



POLITECNICO
DI TORINO

Honors thesis

Master of Science in Sustainable Architecture

Abstract

The dwelling of grain. Reuse of grain silos in Cagliari.

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March 2020

The thesis work deals with the reuse of the grain silos of the Semoleria Italiana in the port area of Cagliari. The "container" buildings are only a sliver of a larger milling complex demolished in the early 2000s. Since its inauguration in 1905, this establishment has represented one of the most significant and articulated grain processing centres in Italy, in whose concrete structures the material was transformed. The actual implementation of the mill project was assigned to Engineer G. A. Porcheddu who, the only concessionaire in Italy of the "Hennebique" patent, provided the technological arrangements for a project of this magnitude to be realised. The demolitions performed as a consequence of the disposal of the production site in the nineties avoided the silos that since then have been completely abandoned. Nowadays nothing restores dignity to the artefact, a memory of the industrial development of the twentieth century.

The project idea suggests the renewal of the grain silos as an attractive centre in that strip of land disputed between the coastline and the abandoned industrial area. The context, in which the remainder is placed, is affected by the predominant isolation from the urban tissue, generated by the port's border barriers and the continuous vehicular traffic. The proposed reuse of the grain containers is closely connected to the idea of urban regeneration of the framework and the redevelopment of the waterfront, assigning at the new hub a mediator function between the city centre and the port, enhancing and generating connections between the different territorial systems.

The thesis is articulated in three phases: the first gravitates around the achievement of the knowledge required to operate consciously on industrial heritage artefacts. Research supported by archival documents, scientific journals, manuals, trade magazines, comparisons by analogy of similar structures by type, construction technique and construction period; the following phase deepens the investigation of the territory and landscape with the intent to analyse and understand the character of the surrounding area, to perceive the process of industrial development that has characterised it and to understand the influences arising from the city and the port. Never forgetting history, projecting into the present, the urban scenario is contextualised and subjected to new processes that are completely different from the past; finally, with the support of the research, an intervention hypothesis has been developed considering the case studies on an international level that deal with the revival of disused industrial containers.

The interpretation of the different visions is useful to elaborate on the restitution of an identity heritage, herald of those intrinsic values proper to the work "laical cathedrals". The strong motivation, to draw up a project as an instrument of urban regeneration, has accompanied the design process, restoring awareness and respect for the industrial asset, closely connected to the historical stratification of the city that looks after it.

Many architectural artefacts that are the product of industry remain isolated in a state of the underserved state of neglect, in a painful wait to benefit from the tide of renovation and find in them a new role as the main character inside the city.



• Exterior view of Semoleria's South West facade



• External view of the Northeast Semoleria facade



• View of the stairwell adjacent to the Porcheddu Silos