

POLITECNICO DI TORINO
Master of Science in Architecture Construction City
Honors theses

ErTong, a proposal for the transformation of Shougang *Danwei*, Beijing

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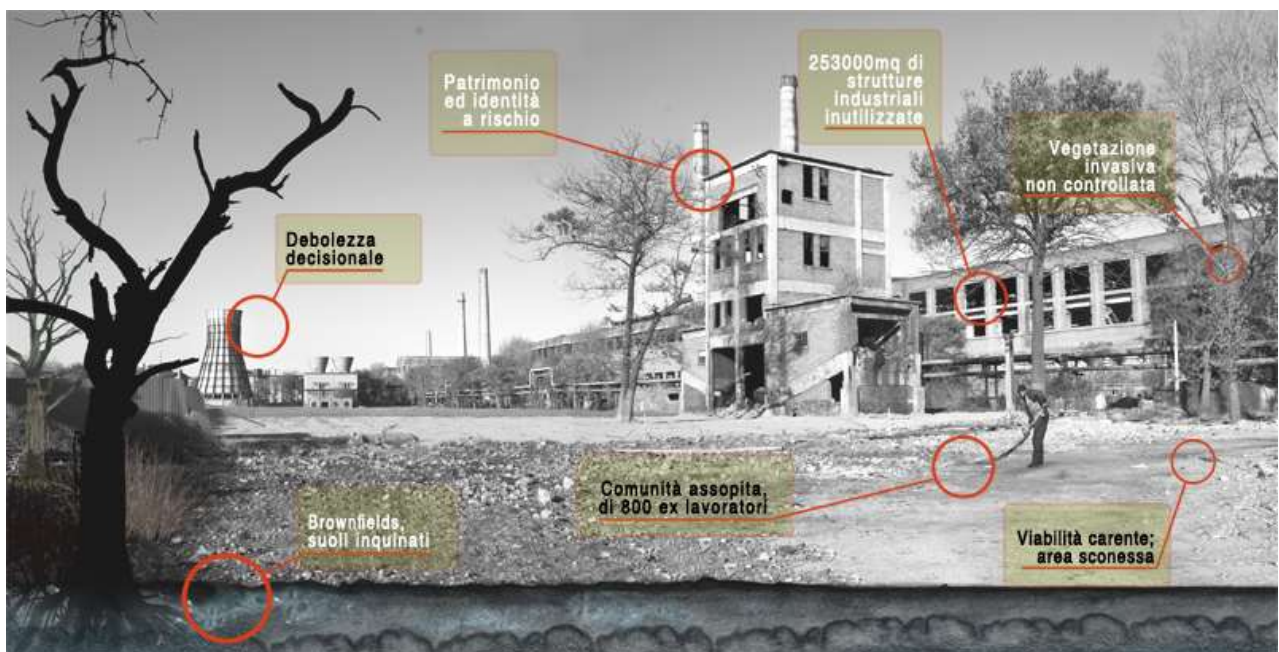
Among the collaboration between *Politecnico di Torino* and *School of Architecture of Tsinghua University in Beijing*, the research team “Memory Regeneration” has been created to work on urban regeneration of asian cities, focused particularly on Beijing. Only recently this city is facing the difficulties to approach the problem concerning the regeneration of disused industrial sites, industrial legacy and its relationship with urban development.

My thesis’ field of research constitutes one of the case studies on which the “Memory Regeneration” team is working on.

ErTong is an huge disused industrial site of 8km² which is located in the west side of Beijing, far about 10km away from the imperial city center: it is characterized by a strong industrial identity, considered as a valuable heritage inherited from Mao Tse-Tung's communist period.

In this site there are 253.000m² of historical productive structures which are passively facing today the risk to know a transformation driven by a pure economic vocations.

This would lead developers to exploit structures in order to initiate the enhancement process of surrounding values, a dangerous process which is not going to give all the conservative attentions that ErTong deserves. This is a well-known mechanism, evidenced by the speculations of eighties and nineties which had deeply transformed urban shapes.

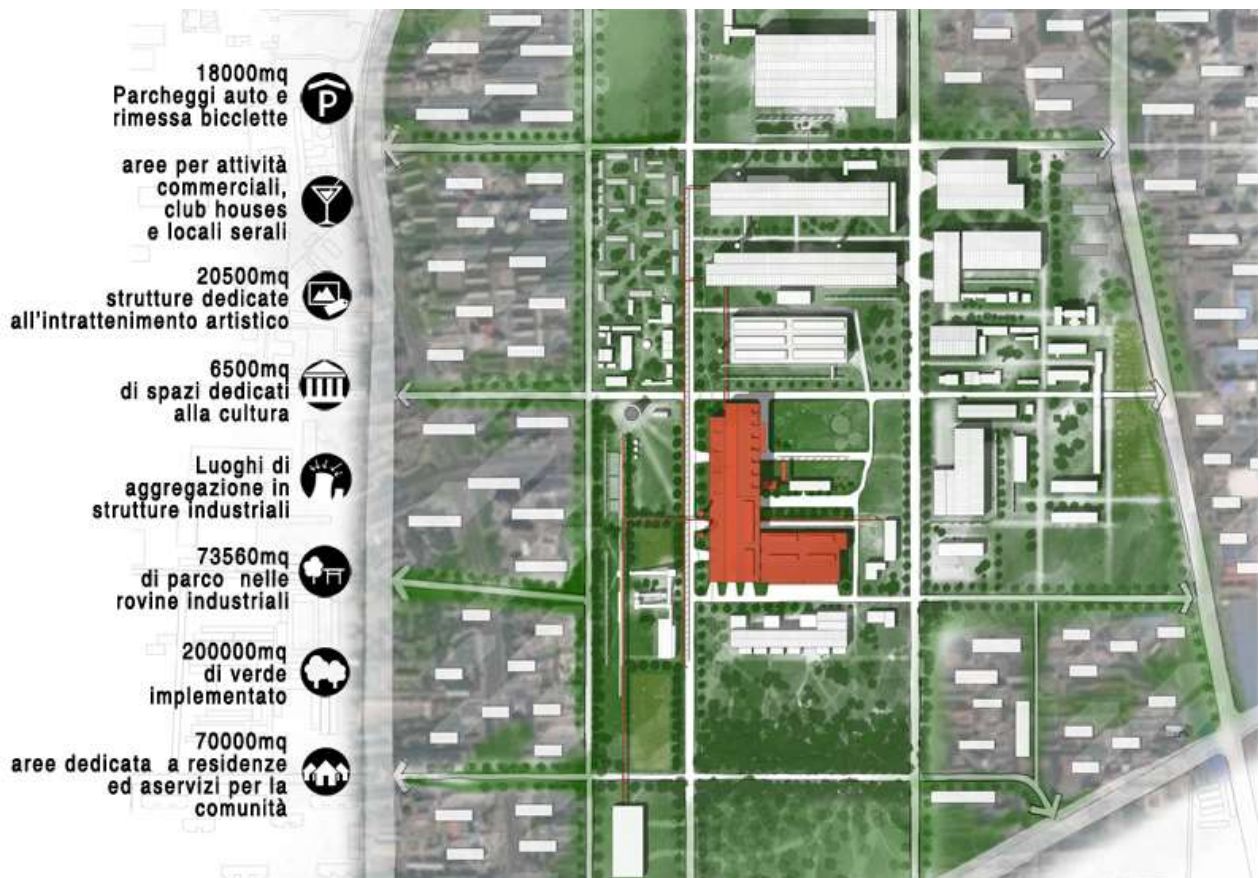


Illustrated summary of ErTong features.

Based on this preface, I developed my work into three steps: the knowledge process started with the journey to Beijing, considered as a personal inspection of the Chinese culture, then I visited the old productive plants, and finally the work has been concluded with historical and urban analysis of the project area and its surrounding. Moreover, a particular attention has been given to the study of the historical and cultural identity of the area, because ErTong belongs to *Danwei* urban settlements, a tools which became the main feature of a social and spatial reorganization of the Chinese city. Danwei, or Work-units, were used to plan an industrial development which overlapped rural and imperial lands, and my analysis shows that they still play an important role in Beijing urban changes, carrying from the past to the present interesting values like physical assets, sociality and culture, and they can also be considered as an important matrix for future projects. ErTong is a fascinating case study because its relationship with urban fabric still needs to be worked out, and the choice to set up an urban approach is necessary because Danwei are an important links between city scale and industrial buildings, which represents real emergency.

In the second part, I proposed a transformation for the whole site in order to increase its historical and cultural identity, a transformation which could involve the entire old industrial plant, to create a new sustainable settlement at neighbourhood scale. An important intention was to give ErTong back to the city and to increase its value through using its own industrial fabric as a matrix for the surrounding areas.

So that I illustrated several strategies divided into five main categories: Environment, Sustainability, Industrial heritage conservation, Community and Sociality.



Masterplan: ErTong as a vital green oasis for the city.



Technological solution applied at urban scale: Polycarbonated skins which articulates many spaces characterized by different bioclimatic gradients and greenhouses.

The last step is the architectural project for the main building of ErTong: this adaptive reuse project is considered as an example of how buildings can be reused in ErTong following the urban strategies seen previously. I designed the project through the formulation of an abacus which shows some architectural and technological solutions, aimed to characterize the entire urban settlement.

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