CV

Ilda Fernández Freire

Architect | master degree

Final thesis distinguished (Excellent 9/10)
at the Valles Higher Technical School of Architecture, Barcelona

Address | Dongzhimen South Street 2-1-1802, Beijing
Nationality | Spanish
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LANGUAGES

Spanish | Mother tongue
Galician | Mother tongue
English | C1.2 Certificate in Advanced English
Italian | Very Good
Catalan | Good

SOFTWARE SKILLS

Autocad 2014 | Advanced
Illustrator | Photoshop | InDesign | Advanced
3D Studio Max + VRay | Medium
SketchUp | Advanced
Revit | Basic

WORKING EXPERIENCE

2014 **AS - Architecture Studio** | Beijing, China
ZJK2
JNN11
XIAN1
ZJK1
PKN26

2013 **ARQUI** Asociación de Arquitectos | Madrid, Spain
ZERO WASTE | Infrastructure for waste management in Sant Cugat del Valles.
SANT CUGAT 01 |
CAN MAGÍ |

2012 **H Arquitectes** | Barcelona, Spain
SAGRERA CINEMA | Use change and transformation of a small industrial estate
MILLS PARK | Virtual-Tectonic, Hybrid Public Space

ADITIONAL TRAINING

2011 ETSAV | **Valles Higher Technical School of Architecture** | Barcelona
"Bioclimatic Architecture"
"Energy Efficiency in Building Construction"
"El ciclo del Agua y el ciclo de los Materiales"

2010 **3D Studio Max** + VRay | 200h | www.espai.es
Adobe Illustrator + Photoshop | 200h | www.espai.es
Artistic drawing
"The Architecture of Color I: Dry technic"
"The Architecture of Color II: Wet Technic"

2009 UNIPA | **Universita degli Studi di Palermo** | Palermo, Italy
"Corso di Fotografia Digitale"
"Food Market in Palermo, a little reflection on the shopping experience"

2005-2008 ETSAC | **Coruña Higher Technical School of Architecture** | Coruña
Analog and Digital Photography | "Fotografia I" "Fotografia II"
Artistic drawing | "Natural Drawing"

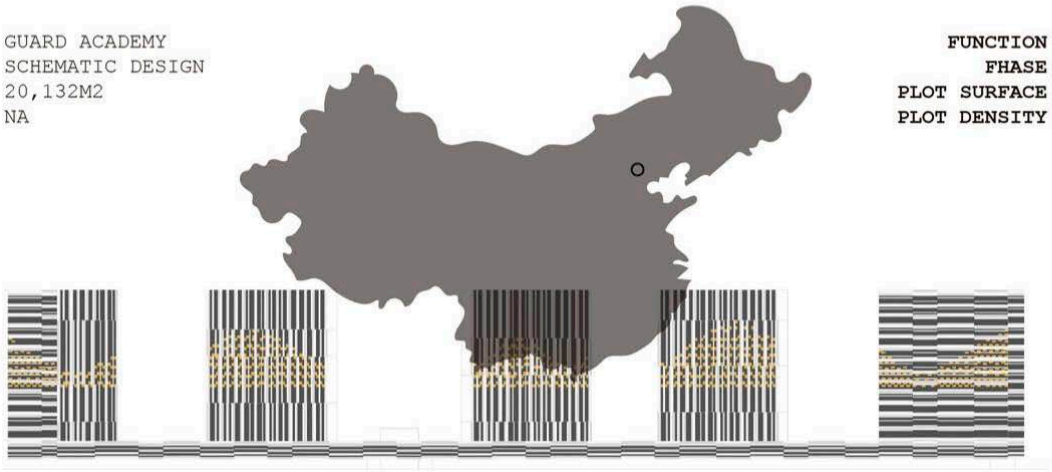
KEY SKILLS COVERED

Architectural projects, Interior design, urban planning, landscape interventions, building construction, structures, installations, rehabilitation of buildings, artistic and technical drawing

ZHANG JIAKOU-2

GUARD ACADEMY
SCHEMATIC DESIGN
20,132M2
NA

FUNCTION
FHASE
PLOT SURFACE
PLOT DENSITY

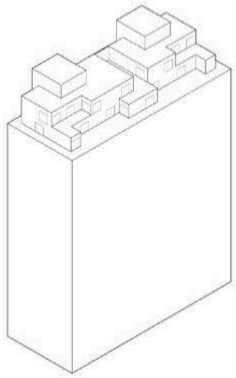


This project is also located in the city of Zhang Jiakou, which had been already introduced. In fact, the plot where we developed the project is just beside the plot for the Museum, Library and Archive, and both share same owner.
In this case the client ask AS Studio design 8 buildings which should include residencial and apartment buildings, hotel, office and also a comercial street. My task was develope the facade design.

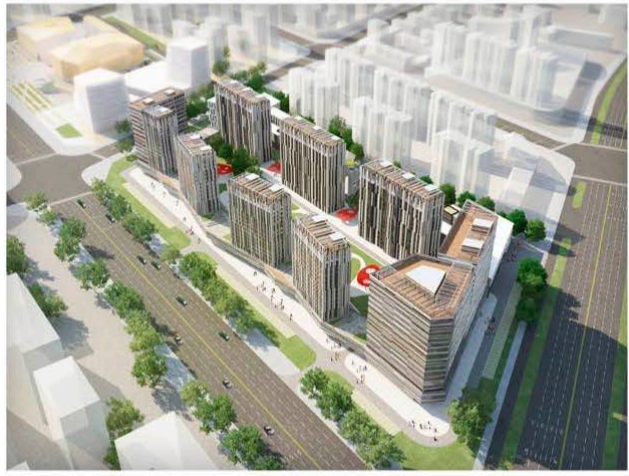
The main idea relative to the facade design was give to the joint the same concept, keeping easyly the feeling that all the buildings belong the same project, at the same time that we satisface the diferentes climatic for every orientation, and also that we can feel small variation in facade for residencial or office buildings.

The light, the urban regulation, and the correct air movement have guided the mass distribution of the different buildings.

①



The last two floors of the residential buildings are have luxury apartments that we called sky-courtyard. The apartments open private terraces facing to the south wich allows users to enjoy intermediate spaces and dote the roof with a different appearance.



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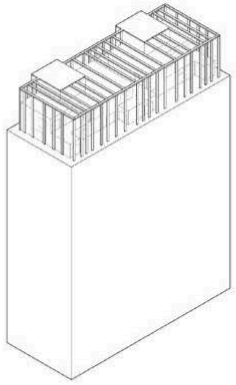
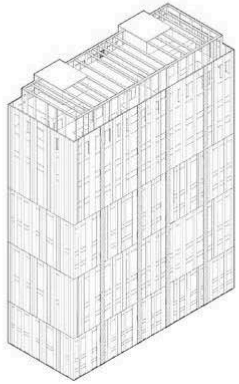


A light secondary structure cover the sky court-yard to allow cover it easyly with fabrics during the summer months.

③



The facade wrap the buildings, hiding air conditionair machines and functional balconies. Vertical stripes for residential buildings where we need more division in facade, and Horizonal stripes for office, where we want to enjoy panoramic views.

JINAN-11

GUARD ACADEMY
SCHEMATIC DESIGN
20,132M2
NA

FUNCTION
FHASE
PLOT SURFACE
PLOT DENSITY

The project is located on the westside of Shungeng Road, in Jinan Lixia District. The Building footprint of the project is about 2 ha, with a total area of about 24000 square meters. The project aims primarily at satisfing the official business, daily life and training of the guard bureau. The main structure is composed of office, barracks, technical buildings, apartments, sports facilities, shooting range etc.

The east side of the base is Shungeng Road, and the west is a flood discharge channel, Guangchangdonggou. The site presents a rectangular north-south direction. The west of its surrounding zone is to Southern Suburbs Hotel, to the south Shunyu Garden District, and to the east to Shungeng International Convention Centre and Shungeng montain village. The gate axis of the latter plots throughout the northern part of the site from east side, a channel exists between the site and building No1 of Southern Suburbs Hotel.

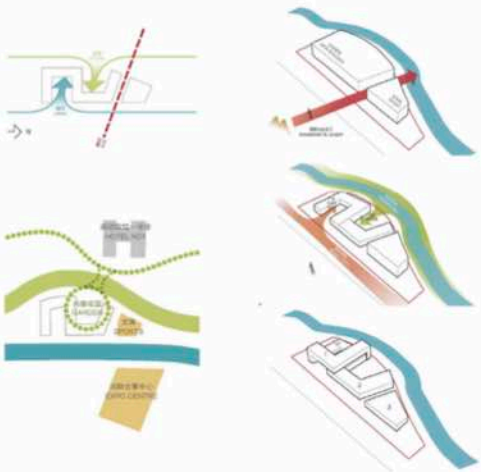
One side of the extend edge of the site adjoins to secondary main road of the city, pay attention to control the quantity and location of entrance facing the road on the basis of satisfy the traffic demand of the project.

GROUND FLOOR PLAN

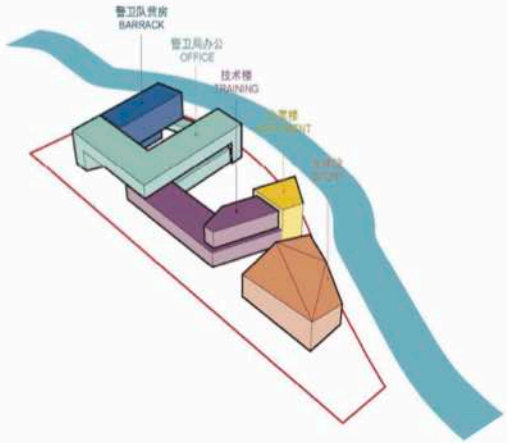
N

首层平面图 1:600
GROUND FLOOR PLAN 1:600

URBAN CONCEPT



MASSING CONCEPT



XI´AN-1

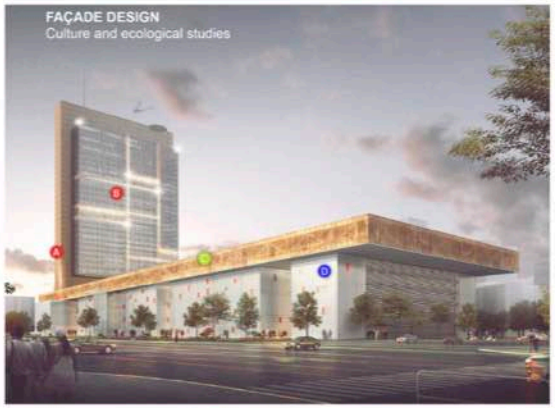
RADIO AND TELEVISION MEDIA CENTER
CONCEPT DESIGN
172,025M2
23%

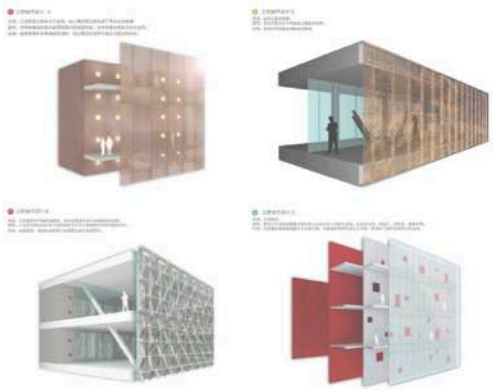
FUNCTION
FHASE
PLOT SURFACE
PLOT DENSITY

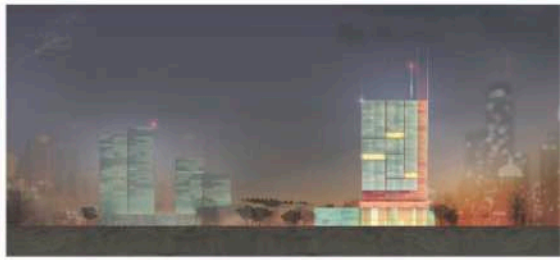
Xi´an is the capital of Shaanxi provinve, located in the northwest of the People´s Republic of China, in the center of the Guanzhong Plain.
Xi´an, with 8,467,837 inhabitants, is one of the Four Great Ancient Capitals of China, having held the position under several of the most important dynasties in Chinese history. Since the 1990s, as part of the economic revival of interior China, especally for the central and northwest regions, the city of Xi´an has re-emerged as an important cultural, industrial and educational center of the central-northwest region, with facilities for research and development, national security and China´s space exploration program.

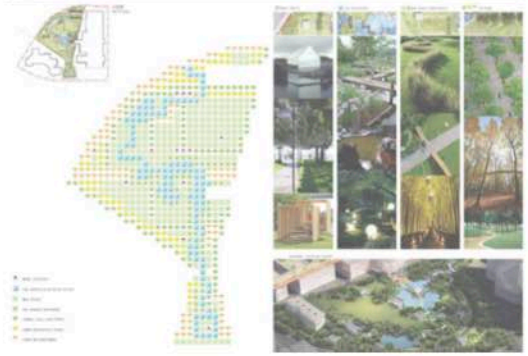
The current center is located in the south of the city, in a land which is more and more valued due to the city growth. In order to increase their facilities that the current building do not fit anymore, the aim is to move southern into the core of the New Planned Center of the City. The new land has an original fan shape given by the crossing of 3 roads, being one of them the main vertical axis of the new area.

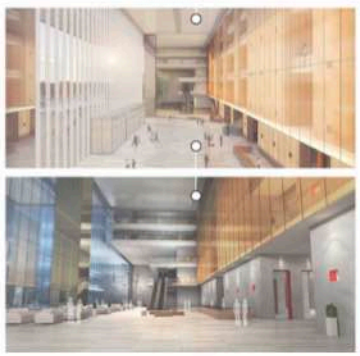
The premises were at first, to divide rationally the land into two parts, according also with two phases, one public for the proper Radio and Tv center (65% of the land) and one private for properties related to technology and broadcasting fields (35%). At the same time, the main part of the land would be divided in two: one for the proper building and the other one that would work as a huge shooting garden which is reminicent of the italian "cinecitta".

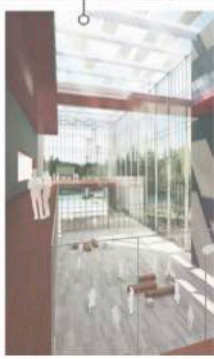












ZHANG JIAKOU-1

MUSEUM, LIBRARY AND ARCHIVE
CONCEPT (INTERIOR DESIGN)- SCHEMATIC (FACADE DESIGN)
40,023M2
51%

FUNCTION
FHASE
PLOT SURFACE
PLOT DENSITY

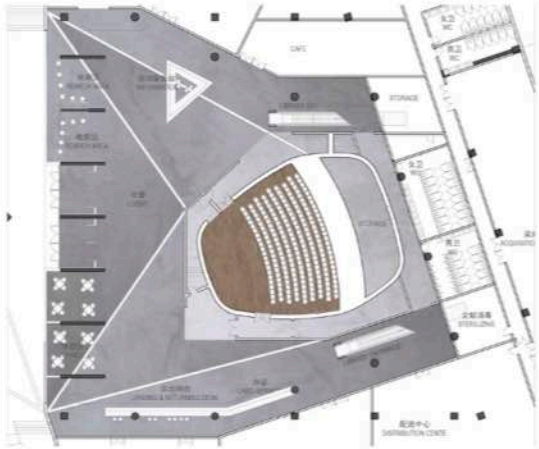
Nihewan ia located at the southern end of Zhangjiakou city. As the origin land of Chinese nation, Nihewan recorded the complete process of stratigraphic changes from early Pleistocene to late Pleistocene. This natural form of topography revealed the history of Zhangjiakou and its people. The stone is understood as a symbol of the energy of the montains. And the montains are, indeed, one of the most representative environmetal elements here, which can describe the spirit of the city.

In general, in the Chinese culture the stones are treated carefully and their positions and shapes are decided by a deep understanding of the energies contained in it. One big courtyard in B1 is the common public space which connects the architecture not only visually but also as an element of social meeting that empowers the complicity between.

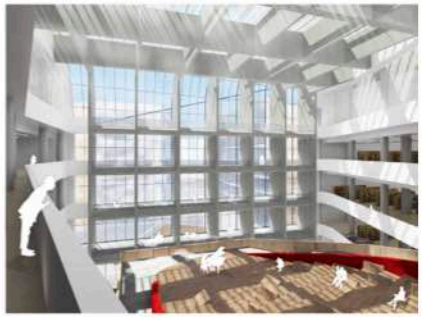
The need to give to the people a direct access to this public space, creates three entrances hierarchy while respecting the flow of the users and the feng-shui principles.

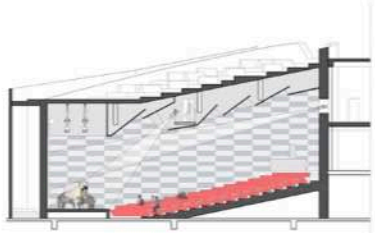
READING ROOM

MUSEUM HALL



LIBRARY GROUND FLOOR





ANPHITHEATRE

PEKIN-26

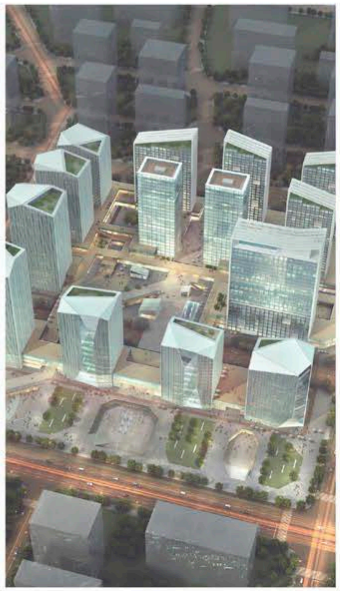
FINANCIAL STREET PROJECT
CONCEPT DESIGN
20,132M2
51%

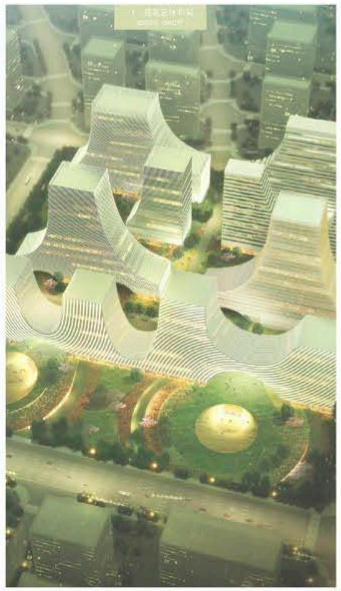
FUNCTION
FHASE
PLOT SURFACE
PLOT DENSITY

The project is located in the very west of Beijing, at the end of the main axis which cross the city from east to west, with a total area of about 24000 square meters.
The project aims primarily at satisfy the needs for this new business center of the city: office, residential, a big comercial mall and hotel.

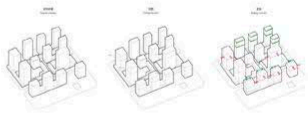
The client wanted three different options in the concept design phase. In that situation present three differents approach to the architecture: the formal and organic approach, the rational and functional one, and a third option which should be a compromise between the last two.

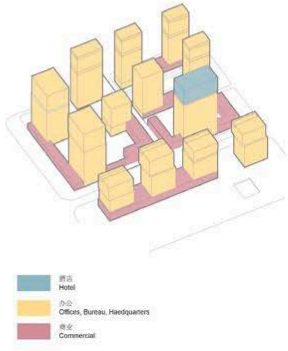
In all the three options the public space comform squares or plazas to distribute the differents volums and conform the comercial program, in order to give to the city nice spaces to enjoy city life.



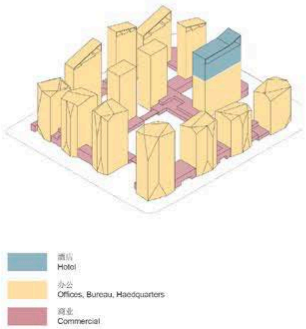


OPTION 1
Same Masterplan

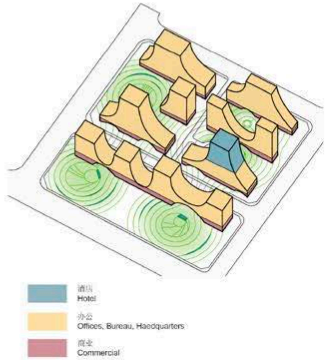




OPTION 2
Strong modification of MP

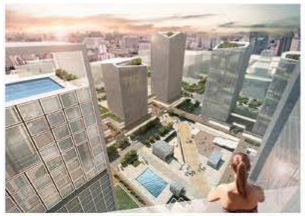


OPTION 3
Slight modification of MP and strong design

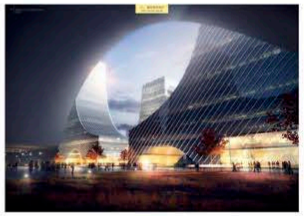


OPTION 1

OPTION 2

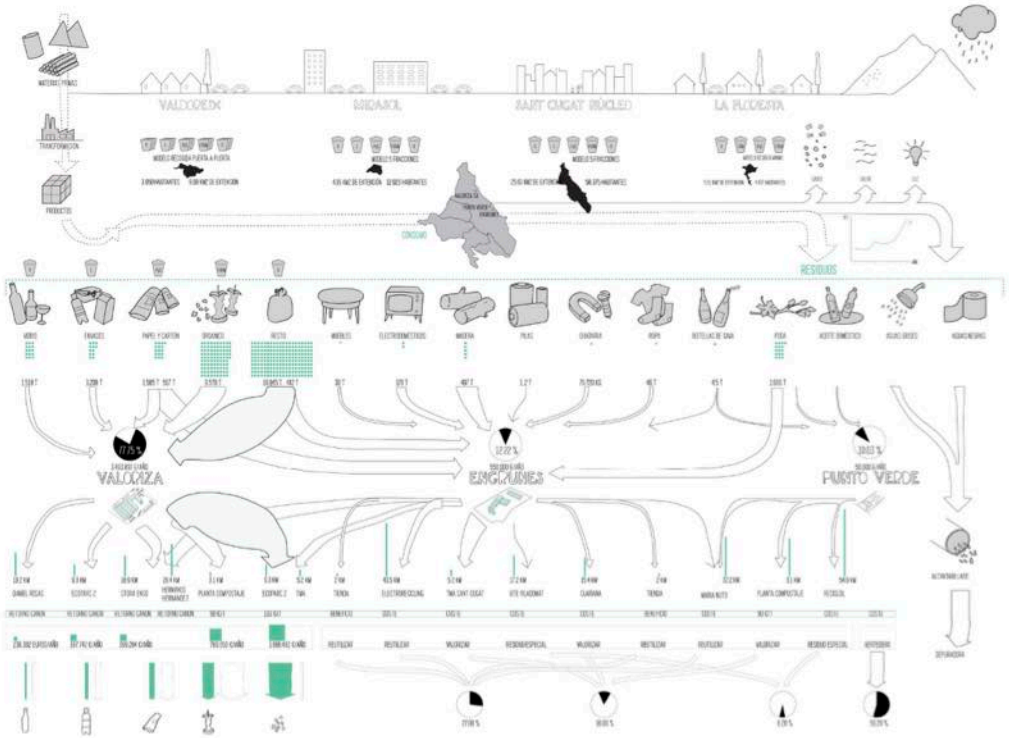


OPTION 3

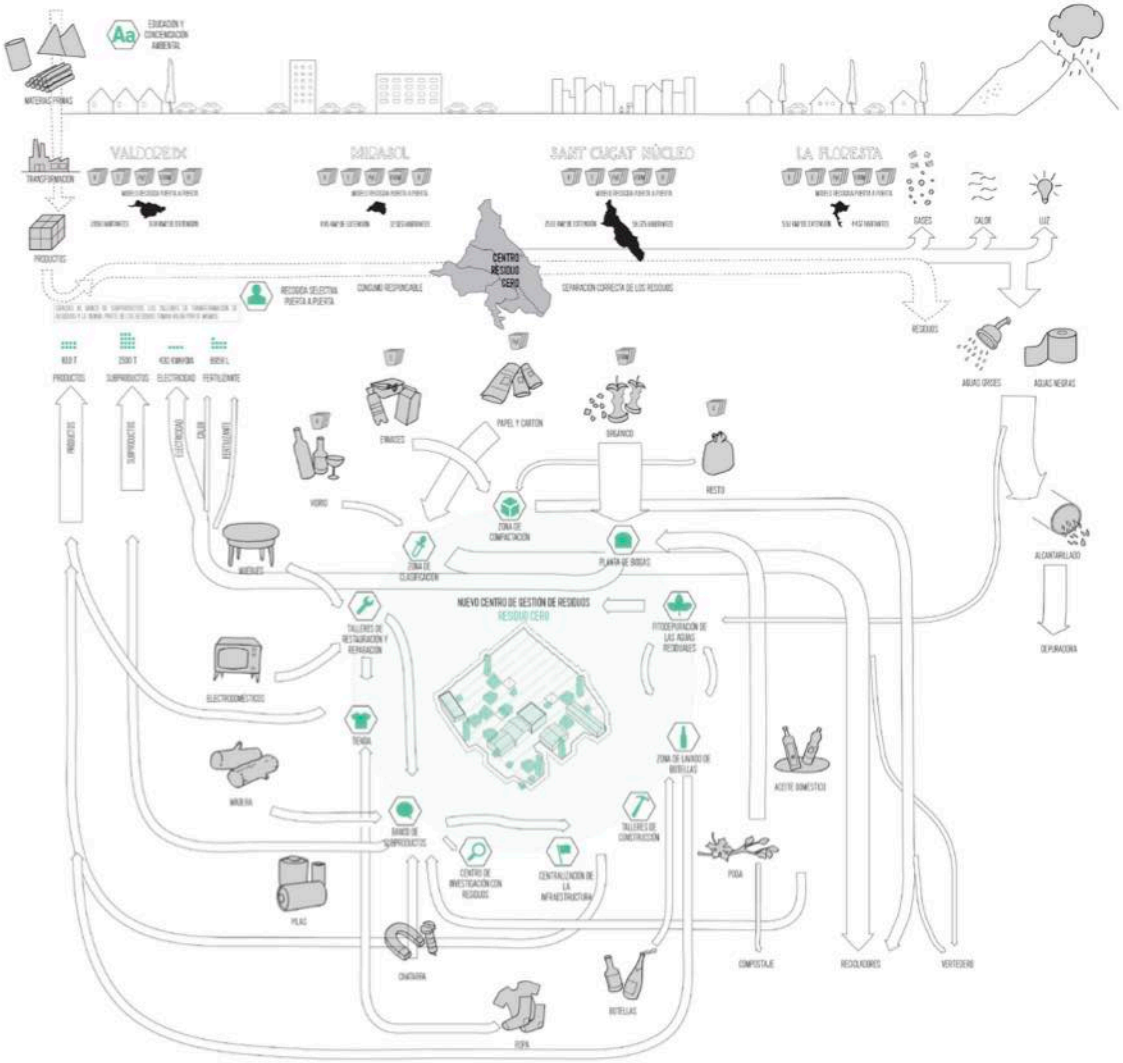


ZERO-WASTE

[GESTIÓN DE RESIDUOS EN SANT CUGAT DEL VALLÈS: SISTEMA ACTUAL]



[GESTIÓN DE RESIDUOS EN SANT CUGAT DEL VALLÈS: PROPUESTA]



Studing the current waste management I could measure the quantity of solid waste the city was producing. But I also wanted to know "how much of what", where the waste was going after being sorted, how they treat it, how much it cost to the city hall, how they get the energy to run all the proccess, how many water was need, and what happened with the water once it had been used. The oportunity was clear, improve this complex proccess to save money, energy, material and CO2

La propuesta incluye un nuevo centro de gestión de residuos, que engloba en un solo edificio todas las actividades relacionadas, antes situadas de forma independiente a lo largo de la Avenida de las Roquetas. Incluye además los nuevos mecanismos propuestos para mejorar la gestión de residuos de la ciudad. Los cambios son a muchas escalas, desde el modelo de recogida selectiva al tratamiento de las aguas grises que utiliza el centro.
Se trata de cerrar el ciclo de los materiales, dando valor al residuo en sí mismo, beneficiándonos de su valor en lugar de crear un problema ambiental y económico con él.

ZERO-WASTE

GESTIÓN DE RESIDUOS

TIPOLOGÍAS DE RECOGIDA SELECTIVA

SEGÚN EL NÚMERO DE CONTENEDORES QUE SE COLOCAN EN LA CALLE, Y POR TANTO LA SEPARACIÓN EN ORIGEN QUE REQUIERE EL SISTEMA DE RECOGIDA ELEGIDO POR EL MUNICIPIO, EXISTEN CUATRO MODALIDADES DE RECOGIDA SELECTIVA.
LOS ÚLTIMOS ESTUDIOS DEMUESTRAN QUE LA RECOGIDA PUERTA A PUERTA ES RENTABLE, Y SU COSTE GLOBAL DE GESTIÓN POR HABITANTE ES IGUAL O INCLUSO MENOR QUE EL DE LA RECOGIDA EN ACERA.
LA RECOGIDA PUERTA A PUERTA CONSIGUE UNA MAYOR SEPARACIÓN DE LOS RESIDUOS EN ORIGEN, EL SISTEMA AUMENTA LOS INGRESOS POR MATERIAL RECICLADO Y REDUCE LOS COSTES EN INCINERADORAS. LA MEJORA AMBIENTAL ESTÁ FUERA DE TODA DUDA.

PLANTA DE CLASIFICACIÓN

LAS PLANTAS DE CLASIFICACIÓN SON COSTOSÍSIMAS INSTALACIONES DONDE LOS RESIDUOS SON CLASIFICADOS PARA SU POSTERIOR RECICLAJE.
LOS ESTUDIOS DEMUESTRAN QUE LA TASA DE RECUPERACIÓN EN EL SISTEMA ACTUAL DE GESTIÓN DE RESIDUOS ES MUY BAJA, Y LA RECUPERACIÓN AMBIENTAL Y ECONÓMICA DE LA INVERSIÓN, CASI IMPOSIBLE.
SIN EMBARGO, UNA CORRECTA SEPARACIÓN EN ORIGEN, UNIDO A LA SELECCIÓN DE CIERTAS FRACCIONES, COMO EL VIDRIO Y EL PAPEL, PUEDEN TENER COMO RESULTADO UNAS ALTÍSIMAS TASAS DE RECUPERACIÓN DE MATERIAL A BAJO COSTE.

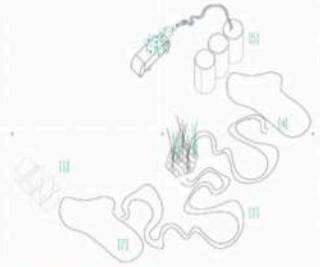
PLANTA DE TRANSFERENCIA

LAS PLANTAS DE TRANSFERENCIAS TIENEN LA FINALIDAD DE MINIMIZAR EL COSTO DEL TRANSPORTE ASOCIADO A LA GESTIÓN DE RESIDUOS. SON UNAS INSTALACIONES ESPECIALMENTE CONCEBIDAS PARA EFECTUAR EL TRASVASE DE LOS RESIDUOS DESDE LOS VEHÍCULOS COLECTORES QUE EFECTÚAN LA RECOGIDA EN LOS NÚCLEOS URBANOS, A OTROS VEHÍCULOS MÁS APTOS PARA EL TRANSPORTE A DISTANCIA.
ESTO ES POSIBLE GRACIAS A DOS SENCILLOS MECANISMOS:
1-LA BASURA SE TRASVASA UN CONTENEDOR 3 VECES MÁS GRANDE
2-LA BASURA SE COMPACTA MEDIANTE BRAZO HIDRÁULICO HASTA 10 VECES.

SISTEMA DEPÓSITO DEVOLUCIÓN Y RETORNO (SDDR)

DEPÓSITO SIGNIFICA QUE HAY UN VALOR ECONÓMICO ASOCIADO A CADA ENVASE. UN INCENTIVO PARA QUE ESE ENVASE VUELVA A LA CADENA DE PRODUCCIÓN EN LAS MEJORES CONDICIONES.
DEVOLUCIÓN SIGNIFICA QUE ESA CANTIDAD QUE EL CONSUMIDOR HA ADELANTADO SE LE REEMBOLSA EN SU TOTALIDAD CUANDO EL ENVASE SE ENTREGA DE NUEVO EN EL COMERCIO.
RETORNO SIGNIFICA QUE EL ENVASE VUELVE A LA CADENA DE PRODUCCIÓN, ES UNA MATERIA PRIMA EN CONDICIONES DE CONVERTIRSE EN CUALQUIER NUEVO PRODUCTO. EL CICLO SE CIERRA Y NO HAY RESIDUOS, SINO RECURSOS.

AGUA Y ENERGÍA



DEPURACIÓN POR PLANTAS MACRÓFITAS

LA BASE DEL SISTEMA DE DEPURACIÓN DE PLANTAS MACRÓFITAS ES CONVERTIR EN FLOTANTES A PLANTAS QUE HABITUALMENTE ESTÁN ENRAIZADAS EN LOS SUELOS DE LOS HUMEDALES. DE ESTA MANERA, EL AGUA SUCIA SE HACE CIRCULAR POR DEBAJO DE LAS RAÍCES DE LAS PLANTAS MACRÓFITAS QUE DE FORMA NATURAL DEPURAN DRÁSTICAMENTE EL AGUA, ELIMINANDO MICROORGANISMOS PATÓGENOS, METALES PESADOS, IONES CONTAMINANTES Y COLOIDES (SÓLIDOS DE MENOS DE 5 MICRAS).
EL CONSUMO DE ENERGÍA ELÉCTRICA DE ESTE SISTEMA SE PUEDE CONSIDERAR PRÁCTICAMENTE NULO.

GENERACIÓN DE BIOGÁS

ENTRA
FRACCIÓN ORGÁNICA
SUBPRODUCTOS AGRÍCOLAS
ESTIÉRCOL

SALE
FERTILIZANTE DE CALIDAD
AGUA CALIENTE
ELECTRICIDAD

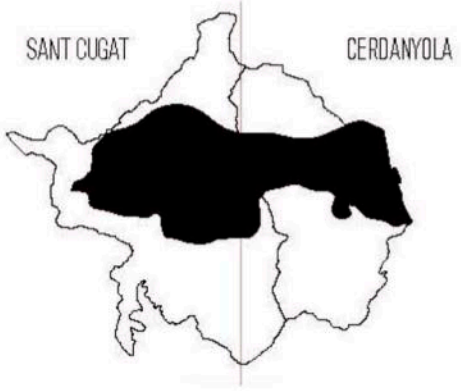
[1] TANQUE DE ALIMENTACIÓN
[2] BIODIGESTOR
[3] GENERADOR TERMO ELÉCTRICO

CARACTERÍSTICAS CLIMÁTICAS DEL AGUA

[1] CAPTADOR DE CALOR. CAPACIDAD DE CALENTARSE EN TODA SU MASA.
[2] TRASLÚCIDA. CAPACIDAD DE DEJAR PASAR LA LUZ.
[3] INERCIA TÉRMICA. CAPACIDAD DE GUARDAR CALOR Y LIBERARLO CON UN DESFASE.
[4] ALMACENAR CALOR. CAPACIDAD DE GUARDAR CALOR OCUPANDO UN VOLUMEN MÍNIMO.
[5] DISTRIBUIR EL CALOR. CAPACIDAD PARA SER CONDUCIDA Y LIBERAR CALOR.

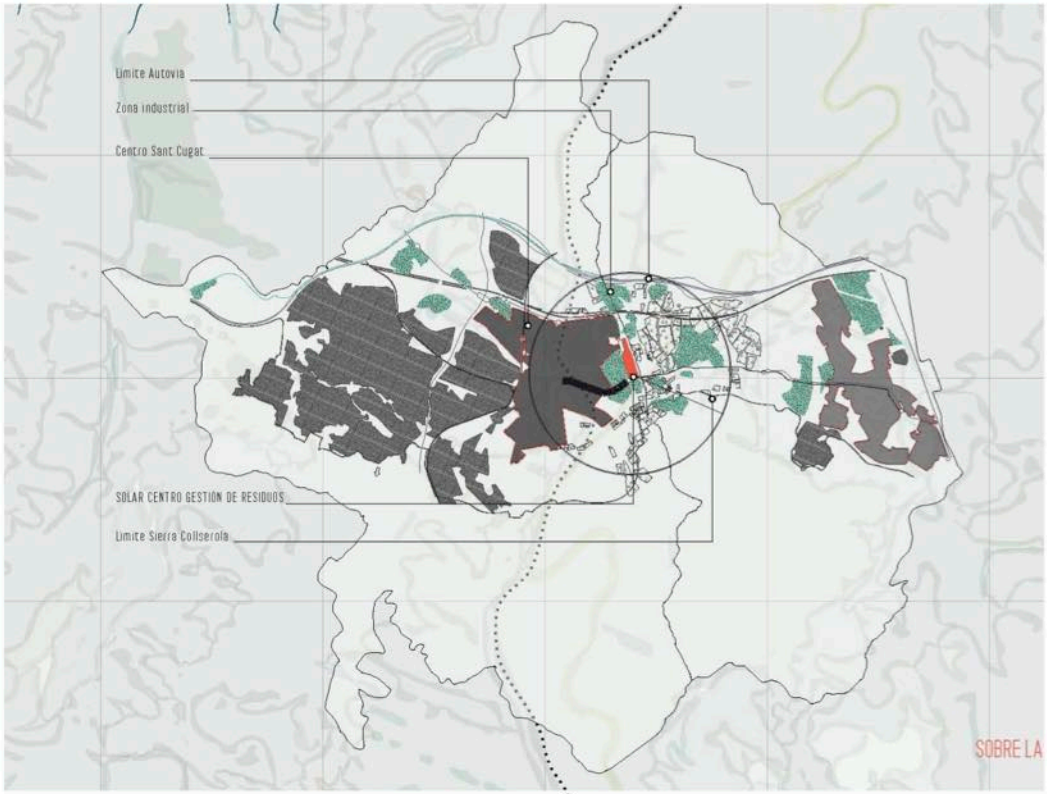
ZERO WASTE

ACADEMIC
CONCEPT DESIGN
BARCELONA, SPAIN
CITY HALL
PERSONAL PROJECT

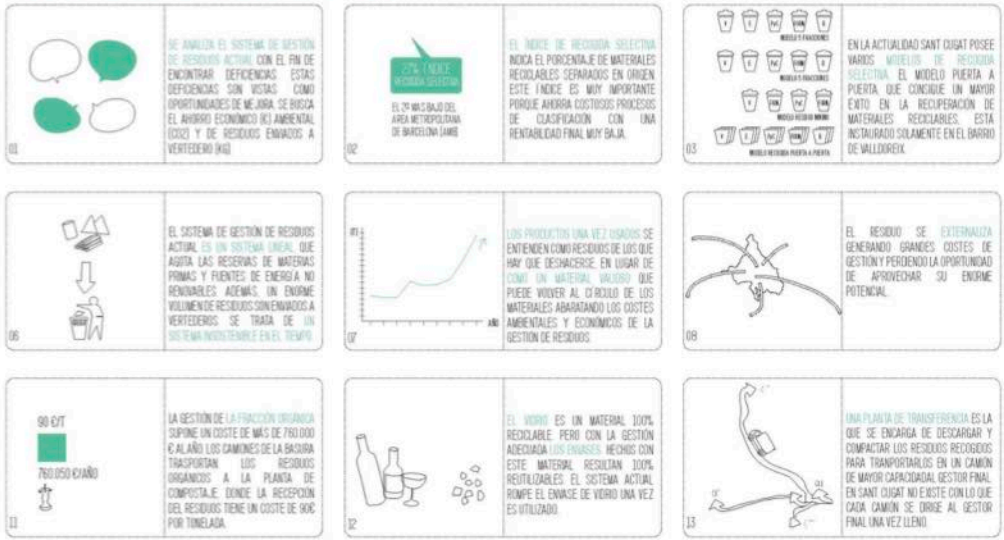


PROJECT TYPE
FHASE
SITUATION
CLIENT
TEAM

The area to transform is in between Sant Cugat and Cerdanyola, two districts close to Barcelona, Spain.
During this 6 months workshop we were asked to find a real, viable and necessary project which improve somehow the quality of the city and their inhabitants.
First step was study carefully what kind of city is Sant Cugat, how is the people living there, how they move, where they work, we reserch about how they spend their time and everything we could reserch about their profile and the profile of the city.
The area marked in red was soon specially interesting for me. Here, sparse long the limit of the district, were located all the activities related with the waste management for Sant Cugat.

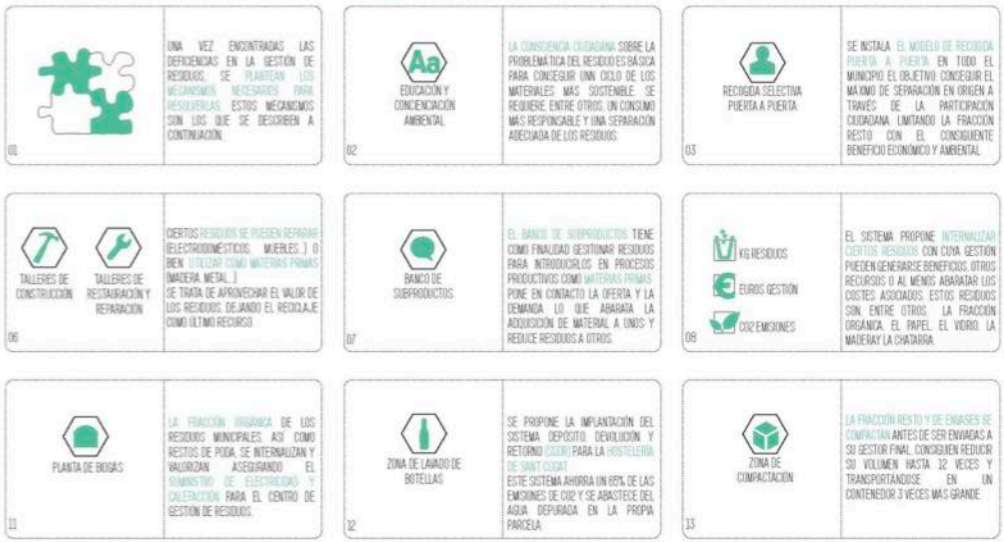


[DETECCIONES::OPORTUNIDADES]



Second step was study the way this activities manage the waste produced by the city. Study how they do it to find how to improve it. This OPORTUNITIES were classified through the previous draws.

[ESTRATEGIAS::MECANISMOS]



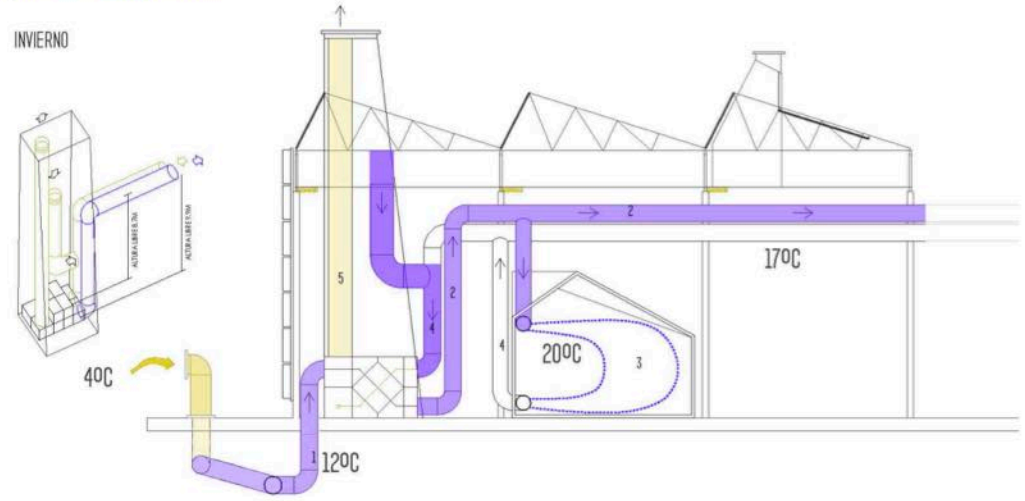
Third step was to propose a set of MECHANISMS to improve this deficits in the managment. They include educational program, changes in the waste sorting, byproducts networks, restoring and repairing ateliers, compression area, changes in the water processing...

SANT CUGAT-01

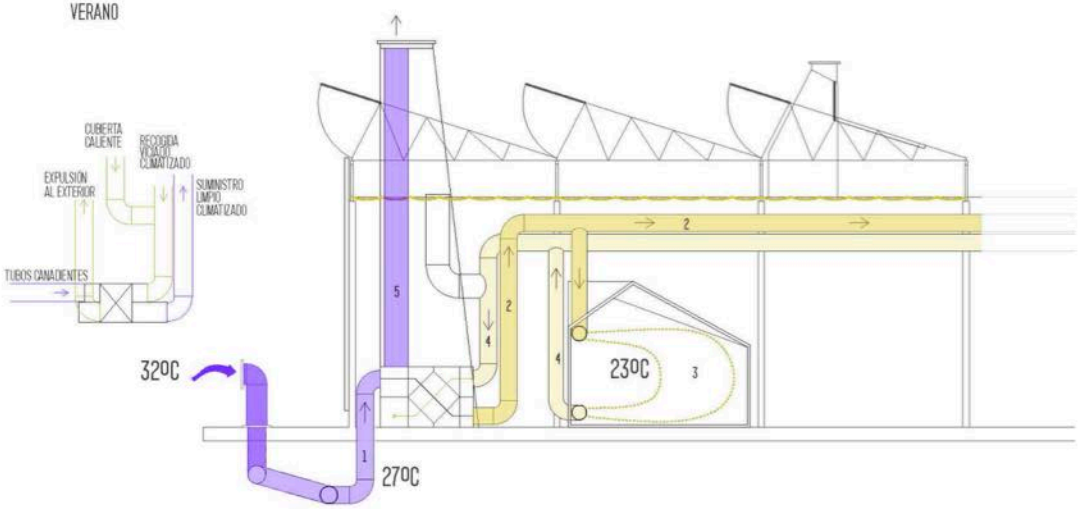
El comportamiento climático del edificio basa su funcionamiento en la climatización mediante aire proveniente de tubos canadienses. De esta manera el aire viene en condiciones de partida más favorables que el aire exterior, tanto en invierno como en verano.
En invierno, mediante el uso de intercambiadores de calor, y recogiendo el aire caliente que se acumula en la parte alta de la cubierta debido al efecto invernadero, conseguimos llegar a la temperatura de confort deseada para repatir ahora el aire a los espacios que más confort demandan.
En verano, la cubierta se abre y se cubre mediante telas reflectantes para asi evitar el sobrecalentamiento y aportar sombra sobre la zona de trabajo.

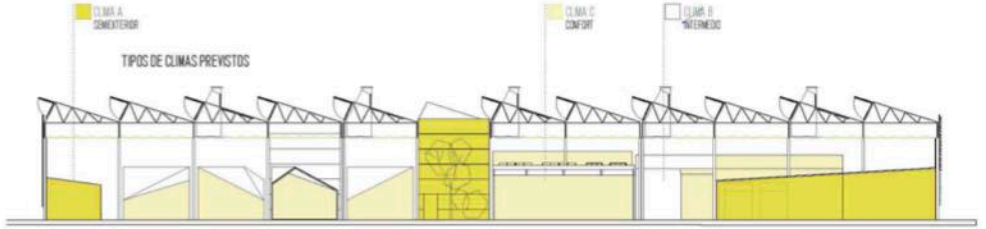
COMPORTAMIENTO CLIMÁTICO

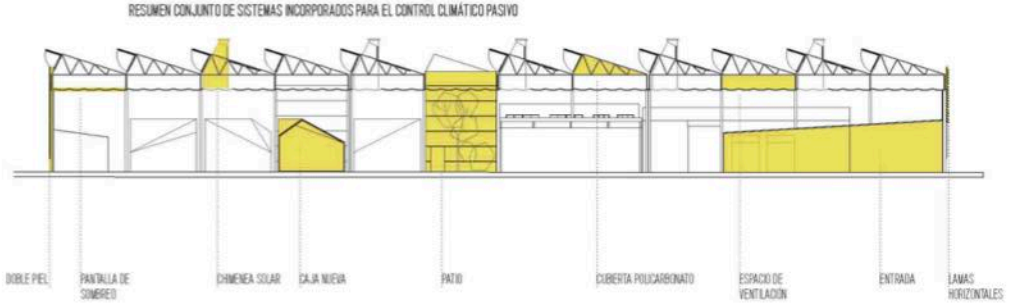
INVIERNO

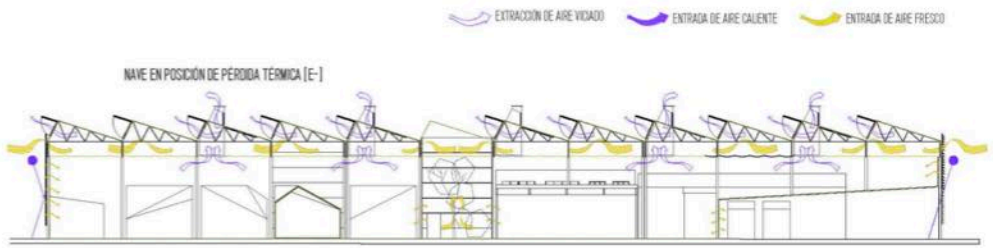


VERANO





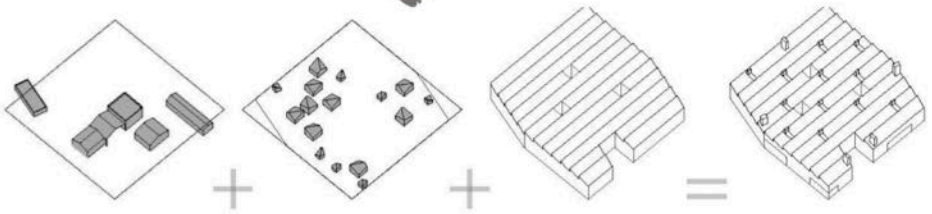




SANT CUGAT-01

ACADEMIC
CONCEPT DESIGN
BARCELONA, SPAIN
CITY HALL
PERSONAL PROJECT

PROJECT TYPE
FHASE
SITUATION
CLIENT
TEAM

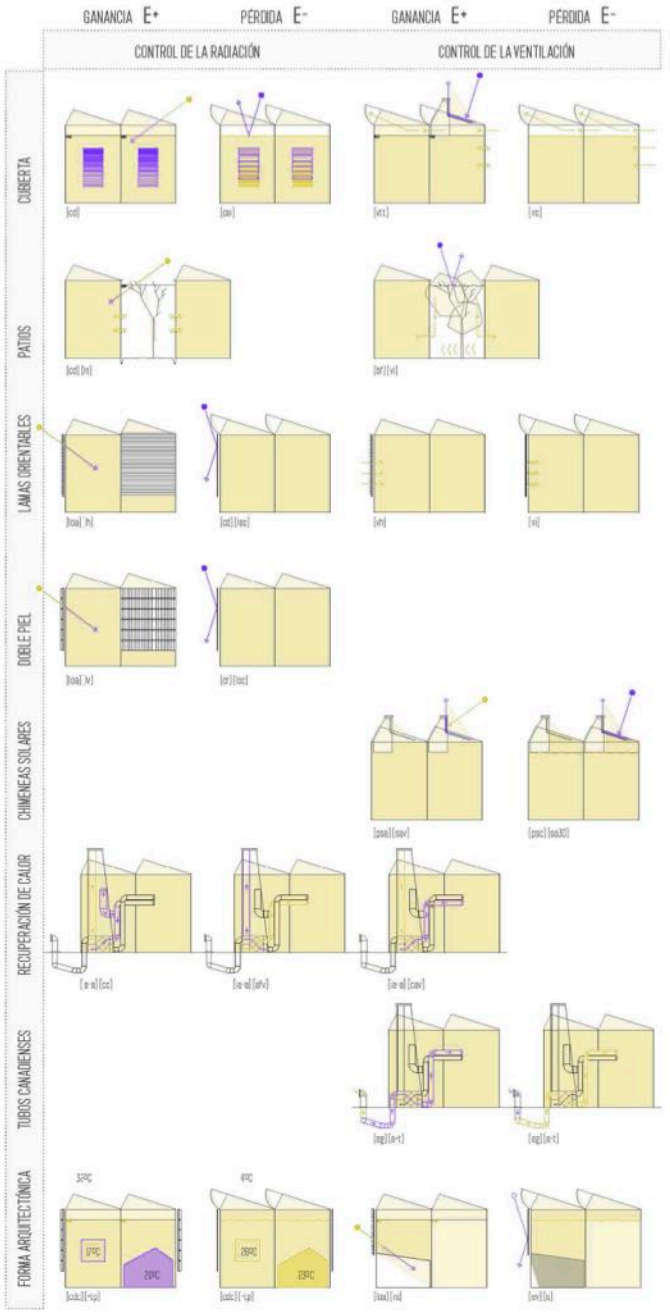


C
CONFORT

B
INTERMEDIO

A
SEMIEXTERIOR

CLIMAS	ACTIVIDAD	RENOVACIÓN AIRE	RANGO CONFORT	ESTRATEGIA CLIMÁTICA		SISTEMAS CLIMÁTICOS
				CONTROL DE LA RADIACIÓN	CONTROL DE LA VENTILACIÓN	
A SEMIEXTERIOR	ACTIVIDAD CON VEHÍCULOS CARGA Y DESCARGA PATIOS	100%	CONTROL RADIACIACIÓN PROTECCIÓN LLUVIA	FORMA ARQUITECTÓNICA: LA YISERA SOMBREAMIENTO: LAMAS ORIENTABLES	---	PASIVOS
B INTERMEDIO	INDUSTRIAL CON MANEJO DE CONTAMINANTES	20 V/H (VENTILACIÓN NATURAL)	17-26 ºC	CAPTACIÓN DIRECTA: CUBIERTA Y FACHADA PANTALLAS DE SOMBREO LAMAS ORIENTABLES	VENTILACIÓN CRUZADA CHIMENEAS SOLARES RENOVACIÓN POR INFILTRACIÓN DOBLE PIEL	PASIVOS SEMI-PASIVOS
C CONFORT	TALLERES OFICINAS CUARTOS HÚMEDOS	5 V/H (MECÁNICA CONTROLADA)	20-23 ºC	CAJA DENTRO DE CAJA DOBLE PIEL MEJORES CONDICIONES DE PARTIDA	TUBOS CANADIENSES RECUPERACIÓN DE CALOR CONDUCTOS DE CIRCULACIÓN VENTILADORES	SEMI-PASIVOS ACTIVOS



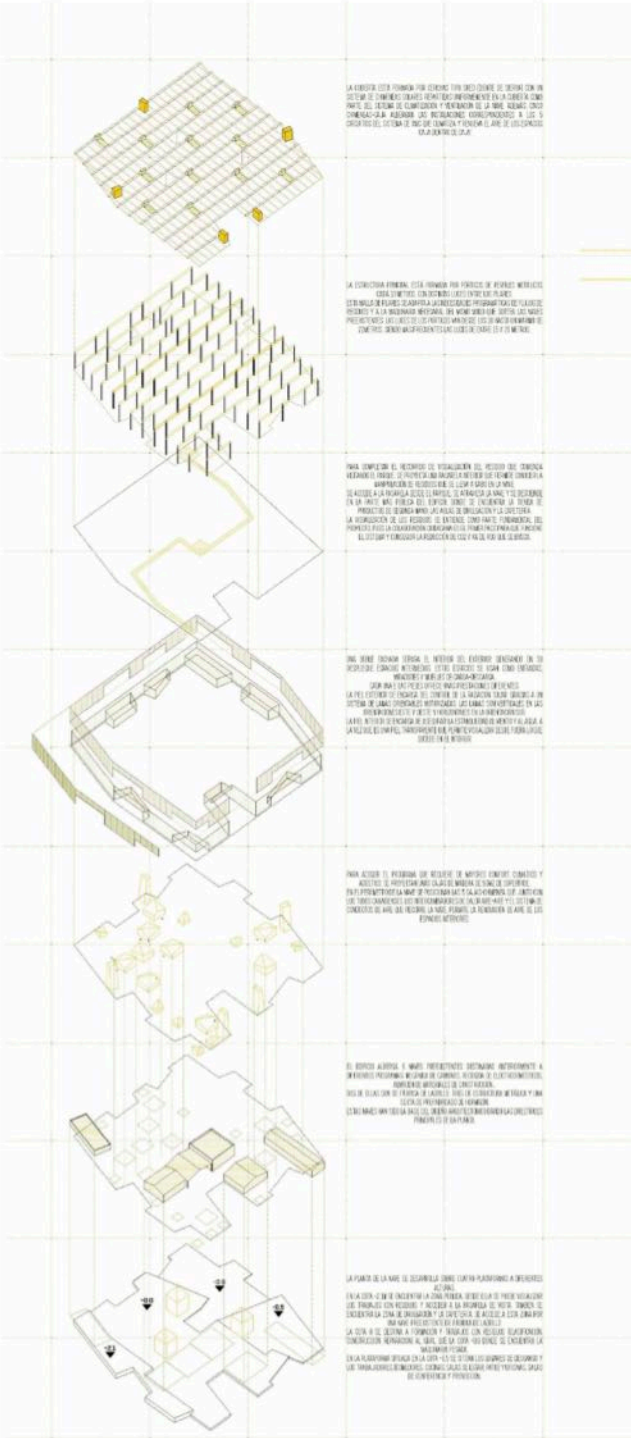
[cd_captación directa::cei_control del efecto invernadero::vct_ventilación natural por tiraje térmico::vc_ventilación natural cruzada::ln_luz natural::bf_bolsa de aire fresco::vi_ventilación por infiltración::loa_lamas orientables abiertas::loc_lamas orientables cerradas::lh_lamas horizontales(sur)::lv_lamas verticales (este y oeste)::vh_ventilacion por hueco::cr_control de la radiacion::psa_pantallas de sombreo abiertas::psc_pantallas de sombreo cerradas::sav_superficie absorvente vertical (sol de invierno o primera hora)::sa30_superfice de absorción a 30º (sol de verano o tardío::ia_a_intercambiador aire-aire::cc_calor de la cubierta::afv_aire fresco viciado::cav_calor aire viciado::eg_energía geotérmica::a+t_aire a mayor temperatura::a-t_ aire a menor temperatura::ccc_caja dentro de caja::+tp_mayor temperatura de partida::-tp_menor temperatura de partida::rs_radiación solar::ev_efecto visera::s_sombreamiento]

SANT CUGAT-01

El nuevo centro de transmisión de residuos se sitúa en un solar donde se encentran como preexistencias cinco naves industriales.

La propuesta es conservar las naves, con pequeñas modificaciones en sus partes más ligeras, añadir nuevas cajas para acoger el programa con mayores demandas de confort, y cubrir el conjunto con una cubierta ligera, con la tripe función de dar unidad al conjunto, colaborar en la estrategia climática mediante el mecanismo caja dentro de caja, y acoger actividades que necesiten espacios de gran escala y baja menor confort climático.

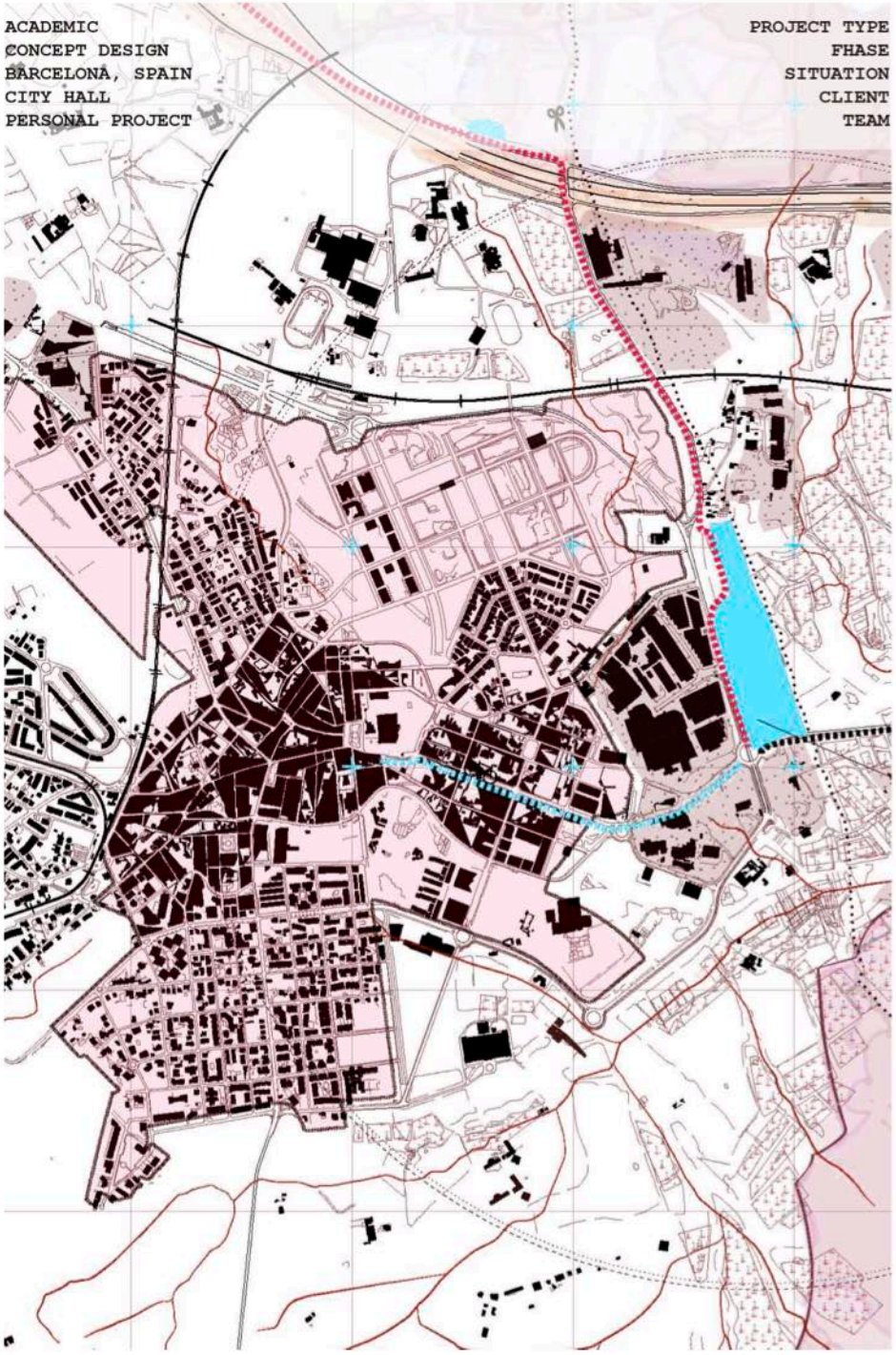
El programa incluye muelle de descarga, zona de lavado, planta de clasificación, talleres de reparación y restauración, aulas de formación, cafetería, vestuarios...

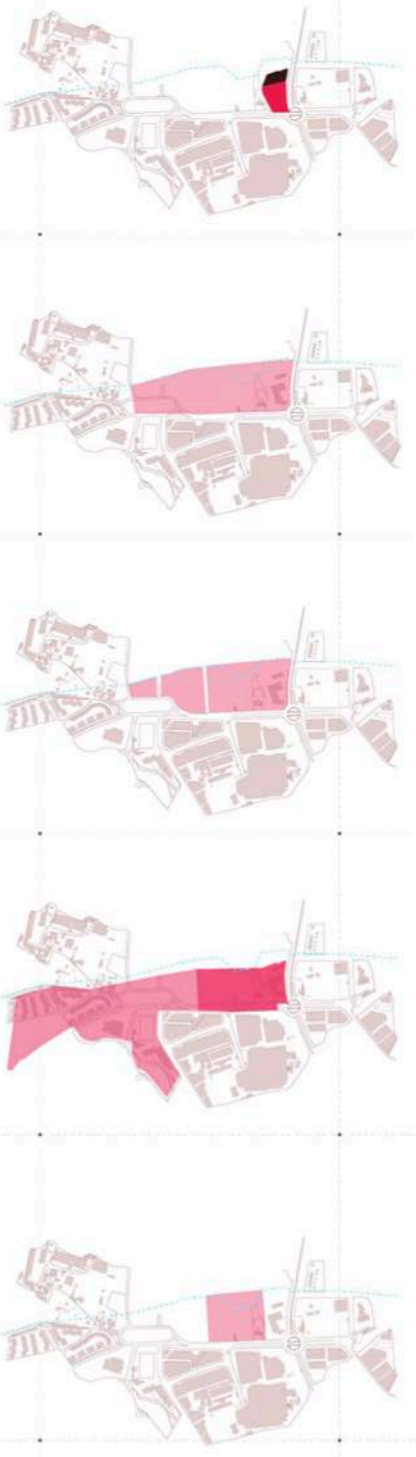


CAN MAGÍ-01

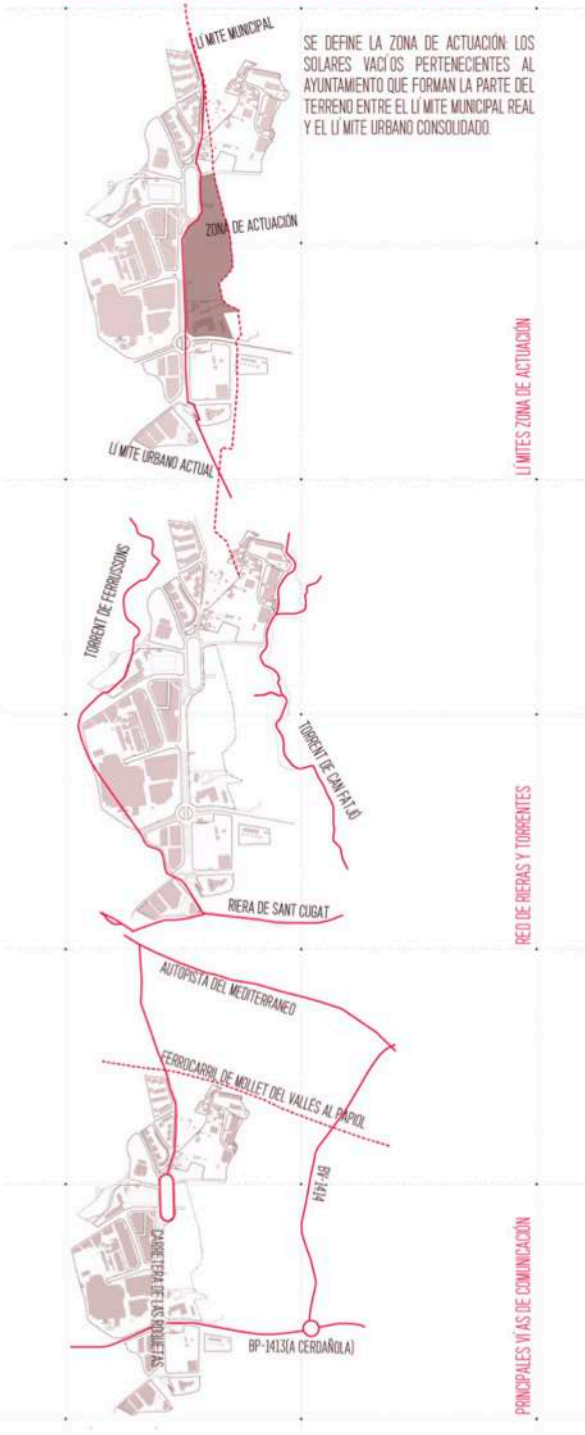
ACADEMIC
CONCEPT DESIGN
BARCELONA, SPAIN
CITY HALL
PERSONAL PROJECT

PROJECT TYPE
FHASE
SITUATION
CLIENT
TEAM





CARACTERÍSTICAS FÍSICAS DEL SOLAR



SE DEFINE LA ZONA DE ACTUACIÓN LOS SOLARES VACÍOS PERTENECIENTES AL AYUNTAMIENTO QUE FORMAN LA PARTE DEL TERRENO ENTRE EL LÍMITE MUNICIPAL REAL Y EL LÍMITE URBANO CONSOLIDADO.

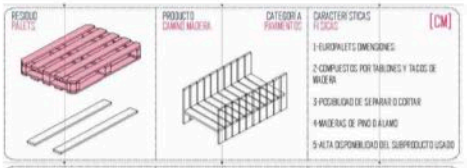
LÍMITES ZONA DE ACTUACIÓN

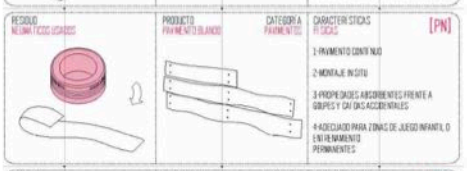
RED DE RIERAS Y TORRENTES

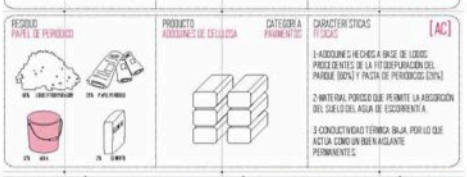
PRINCIPALES VÍAS DE COMUNICACIÓN

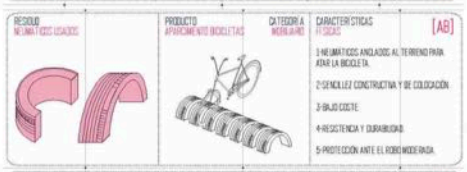
CAN MAGÍ-01

PLANTA BIOGÁS
MUSEO BIOGÁS
MUSEO FITODEPURACIÓN
HORNOS SOLARES
BIBLIOTECA
BAR
BAÑO
ARMARIO
FITODEPURACIÓN
MUSEO BANCO SUPERMERCADOS
[AC]
[PLT]
[TT]
[DET]
[MM]
[PH]
[MC]
[TA]
[GP]
[PV]
[ZS]
[CM]
[AB]
[PN]
[TG]

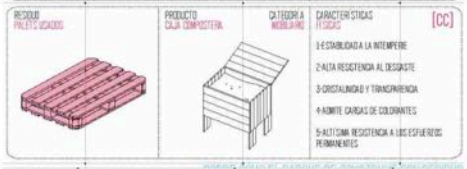

RESIDUO
PALETS
PRODUCTO
CAMINO MADERA
CATEGORIA
PAVIMENTOS
CARACTERISTICAS
FISICAS
[CM]
1-EUROPALETS DIMENSIONES
2-COMPUESTOS POR TABLONES Y TACOS DE MADERA
3-POSIBILIDAD DE SEPARAR O CORTAR
4-MADERAS DE PINO O ÁLAMO
5-ALTA DISPONIBILIDAD DEL SUBPRODUCTO USADO

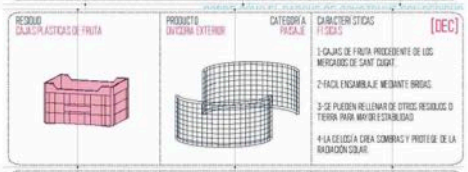

RESIDUO
NEUMATICOS USADOS
PRODUCTO
PAVIMENTO BLANDO
CATEGORIA
PAVIMENTOS
CARACTERISTICAS
FISICAS
[PN]
1-PAVIMENTO CONTINUO
2-MONTAJE IN SITU
3-PROPIEDADES ABSORBENTES FRENTE A GOLPES Y CAIDAS ACCIDENTALES
4-ADECUADO PARA ZONAS DE JUEGO INFANTIL O ENTRENAMIENTO PERMANENTES

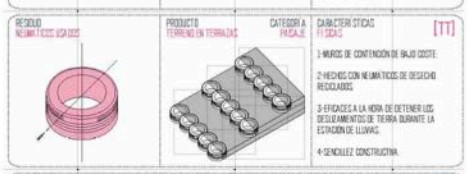

RESIDUO
PAPEL DE PERIODICO
PRODUCTO
ADOQUINES DE CELULOSA
CATEGORIA
PAVIMENTOS
CARACTERISTICAS
FISICAS
[AC]
1-ADOQUINES HECHOS A BASE DE LODOS PROCEDENTES DE LA FITODEPURACIÓN DEL PARQUE (80%) Y PASTA DE PERIODICOS (20%)
2-MATERIAL POROSO QUE PERMITE LA ABSORCIÓN DEL SUELO DEL AGUA DE ESCORRENTÍA
3-CONDUCTIVIDAD TÉRMICA BAJA, POR LO QUE ACTÚA COMO UN BUEN AISLANTE PERMANENTES

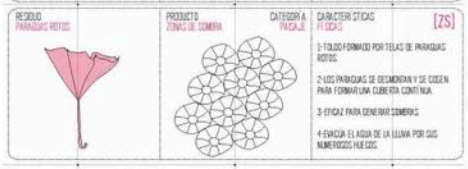

RESIDUO
NEUMATICOS USADOS
PRODUCTO
APARCAMIENTO BICICLETAS
CATEGORIA
MOBILIARIO
CARACTERISTICAS
FISICAS
[AB]
1-NEUMATICOS ANCLADOS AL TERRENO PARA ATAR LA BICICLETA
2-SENCILLEZ CONSTRUCTIVA Y DE COLOCACIÓN
3-BAJO COSTE
4-RESISTENCIA Y DURABILIDAD
5-PROTECCIÓN ANTE EL ROBO MODERADA

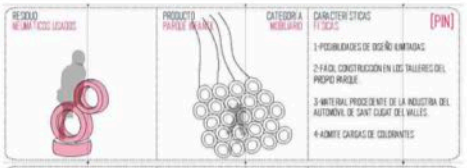
RESIDUO
PALETS USADOS
PRODUCTO
MOBILIARIO MODULAR
CATEGORIA
MOBILIARIO
CARACTERISTICAS
FISICAS
[MM]
1-MOBILIARIO MODULAR PARA EXTERIOR
2-FÁCIL CONSTRUCCIÓN
3-LIGEREZA DEL MÓDULO QUE PUEDE MOVERSE CON FACILIDAD SEGÚN LAS NECESIDADES.
4-DIMENSIONES DEL TRIANGULO ISOTOXICOM

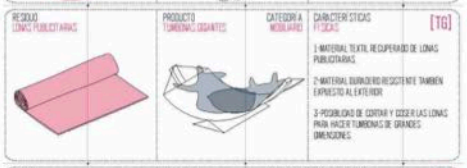

RESIDUO
PALETS USADOS
PRODUCTO
CAJA COMPOSTERA
CATEGORIA
MOBILIARIO
CARACTERISTICAS
FISICAS
[CC]
1-ESTABILIDAD A LA INTEMPERIE
2-ALTA RESISTENCIA AL DESGASTE
3-CRISTALINIDAD Y TRANSPARENCIA
4-ADMITE CARGAS DE COLORANTES
5-ALTÍSIMA RESISTENCIA A LOS ESFUERZOS PERMANENTES

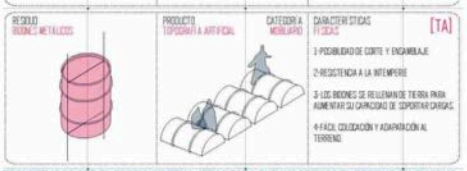

RESIDUO
CAJAS PLASTICAS DE FRUTA
PRODUCTO
CANTERA EXTERIOR
CATEGORIA
PAISAJE
CARACTERISTICAS
FISICAS
[DEC]
1-CAJAS DE FRUTA PROCEDENTE DE LOS MERCADOS DE SANT CUGAT.
2-FÁCIL ENSAMBLAJE MEDIANTE BRIDAS.
3-SE PUEDEN RELLENAR DE OTROS RESIDUOS O TIERRA PARA MAYOR ESTABILIDAD
4-LA CELOSÍA CREA SOMBRAS Y PROTEGE DE LA RADIACIÓN SOLAR

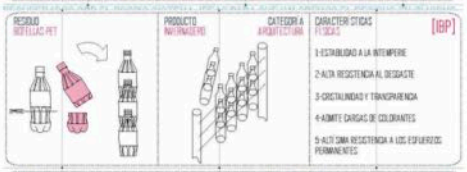

RESIDUO
NEUMATICOS USADOS
PRODUCTO
TERRENO EN TERRAZAS
CATEGORIA
PAISAJE
CARACTERISTICAS
FISICAS
[TT]
1-MUROS DE CONTENCIÓN DE BAJO COSTE.
2-HECHOS CON NEUMÁTICOS DE DESECHO RECICLADOS
3-EFICACES A LA HORA DE DETENER LOS DESLIZAMIENTOS DE TIERRA DURANTE LA ESTACIÓN DE LLUVIAS.
4-SENCILLEZ CONSTRUCTIVA

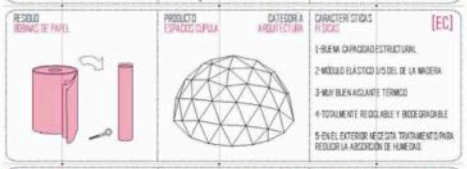

RESIDUO
PARAGUAS ROTOS
PRODUCTO
ZONAS DE SOMBRA
CATEGORIA
PAISAJE
CARACTERISTICAS
FISICAS
[ZS]
1-TOLDO FORMADO POR TELAS DE PARAGUAS ROTOS.
2-LOS PARAGUAS SE DESMONTAN Y SE COSEN PARA FORMAR UNA CUBIERTA CONTINUA
3-EFICAZ PARA GENERAR SOMBRAS
4-EVACUA EL AGUA DE LA LLUVIA POR SUS NUMEROSOS HUECOS

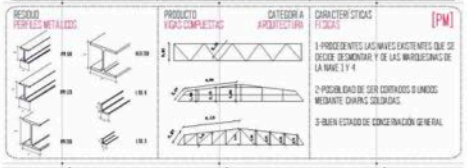

RESIDUO
NEUMATICOS USADOS
PRODUCTO
PARQUE INFANTIL
CATEGORIA
MOBILIARIO
CARACTERISTICAS
FISICAS
[PIN]
1-POSIBILIDADES DE DISEÑO ILIMITADAS
2-FÁCIL CONSTRUCCIÓN EN LOS TALLERES DEL PROPIO PARQUE
3-MATERIAL PROCEDENTE DE LA INDUSTRIA DEL AUTOMÓVIL DE SANT CUGAT DEL VALLÉS
4-ADMITE CARGAS DE COLORANTES


RESIDUO
LONAS PUBLICITARIAS
PRODUCTO
TUMBONAS GIGANTES
CATEGORIA
MOBILIARIO
CARACTERISTICAS
FISICAS
[TG]
1-MATERIAL TEXTIL RECUPERADO DE LONAS PUBLICITARIAS.
2-MATERIAL BARNIZADO RESISTENTE TAMBIEN EXPUESTO AL EXTERIOR
3-POSIBILIDAD DE CORTAR Y DOBLER LAS LONAS PARA HACER TUMBONAS DE GRANDES DIMENSIONES.

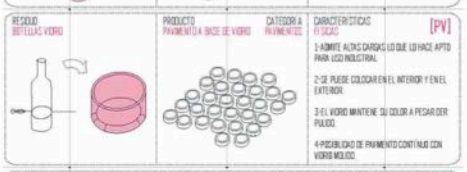

RESIDUO
RESIDUOS METALICOS
PRODUCTO
TOPOGRAFIA ARTIFICIAL
CATEGORIA
MOBILIARIO
CARACTERISTICAS
FISICAS
[TA]
1-POSIBILIDAD DE CORTE Y ENSAMBLAJE
2-RESISTENCIA A LA INTEMPERIE
3-LOS BIDONES SE RELLENARAN DE TIERRA PARA AUMENTAR SU CAPACIDAD DE SOPORTAR CARGAS.
4-FÁCIL COLOCACIÓN Y ADAPTACIÓN AL TERRENO

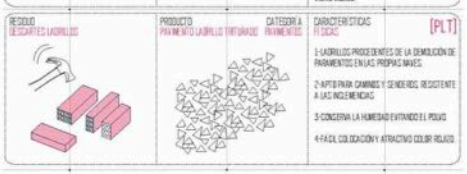

RESIDUO
BOTELLAS PET
PRODUCTO
INVERNADERO
CATEGORIA
ARQUITECTURA
CARACTERISTICAS
FISICAS
[GP]
1-ESTABILIDAD A LA INTEMPERIE
2-ALTA RESISTENCIA AL DESGASTE
3-CRISTALINIDAD Y TRANSPARENCIA
4-ADMITE CARGAS DE COLORANTES
5-ALTÍSIMA RESISTENCIA A LOS ESFUERZOS PERMANENTES


RESIDUO
BOBINAS DE PAPEL
PRODUCTO
ESPACIOS CUPULA
CATEGORIA
ARQUITECTURA
CARACTERISTICAS
FISICAS
[EC]
1-BUENA CAPACIDAD ESTRUCTURAL
2-MÓDULO ELÁSTICO 1/5 DEL DE LA MADERA
3-MUY BUEN AISLANTE TÉRMICO
4-TOTALMENTE RECICLABLE Y BIODEGRADABLE
5-EN EL EXTERIOR NECESITA TRATAMIENTO PARA REDUCIR LA ABSORCIÓN DE HUMEDAD.

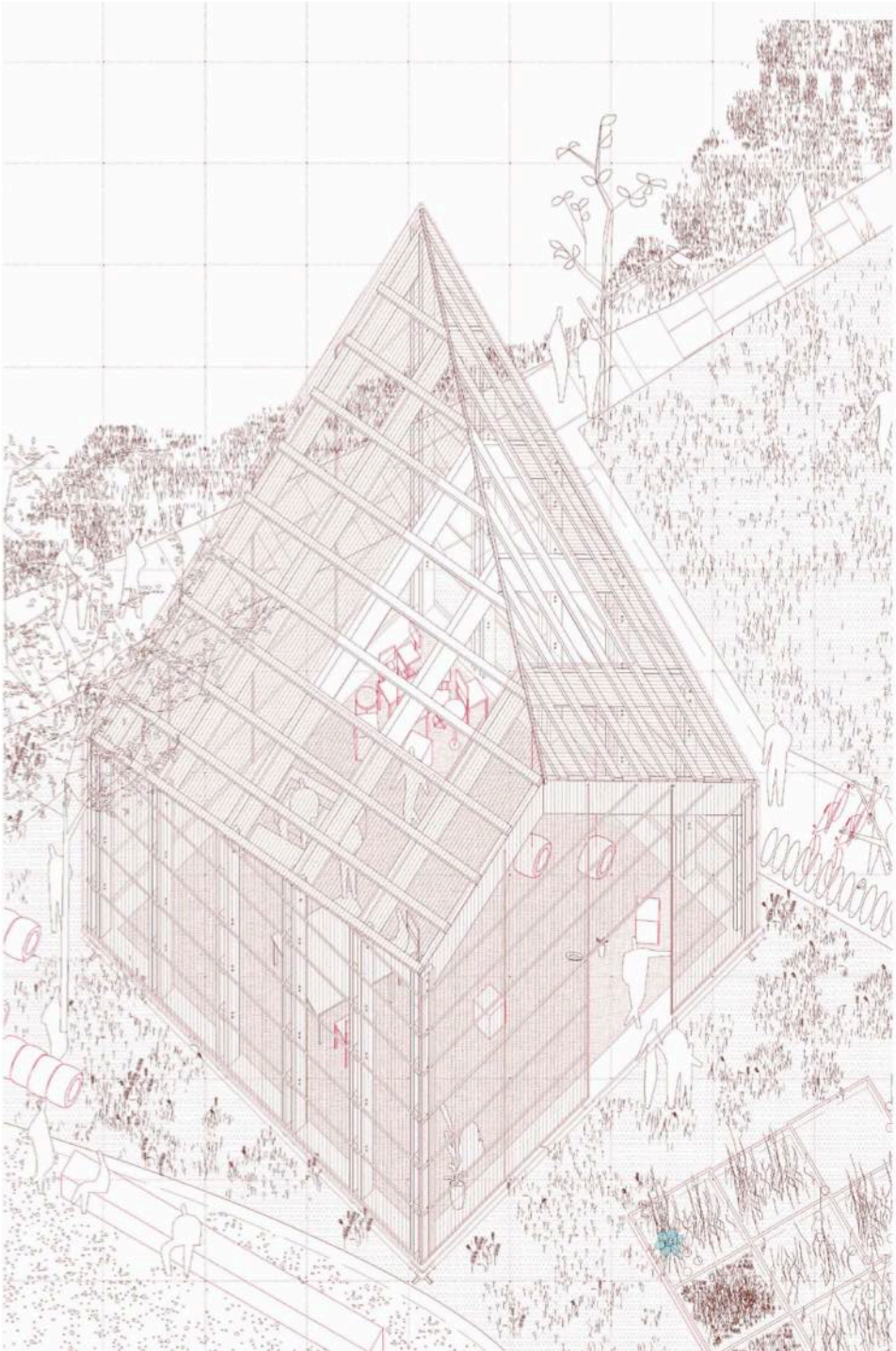

RESIDUO
PERFILES METALICOS
PRODUCTO
VIGAS COMPUESTAS
CATEGORIA
ARQUITECTURA
CARACTERISTICAS
FISICAS
[PM]
1-PROCEDENTES LAS NAVES EXISTENTES QUE SE DECIDE DESMONTAR Y DE LAS MARQUESINAS DE LA NAVE 3 Y 4
2-POSIBILIDAD DE SER CORTADOS O UNIDOS MEDIANTE CHAPAS SOLDADAS.
3-BUEN ESTADO DE CONSERVACIÓN GENERAL

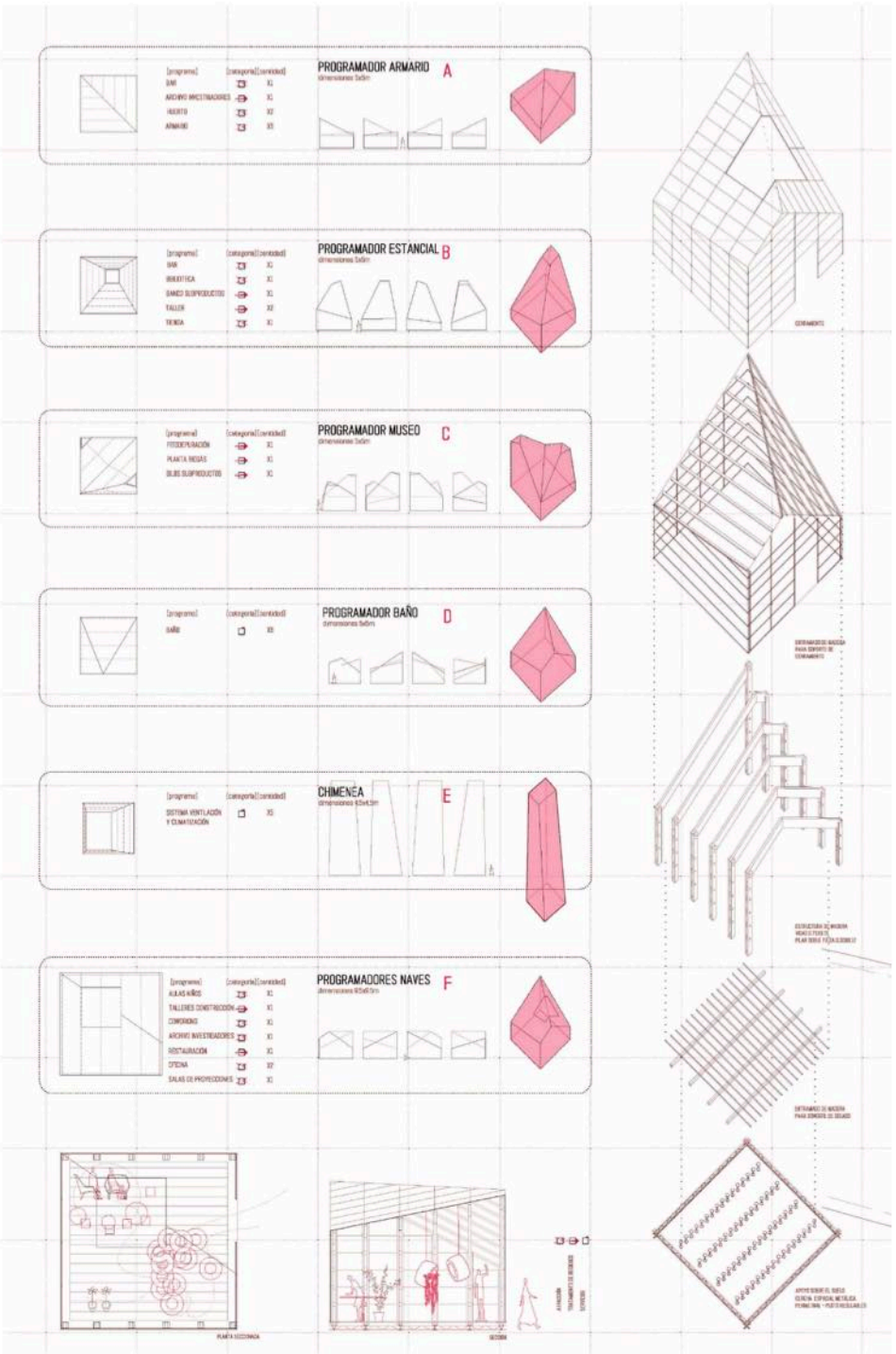
RESIDUO
RESTOS DE MEJILLON
PRODUCTO
PAVIMENTO DURO
CATEGORIA
PAVIMENTOS
CARACTERISTICAS
FISICAS
[PH]
1-PAVIMENTO A BASE DE SEMILLAS DE MEJILLON Y RESINAS NATURALES
2-PROCEDENTES DE INDUSTRIAS ALIMENTARIAS DE ZUMOS O CONSERVAS.
3-APTO PARA INTERIOR Y EXTERIOR
4-ESPESO APROXIMADO DE 25MM


RESIDUO
BOTELLAS VIDRIO
PRODUCTO
PAVIMENTO BASE DE VIDRIO
CATEGORIA
PAVIMENTOS
CARACTERISTICAS
FISICAS
[PV]
1-ADMITE ALTAS CARGAS LO QUE LO HACE APTO PARA USO INDUSTRIAL
2-SE PUEDE COLOCAR EN EL INTERIOR Y EN EL EXTERIOR
3-EL VIDRIO MANTIENE SU COLOR A PESAR DER PULIDO.
4-POSIBILIDAD DE PAVIMENTO CONTINUO CON VIDRIO MOLIDO.


RESIDUO
DESCARTES LADRILLOS
PRODUCTO
PAVIMENTO LADRILLO TINTURADO
CATEGORIA
PAVIMENTOS
CARACTERISTICAS
FISICAS
[PLT]
1-LADRILLOS PROCEDENTES DE LA DEMOLICIÓN DE PAVIMENTOS EN LAS PROPIAS NAVES.
2-APTO PARA CAMINOS Y SENDEROS, RESISTENTE A LAS INCLEMENCIAS
3-CONSERVA LA HUMEDAD EVITANDO EL POLVO
4-FÁCIL COLOCACIÓN Y ATRACTIVO COLOR ROJIZO

CAN MAGÍ-01




PROGRAMADOR ARMARIO A
PROGRAMADOR ESTANCIAL B
PROGRAMADOR MUSEO C
PROGRAMADOR BAÑO D
CHIMENEA E
PROGRAMADORES NAVES F

SAGRERA-CINEMA

COMPETITION
CONCEPT DESIGN
BARCELONA, SPAIN
CITY HALL
PERSONAL PROJECT

TYPE
FHASE
WHERE
CLIENT
COMPANY

The project is situated in the neighborhood of San Andreu, Barcelona.
The plot to transform used to be an industrial estate that have been absorved by the urban center, becoming obsolete in the original use, but somehow part of the industrial heritage of the area.

Around the place, four different typology roads:
-The new Sagrera´s Park, still under construction in that moment.
-Carrer de Sant Adrià, an important axis of the city.
-And two secondary streets: Torret de l'Estadella and Carrer de Cordelles (last one finish in ""cul de sac.")

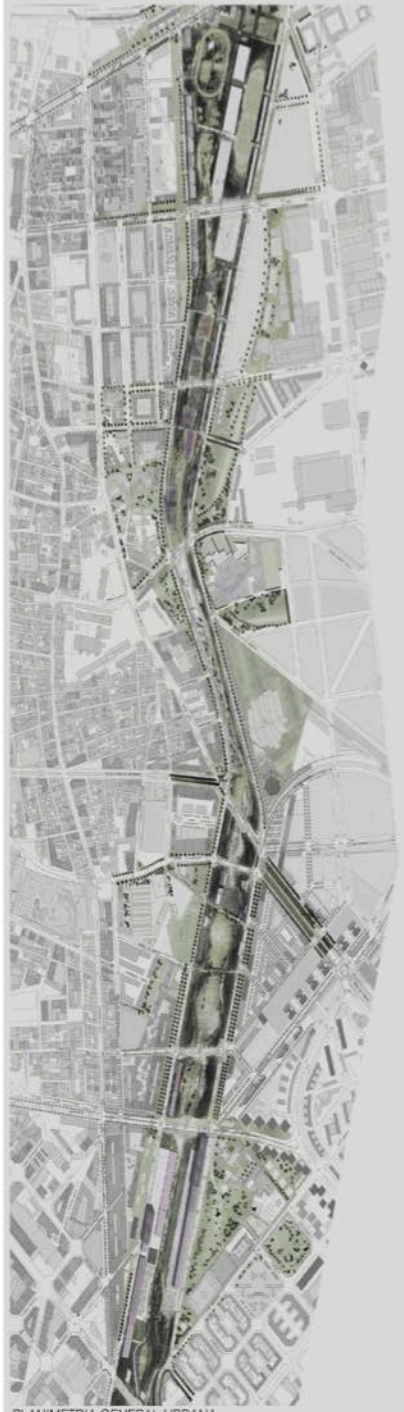
The project propose strategies in four directions: Climatic, Social, Programatic and Spatial.

Climatic:
The existing buildings are carefully studied and classified. According to this clasification I apply a climatic strategy:
-Greenhouse as heat source.
-Harvesting rainwater.
-Photovoltaic cells.
-Recycling metal profiles from dismantled buildings.

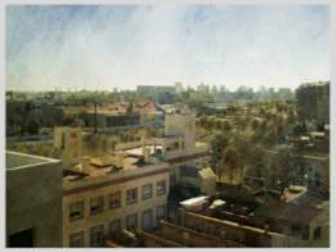
Social:
The whole plot is understood as an only building, and that one, as a service for the city, with a different use depending on the time and needs.

Program:
The relation between the 3 big programatic blocks (shooting studios, other activities and the big central polyvalent space) occurs through auxiliary spaces (like the greenhouses.)

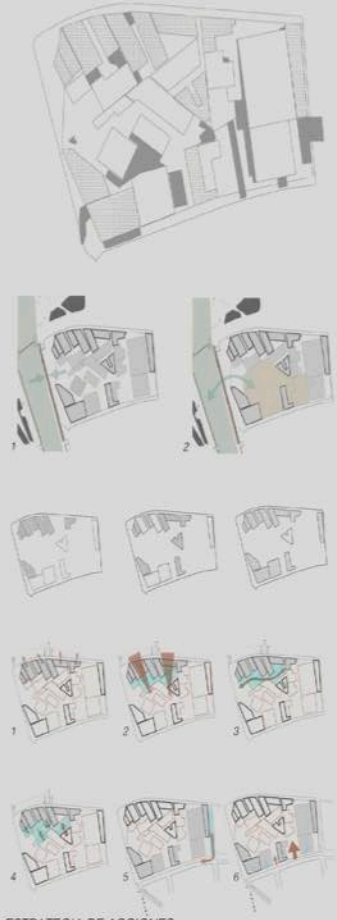
Spatial:
The indoor spaces of the warehouses are connected by the big fabric cover, which is visible from the Sagrera´s Park and transforms the joint in a only building.



PLANIMETRIA GENERAL URBANA

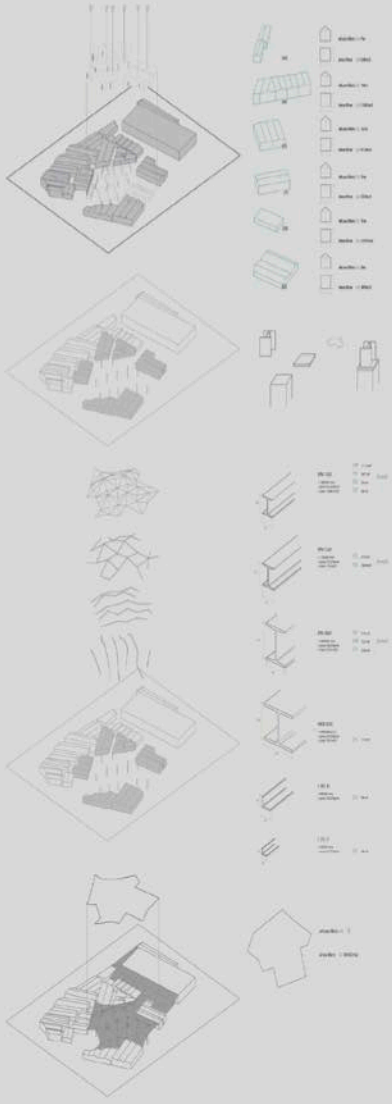


PERCEPTA

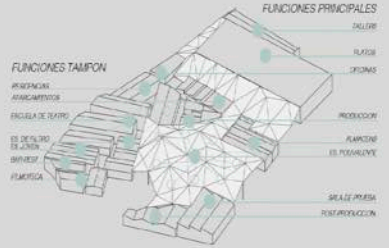


ESTRATEGIA DE ACCIONES

FOTOMONTAJE AERIAL



ESTRATEGIA STRUCTURAL

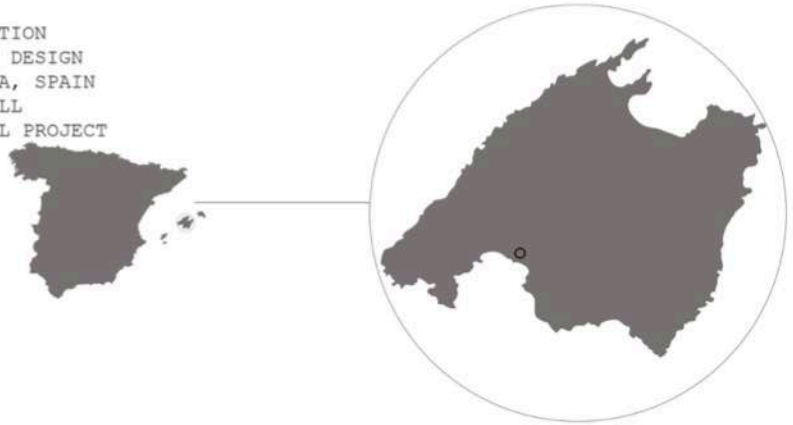


PROGRAMA FUNCIONAL

MILLS-PARK

COMPETITION
CONCEPT DESIGN
MALLORCA, SPAIN
CITY HALL
PERSONAL PROJECT

TYPE
FHASE
WHERE
CLIENT
COMPANY

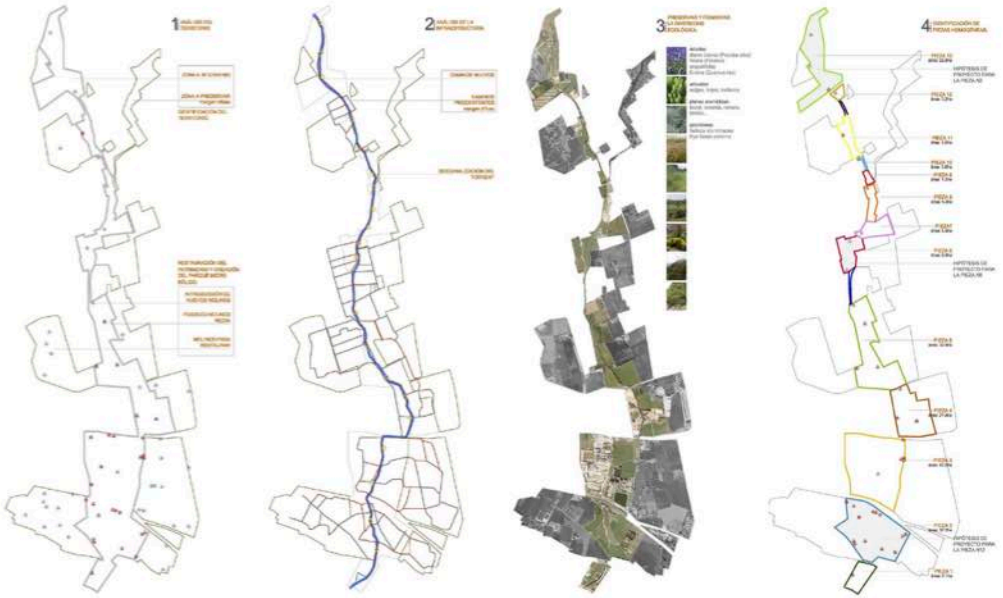


I had the oportunity to work in this project in Mallorca, Spain, in the area around the "Torrent Gross", which is one of the biggest "torrents" -dry river- that run the island from the montains downwards the sea.
Tradicionally, the economy of this small island was based in the agriculture. And, as it couldn't be in another way, this activity has left a clear print into the countryside landscape.

It was a competition with seven people working in the same project from differents approaches. My approach to the proposed problem tryed, from the beggining, to consider and conserv the existing network of paths, mills and water canals.
The other main aim was create a social network relative to local groups of people which need a space to devolope their activity. I propose restore the traditional mill -that was already the center of social activity in the past- as a new technologic social-media mill.

With the intention of acquire this goal I proposed a pattern method that assign an answer for each situation to resolve in the territory.

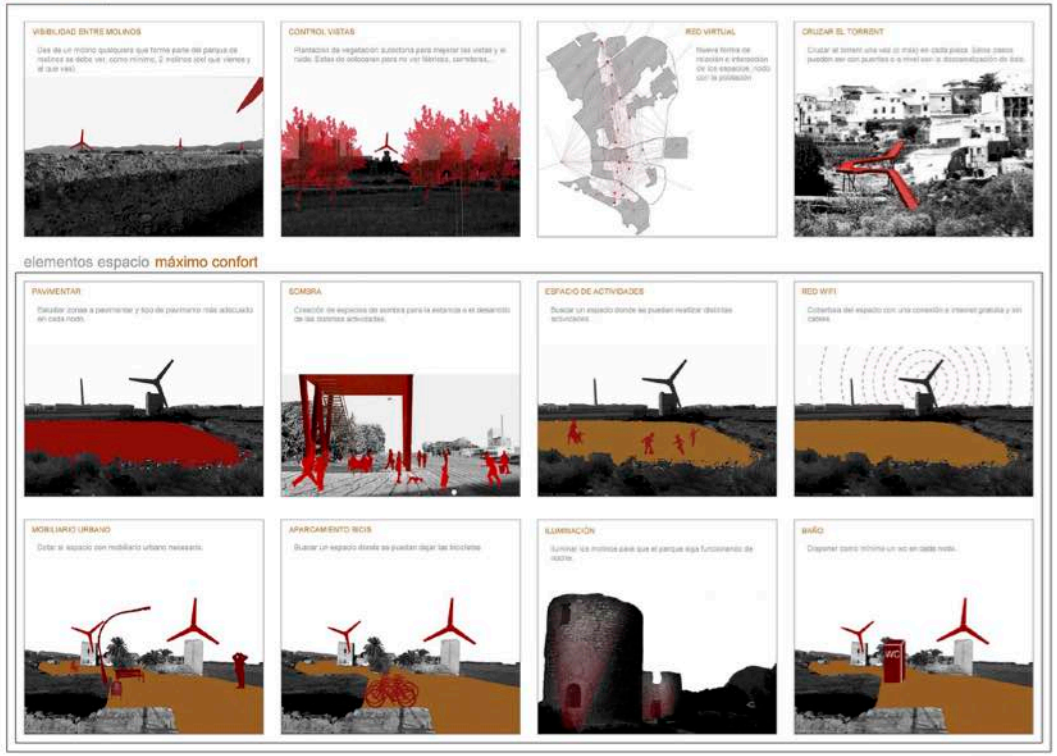
In that sense, I divided the patterns in three big blocks:
PATTERNS FOR THE INTERNAL ROADS: The ancient path network that join the mills.
PATTERNS FOR THE PIECES: The area was understood as a joint of pieces, each one of them belongs to a influence are of the mill.
PATTERN FOR THE CENTRAL SPACE: The biggest transformation happens in the very close area to the mill. Here are the facilities with the maximum level of confort.



PATRONES para proyectar el espacio

PATRONES caminos

PATRONES piezas



elementos espacio máximo confort

parque de los molinos

grupo j

tap f