

THE PROJECT

Increasingly saturated urban contexts lead us to intervene on existing sites that, having lost their original function, can be reclaimed from deterioration through reuse, enhancing their existing potential. Working on projects, the sustainability of the intervention has always been our primary objective.

On these grounds, we have chosen off-shore oil platforms for the project, as there are more than 6500 of these huge machines dispersed throughout the world's seas.

An off-shore platform is used to extract oil for an average of 30-40 years. Once the underlying mineral deposit has been exhausted, the platform reaches the end of its life cycle, when it is decommissioned ready for disposal. The total removal of the platforms is not the only option taken into consideration, and it is here that new and interesting alternatives come into play that entail their conversion.

DECOMMISSIONING

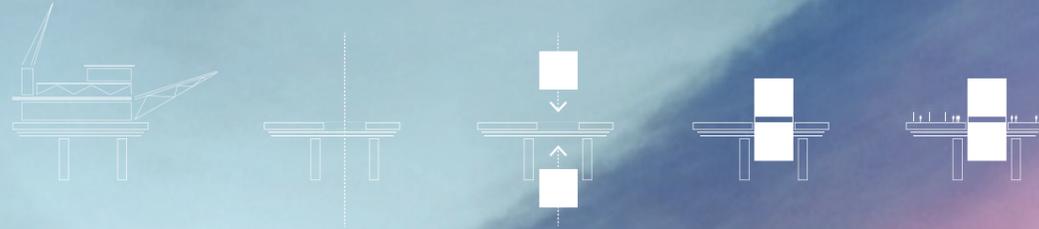
The theme of reuse is highly topical in today's society, particularly so in the world of architecture, first and foremost expressing a renewed shared sensitivity. The LIGHT BOX project conveys present awareness of the finite nature of the available environmental resources and the need to avoid wasting materials, spaces and resources during the processes of transforming the built-up environment.

The awareness that thousands of off-shore oil platforms worldwide have been abandoned after the deposits dried up is one of the driving factors behind our project, which aims to reuse these places, preserving their identity and potential for the purpose of sending a strong new message to society through a revisited structure.

These platforms can be transformed from pollutant structures into innovative spaces devoted to art and culture, to promote encounters where creativity plays the leading role.

SUSTAINABLE ISLAND

One of the main features that makes this project possible is the fact that the majority of these complexes are completely self-sufficient in terms of energy requirements. The LIGHT BOX project creates exclusive islands of cultural and energy sustainability, powered by renewable energy sources, a solution easily adaptable to the various oil platforms dotted around the different seas. An ecologically sustainable and autonomous habitat is created in energy terms: the glass in one of the faces of the skylight is lined with a photovoltaic membrane to exploit solar energy, while wind turbines are positioned in strategic points on the surface of the deck, which is extended to host the outdoor square. The project also entails the installation of wave power generators, both in the form of fixed units in the surface waters and buoys in the deeper waters. For heating and cooling, land-based geothermal systems, integrated in the existing surveying and drilling structures, have been adapted to work at sea, exploiting its constant temperature at lower levels.



ATELIER OF THE FUTURE #FAKRO
NEW SPACE FOR NEW VISIONS

LIGHT BOX T 1/4
G01016CA



ATELIER OF THE FUTURE

The LIGHT BOX is a place of cultural exchange, residence and production where artists, architects, designers and creatives of all kinds can meet together, work, exchange ideas and converse with society, generating new ideas and giving life to a tangible project for the development and promotion of cultural activity.

Art is the bonding agent, the reason for the encounter between artists and the public, the fuel that powers an imposing machine for the reassessment of a decommissioned site. Wherever possible, a real incubator of ideas, a factory where activities and cultural projects will be developed.

Several galleries, platforms and ramps moves in the huge and open space inside the concrete cube and host an interesting range of exhibitions, changing regularly. According with the architecture project, life inside the building is not immovable but it changes creating many different situations that inspire artists and visitors' creativity.

The contest where the LIGHT BOX is located is not strictly linked to a country. Being in the middle of the sea favours the meeting of different cultures and the dialogue between artists, young or famous, who can find inside the ateliers a perfect place where share their creative points of views. In fact, the LIGHT BOX exhibition plans include artists and pieces of art coming from all over the world. This open, various, heterogeneous and changeable space gives life to the appropriate mood to stimulate creative and artistic visions.

The project gives life to a deterritorialisation process, an interesting across-political, geographical and cultural boundaries flow of ideas and creative dialogue that leads to innovative visions, new spaces for new visions.

SPACES/FUNCTIONS

The project involves a prismatic volume to be installed on the existing structure of the platform, in which the functional arrangement of the spaces forms a consistent relationship with the structure of the extraction plant.

This volume is divided into three macro levels: the above-water volume that houses the artists' ateliers and the exhibition spaces open to the external public (*upper ateliers*), the *technical areas* in the deck area and the underwater volume that houses the residents and the exhibition and creative spaces (*lower ateliers*).

The above-water space houses the exhibition areas and the artists' ateliers, while on the deck there is a large covered square that forms a continuum with the outdoor public space, welcoming visitors with dining areas, multimedia material for consultation and exhibition spaces, and identifying itself as a place where art is what brings people together and fosters an encounter between artists and the public. In the rest of the upper volume, walkways and platforms unfurl in an unexpected combination of spatial superimpositions, creating amazing work and production places. The imposing glazed roof (*skylight*) is situated in the centre of the volume, in the focal point of the exhibition - *the box*, a transparent showcase that hosts temporary shows.

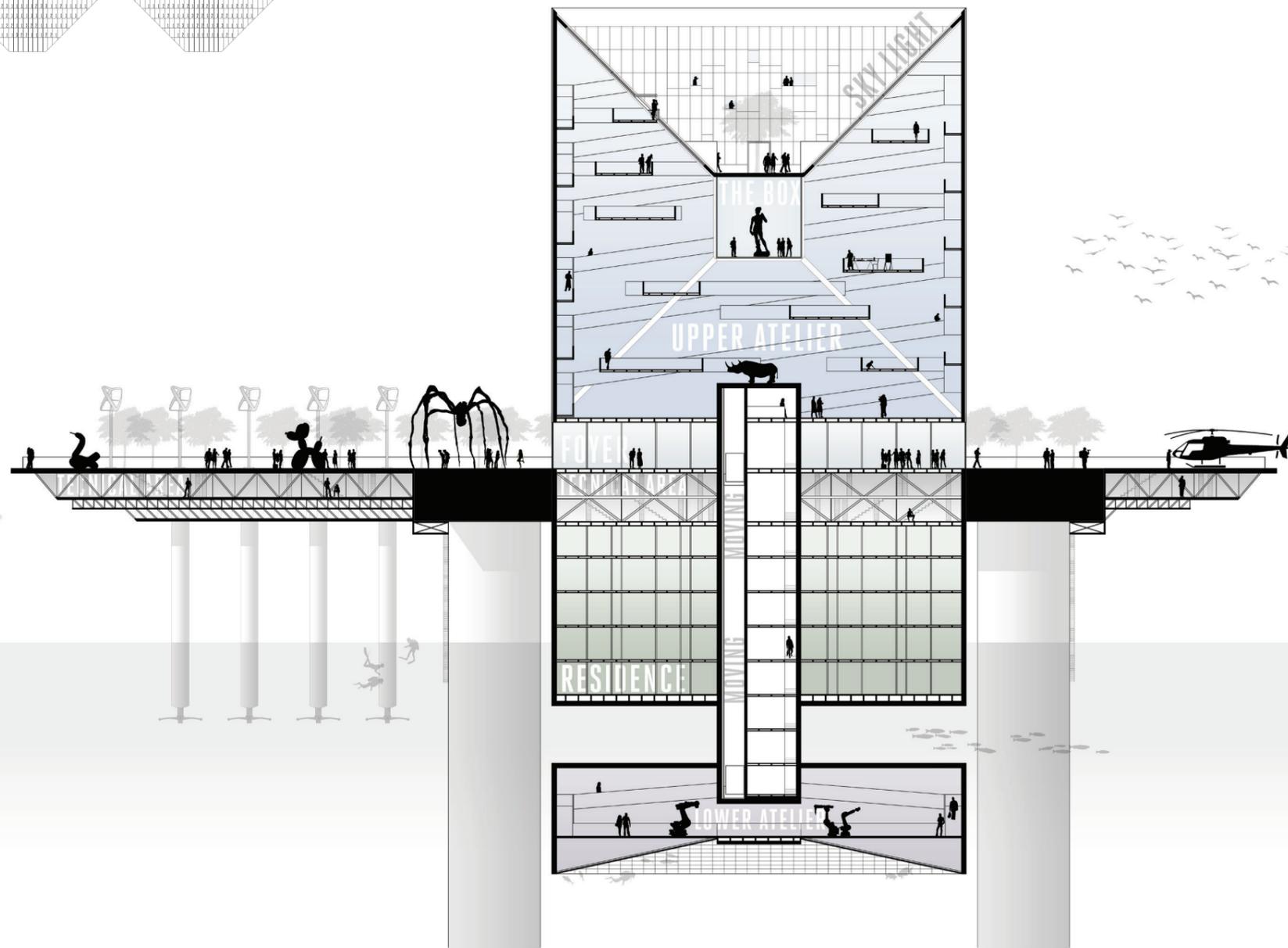
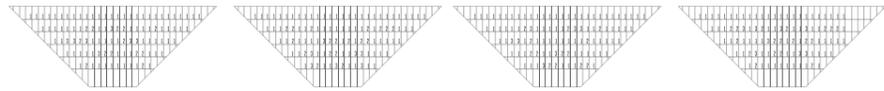
Inside the deck itself are the technical compartments and all the functions that contribute to the operating of the systems.

The artists' accommodation and visitors' rooms (*residence*) are situated just below the deck, at the level of the jacket in a five-floors concrete volume "half-submerged".

The vertical distribution body links a lower volume that houses the underwater atelier (*lower atelier*), an exhibition space and a completely submerged creative workshop.

SCHEME TYPE FAKRO INNOVATIVE SYSTEM WINDOWS

1. high pivot window FFP-V 03 proSky - 2. roof window for combination F7P/D 13 - 3. balcony window FER-V P2 Galeria



SCALE SECTION 1:200

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THE LIGHT BOX

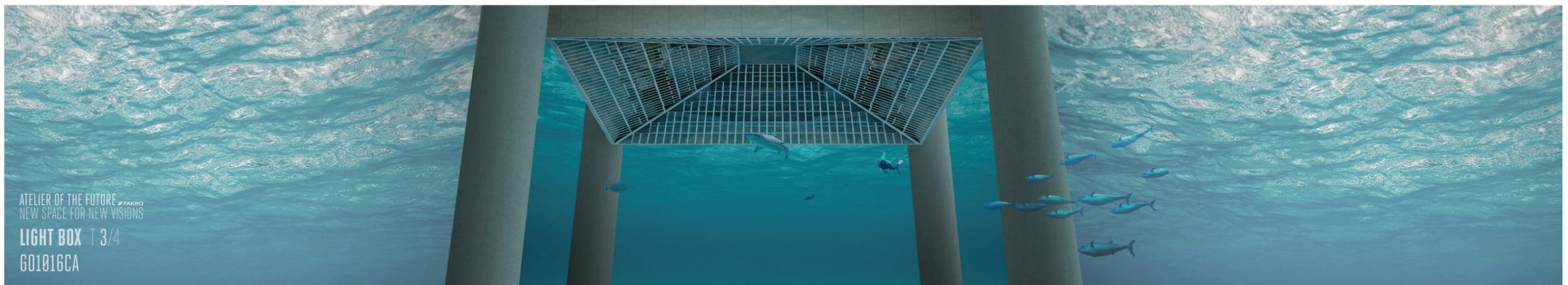
The *Light Box*, the above-water volume, is the hub of the project. Its shape is inspired by a hypercube. Indeed the volume consists of two cubes, with a 1.5 size ratio: the big one, in reinforced concrete, and the internal small one, entirely made of glass. The contrast between the materials is one of the key features of the project. Closure and openness, opacity and transparency, solidity and lightness give rise to a balanced and interesting architectural dialogue. This can be clearly perceived both outside, thanks to the glazed cut of the foyer that separates the concrete cube from the deck level, making it floating, and inside where the materiality of the side walls and the internal structures forms a relationship with the ethereal glazing. The external cube comprises the body of the building that hosts the ateliers, creative workshops and exhibition spaces linked by ramps that, in their turn, are transformed from time to time into galleries for hosting temporary shows. The volume has an introverted nature because it does not feature openings to the outside.

This design choice seems to contrast with the location of the structure in the middle of the sea. In design terms, a decision was made to make the surrounding context visible only from the outdoor square and from the large glazed foyer on the ground floor, and to block all views from the upper floors so as to boost the creative concentration of the artists. On the contrary, the completely glazed roof (skylight) offers a visual opening towards the inside of the building and, together with the spatial arrangement of the ateliers and the walkways, encourages dialogue between the creatives working inside the LIGHT BOX. The huge glazed walls of the roof concentrate in "the box", the transparent showcase that houses temporary shows, situated at the centre of the volume in the focal point of the exhibition. Through the glazed roof, a huge zenithal beam of light comes inside the concrete volume and moves between ateliers and walkways. Anything inside is white covered, fostering a deep sense of bright environment.

The roof is 45 degrees inclined and guarantees a plentiful natural lighting increasing the well-being inside of ateliers and exhibition spaces. The roof is composed by a metal frame that defines 250x100 cm modules in which are inserted, depending on indoor air and lightening needs, **three different FAKRO innovative products: high pivot window FIP-V U3 proSky - roof window for combination FIP/U U3 - balcony window FBH-V P2 Galeria**, which are placed in correspondence to the ateliers and allow to open the indoor space to the central patio over the glassed box. Every single module has smart glasses (switchable glasses) that changes thanks to a remote control light transmission properties under the application of voltage light or heat. When activated, the glass changes from transparent to translucent, blocking some (or all) wavelengths of light. In addition, glasses oriented from south-east to south-west are transparent solar glasses that collect solar energy and allow the transmission of sun light inside the building.

In order to create intimate spaces for creative work every window has a roller blind ARF Z-Wave that, thanks to a wireless control, provide perfect protection from the sunlight ensuring complete room interior black out. Roof windows have various electrical devices and are installed in place difficult to access. For this reason every single window is equipped with FAKRO Z-Wave, a remote control that regulates all the windows devices. Moreover, Z-Wave is a radio communication system that combines into a single network such electric device as lighting, thermostats, alarms, computers, telephones, air conditioning, electric windows and blinds. Furthermore, we decide to use a special kind of glass for the submerged glazed surface of the lower ateliers in the underwater part of the building. These glasses are specifically made to resist with high water pressure in the underwater ambient.

We suggest this aquatic advanced solution to start an innovative and amazing research in the FAKRO's R&D offices...



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