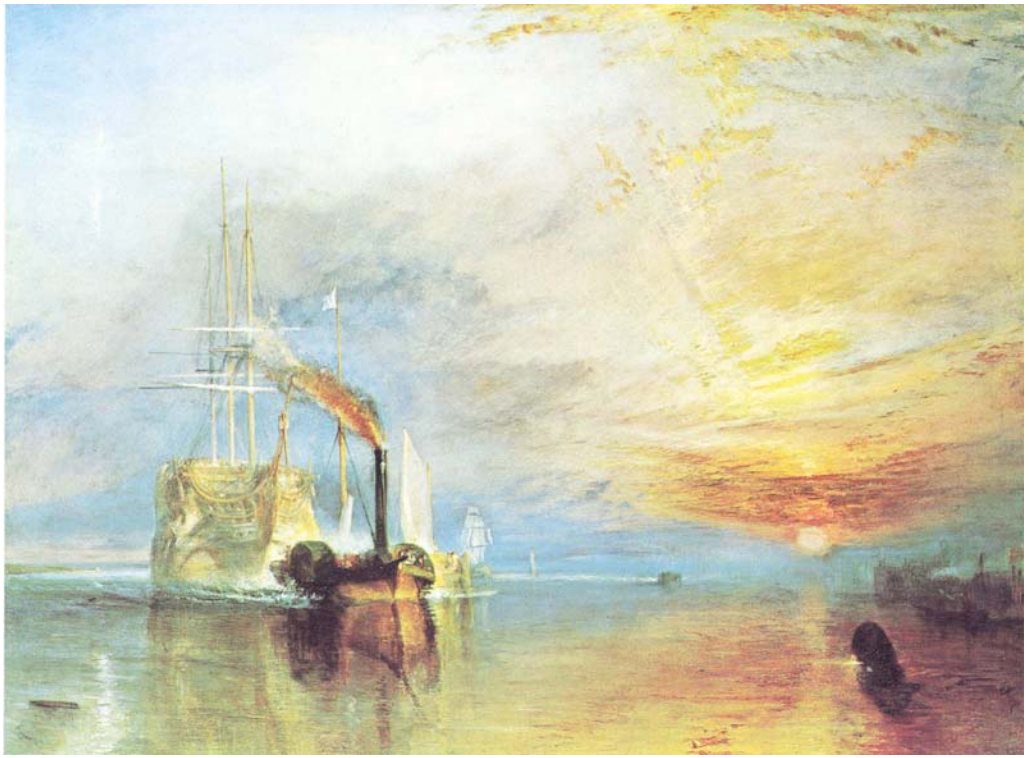
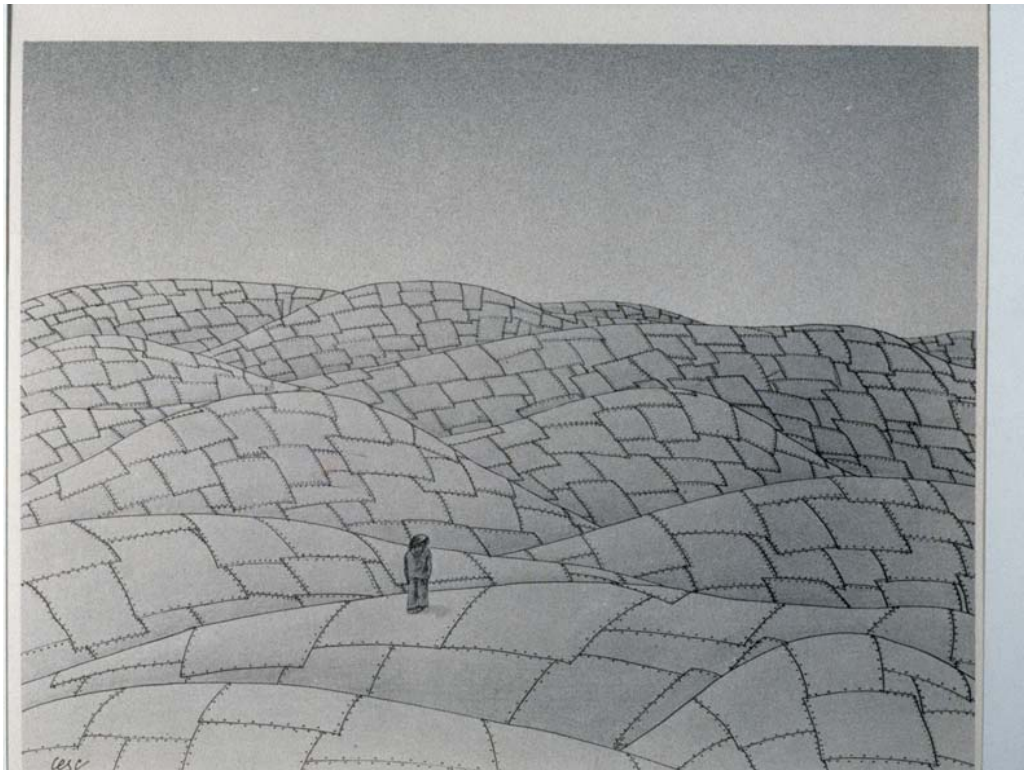




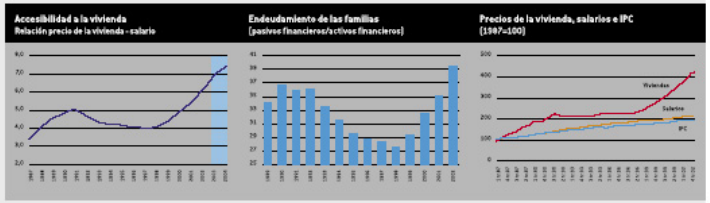
... i en la construcció?
¿... y en la construcción?

Cost mensual per vivienda/ingresos Coste mensual por vivienda/ingresos

España	Conjunto de hogares	Hogares pobres	Parejas jóvenes
Pago mensual por viviendas/ingresos			
Media total hogares (%)	8,6 %	11,2 %	20,0 %
Alquiler bruto (España=100)	100,0	48,0	83,5
Alquiler/renta familiar (%)	15,6 %	20,5 %	17,7 %
Hogares con hipotecas (% propiedad)	24,2 %	19,1 %	62,8 %
Promedio por hipoteca (España=100)	100,0	81,8	97,7
Pago medio/renta familiar	31,6 %	53,6 %	32,5 %

15

Relació cost vivienda–salaris Relación coste vivienda–salarios



Dades de INE, BBVA i Ministerio de Fomento Datos de INE, BBVA y Ministerio de Fomento

COST ENERGETIC
COSTE ENERGÉTICO

necessitem reduir el cost energètic
necesitamos reducir el coste enegético

50% de la matèria primera es consumeix en la construcció
45% de l'energia global s'utilitza per a la calefacció, el llum i la ventilació dels edificis, i un 5% per a la construcció
40% de l'ús global de l'aigua és per a la construcció
60% del sòl agrícola perdut s'ha transformat en sòl urbà
70% de la producció global de fusta és per a la construcció
50% de l'escalfament mundial per causa del consum de combustible fòssil és per a l'ús dels edificis
60% de la resta es genera en el transport de les persones i els béns fins als edificis només 4 l dels 150 l d'aigua potable consumits per persona al dia són per beure.

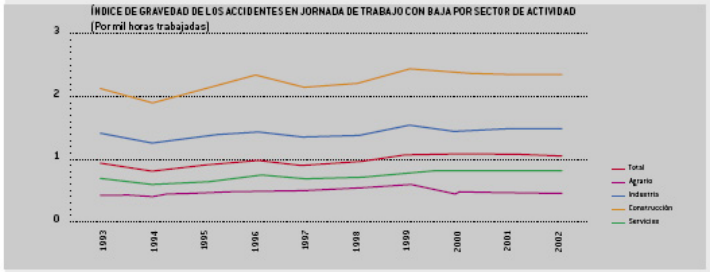
16

50% de la materia prima se consume en la construcción
45% de la energía global se utiliza para la calefacción, la luz y la ventilación de los edificios, y un 5% para la construcción
40% del uso global del agua es para la construcción
60% del suelo agrícula perdido se ha transformado en suelo urbano
70% de la producción global de madera es para la construcción
50% del calentamiento mundial por causa del consumo de "fossil fuels" es para el uso de los edificios
60% of the remainder is generated in transporting people and goods to buildings
sólo 4 l de los 150 l. de agua potable consumido por persona al día es para beber.

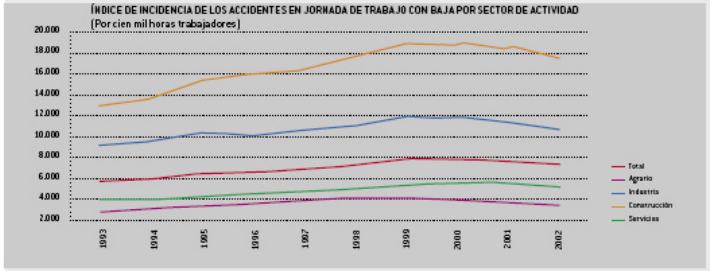
Dades de "rough guide to sustainability", RIBA Publications, ISBN 1-85946-102-6
Datos de "rough guide to sustainability", RIBA Publications, ISBN 1-85946-102-6

COST SOCIAL
COSTE SOCIAL

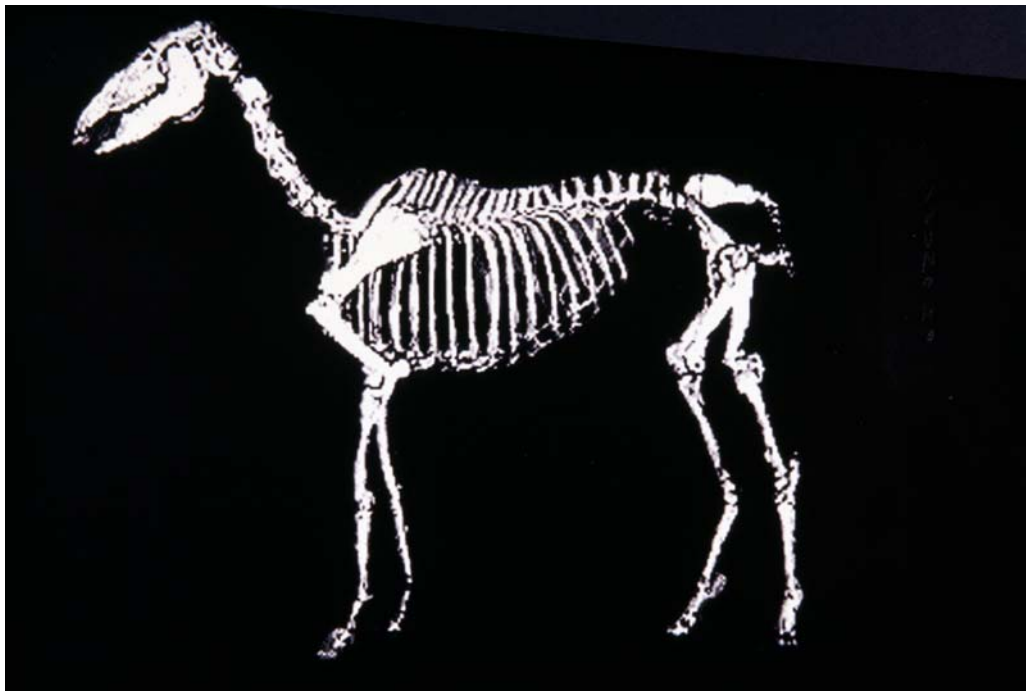
necessitem reducr el cost social / augmentar la seguretat
necesitamos reducir el coste social / aumentar la seguridad

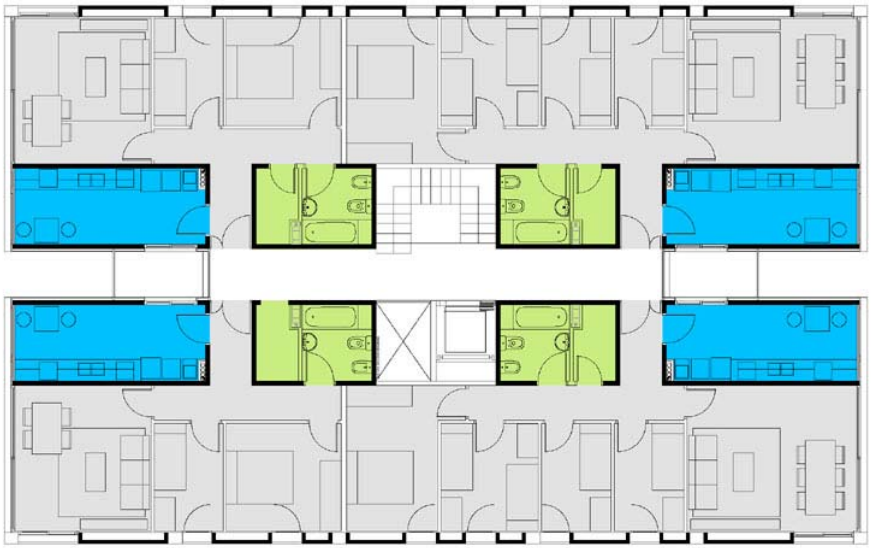


18

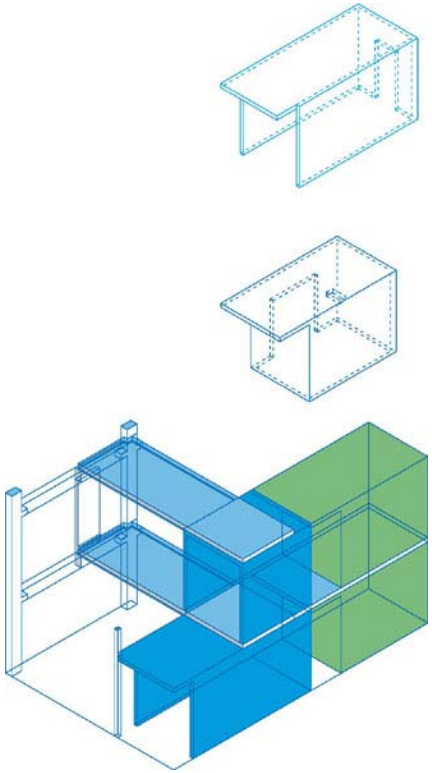


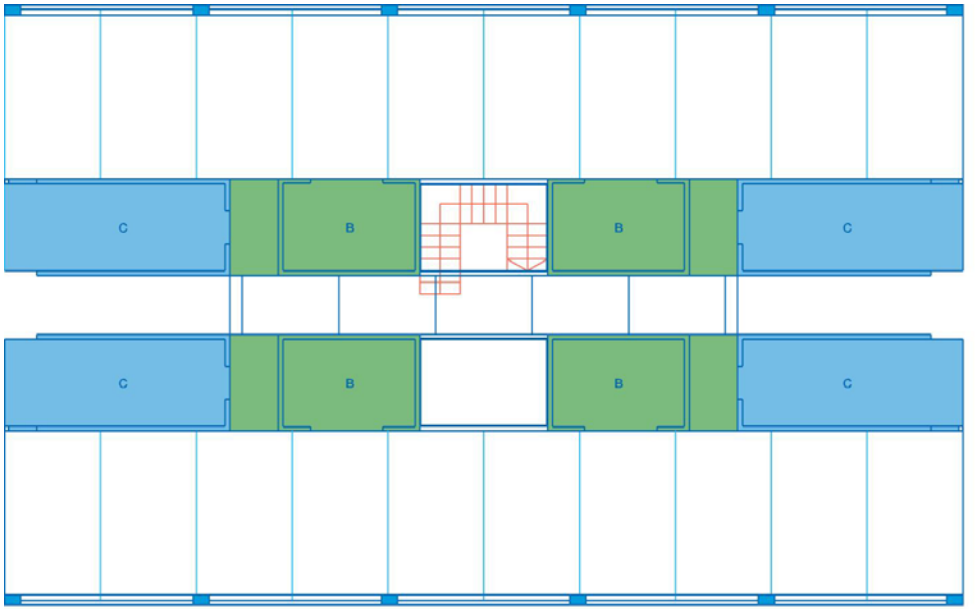
Dades de: Ministerio de Trabajo i Asuntos Sociales Datos de: Ministerio de Trabajo y Asuntos Sociales





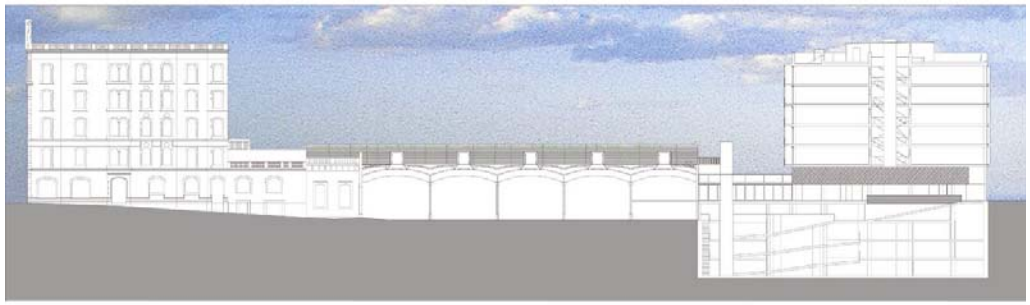
PLANTA TIPO BLOQUES A-B-C-D-E-F

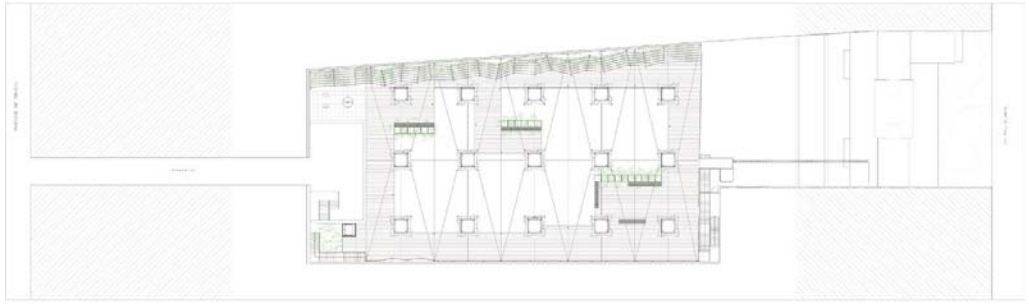


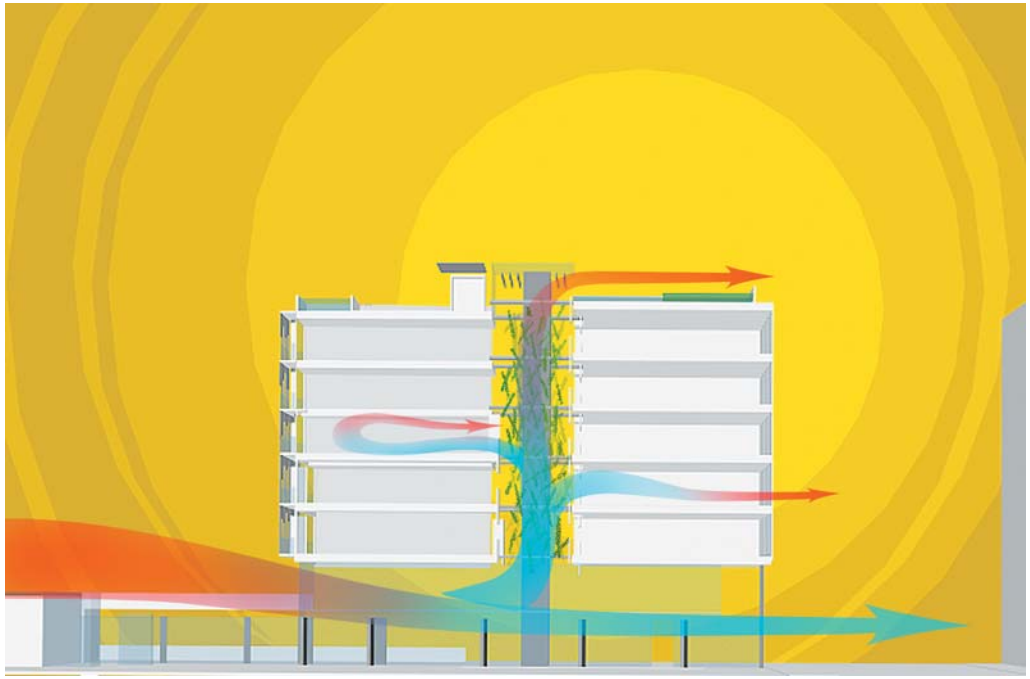



GRUAS SERRAT
copisa

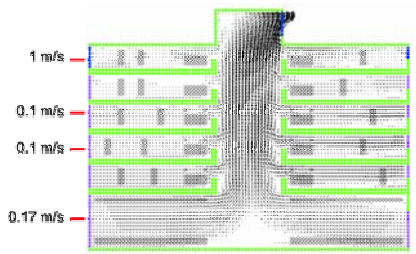

Coca-Cola



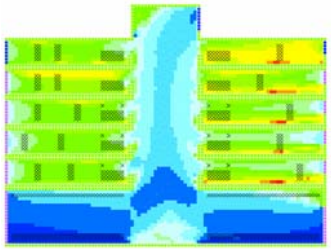




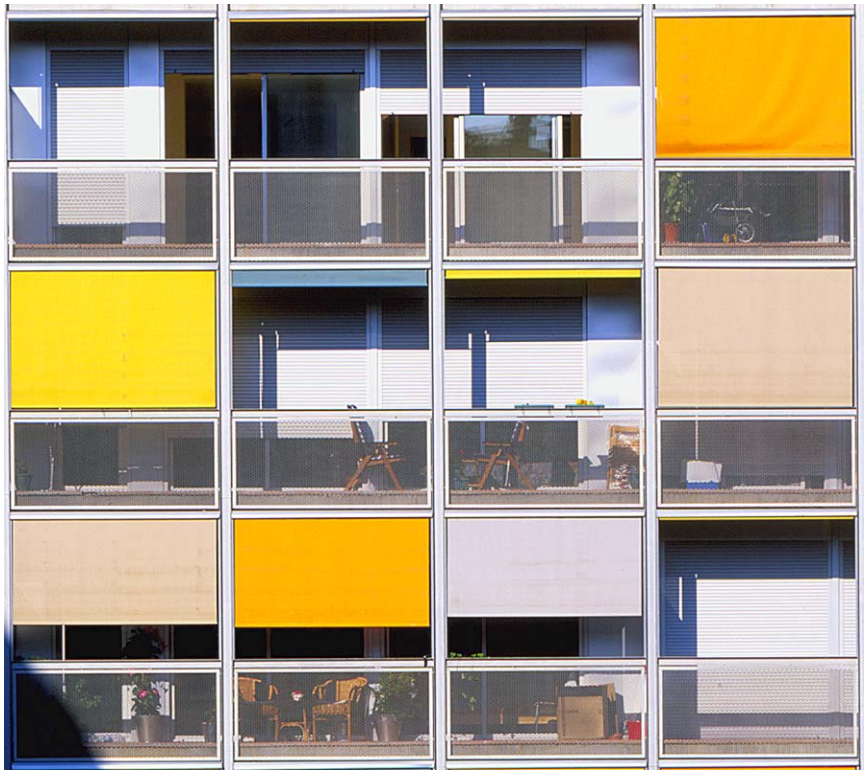
Building behaviour: summer nigth

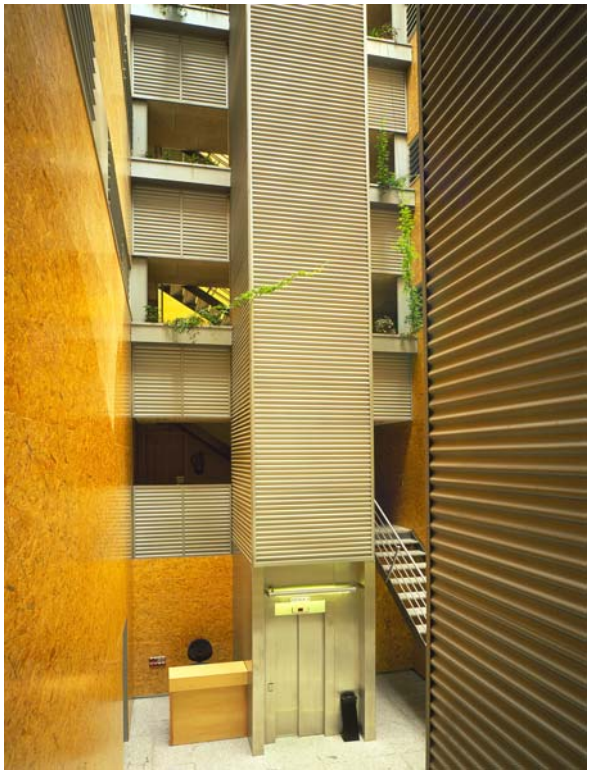


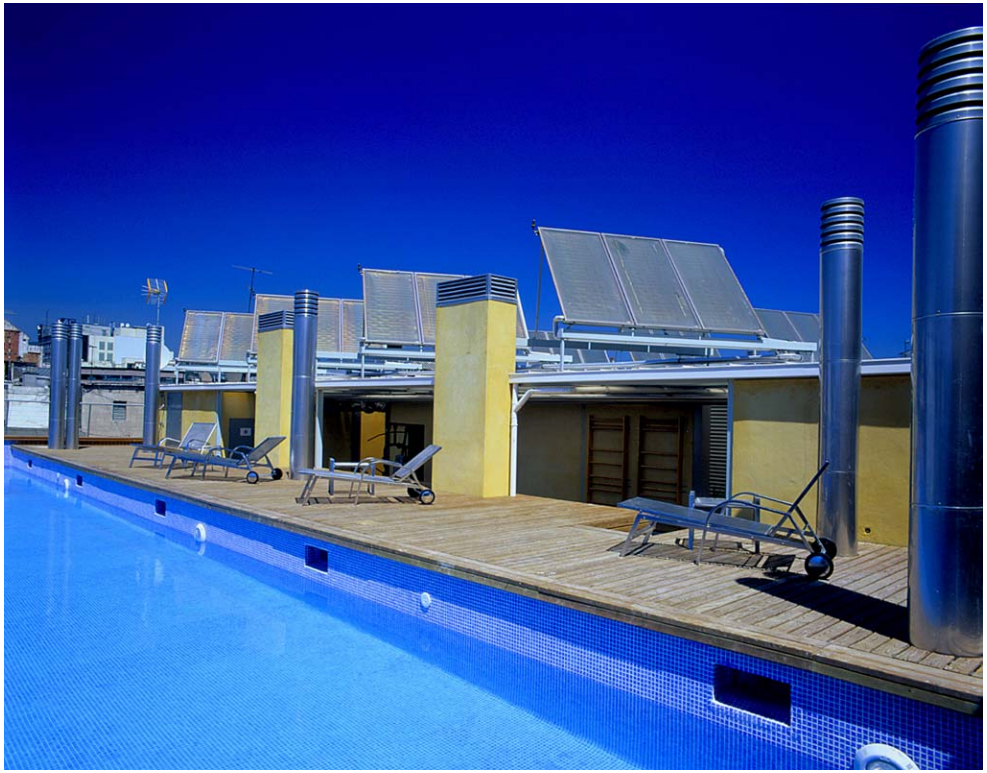
ventillation graphic



temperature graphic







INSTITUT CERDÀ Energia

GLOBAL PRIMARY ENERGY AND ENVIRONMENTAL SAVINGS IN BUILDING

STANDARD BUILDING

Thermal insulation requirements for standard regulations

Conventional Installation systems (not high efficiency): individual climatisation system with mixed boiler & electric air conditioning equipment (primary energy consumption distribution: 85% in heating & cooling; 15% in DHW)

Primary Energy consumption	**482 263 kWh/y**	
CO_2 emission	**84 553 kg/y**	

Energy saving	**135 310 kWh/y**	**28%**
CO_2 emission reductions	**24 330 kg/y**	**29%**

BIOCLIMATIC DESIGN AND RENEWABLE ENERGY APPLICATIONS IN BUILDING

Thermal insulation improved and Low energy bio-climatic strategies implemented in project (produces 20% savings relative to the standard building primary energy consumption)

Conventional Installation systems (not high efficiency): individual climatisation system with boiler & electric air conditioning equipment

Solar thermal collectors for DHW (produces 8 % savings relative to the standard building primary energy consumption)

Primary Energy consumption	**346 953 kWh/y**	
CO_2 emission	**60 223 kg/y**	

Energy saving	**129 317 kWh/y**	**37%**
CO_2 emission reductions	**16 478 kg/y**	**27%**

PAU CLARIS BUILDING: ENVIRONMENTALLY CONSCIOUS DESIGN, RENEWABLE ENERGY AND EFFICIENT SYSTEMS

Thermal insulation improved and Low energy bioclimatic strategies implemented in project

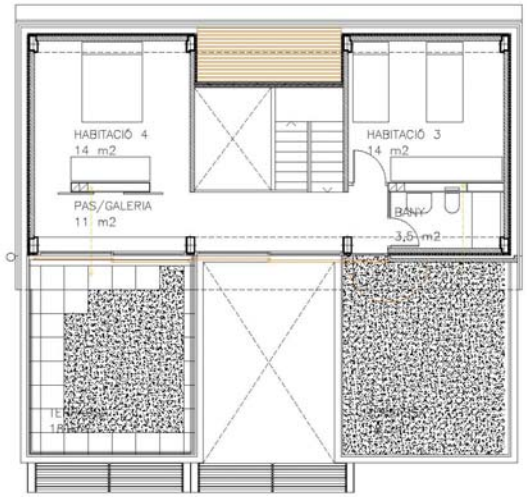
Installation system: collective system using a natural gas fuelled heat pump for heating and cooling ; 1 or 2 zones per household; central and individual energy management system (installation system produces 37% savings relative to the previous primary energy)

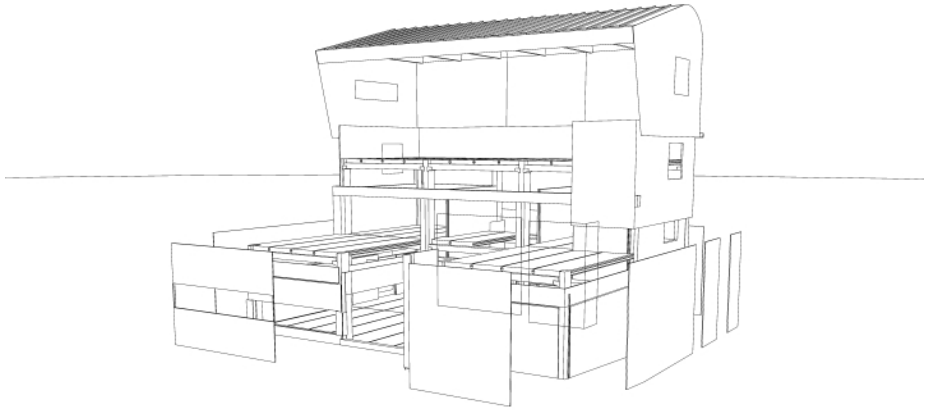
Solar thermal collectors for DHW

Primary Energy consumption	**217 636 kWh/y**	**55%**
CO_2 emission	**43 745 kg/y**	**48%**

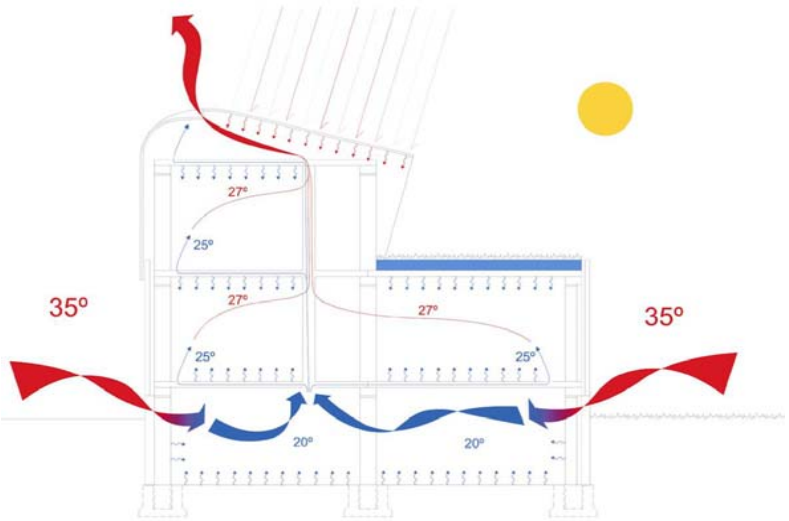
casaKYOTO

CASA BIOCLIMÀTICA

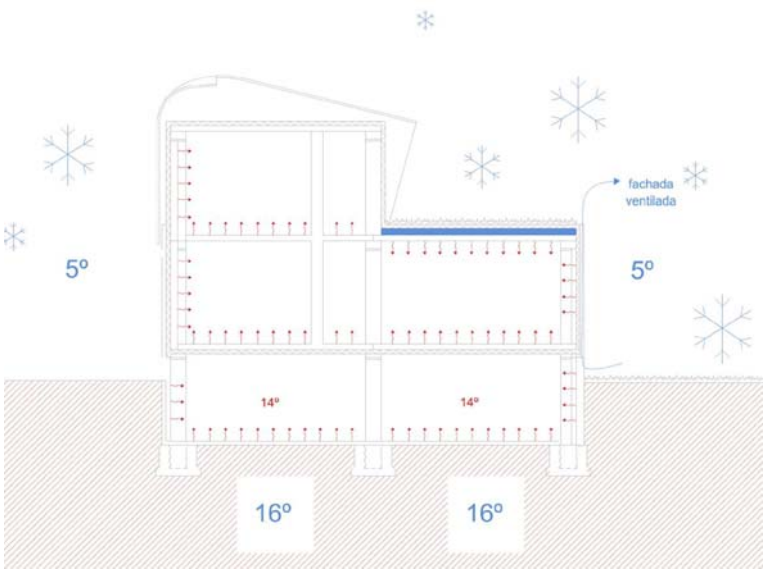




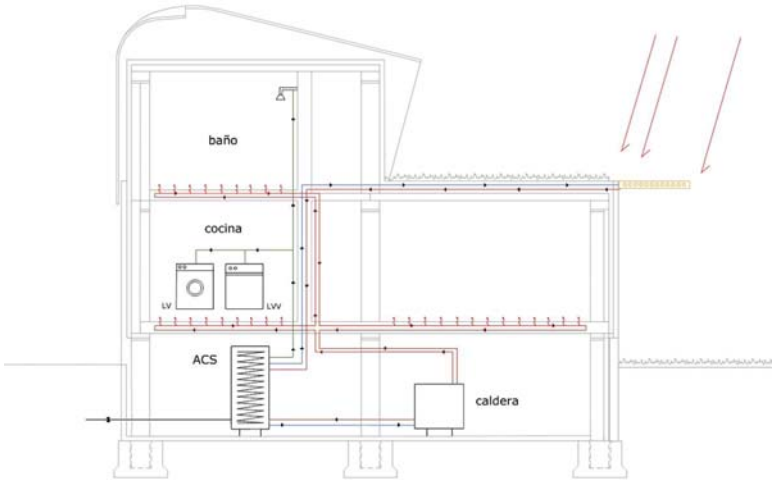
VENTILACIÓN



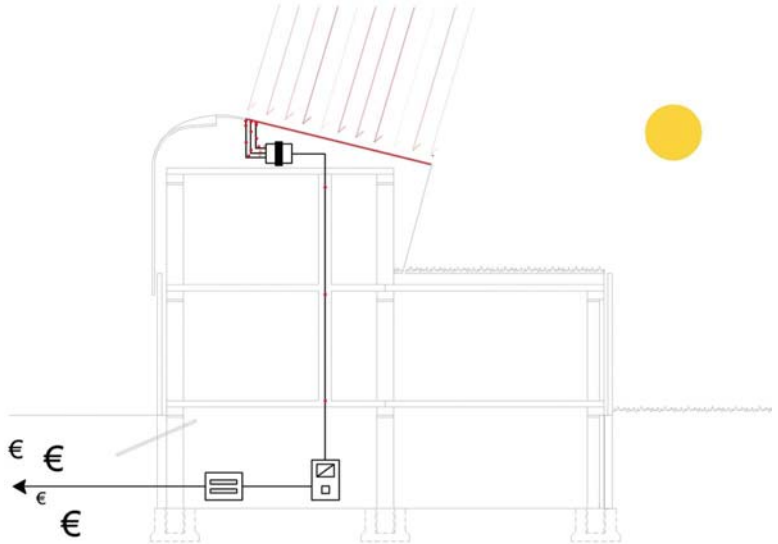
MASA TÉRMICA



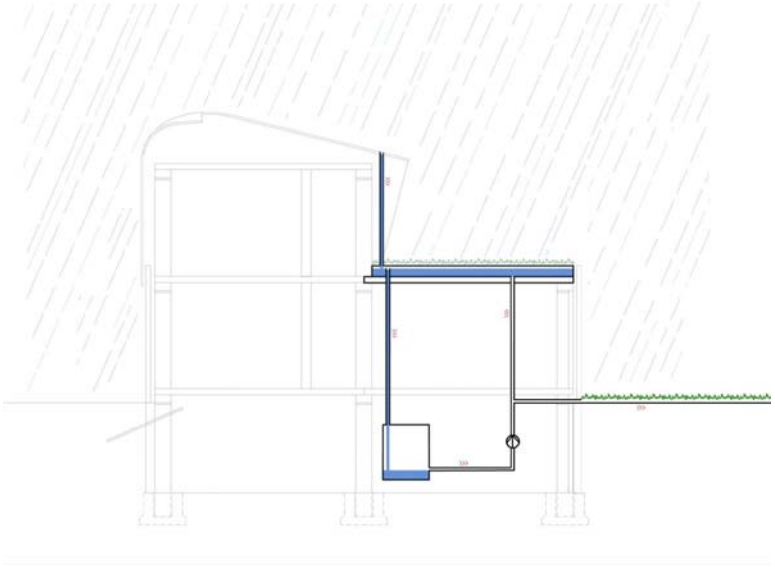
PÉRGOLA SOLAR TÉRMICA



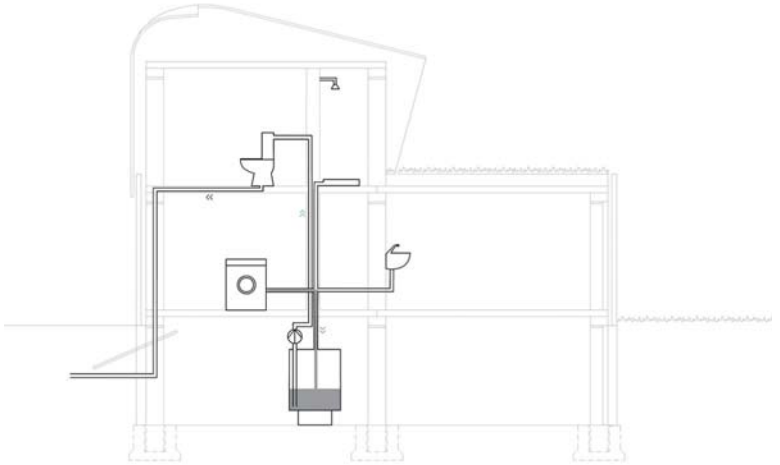
CAMPO FOTOVOLTAICO

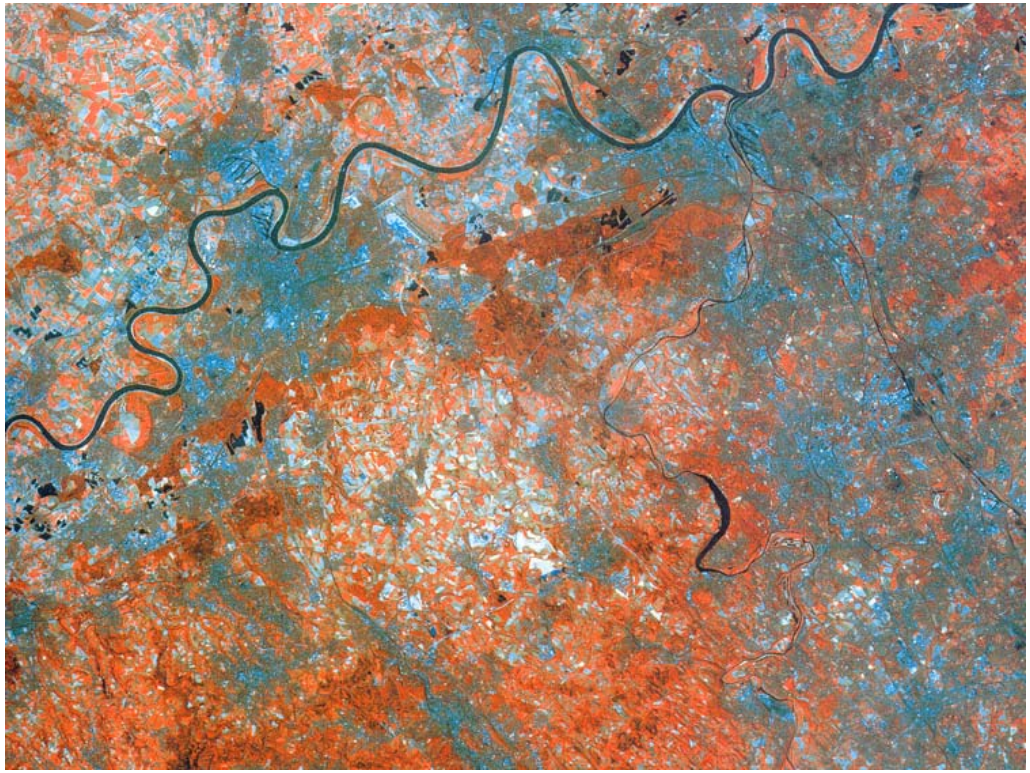


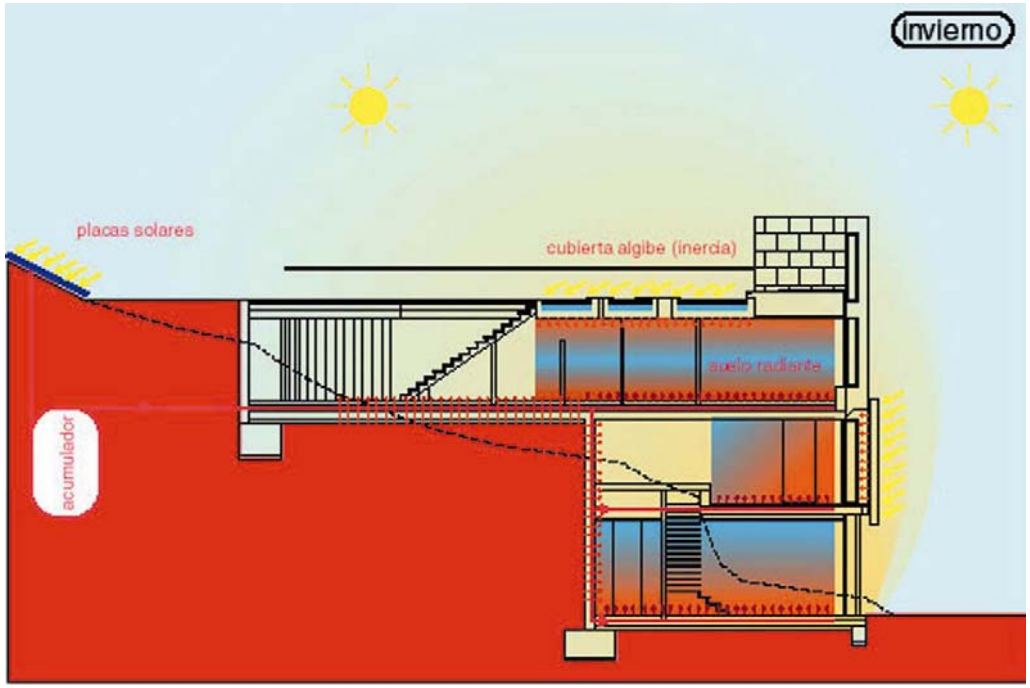
AGUAS PLUVIALES

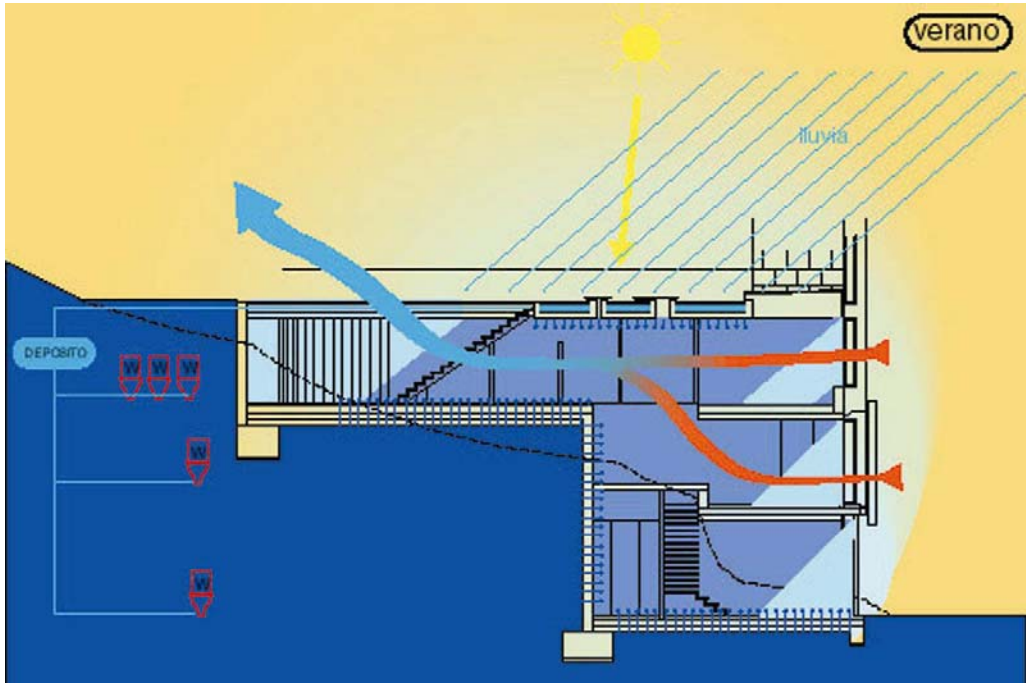


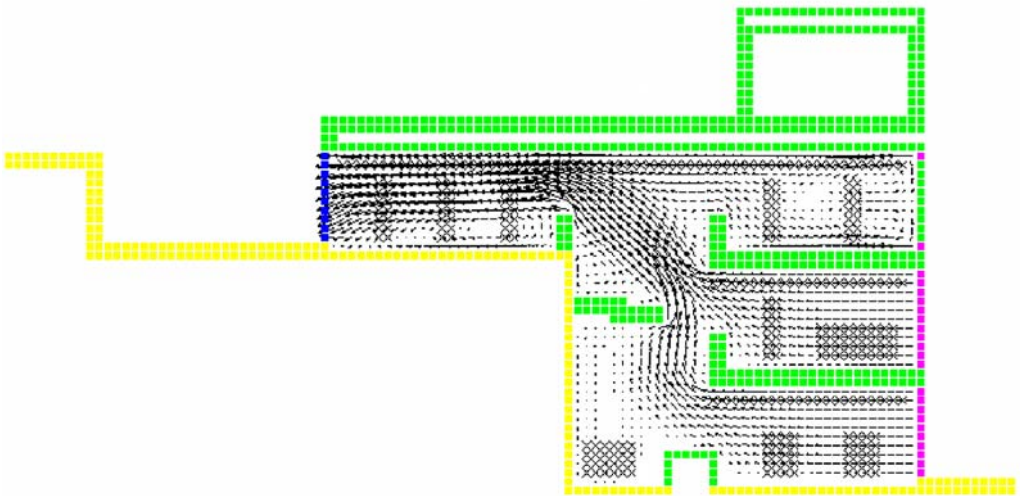
AGUAS GRISES

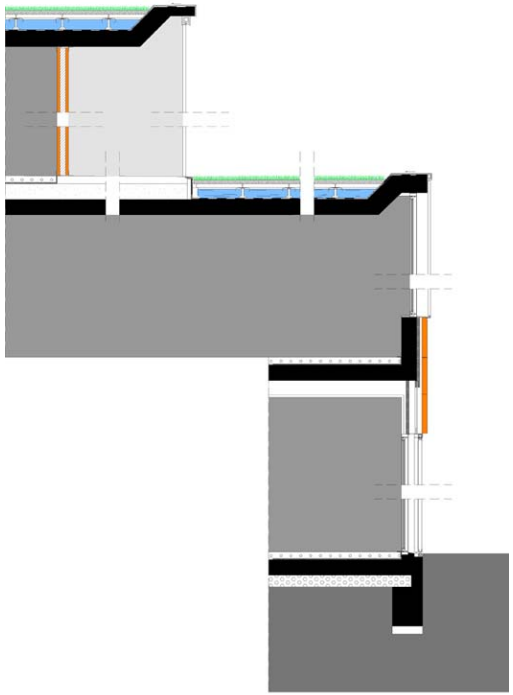


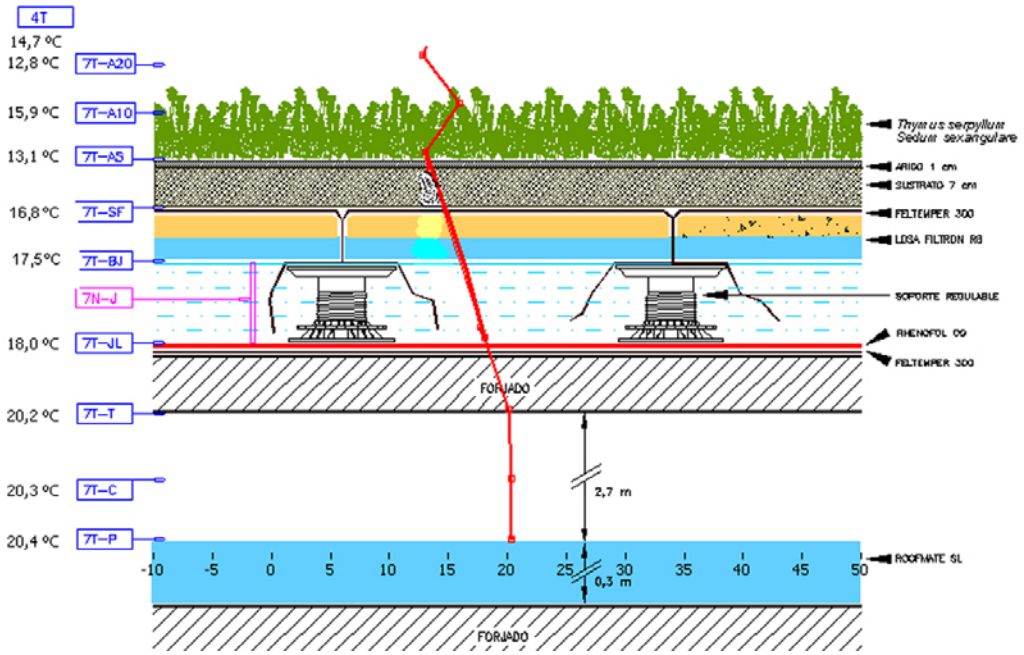


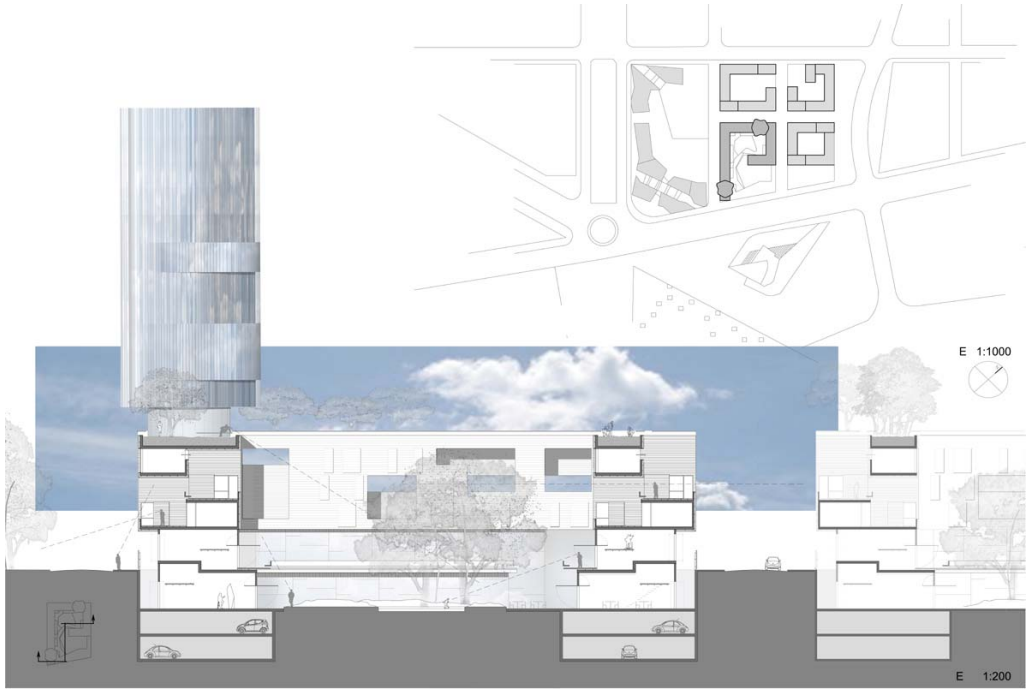

invierno
placas solares
cubierta algibe (inercia)
suelo radiante
acumulador

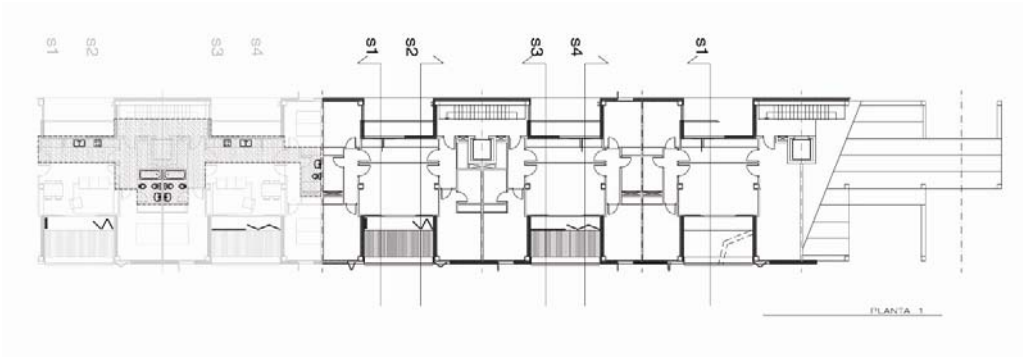

verano
lluvia
DEPOSITO

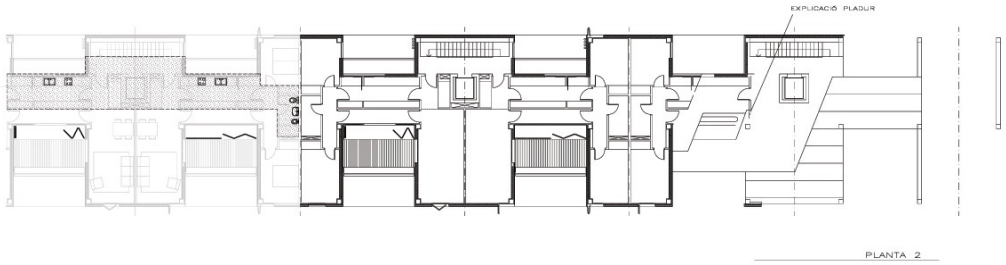


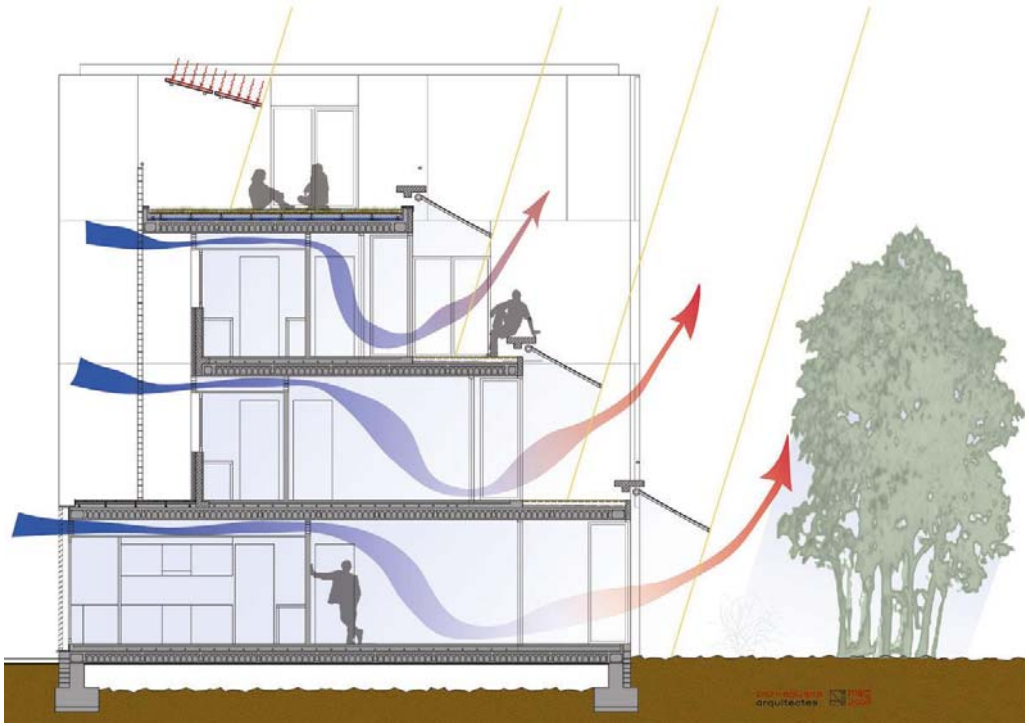


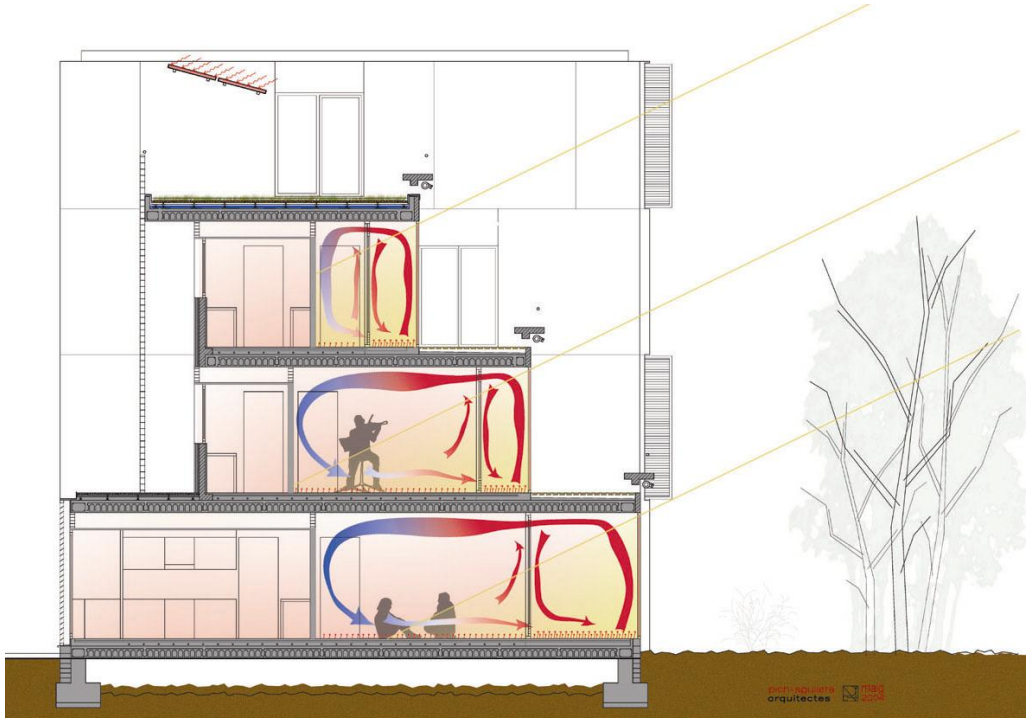

4T
14,7 ºC
12,8 ºC
7T-A20
15,9 ºC
7T-A10
13,1 ºC
7T-A5
16,8 ºC
7T-SF
17,5ºC
7T-BJ
7N-J
18,0 ºC
7T-JL
20,2 ºC
7T-T
20,3 ºC
7T-C
20,4 ºC
7T-P
Thymus serpyllum
Sedum sexangulare
ARIDO 1 cm
SUSTRATO 7 cm
FELTEMPER 300
LOSA FILTRON RB
SOPORTE REGULABLE
RHENOFOL CG
FELTEMPER 300
FORJADO
2,7 m
0,3 m
RODAPIATE SL
-10
-5
0
5
10
15
20
25
30
35
40
45
50
FORJADO

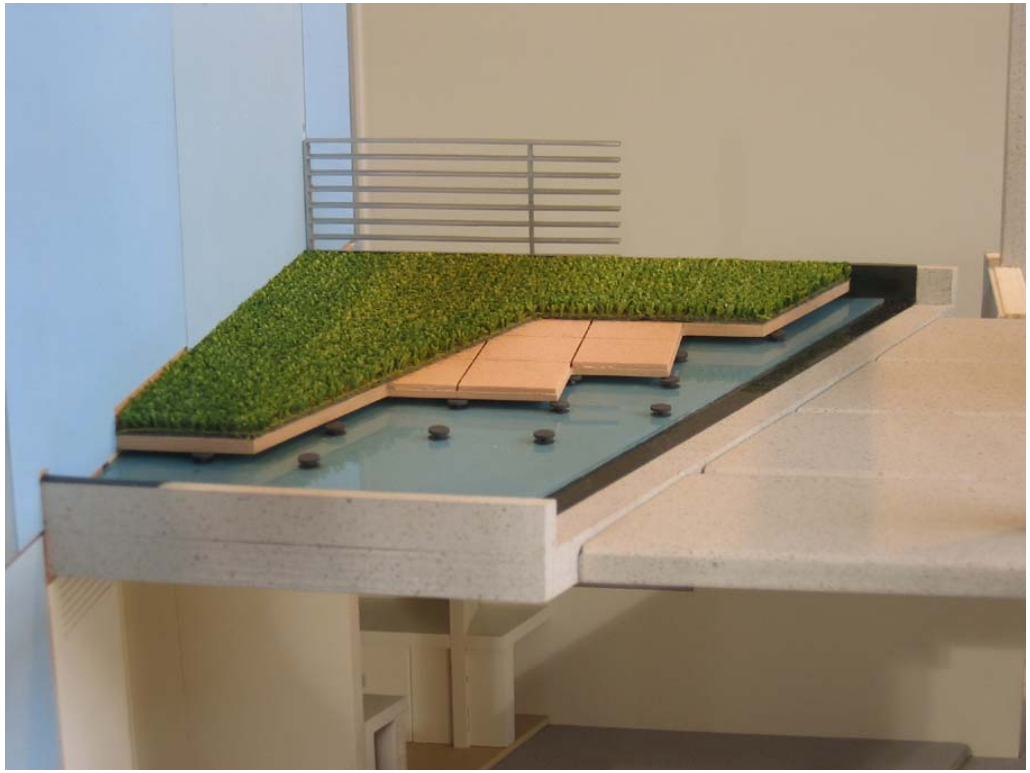

E 1:1000
E 1:200

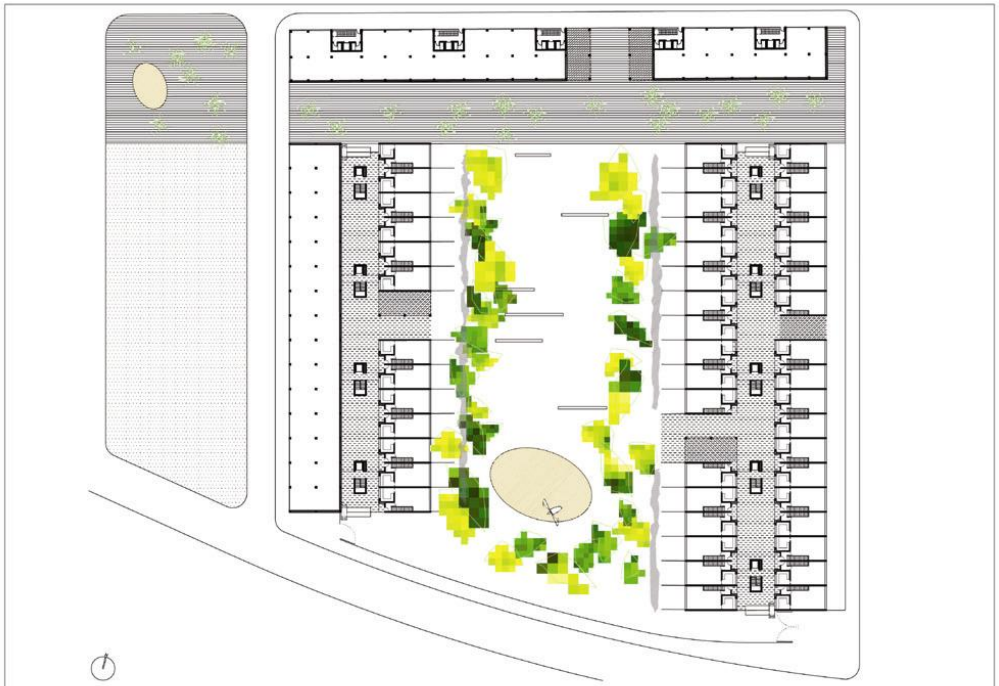

S1
S2
S3
S4
S1
S2
S3
S4
S1
PLANTA 1


EXPLICACIÓ PLADUR
PLANTA 2



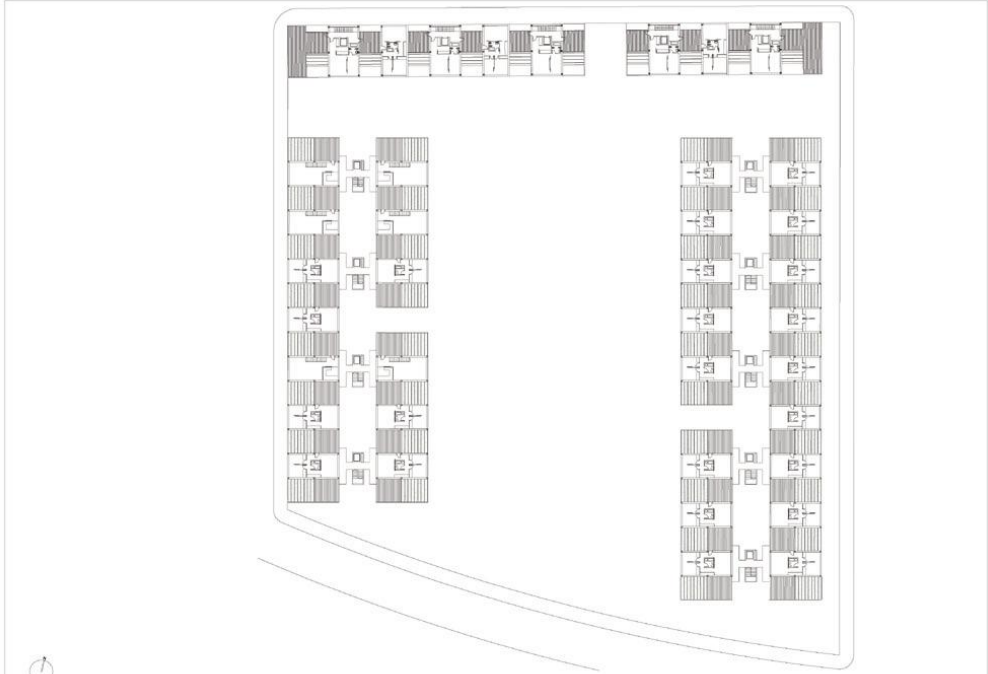




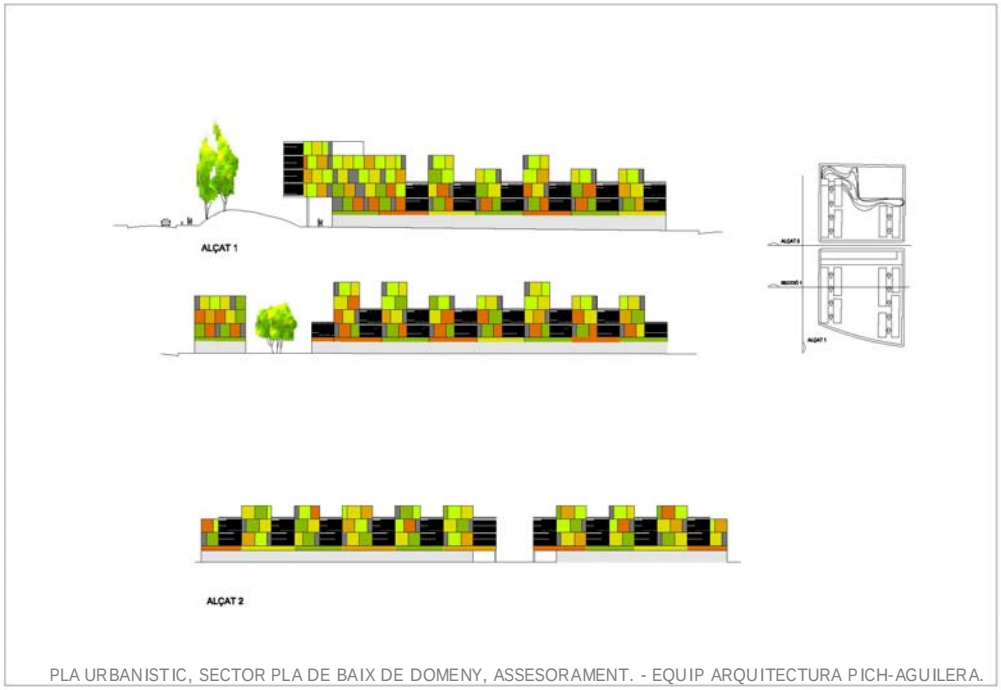


PLA URBANISTIC, SECTOR PLA DE BAIX DE DOMENY, ASSESORAMENT. - EQUIP ARQUITECTURA PICH-AGUILERA.

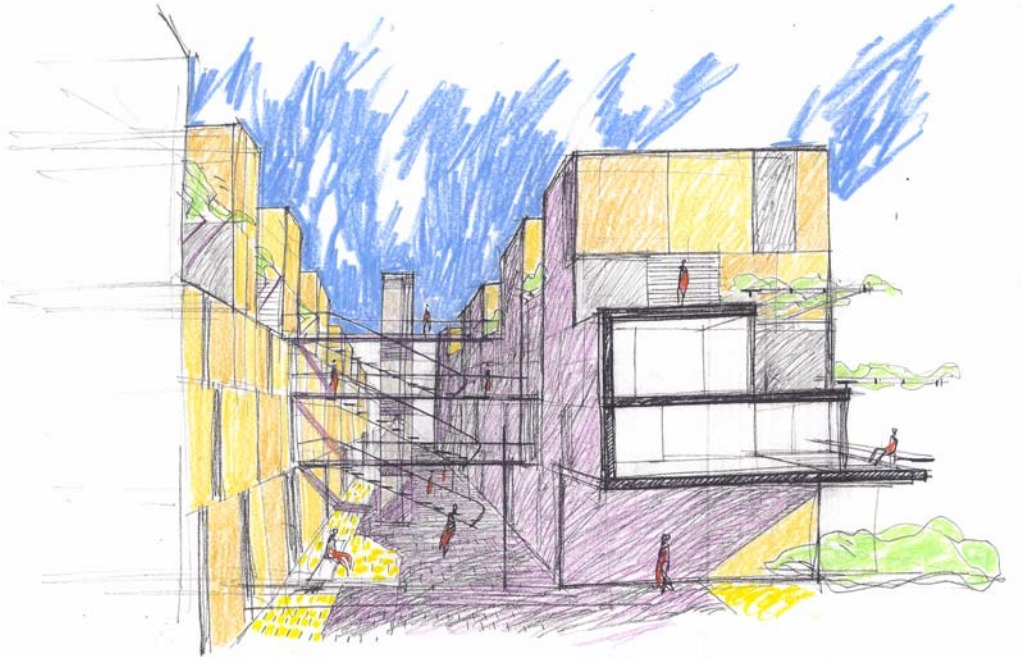
PLA URBANISTIC, SECTOR PLA DE BAIX DE DOMENY, ASSESORAMENT. - EQUIP ARQUITECTURA PICH-AGUILERA.



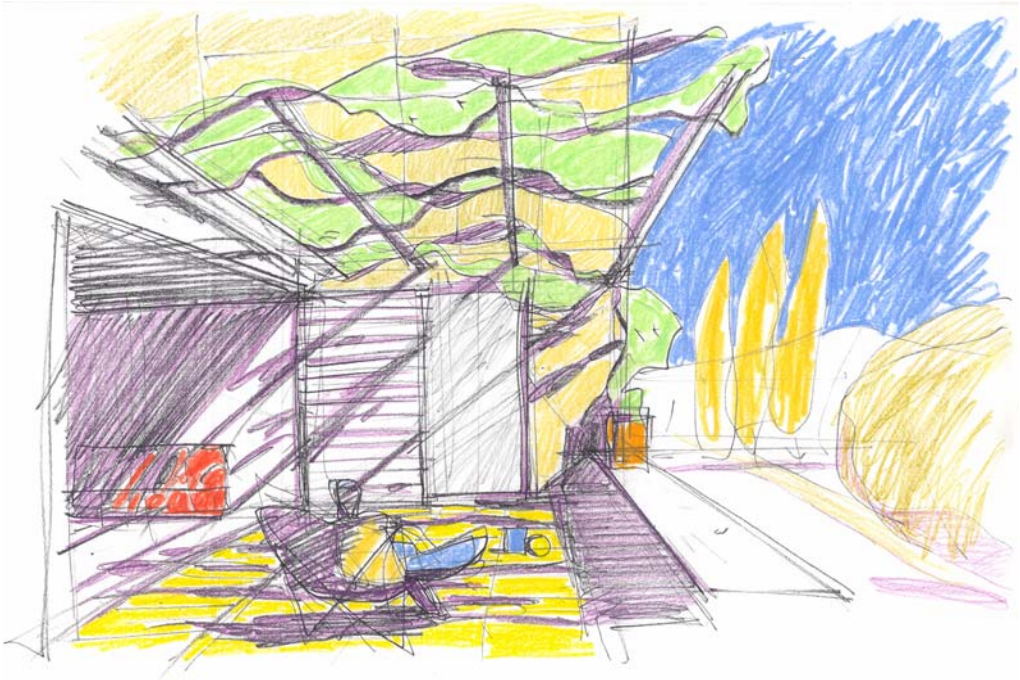
PLA URBANISTIC, SECTOR PLA DE BAIX DE DOMENY, ASSESORAMENT. - EQUIP ARQUITECTURA PICH-AGUILERA.



PLA URBANISTIC, SECTOR PLA DE BAIX DE DOMENY, ASSESORAMENT. - EQUIP ARQUITECTURA PICH-AGUILERA.

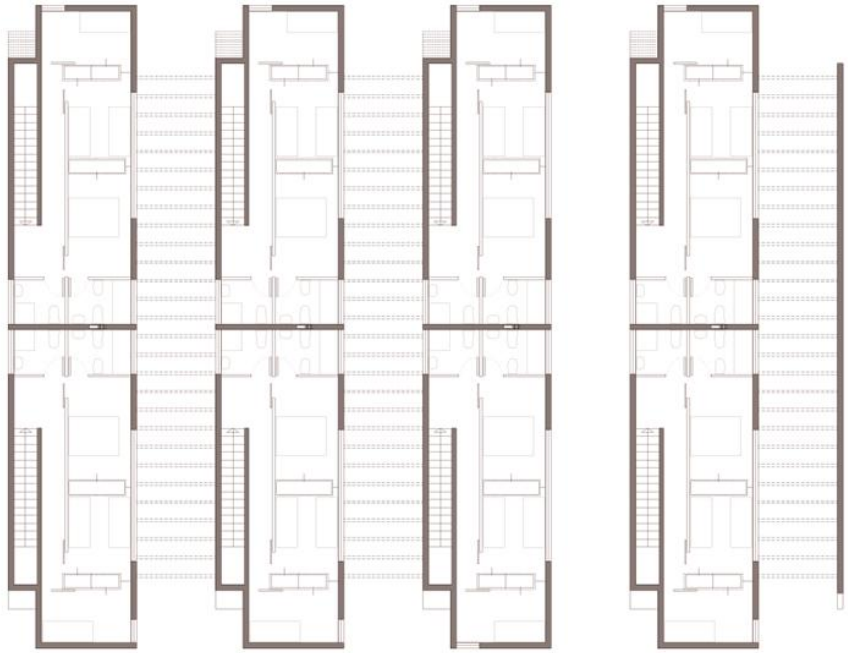


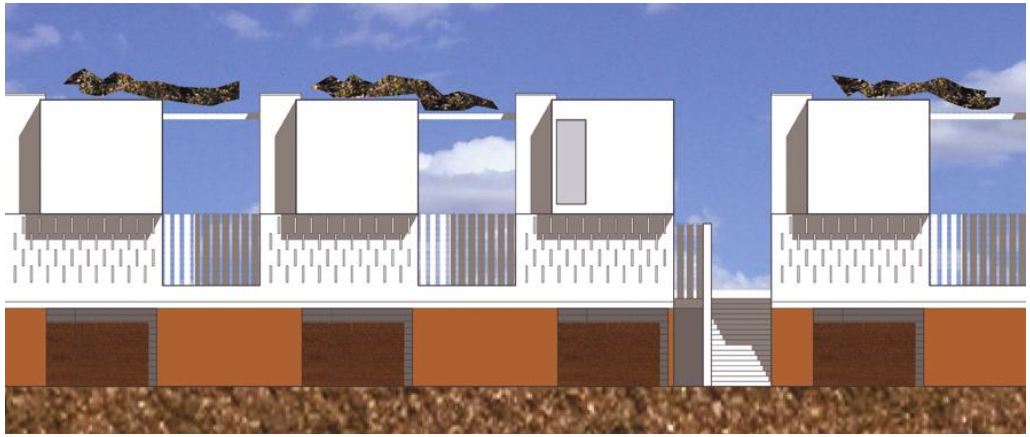
PLA URBANISTIC, SECTOR PLA DE BAIX DE DOMENY, ASSESORAMENT. - EQUIP ARQUITECTURA PICH-AGUILERA.

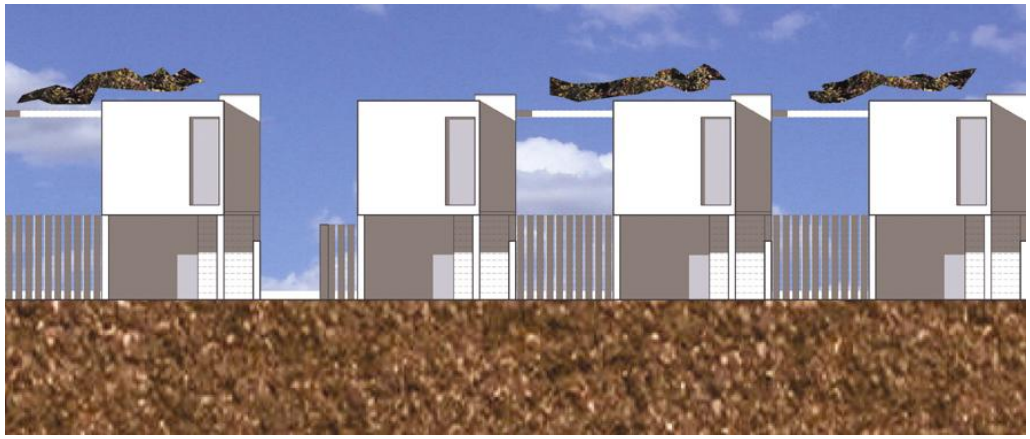


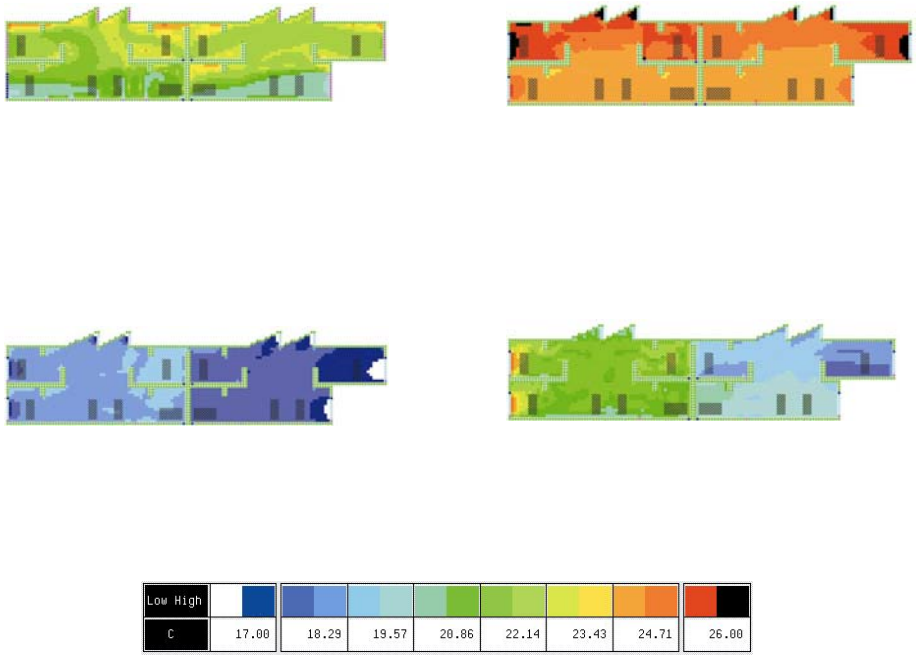
PLA URBANISTIC, SECTOR PLA DE BAIX DE DOMENY, ASSESORAMENT. - EQUIP ARQUITECTURA PICH-AGUILERA.

PLA URBANISTIC, SECTOR PLA DE BAIX DE DOMENY. - PROPOSTA FINAL D´ORDENACIÓ.








Low High
C
17.00
18.29
19.57
20.86
22.14
23.43
24.71
26.00