

EIBAR (ES)

THE HINGE

A topographical device



In urban centres, there are areas where the built stock and the existing infrastructures have become obsolete, failing to meet the evolving needs of residents due to socio-economic restructuring. Cities experience inevitable changes in living patterns, driven by technological innovations and the influence of global markets. The impact can be particularly profound in smaller urban areas, which are often struggling to adapt and create resilience for their future. Such is the case of Eibar, a former small-scale industrial city, that went through an economic and demographic restructuring. To address such situations effectively, we must embrace a transdisciplinary approach that encompasses critical parameters, including social, environmental, cultural, economic, and urban aspects. By doing so, we can respond with innovative ideas that lead to the successful repurposing of empty built stock and the regeneration of the area.

In the case of Eibar, to achieve a successful revitalization we consider it important to start with two important values. Firstly, we considered an interscale approach that accounts for both the building's scale and the neighbourhood context. Understanding the intricate relationships between the building's scale and the larger urban fabric was crucial for creating a harmonious and seamless intervention. Secondly, a robust sustainability plan was essential. This plan needed to account for environmental, social, and economic considerations, ensuring that the proposed revitalization would be responsible and sustainable in the long term. Emphasizing environmentally friendly practices, community integration, and economic viability laid the foundation for a more resilient and enduring project.

The transdisciplinary architectural approach that we followed, results in a proposal that aims to avoid the isolation of the new housing units from local life, mitigating the risks of segregation and integration failure. The two core concepts, the interscale strategy, and the holistic understanding of sustainability, are crucial in creating

efficient urban connections and a community-focused project in Eibar.

The hinge is an architectural mechanism which allows things to (un)fold being at the same time in a fixed position. The aim of our proposal was exactly that: to generate an architectural and topographical device that despite being rooted in the ground, generates folds which allow us to solve the multitude of broken connections we identified in the site. On the west side, the urban context, on the east side, the natural hill, evocative of almost a rural environment, and in the middle our abandoned building waiting for a new life, acting as a barrier between these two antagonistic realities. As we see it, only by transforming a barrier into a porous device, vertically and horizontally, can we revert this situation.



Masterplan axonometry

Based on the aforementioned considerations, our project has been shaped by five key strategies:

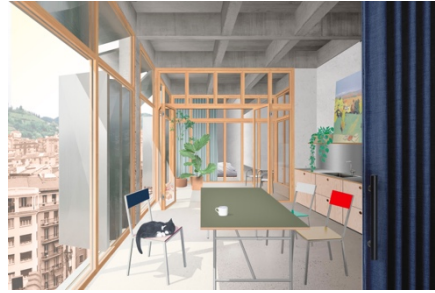
A. Adaptation of the existing building: flexibility and energy efficiency

In the current context of climate emergency, the adaptive reuse of vacant buildings emerges as a crucial strategy for sustainable development, shifting away from demolition. The AIBE building serves as a model for sustainable adaptation, emphasizing energy efficiency through the implementation of Passivhaus strategies.

The concrete structure of the AIBE building is maintained and all the non-bearing external and internal walls are removed, serving the grid of columns as the base for the design. The fragmented vertical distribution system of the existing building is replaced by a new single one in the middle, connecting all floors, one that not only facilitates access and circulation but also acts as an effective collective space.

The apartments are placed strategically on the four upper floors (2nd to 5th), in order to receive ample natural light from both longitudinal facades. This design choice promotes cross-ventilation, reducing the overall energy demand of the building. New façades are proposed at all sides of the building, offering an adaptable envelope with foldable panels, that achieves maximum lighting, while providing the necessary shading when needed.

The rehabilitation strategy focuses on orienting the building towards the natural hill, transforming it into a vivid façade, by adding an exterior passerelle, which gives access to all the apartments and serves as a spacious intermediated communal space. It can be enclosed with foldable panels during winter, maximizing its usability throughout the year, or totally opened on sunny days. On the last floor, the rooftop of the former AIBE building is creatively reimagined as a vibrant communal space. A light-structured extension serves as a gathering area that can be enclosed with sliding panels and a hanging tent for weather protection. A barbeque area and a small sports court are imagined as devices to promote interaction between neighbours on the northern side, whilst the southern is transformed into a communal garden with removable energy systems, contributing to the building's eco-friendliness and sustainability.



Interior view

B. Proposing different ways of living

The dwellings are designed with a system that offers flexibility, providing the residents with numerous opportunities to use their living spaces differently. By emphasizing community engagement, the design incorporates a seamless integration of private and communal areas, fostering a sense of belonging and encouraging shared activities among residents.

At the heart of each apartment, a central core is established, housing the wet areas –bathrooms and kitchens. This strategic placement grants adaptability and freedom in arranging the remaining space according to individual preferences and needs. Two main typologies are proposed, T1 and T2, spanning 45m² and 55m², respectively, catering to residents seeking one or two-bedroom apartments.

Additionally, satellite rooms are strategically positioned between private apartments, serving multiple purposes. These spaces add porosity to the proposal, acting as semi-open, shared spaces if wished by the inhabitants. They have the ability to connect two apartments, providing a common ground for a cosy shared living or working room or any other need. If not, these spaces can be autonomous rooms that function as standalone units, ideal for accommodating guests or supplementing an apartment in need of extra space.

The residential spaces have been conceived as a gradient, from private to common spaces. Apart from the private space of the apartments, on each floor, we find community

spaces that include the central area of circulation, the corridor and the in-between shared spaces. Those spaces are mainly used by the residents of each floor. At the rooftop level, expansive community spaces are provided, offering all residents of the building an opportunity to come together and enjoy shared amenities. Moreover, we have incorporated community spaces on the first floor to serve as a dynamic community hub for the neighbourhood. These spaces include versatile working areas, spaces for meetings, a library, multipurpose rooms, and relaxation spots. While these facilities cater primarily to the residents, they are also open to the wider neighbourhood, establishing the building as a vital meeting point for the entire area.

The design emphasizes the importance of community and the various ways residents can interact and collaborate within the living environment. By offering flexible and adaptable spaces, the proposal aims to cater to the diverse needs and lifestyles of the inhabitants, creating a harmonious and welcoming living experience for all.



Interior view of a two bedroom apartment

c. Mixed-use neighbourhoods

We place a strong emphasis on integrating diverse uses within our intervention area, fostering a vibrant mixed-use neighbourhood that promotes social sustainability and positively impacts the entire city. We have strategically combined housing with public, commercial, cultural, community, and educational spaces to create a dynamic and interconnected environment.

On the ground floor, we propose flexible commercial spaces that can serve as workshops or adapt to emerging needs. These spaces can be leased to the residents of the building or opened to the public, generating income for the building's maintenance costs. This unique combination of public housing and commercial spaces not only enables residents to work close to home but also revitalizes a currently neglected street, injecting life and activity into the city.

Furthermore, we propose a new public equipment that houses a school of crafts, paying homage to Eibar's rich tradition in metallurgy and craftwork. This decision not only preserves and celebrates the city's existing knowledge but also creates new opportunities for the younger generation by making these skills accessible and fostering potential employment prospects. Integrating the educational facilities within our proposal not only adds value to the community but also offers the possibility for people interested in studying there, the convenience of living in proximity to their learning and daily activities. The building acts as a public infrastructure, as apart from its educational use, it hosts a cafeteria and an open space on the ground floor, and an amphitheatre on the first floor, accessible to the public.



View from the garden of the new building

Between the two buildings, we envision an open public infrastructure connecting both buildings and the upper part of the hill until the existing mirador,

acting as an articulation device with vertical accesses – staircase and elevator – for all.

Our proposal for a mixed-use neighbourhood aims to create a vibrant urban area where different uses complement and support each other. By combining housing, commercial, educational, and community spaces, we create opportunities for residents to live in a well-functioning neighbourhood, encourage economic growth, and preserve Eibar's valuable heritage. This integrated approach not only enhances the immediate area but also contributes positively to the overall urban fabric and well-being of the city.

D. Creating a vivid public space

Creating a dynamic and inclusive public space is integral to enhancing the well-being and social interactions of the residents. The project aims to enrich the neighbourhood by adding green and public areas and making better connections with the existing streets and topography, thus, improving the quality of life for all residents.

The parking lot is transformed into a park, which includes green spaces, playgrounds, and community gardens. Connectivity has been carefully considered, ensuring seamless connections between the former AIBE building, the new building and the park. The crafts school building gracefully transitions from the street level of Txonta Street to the level of Gisastu Bide Street. At the ground level, an inviting open green space with a cafeteria establishes a direct connection with the neighbourhood. To bridge the 4-meter elevation difference, an external staircase on one side and an accessible ramp on the other are thoughtfully incorporated, ensuring easy access for all. Additionally, an exterior passage crosses the new building, seamlessly linking the AIBE building's level with the park.

The project emphasizes inclusion, making sure that all areas are accessible and cater to different age groups and

diverse needs. In summary, our vision for the public space in this project is centred around fostering a sense of community, providing opportunities for social interactions, and enriching the lives of Eibar's residents through thoughtful design and inclusivity.



Street view of the ground floor of the existing building

E. Incremental implementation

The project to be economically sustainable can be developed in various phases. The first phase is the adaptive reuse of the AIBE building, so housing can be provided as a priority. Secondly, the new vertical circulation can be added next to the AIBE building, to improve the connectivity of the urban area and the hillside and create a second access point for the housing. Thirdly, new public facility is suggested so that public, educational and cultural uses are added. We designed this new building also thinking of its ability to be adapted to other programs needed without compromising the desired relationship between interior and exterior on the lower levels. Based on the aforementioned considerations, instead of an extension of the existing building, we see our project as three both inter-connected and autonomous devices: although they are connected, the non-execution of one or another doesn't affect the functioning of the others but for sure they enrich each other significantly.