Low-cost residence on industrial site, Ghent, Belgium

Project data

Type of project: Architecture (housing)
Estimated start of construction: July 2007

Main author

Name: Edward Weyesen
Profession: Architect
Organization: Weyesen De Baere
City/Country: Ghent, Belgium

Further authors & legal guardian(s)

Further authors: De Baere, Lore, Architect, Weyesen De Baere, Ghent, Belgium

Comment of the Holcim Awards jury Europe

The revival of abandoned industrial sites is not only an important issue in the old docks of Ghent but in many other cities that are stricken by a sharply diminishing secondary economic sector. Usually such empty spaces are taken over by artists, small businesses and informal occupants for temporary use. The uniqueness of this project consists in the transformation of these huge multi-floor warehouses into modern, very flexible but at the same time highly-affordable housing units.

The creative design team developed a box-in-box solution by inserting a mostly prefabricated box-like unit with a floor area of 3.6m² on every floor. The structure is very light and all the services are concentrated in a central block containing kitchen, shower and lavatory. During summer the fully glazed west façade of the boxes will be opened to have the old barn becoming part of the living space and during the winter the very compact and well-insulated boxes need only little energy for heating.

Project description by author

The old docks of Ghent in Belgium are studded with silent remnants of a past industrial era. Thanks to an ambitious city renewal project, this industrial heritage is now being revalued and converted. A former cotton factory, built around the second half of the 19th century and nowadays a haven to craftsmen, artists and architects, bears evidence of this urge for rejuvenation. In an almost anarchistic way, its inhabitants have taken the site into possession. Amongst them was the young couple of architects, Weyesen and De Baere. Their decision to annex part of the industrial site with a living unit, became a precedent, stimulating a broad range of new initiatives to take over the site. It proved to evoke a social upturn in a neglected area.

The architects were looking for a building they could restore themselves, becoming the pilot project of their ambitious plan of reusing industrial sites. An immense flax barn with saw-tooth roof, steel structure, cast iron columns and original tiled floor with sunken tracks, caught their eye. The architects tried to reconcile the historical grandeur of the building with present-day demands for living. Constraining to a building budget of a mere €25,000, they had the difficult task of rethinking conventional, luxury loft living, paragon of spatial profusion, to a composition in flexible and affordable living. The result became a housing typology, averse to any stereotype.

The preconditions of a non-isolated barn situated on the first floor and containing a volume of about 200m², enforced far-reaching design decisions. The architects opted for an isolated box-like unit with minimal footprint of 3.5m² to 18m². The project reflects on an environmentally conscious living style, stimulating a face-to-face relation to the seasons. It provides optimal isolation during winter within a compact volume, and extends the livable footprint in summer, when less heating is required. The fully glazed west façade is then opened up to have the old barn becoming part of the living space. The west façade combines glazed and isolating cabinets with full height, sliding poly-carbonate doors.

To deduce a maximum usable surface out of a minimal footprint, the architects adopted an open layout. Building mass is restricted to a centrally positioned “functional strip”, containing kitchen counter and lavatory. The inherent flexibility of such an approach allows for different infill of functions. Rather than providing for peculiar design solutions to specific preconditions, the project proves to be a valuable new housing typology that can easily be implemented in different contexts. It implies a present-day solution to the rising costs of land property and building practice.

Relevance to target issues by author

Quantum change and transferability

Contradictory to conventional, space-consuming loft living, the proposed footprint has been decreased to merely 35m², creating a density of 0.76. The isolated box, created by this design solution, provides a new, environmentally-friendly housing typology to be implemented in an existing structure. It creates an affordable and sustainable alternative to contemporary loft living.

Ethical standards and social equity

The project has been implemented on a former flax factory site on the outskirts of Ghent, Belgium. Although a neglected site at the time, the architects suggested a building type to take advantage of the inherent qualities of the area. To break even with the developer, owning the site, the project is to house three living units in the near future. The short construction time of a mere five months and the low building costs of approximately €35,000 provide a valid strategy to inhabit neglected industrial buildings. The project was envisaged within a “Do It Yourself” formula, stimulating social involvement and initiative. It became a pilot project for the whole area, stimulating the integration of different social groups like architects, young families, artists, ballet schools etc.

Ecological quality and energy conservation

The project reflects an environmentally conscious living style, stimulating a face-to-face relation to the seasons. It provides optimal isolation during winter within a compact volume, and extends the living footprint in summer, when less heating is required. The compact box is made out of a wooden skeleton. It has an average U-value of 0.45, requiring no normal winter conditions. An electrical heating system with 2 convectors acts as back up during extreme cold periods. A fully-glazed west wall of sliding doors allows daylight to fully penetrate the living units. The façade has glazed cabinets, providing an isolating air gap in between. At night, the box is lit by energy-saving lamps. Reflection on the white inside walls provides for less artificial lighting.

Economic performance and compatibility

The project gives people with a small budget the opportunity to construct their own house for a mere €25,000. The unit becomes property of the landowner, but in exchange, the inhabitants are granted a cost-free tenancy of the site. The project stimulates the rejuvenation of abandoned places and their immediate surroundings, by claiming the spaces for new forms of living.

Contextual and aesthetic impact

The project respectfully comemmorates the history of the site. Its flexible layout provides for different infill, each time creating a peculiar relationship with the existing building envelope. Though modestly elaborated, its distinctive colors and outer skin create an eye catching, contemporary appeal, framing the historic grandeur of its existing surroundings.

Acknowledgement prize 2008 Europe

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