary spaces, the chimneys on both sides, are looped around the core space, allowing the viewer to relive the industrial era production.

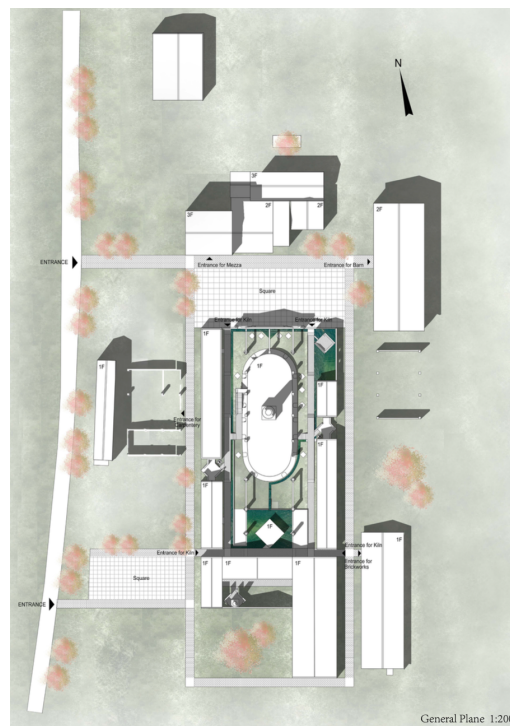


Figure 4. FORNACE GUERRA GREGORJ typo-morphology analysis

At the same time, we extracted the typical morphology based on the type of Hoffmann's brick kilns and the unique typology of industrial buildings in Treviso, applied to the design, adding several spatial nodes that act as stitching for the brick kiln site. At the same time, the unique porcelain tiles produced in the kiln are reconstructed into a variety of types and applied to the floor, walls, and steps in an attempt to provide a more efficient and efficient way of working. A contemporary way to evoke the memory of history.



Figure 5. FORNACE GUERRA GREGORJ scenes

Finally, the author summarizes the renovation strategies as industrial archeology, typo-morphology transformation, and the possibility of recombination of industry and art. The preservation and utilization of industrial heritage play a significant role in the continuity of historical context, socio-economic revitalization and sustainable development of the urban environment. The paper gives a trial of five aspects of the reuse of industry heritage, exhibition architecture, landscape park, tourism development, cultural creative industry, and regional comprehensive development.

CONCLUSIONS

In conclusion, the weaknesses and strengths of industrial archaeology are analyzed by integrating the factors of architecture typology, urban morphology, and function transformation, which have reference significance for the formulation of renovation policies in other industrial areas in the world. In the future, the industrial heritage renewal will become more and more important. The analysis of the industrial heritage of Treviso reveals that there is a widespread problem of neglect in the industrial heritage in the world, but it is a new trial of industrial archaeology if the relationship between the industrial heritage and the city can be fully exploited.

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