

POLITECNICO DI TORINO  
FIRST SCHOOL OF ARCHITECTURE  
Master of Science in Architecture Construction City  
**Honors theses**

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**The reuse of spaces for energy: the machine hall of the power plant of Wedel**

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This thesis arises from studies conducted at HafenCity University in Hamburg, where it was possible to deal with a new urban context, affected in recent years by a significant process of redefinition of its identity.

The starting point of this study was research of an area with a reconversion potential and capable to offer new opportunities for development within the city. Attention has focused progressively on the site of the power plant in Wedel, west of Hamburg, designed by German architect Bernhard Hermkes. The industrial plant will be closed in 2017 and the prospect of the end of its productive life requires an understanding of how to reincorporate the complex and the site in the future of the city. The interesting aspect of the area concerns also its geographical position: located on the banks of the Elbe River and at the border between the town of Wedel and Hamburg, the plant provides an important opportunity for connection between the two realities.

This context is then a privileged scenario of intervention, with great visibility and characterized by a plurality of implications. The choice of the plant as object of work was indeed dictated by the several incentives that it offers, and by the interest in the realization of a project that can integrate different sizes, from the architectural to the urban, as well the environmental.

Specifically, the thesis work focused on the delineation of a refurbishment project for the machine hall, which is at the heart of the complex, both productive, and architectonic. The building, with a clear formal value, is characterized by a refinement in the construction and details that contributes to define its identity. Despite having been designed to meet the industrial needs, the building presents characters and meanings that go beyond its productive use and represent an opportunity for transformation.

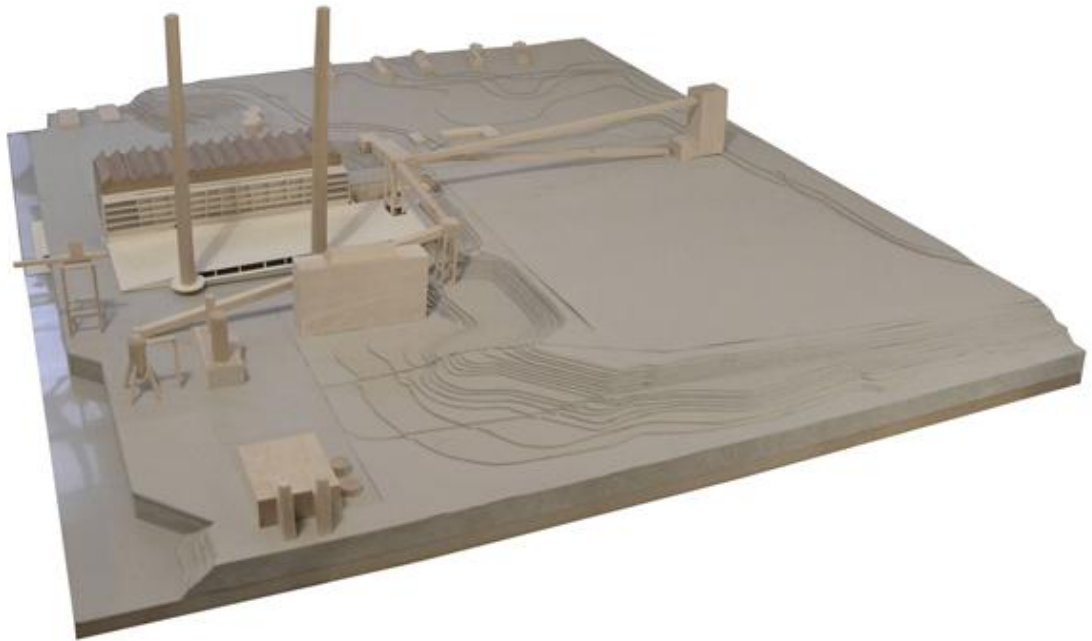
The setting of the project therefore started from the need to understand how to develop a process of revitalization, capable to combine the new intervention with the existing building and its architectural and historical values. For this reason, several cases of reuse projects on production complexes were examined, in order to build an overview of the possible operations, from the strict respect of the buildings, (both of their external and their internal distribution), up to more radical and consistent interventions (on the structures and material consistency of the buildings).

Defining the intervention approach has also meant questioning the new role of the industrial building in the urban context, an aspect that is closely linked to its reuse. It was therefore necessary to investigate what features to introduce with regard to urban needs and choose the proper amount and proportion of the activities in such a way as to create a balanced mix of functions and define a possible new life for the building, bearing in mind the significance that it may take in the context of both the town of Wedel, and in the metropolitan region of Hamburg.

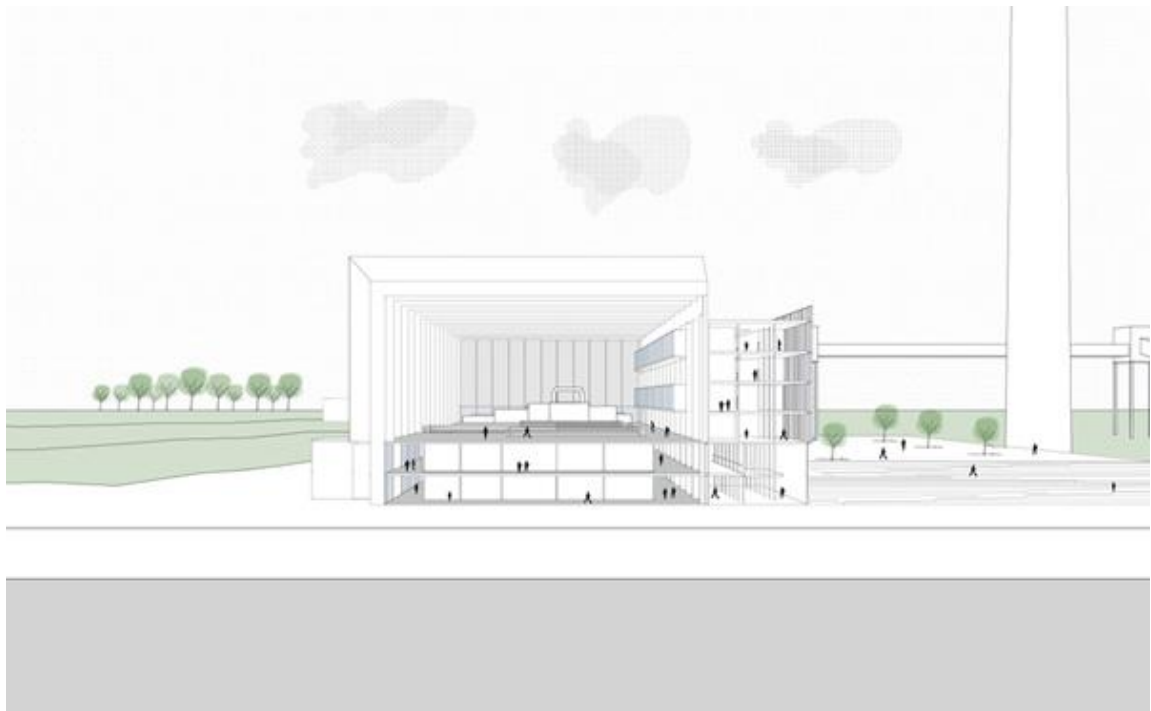
In order to hold together the different levels involved in the project, an important role was played by the integration of the analytical work at the urban scale and the architectural and spatial choices at the scale of the building. In particular, the study of the site in comparison to other urban systems on the river made it possible to deepen the relationship with the Elbe and the significance that water plays in the intervention of recovery.



Project Plan



Model



Perspective section

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