HYPER - TXONTA

Eibar (ES)

MARSHALLIAN EIBAR

The city of Eibar grew under a traditional Marshallian industrial fabric based on the specialised arms industry. As the economist Igor Goti mentions: "In order to compete with the large industrial warehouses of the Central European countries, the Eibar industry was based on vertical factories interconnected through the subcontracting relationship between them". The jobs would not be related by the size of the factories, but by the independent production phases carried out in them. This industrial interconnection naturally became part of common learning, creating a value of belonging and community to the local society translated into markets, families, schools, political parties and unions. After the 1980s crisis, however, the Eibar industry has suffered a severe setback, resulting in the dismantling and abandonment of these infrastructures that are part of the industrial heritage of the Basque Country.

EIBAR MARSHALLIANO

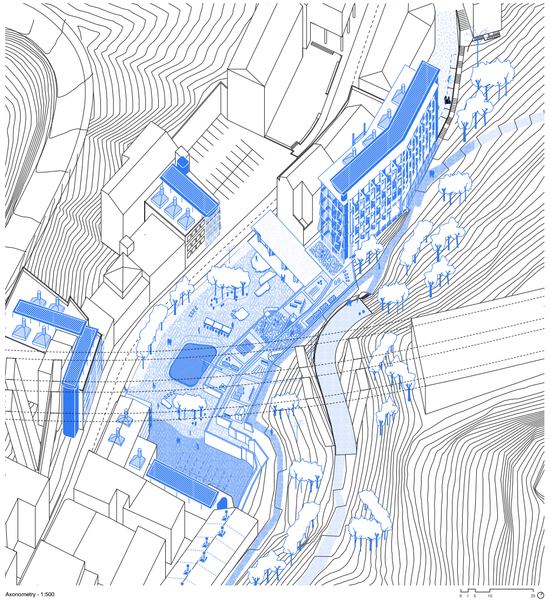
La ciudad de Eibar creció bajo un tejido industrial tradicional marshalliano basado en la especializada armera. Como el economista Igor Goti menciona: "Para competir con las grandes naves industriales de las llanuras centro-europeas, el tejido industrial de Eibar se basaba en fábricas verticales interconectadas mediante la relación de subcontratación entre ellas". Los trabajos no estarían relacionados por el tamaño de las fábricas, sino por las fases de producción independientes ejecutadas en ellas. Esta interconexión industrial pasó a ser de forma natural parte del aprendizaje común, creando un valor de pertenencia y comunidad a la sociedad Eibarresa traducida en mercados, familias, escuelas, partidos políticos y sindicatos. *Tras la crisis sidenometalúrgica en la década de los 80, la industria armera sufrió un fuerte revés, traducido en el desmantelamiento y abandono de estas infraestructuras que forman parte del patrimonio industrial de Euskadi.*

TUNING UP TXONTA

The coexistence between industrial operative facilities, transport infrastructures, housing, repurposing, demolitions, ruins and wild nature, bring to the fore a complex heterogeneous landscape. Nevertheless, ever since the decade of the 1990s, the identity a potential to guide a transition from its hard industrial genealogy towards a human quality environment redefining the adaptation mechanisms of its industrial fabric, reducing the carbon footprint by introducing reuse strategies and finding a territorial cohesion of an eroded urban landscape so as to tackle ecological and climatic issues.

PUESTA A PUNTO DE TXONTA

La convivencia entre instalaciones industriales en funcionamiento, infraestructuras de transporte, viviendas, reutilizaciones, derribos, ruinas y naturaleza salvaje, ponen de manifiesto un complejo patrimonio que conforma el barrio de Txonta desde la década de los noventa, identificado con un potencial para guiar con diseño su duro genealogía industrial hacia un entorno de calidad humana; redefinir los mecanismos de adaptación de su tejido industrial, reducir la huella de carbono introduciendo estrategias de reutilización y encontrar una cohesión territorial de un paisaje urbano erosionado para abordar cuestiones ecológicas y climáticas.



Axonometry - 1:500

Eibar/ Cartography of industrial heritage 1:10.000

RE-CONNECTIONS

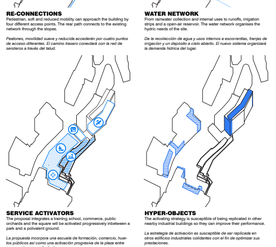
The proposal integrating a cleaning school, commerce, public orchards and the square will be activated progressively inbetween a park and a pollutant ground.

WATER NETWORK

Water network and internal uses to runoffs, irrigation strips and a open-air reservoir. The water network organizes the hydric needs of the site.

Parcelones, movilidad suave y reducida accedidn por cuatro puntos de acceso diferentes. El camino trasero conectará con la red de senderos a través del tejud.

De la reutilización del agua y usos internos a escorrentías, franjas de irrigación y un depósito a cielo abierto. El nuevo sistema organizará la demanda hídrica del lugar.



SERVICE ACTIVATORS

The proposal integrating a cleaning school, commerce, public orchards and the square will be activated progressively inbetween a park and a pollutant ground.

HYPER-OBJECTS

The activating strategy is susceptible of being replicated in other nearby industrial buildings so they can improve their performance.

La propuesta incorpora una escuela de formación, comercio, huertos públicos así como una actividación progresiva de la plaza entre parque y terreno pollutante.

La estrategia de activación es susceptible de ser replicada en otros edificios industriales cotidianos con el fin de optimizar sus prestaciones.

HYPER - TXONTA

Eibar (ES)

Industrial production line in Eibar

Water roof and solar chimney in Txonta

HYPER-TXONTA

HYPER-TXONTA is a model for industrial building regeneration emerging from the analysis of a particular territorial context that shares common features with its built environment. It constitutes itself as a decalogue that considers the industrial heritage of the region holds a strong potential for transformation and adaptation to new economic, social and urban paradigms. Due to its scalability and flexibility it can be exported to a wider capacity within the Basque Country.

HYPER-TXONTA follows the logics and operational principles of industrial constructions and works as a multilayered integrative convective system. Since it is conceived modular, changeable and scalable; it can be applied totally or partially according to each case of study.

HYPER-TXONTA presents a series of strategies for urban and domestic regeneration. These are displayed through a matrix of disciplinary mechanisms adapted to the precise context and responding to the new anthropocenic perceptions. These triggering mechanisms will be structured into three themes: TABULA PIENA (URBAN) / HYPER-OBJECT (HISTORICAL AND HYDROTHERMAL ARMATURE) / DOMESTIC ADAPTERS (TYPOLOGY).

HYPER-TXONTA es un modelo para la regeneración de edificios industriales que surge del análisis de un contexto territorial concreto que comparte rasgos comunes con su entorno construido. Buscamos una situación de equilibrio entre los valores arquitectónicos del barrio de Txonta y su adaptación a un nuevo uso domestico. En el proceso de transformación, algunos elementos, grandes vanos, vidrieras y otros elementos industriales funcionales que merecen la pena preservar. Por ello se constituye como un decálogo que considera que el patrimonio industrial de la región vasca encierra un fuerte potencial de transformación y adaptación a los nuevos paradigmas arquitectónicos y urbanísticos. Debido a su escalabilidad y flexibilidad, puede exportarse a una capacidad más amplia dentro del territorio.

HYPER-TXONTA sigue la lógica y los principios operativos de las construcciones industriales. Funciona como un sistema convectivo e integrador de múltiples capas. Se concibe como modular, cambiable y escalable, pudiéndose aplicar total o parcialmente según cada caso de estudio.

HYPER-TXONTA presenta una serie de estrategias para la regeneración urbana y doméstica. Estas se muestran a través de una matriz de mecanismos disciplinares adaptados al contexto preciso y respondiendo a las nuevas percepciones antropocénicas. Estos mecanismos de activación se estructurarán en tres temas: TABULA PIENA (URBANO) / HYPER-OBJETO (ARMADURA HISTÓRICA E HIDROTÉRMICA) / ADAPTADORES DOMESTICOS (TIPOLOGÍA).

TABULA PIENA

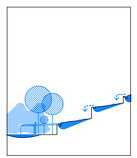
Tabula rasa, associated to the erasure to create something from scratch, has become obsolete in current architectural and territorial approaches. HYPER-TXONTA proposes an analytical methodology that considers the existing fabric and its inherent dynamics and problematics as a way to create a transition from hard industrial to human and caring urbanism in an era of decisive social and ecological challenges.

Tabula piena is presented, therefore, as an attitude of aggregation, integration, care, non-demolition and reinvention. Its primary slogan is to reduce the impact of industrial processes and, consequently, their ecological footprint.

TABULA PIENA

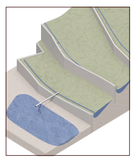
La tabula rasa, asociada al borrado para crear algo desde cero, ha quedado obsoleta en los planteamientos arquitectónicos y territoriales actuales. HYPER-TXONTA propone una metodología analítica que parte en valor las condiciones preexistentes y sus problemáticas propias como una manera de generar una transición de lo duro a crear una transición de un urbanismo industrial duro a un urbanismo humano y solidario en una era de desafíos sociales y ecológicos apremiantes.

Tabula piena se presenta, por tanto, como una actitud de adición, de integración, de cuidado, de no demolición, de recuperación, de reinvención y que tiene como consigna primera reducir el impacto de los procesos industriales y, en consecuencia, su huella ecológica.



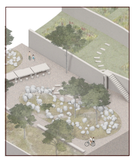
INFILTRATION STRIPS

By distributing irrigation strips on the slope next to the square, we will be able to take advantage and optimize water resources, reducing soil erosion created by runoff. These connected strips will lead to a water reservoir located in the square that will store water for domestic use and irrigation.



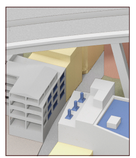
WATER RESERVOIR

The water reservoir will provide the urban space with an image of a natural square that, through evapotranspiration, will better regulate temperatures during the hot months, bringing fauna and flora closer to the environment.



BORROWED LANDSCAPES

Around the new street-level, we propose to un-pave the parking area, creating a new topography of gravel that allows the soil to breathe, improve conditions for biodiversity to find its place and function as a filter for rainwater infiltration. This gravel will be made from waste or local stonnes and shrub species found in the rural surroundings of Eibar, bringing a borrowed landscape to the existing boundary.

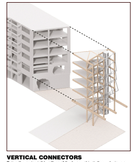


RECOVERY OF INDUSTRIAL ELEMENTS

Facade smokestacks, ventilation towers, chimneys and water reservoir roofs are some of the elements of the industrial heritage of Txonta and also present on other buildings of the Basque region. HYPER-TXONTA proposes to recover these industrial elements whose systems components preserving their character and adapting them to future dwelling necessities.

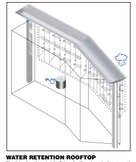
RE-USE TECTONICS

Re-use is a strong statement when conceiving the interventions on the exterior of an ABE building. We propose taking the industrial building as a quarry where partial demolitions or disassembly pieces will be taken to be re-used in different compositions. In this way, we will have a greater impact on further processes and trigger new ways of valuing the existing buildings.



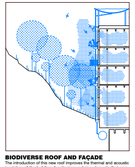
VERTICAL CONNECTORS

We propose the implementation of the facade-object, these devices permit the connection and accessibility to industrial buildings in their different conditions. Through the implementation of the HYPER-OBJECT we will systematize and unify the rehabilitation process with the aim of generating multiple entrances at different points and levels. Their position as external elements will bring flexibility and fluidity.



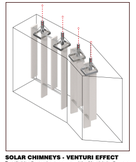
WATER RETENTION ROOFTOP

We claim the characteristic flat roofs with water retention present in many industrial buildings of the Deba valleys. The historian Rafael Moneo mentions that "the flat roof is the most characteristic 'fetish' of modern architecture during the interwar period, such as Le Corbusier or the Bauhaus, Basque people added a sheet of water."



BIODIVERSE ROOF AND FAÇADE

The introduction of this new roof will improve the energy and acoustic insulation of the building, functioning as living elements that combine the natural and artificial. Inside the HYPER-OBJECT, a 'green lung' formed of modern architecture during the interwar period, such as Le Corbusier or the Bauhaus, Basque people added a sheet of water. An external system of pipes to nurture a biodiverse façade.

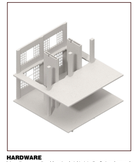


SOLAR CHIMNEYS - VENTURI EFFECT

By implementing the passive systems we intend to minimize the energy loads of the volume.The insertion of solar chimneys will facilitate the ventilation of the interior spaces during the summer months and the warm incoming and capturing it during the winter months. Inspired by the image of the factory, visible on many buildings of the old Deba valley, we introduce a series of them on the rooftop.

"LOW-TECH" FAÇADE MODULE

To update the third principle, it is necessary to propose an insulation system that prevents energy leaks. a modular enclosure on the existing facade is proposed, consisting of a metal substructure to be fixed to the existing facade and insulating panels. The multilayered facade will also respect and adapt to the different cases present in the building due to its modular configuration.

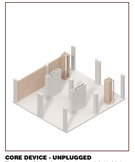


HARDWARE

Integrating conventional housing heights into the first and second floors of the HYPER-OBJECT, we propose a variety of housing types in especial cases, flexible y modular. *El programa de vivienda se desarrollará horizontalmente (niveles similares) y verticalmente (niveles divididos) y se liberará el volumen de espacios de circulación vertical e instalaciones. Esta estrategia permitirá respetar el volumen del edificio y se conectará fácilmente con el hyper-objeto supuesto. Los componentes operativos se clasificarán en dos categorías: Hardware, en el caso de* unidades modulares de habitación y en vertical mediante viviendas triples desenvolados que permitirán adaptar y maximizar la altura de los espacios industriales del edificio, compactando 3 niveles domésticos en 2 alturas.

SOFTWARE

Any function is temporary. To cope with constant changes without demolishing the HYPER-OBJECT, we propose a flexible floor plan. We believe that users and their demands over time are variable. There fore, we create a system where comfort preferences can be modified without altering the identity of the building and its facilities.

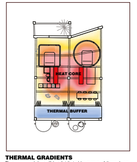


CORE DEVICE - UNPLUGGED

We planned prefabricated cores for wet areas and electrical devices, which will be placed in the center of each floor plan. Due to the fact that in the center of each housing unit, the walls of these cores will contain the hierarchy of the vertical connections of facilities, functioning as a socket to plug all the software of the dweller.

CORE DEVICE - PLUGGED

Inhabitants will be able to decide the placement of their rooms in their units by plugging or unplugging their housing preferences into the wet area cores.



THERMAL GRADIENTS

The accommodation will be distributed by means of thermal gradients, which will be based on the bioclimatic principles. The units will be organized according to their climatic characteristics, warming up the spaces where more static activities take place and using the heat from these rooms for cooler spaces where transitional activities take place.

DOMESTIC ADAPTERS

Like the productive chains of the factories, HYPER-TXONTA proposes the installation of a clear, flexible and modular spatial system. The housing program will unfold horizontally (single levels) and vertically (split levels) and the volume of vertical circulation spaces and facilities will be released. This strategy will allow to respect the volume of the building and will easily connect to the overlaying HYPER-OBJECT. The 3 operative components will be classified into two categories: Hardware, in the case of modular habitation units, elements, structure cores of wet areas and facilities; and software, for flexible systems partitions, carpentry, sun protection elements and furniture.

ADAPTADORES DE CASA

Al igual que las cadenas productivas de las fábricas, HYPER-TXONTA propone la implantación de un sistema espacial claro, flexible y modular. El programa de vivienda se desarrollará horizontalmente (niveles similares) y verticalmente (niveles divididos) y se liberará el volumen de espacios de circulación vertical e instalaciones. Esta estrategia permitirá respetar el volumen del edificio y se conectará fácilmente con el hiper-objeto supuesto. Los componentes operativos se clasificarán en dos categorías: Hardware, en el caso de unidades modulares de habitación y en vertical mediante viviendas triples desenvolados que permitirán adaptar y maximizar la altura de los espacios industriales del edificio, compactando 3 niveles domésticos en 2 alturas.

HYPER - TXONTA

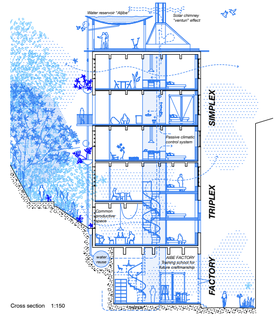
Eibar (ES)

SERVICE ACTIVATORS

Txonta presents a number of poles of attraction as facilities. It is necessary to create equipment points that move further from transition spaces and allow users to linger and interest. For this reason, associated to the new square and ABE building and opened to the neighborhood, a new productive and cultural equipment will host on a commerce opening up to a terrace over the square. As a way of pursuing the ongoing productive dynamics of the city of Eibar, the project proposes the ground floor as the place for a training school focused on new models of business. The center will include a series of working and productive units, classrooms and co-working spaces that will be open to the public and attend daily resulting a richer and busier district life. A small part of the housing units are proposed as temporary dwellings for students with the belief that this feature will help to create the sense of community and citizen engagement.

ACTIVADORES DE SERVICIO

Txonta presenta como equipamiento un número limitado de polos de atracción. Es necesario crear puntos de equipamiento que se alejen de los espacios de transición y permitan a los usuarios permanecer e interesarse. Por esta razón, asociado a la nueva plaza y al ficiu ABE*, se implantará un pabellón de servicios que albergará una apertura comercial sobre la plaza. Como una forma de dar continuidad a la dinámica productiva en curso de la ciudad de Eibar, el proyecto propone la planta baja como sede de una escuela de formación enfocada a nuevos modelos de negocio. El centro incluirá una serie de unidades productivas, aulas, lugar de coworking y espacios abiertos al público durante el día. Una pequeña parte de las unidades de vivienda se proponen como viviendas temporales para estudiantes con la convicción de que esta característica ayudará a crear sentido de comunidad y participación ciudadana.*

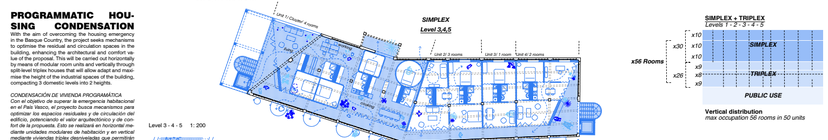


PROGRAMMATIC HOUSING CONDENSATION

With the aim of overcoming the housing emergency in the Basque Country, the project seeks mechanisms to optimise the residual and circulation spaces in the building, enhancing the architectural and comfort value of the proposal. This will be carried out horizontally by the creation of simplex and triplex typologies and split-level triplex houses that will allow adapt and maximise the height of the industrial spaces of the building, compacting 3 domestic levels into 2 heights.

CONDENSACIÓN DE VIVIENDA PROGRAMÁTICA

Con el objetivo de superar la emergencia habitacional en el País Vasco, el proyecto busca mecanismos para optimizar los espacios residuales y de circulación del edificio, potenciando el valor arquitectónico y de confort de la propuesta. Esto se realizará en horizontal mediante unidades modulares de habitación y en vertical mediante viviendas triples desenvolados que permitirán adaptar y maximizar la altura de los espacios industriales del edificio, compactando 3 niveles domésticos en 2 alturas.

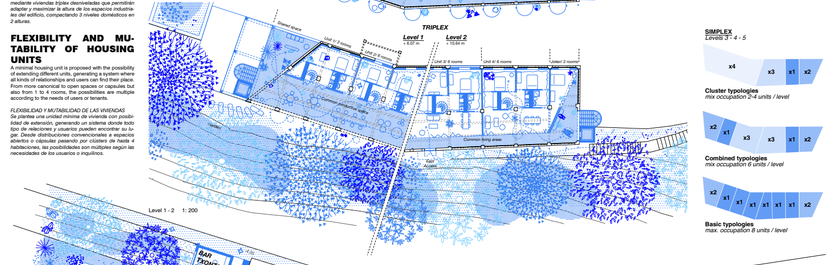


FLEXIBILITY AND MUTABILITY OF HOUSING UNITS

A minimal housing unit is proposed with the possibility of extending different units, generating a system where all kinds of relationships and users can find their place. From more canonical to open spaces or capsules but also from 1 to 4 rooms, the possibilities are multiple according to the needs of users or tenants.

FLEXIBILIDAD Y MUTABILIDAD DE LAS VIVIENDAS

Se plantea una unidad mínima de vivienda con posibilidad de extensión, generando un sistema donde todo tipo de relaciones y usuarios puedan encontrar su lugar. Desde distribuciones convencionales a espacios abiertos o cápsulas pasando por cluster de hasta 4 habitaciones, las posibilidades son múltiples según las necesidades de los usuarios o inquilinos.



COMMON AND PRODUCTIVE SPACES

On the first floor, the proposal brings productive and community spaces for the users of the building. These spaces will be complementary to the equipment on the ground floor. Their objective is to serve as poles of integration and socialisation among the neighbours when it comes to cover their dwelling and productive needs.

ESPACIOS COMUNES Y PRODUCTIVOS

En el primer piso, la propuesta incorpora espacios productivos y comunitarios para los usuarios del edificio. Estos serán complementarios al equipamiento de la planta baja. Su objetivo es servir como polos de integración y socialización entre los vecinos a la hora de atender a sus necesidades habitacionales y productivas.