

HOUSE IN CARABBIA

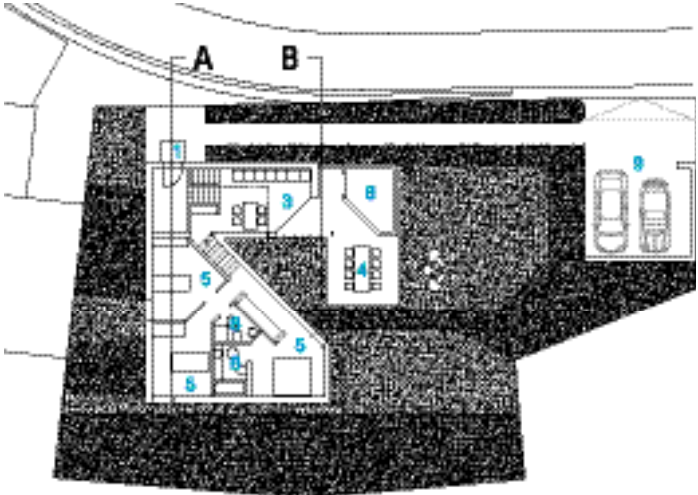
Davide Macullo Architetto | Davide Macullo



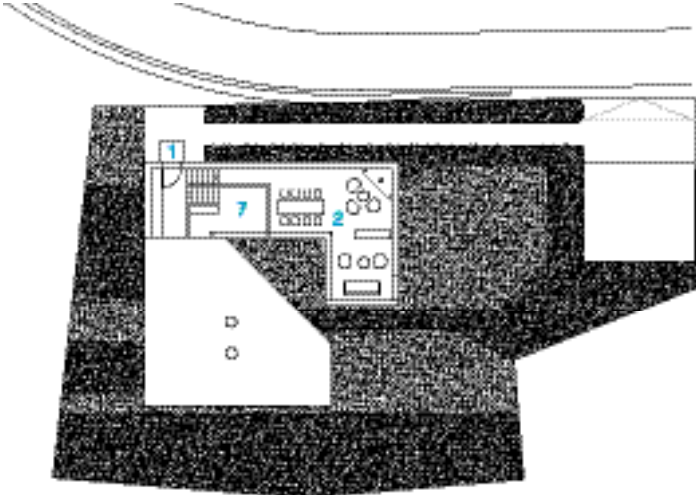
‘House in Carabbia’ is characterized by the creation of clearly identifiable geometric structures that delimit an organized development of the spaces. The underlying theme is the establishment of a spatial relation between interior - interior and interior - exterior that aims at the dilatation of the lived dimension. The interesting lesson comes from the succession of Japanese gardens which show a different awareness of the space through a sequence of sceneries and space dilatation. It is as if it were possible to experience a domestic atmosphere and at the same time, to project one’s own perception on a geographic scale. This building responds to the owner’s wish to live in an intimate space, as if it were a shell. Carved in a clear square geometry, the spaces meet the slope and extend in a spiral - fluent movement that constantly changes the perception of the space and its relation with the exterior, offering privileged views towards the beautiful landscape of the region.

Location Carabbia, Ticino, Switzerland
Use Housing
Site area 611m²
Gross floor area 169m²
Completion 2007
Photographer Pino Musi, Enrico Cano

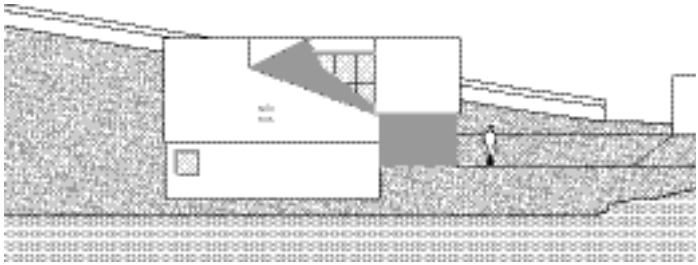
611m²
169m²
2007



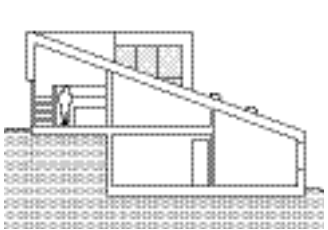
lower floor plan /



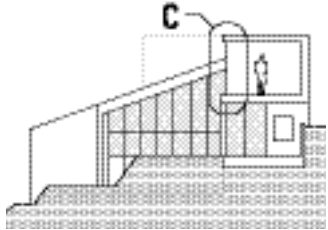
upper floor plan /



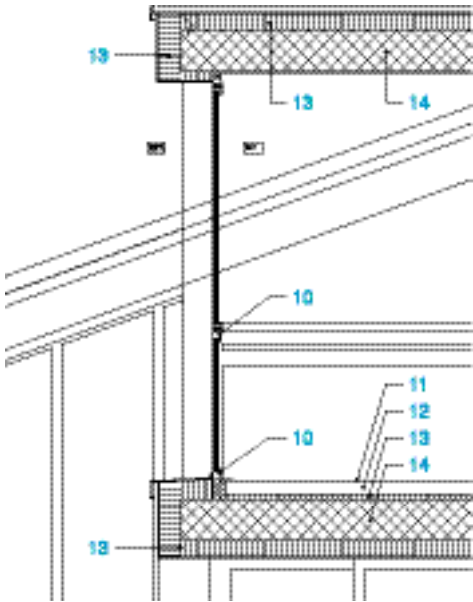
west elevation /



cross section A / A



cross section B / B



section C / c

- 1 ENTRANCE
- 2 LIVING ROOM
- 3 KITCHEN
- 4 PORCH
- 5 BEDROOM
- 6 BATHROOM
- 7 VOID

- 8 MECHANICAL ROOM
- 9 PARKING AREA
- 10 ALLUMINIUM FRAME
- 11 MARBLE FLOOR
- 12 SCREED
- 13 INSULATION
- 14 CONCRETE SLAB

- 1
- 2
- 3
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- 5
- 6
- 7

- 8
- 9
- 10
- 11
- 12
- 13
- 14



HOUSE IN COMANO

Davide Macullo Architetto | Davide Macullo

Comano, set at 5km north from Lugano(Ticino), is a little village at the foot of a hill. The plot is set as a kind of boundary between the hill and the new urbanized area on a flatter surface. The steep sloped land itself suggested to treat the land as it would be a built volume and part of the architecture of the house. The project starts by modelling those terraces that represent a continuation of the indoor spaces so that the entire plot is used and built as domestic space. In this way the outdoor spaces flow inside and the indoor spaces flow towards outside. This way of stretching the spaces offers the perception of living a larger space composed by different climatic, material and lighting conditions. The only "Natural" land portion left is the hill side slope that works as scenery for the terraced areas. This house has been planned with particular care to ensure intimacy and privacy while keeping a wide view towards outside to enjoy the beautiful surrounding landscape without being seen from outside public spaces. The arrangement of the storeys links every room, visually and physically, with the garden thus enhancing the feeling to be constantly at ground level. The huge entrance porch, that serves also as covered car - park is carved into the hill as a cave ; leaving the upper volume as if "floating" in the green landscape.

Location Comano, Ticino, Switzerland

Use Housing

Site area 833m²

Building area 139m²

Gross floor area 200m²

Building scope 3F

Structure RC, Steel

Finishing

Concrete, Gypsumboard mineral painted,
Resina

Complete 2007

Photographer Pino Musi, Enrico Cano

833m²

.....
139m²

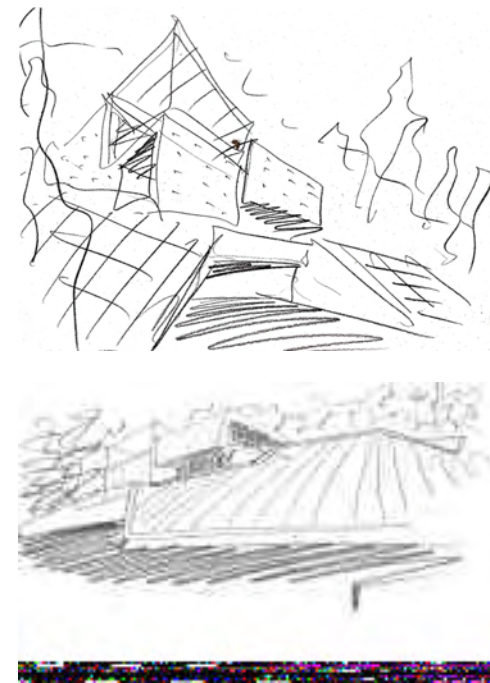
.....
200m²

...

3

2007





sketch /



- 1 ENTRY
- 2 LIVING
- 3 KITCHEN
- 4 PATIO
- 5 BEDROOM
- 6 BATHROOM
- 7 GUEST ROOM

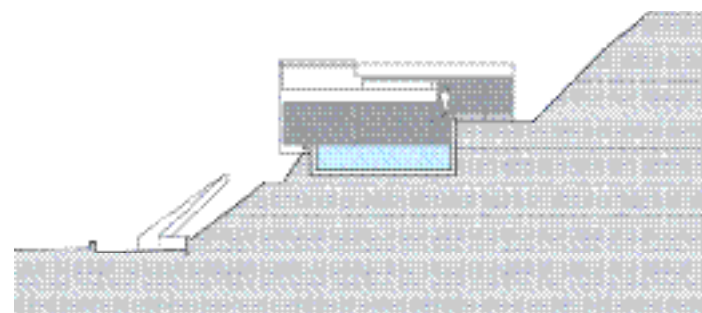
- 8 TERRACE
- 9 LAUNDRY
- 10 MECHANICAL ROOM
- 11 STORAGE
- 12 SWIMMING POOL
- 13 PARKING

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- 4
- 5
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- 7

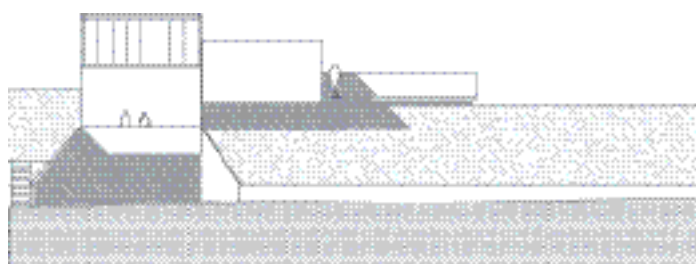
- 8
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west elevation /



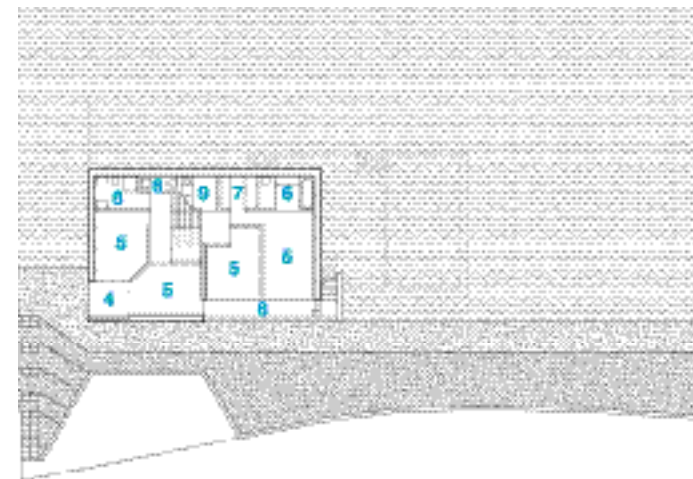
east elevation /



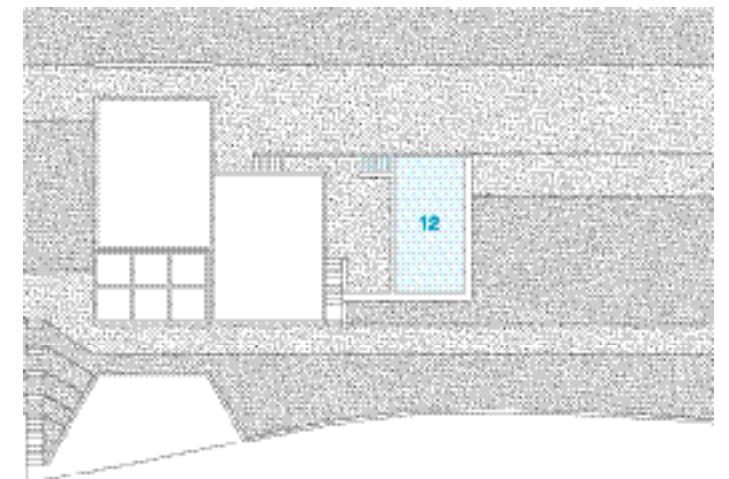
south elevation /



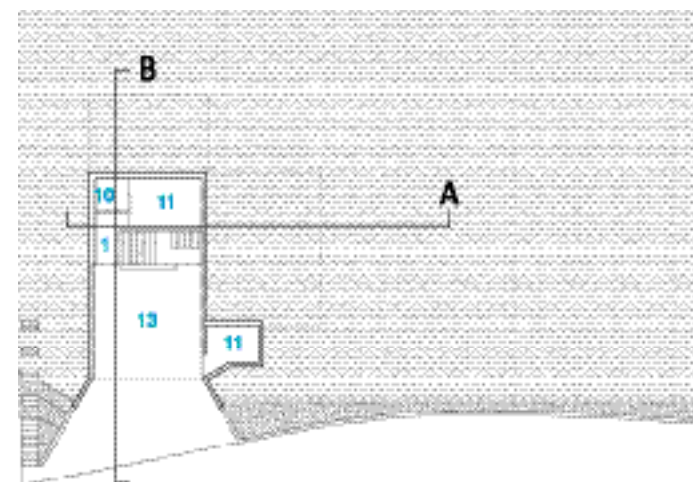
north elevation /



2nd floor plan(+3 level) / 2 (+3)



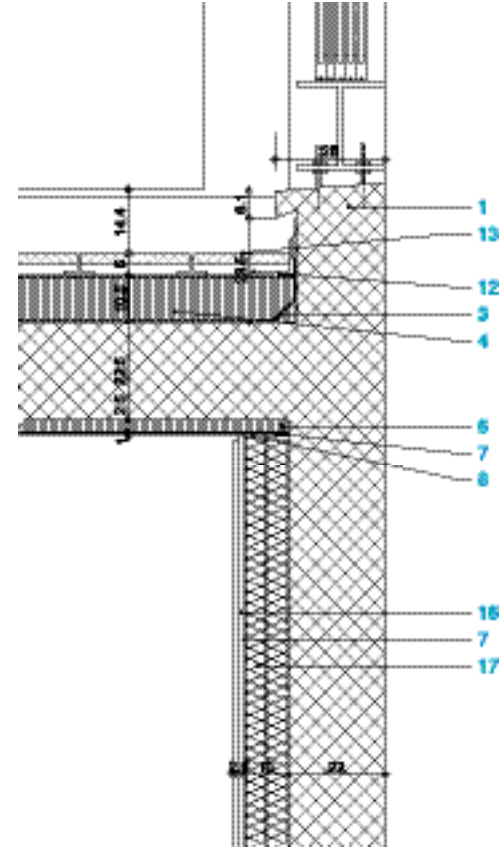
roof plan /



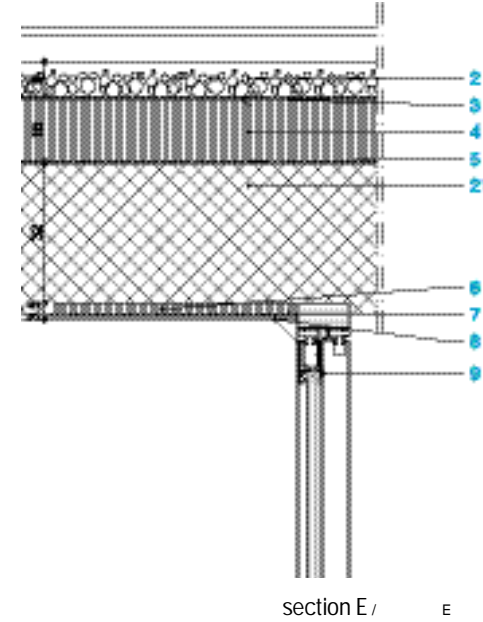
1st floor plan(+0 level) / 1 (+0)



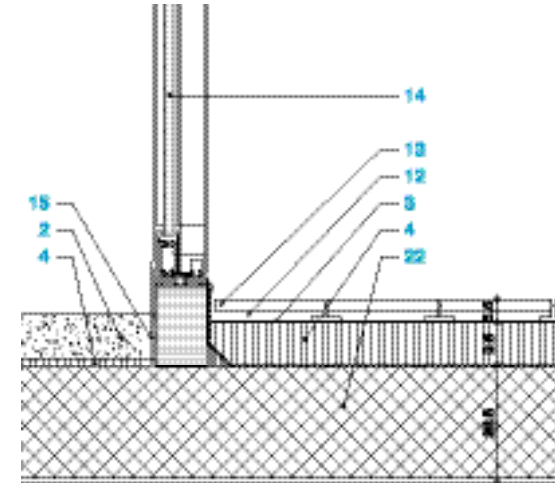
3rd floor plan(+6.03-7 level) / 3 (+6.03-7)



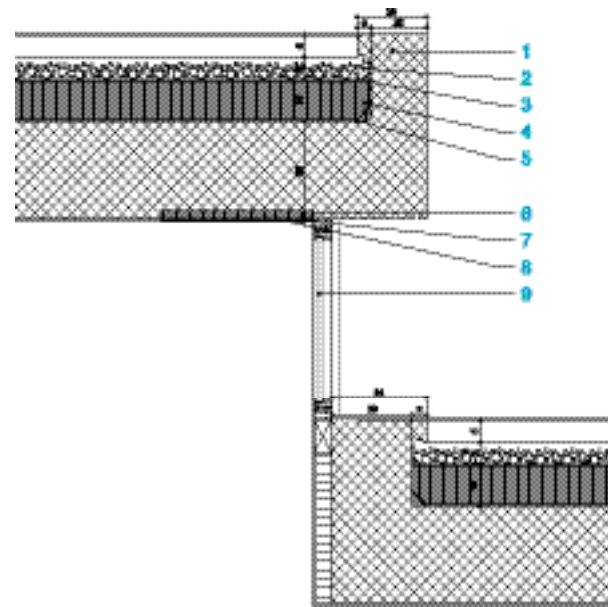
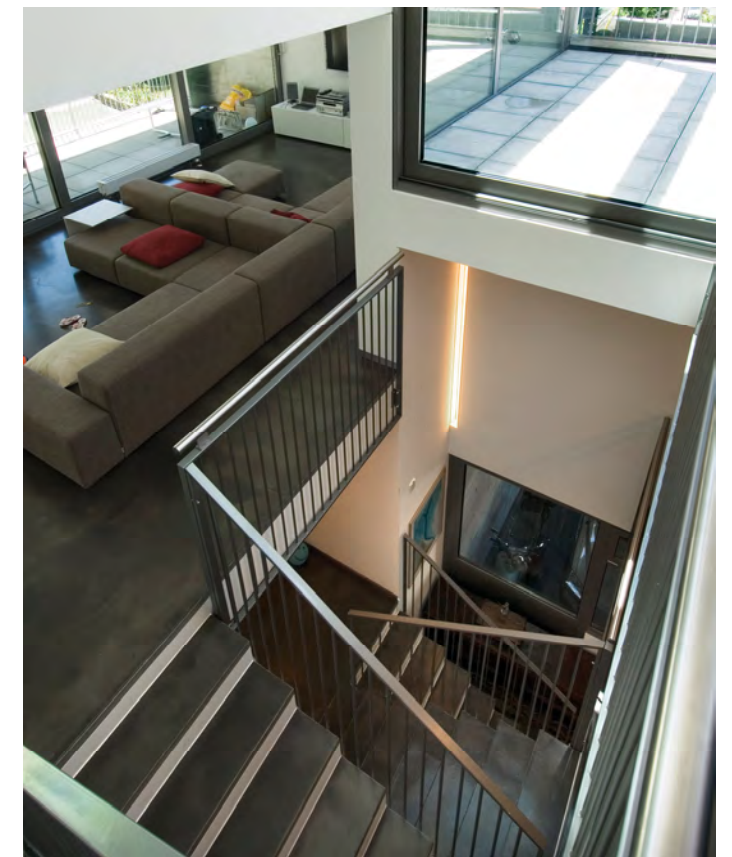
terrace & wall section /



section E / E

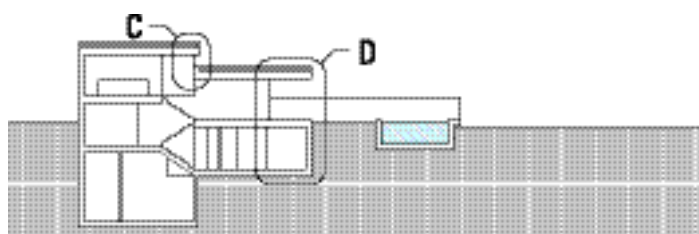


section F / F

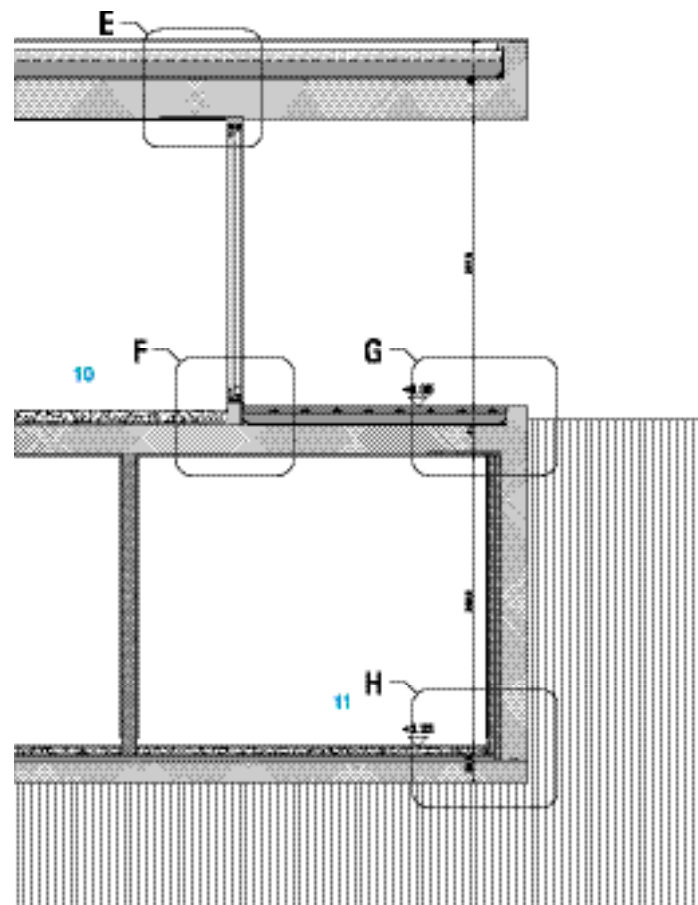


upper & lower roof section C /

c



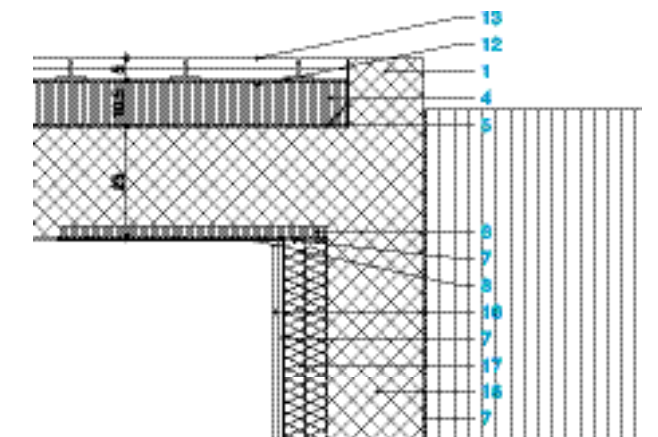
section A / A



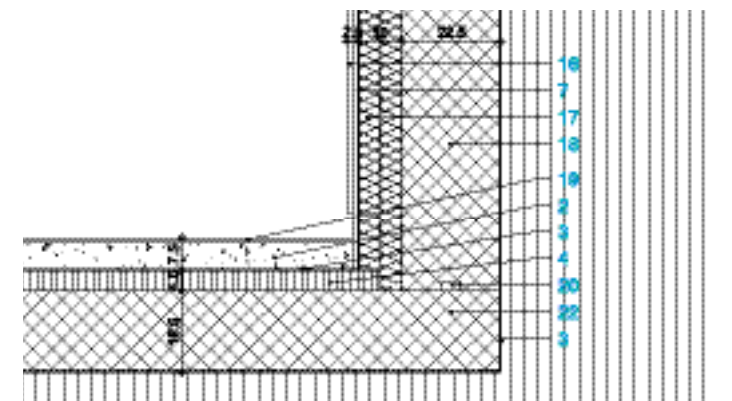
section D / D

- | | |
|-----------------------------------|-----------------------------------|
| 1 REINFORCED CONCRETE | 12 SEPARATING LAYER(VOID) |
| 2 CONCRET SCREED | 13 CEMENT SHEET(50X50) |
| 3 WATERPROOFING- BITUMEN MEMBRANE | 14 SLIDING WINDOW ALUMINIUM FRAME |
| 4 CELLULAR GLASS INSULATION | 15 INSULATION |
| 5 VAPOR BARRIER | 16 DOUBLE PLASTERBOARD LAYER |
| 6 STYROFOAM 2.5 CM | 17 MINERAL WOOL |
| 7 PAINTED VAPOR BARRIER | 18 REINFORCED CONCRETE WALL |
| 8 PLASTER | 19 WOODEN FLOOR |
| 9 WINDOW | 20 WATER PROOF DRYTECH SYSTEM |
| 10 LIVING ROOM | 21 REINFORCED CONCRETE ROOF |
| 11 BEDROOM | 22 REINFORCED CONCRETE FLOOR |

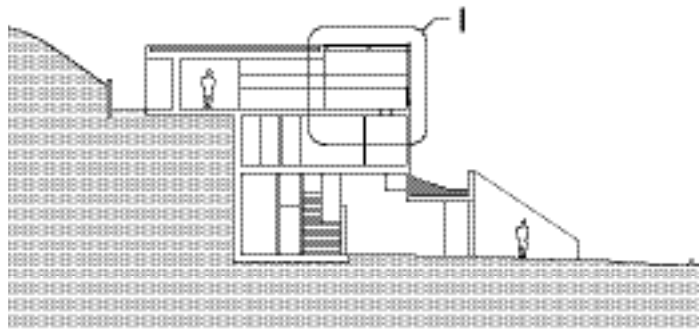
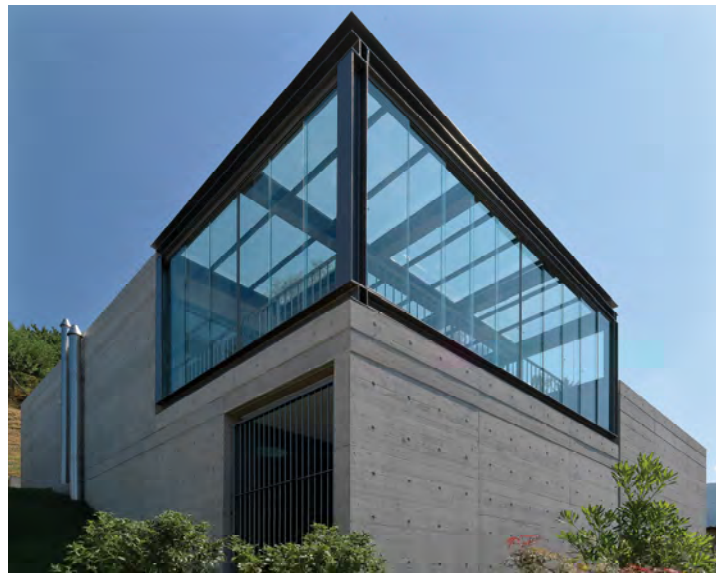
- | | |
|----------|------------|
| 1 | 12 () |
| 2 | 13 (50X50) |
| 3 | 14 |
| 4 | 15 |
| 5 | 16 |
| 6 2.5 CM | 17 () |
| 7 | 18 |
| 8 | 19 |
| 9 | 20 |
| 10 | 21 |
| 11 | 22 |



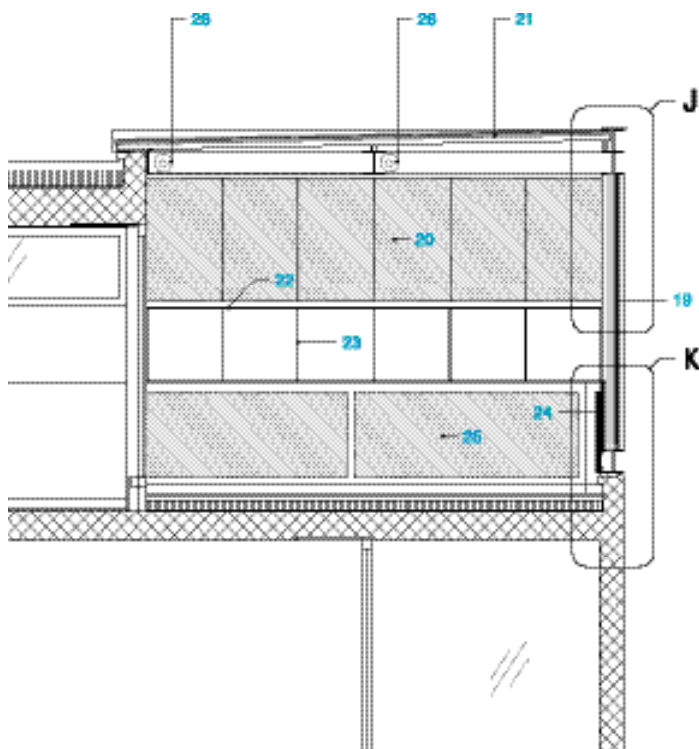
section G / G



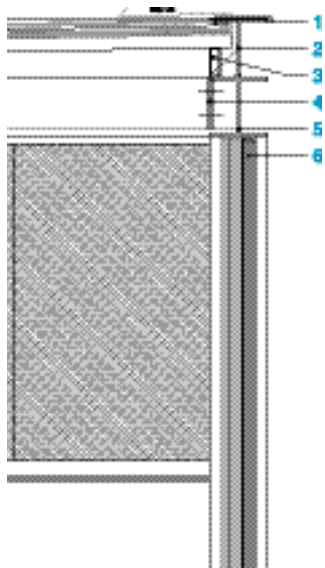
section H / H



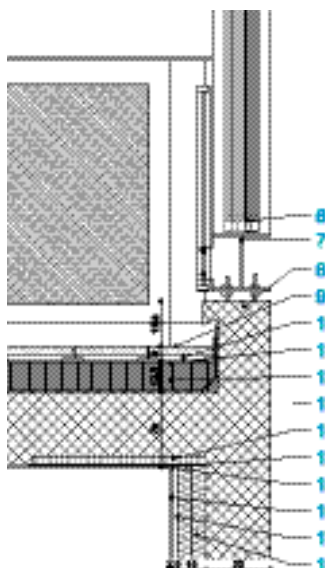
section B / B



winter garden section I / 가 I



facade section J / J



facade section K / K

- 1 GLASS ROOFING 4.7 MM
- 2 LNP 200.100.12 WELDING
- 3 STRUCTURAL TUBE. WEIGHT FOR SLOPE GLASS
- 4 HEA 20 4M20
- 5 RAL 9007
- 6 SLIDING WINDOW ALUMINIUM FRAME
- 7 HEA 200
- 8 REINFORCED CONCRETE
- 9 CEMENT SHEET(50X50)
- 10 SEPERATING LAYER(VOID)
- 11 WATERPROOFING - BITUMEN MEMBRANE
- 12 CELULLAR GLASS INSULATION
- 13 VAPOR BARRIER
- 14 STYROFOAM 2.5CM
- 15 PLASTER
- 16 DOUBLE PLASTBOARD LAYER
- 17 PAINTED VAPOR BARRIER
- 18 MINERAL WOOL
- 19 WINDOW
- 20 SLIDING GLASS
- 21 ROOF GLASS
- 22 STEEL SUPPORT
- 23 VERTICAL REINFORCEMENT
- 24 PARAPET
- 25 FIX GLASS
- 26 CURTAINS

- 1 4.7MM
- 2 LNP 200.100.12
- 3
- 4 HEA 20 4M20
- 5 RAL 9007
- 6
- 7 HEA 200
- 8
- 9 (50X50)
- 10 ()
- 11
- 12
- 13
- 14 2.5CM
- 15
- 16
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- 18 ()
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The construction stands on the lower part of a steep slope; it organically integrates with the landscape thanks to the verticality of two volumes built according to a strict regulation and bearing in mind the building height in order to preserve the view on the historical village on top of the hill. The void generated between the main volumes, hosts the stairs that link the shifted levels at different heights and give the feeling of walking on the natural slope as if nature were part of the built spaces. The use of shadowed spaces and of glazed winter gardens in this particular region becomes an energy saving natural instrument while using passive solar energy in opposite ways during summer and winter. Collecting heat through the flooring irradiation in winter and cooling through the shadowed porches in summer.

Text / Davide Macullo Architetto

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DAVIDE MACULLO : COMMENCES WORKING IN THE ATELIER OF MARIO BOTTA IN LUGANO IN 1990 AS ARCHITECT RESPONSIBLE FOR PROJECTS ABROAD OPENS HIS ATELIER IN 2000. SINCE 2002 THE OFFICE AIMS AT BECOMING A PLACE OF "CROSS - EXPERIENCES" BY PROMOTING A PROFICUOUS CULTURAL EXCHANGE WITH ARCHITECTS COMING FROM DIFFERENT BACKGROUNDS. THE SEPARATE CONTRIBUTIONS WILL PROMOTE AN ALL - EMBRACING APPROACH TO ARCHITECTURE, SPANNING FROM THE THEORETICAL ANALYSIS OF THE TERRITORY TO PEDAGOGY AND THE SUSTAINABILITY OF THE CONSTRUCTION.

: 1965 () . 1990 (MARIO BOTTA)
가
, UAE, . 2000 가
() .

HOUSE IN TICINO

Davide Macullo Architetto | Davide Macullo

Located in one of sunniest place of southern Switzerland, this house rises on the site where once old rural constructions were. It is characterized by small monolithic volumes standing on the natural slope of the land and it is surrounded by nature. The new construction reminds the pre - existences by four volumes that follow the edges of a 14meter - square ground and by displaying a carved roof. The landscape seems to "Flow" through these volumes that become a protected living space ; a continuation of the green environment modeled as if to be part of the building. The construction is enhanced by an entrance "Cave" surrounded by the green and following the slope in an organic and fluent sequence of spaces, related to each other and stretched outside. This typology aims at offering an alternative to the " Box - shaped" construction on the hills more and more urbanized and spoiled from their peculiarities by an aggressive attitude of building without respect to the environment. The whole construction has been realized according to the principles of sustainability and with bio - ecological materials.

Location Ticino, Switzerland

Use Housing

Site area 1,456m²

Building area 185m²

Gross floor area 420m²

Building scope 2F

Parking 4 cars

Structure RC

Design period 2004 ~ 2006

Construction period 2006 ~ 2007

Exterior finishing

Wall - Tecunet, Floor - Granite

Interior finishing

Wall - Mineral painting on wood "Steko",

Photographer Enrico Cano

1,456m²

.....
185m²

420m

2

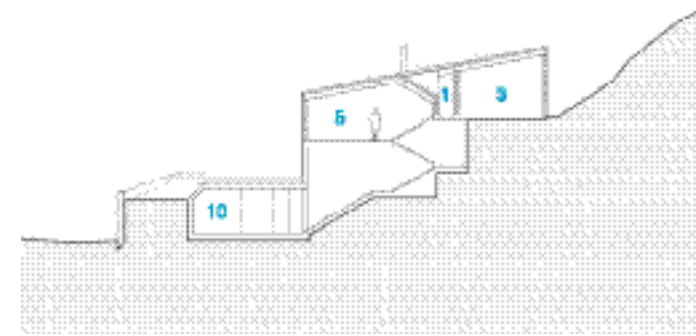
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2004 ~ 2006

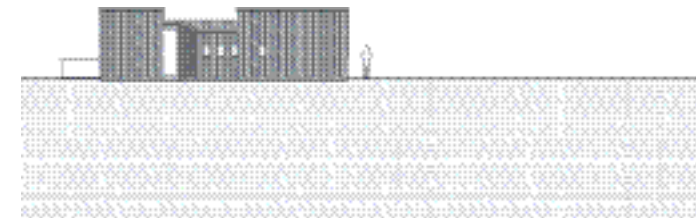
2006 ~ 2007

- "Steko"

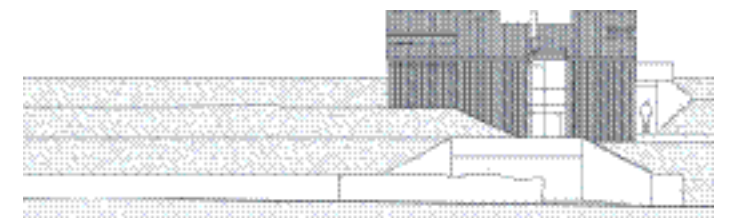




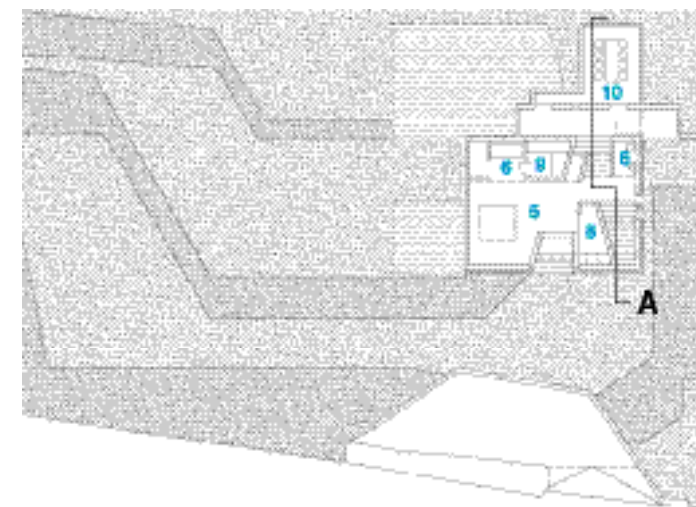
cross section A / A



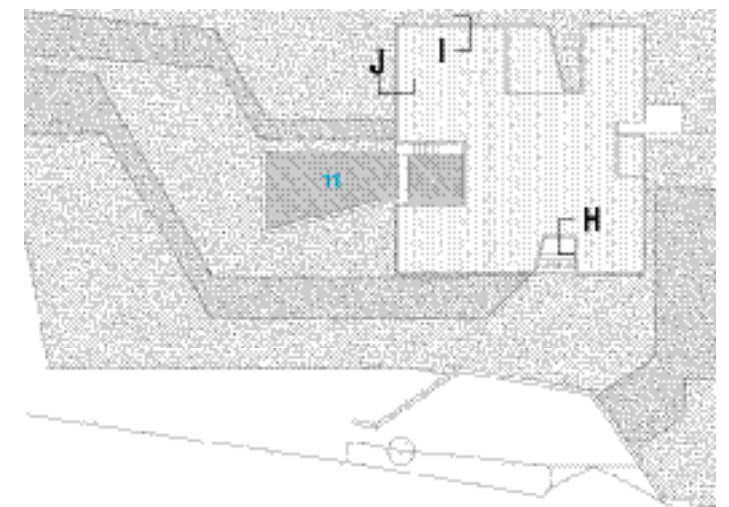
north elevation /



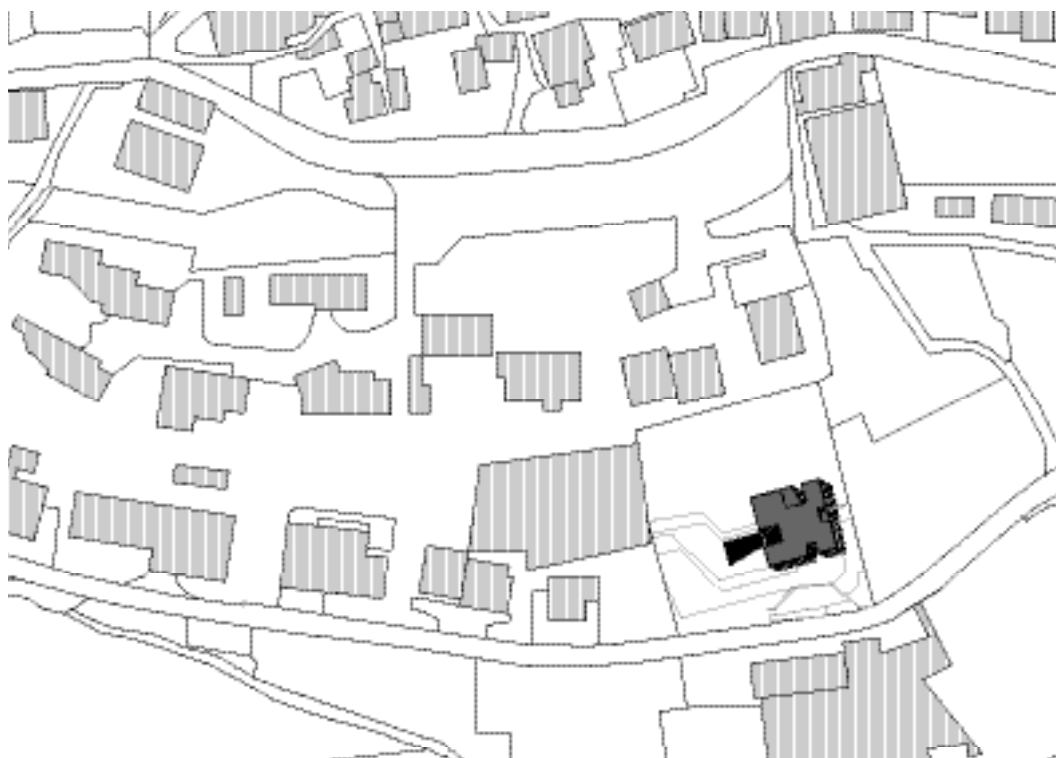
south elevation /



level -2.90 floor plan / -2.90



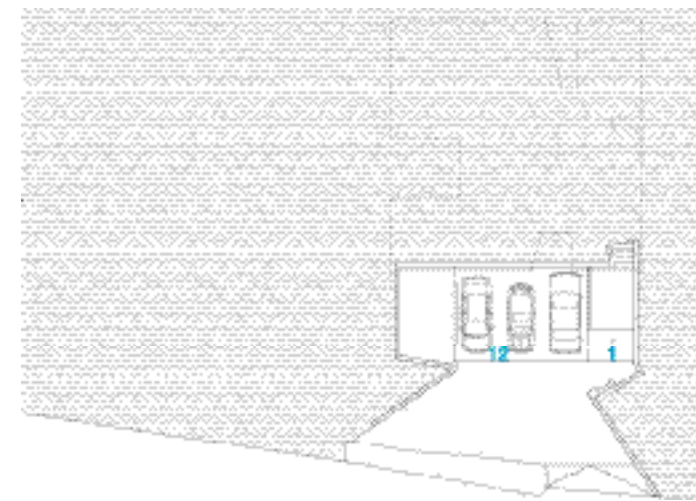
roof plan /



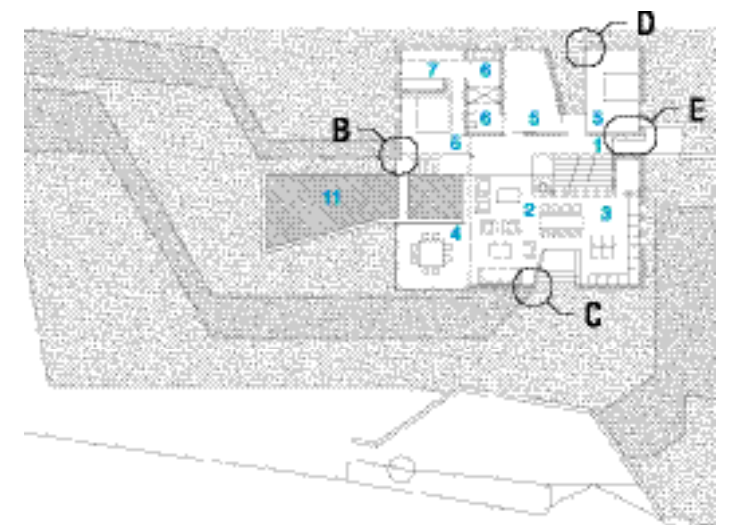
site plan /

- 1 ENTRY
- 2 LIVING
- 3 KITCHEN
- 4 PATIO
- 5 BED ROOM
- 6 BATHROOM
- 7 WARDROBE
- 8 LAUNDRY
- 9 STEAM BATH / SAUNA
- 10 CAVE
- 11 SWIMMING POOL
- 12 PARKING

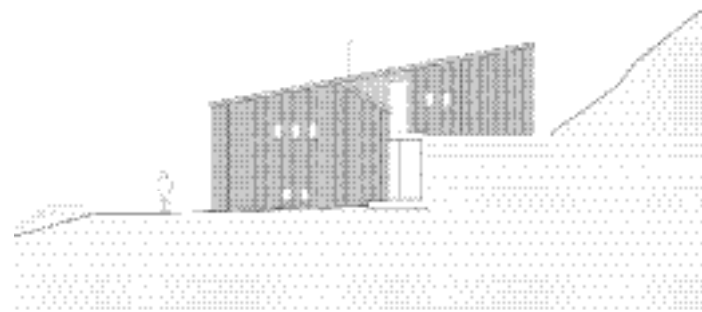
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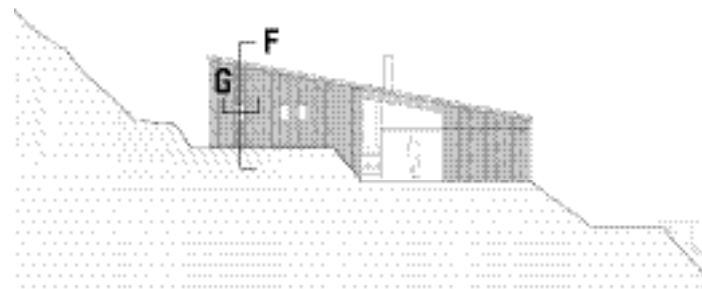
level -5.31 floor plan / -5.31



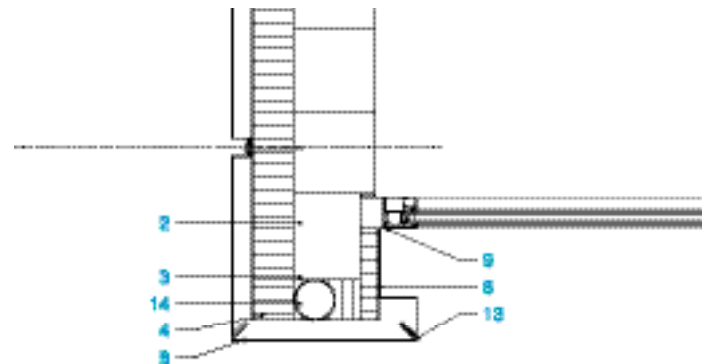
level 0.00 floor plan / 0.00



east elevation /

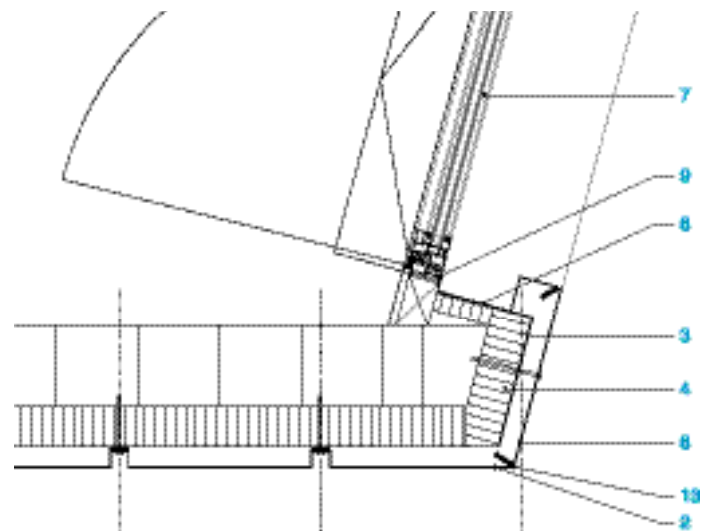


west elevation /



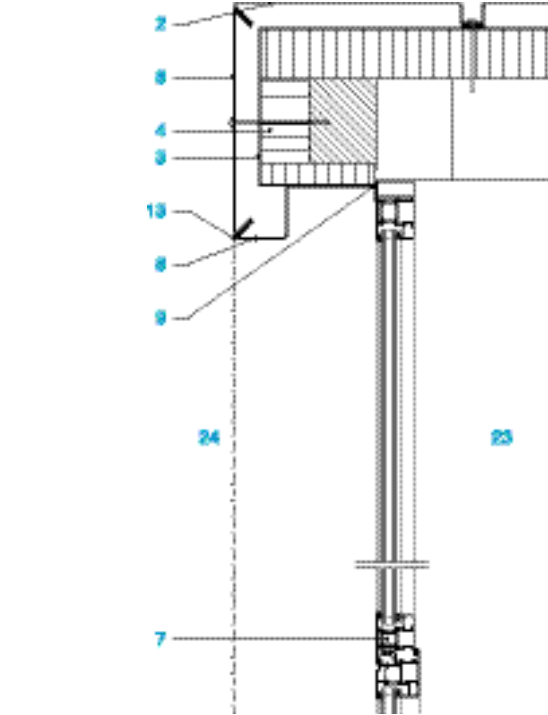
outer wall horizontal section B /

B



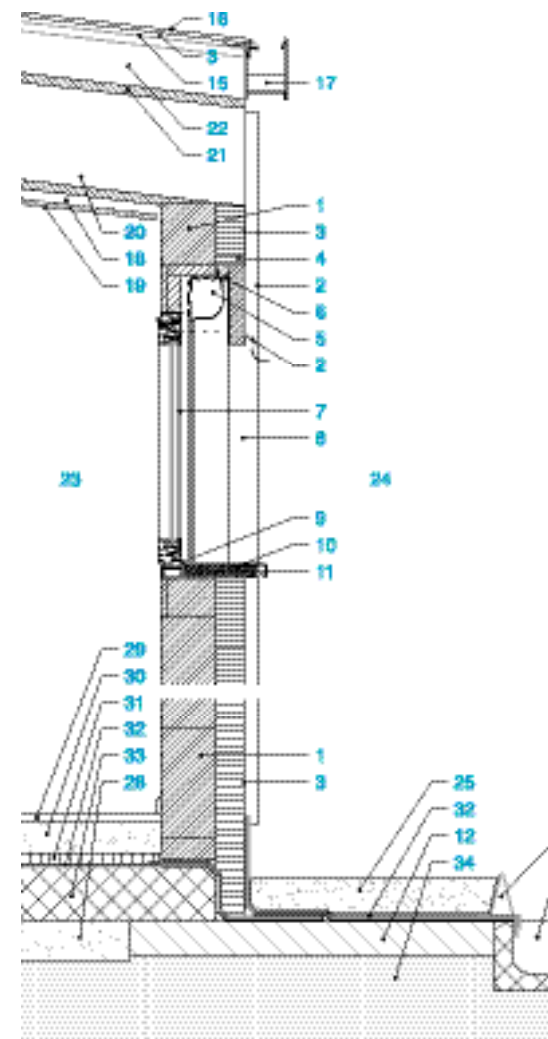
outer wall horizontal section C /

c



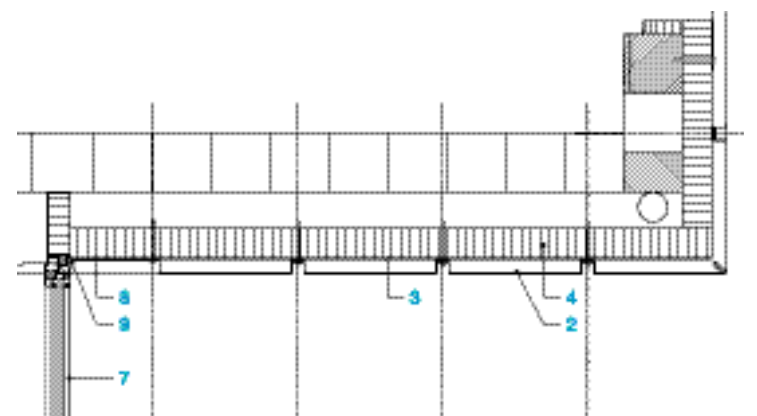
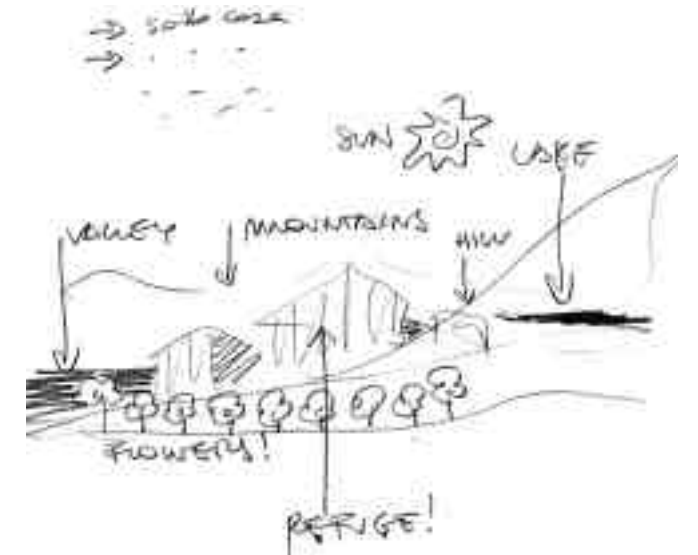
outer wall horizontal section D /

D



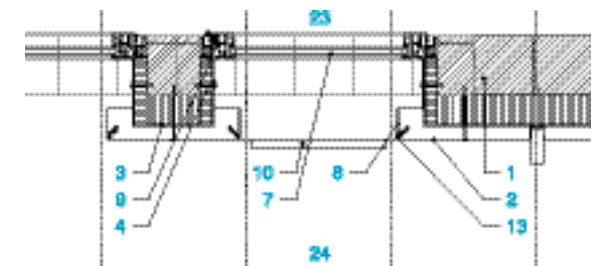
window vertical section F /

F



outer wall horizontal section E /

E



window horizontal section G /

G

- | | |
|---|--|
| 1 "STEKO" WOOD BRICKS 16CM | 18 VOID |
| 2 "TECU-NET" CLADDING(COPPER) 0.7MM | 19 GIPS BOARD |
| 3 WATERPROOFING 1.5MM | 20 ROOF INSULATION 28CM |
| 4 THERMAL INSULATION 8CM | 21 STEKO SLAB SANDWICH PANELS |
| 5 BLINDS | 22 STEKO SLAB SANDWICH PANELS(SIDE VIEW) |
| 6 COPPER CLADDING 1MM | 12CM |
| 7 ALLUMINIUM FRAME 6.8CM | 23 INTERIOR |
| 8 COPPER CLADDING TYPE "TECU-CLASSIC" 0.7MM | 24 EXTERIOR |
| 9 ANTI OXIDATION LAYER 0.5 MM | 25 STONE PAVING |
| 10 COPPER PLATE 1MM | 26 STAINLESS STEEL CONTAINING PROFILE |
| 11 SLOPE ELEMENT 1.5% | 27 WATERDRAIN |
| 12 REINFORCEMENT CONCRETE SCREED | 28 FILTERING SCREED LAYER |
| 13 FIXATION WITH PIGMENTED SILICON | 29 WOOD FLOOR 2CM |
| 14 WATER PIPE Ø7.5CM | 30 CONCRETE SCREED 9CM |
| 15 COVERING PLATE LAYER | 31 INSULATION 3.5CM |
| 16 "TECU-CLASSIC" ROOF CLADDING 1MM | 32 SARKING |
| 17 COPPER WATER DRAIN | 33 SLAB 16CM |
| | 34 ROCK - SOIL |

- | | |
|-----------------|-------------|
| 1 " " 16CM | 18 |
| 2 " " () 0.7MM | 19 |
| 3 1.5MM | 20 28CM |
| 4 8CM | 21 |
| 5 | 22 () 12CM |
| 6 1MM | 23 |
| 7 6.8CM | 24 |
| 8 " " "0.7MM | 25 |
| 9 0.5 MM | 26 |
| 10 1MM | 27 |
| 11 1.5% | 28 |
| 12 | 29 2CM |
| 13 | 30 9CM |
| 14 Ø7.5CM | 31 3.5CM |
| 15 | 32 |
| 16 " " 1MM | 33 16CM |
| 17 | 34 |



- 1 "STEKO" WOOD BRICKS 16CM

2 "TECU-NET" CLADDING(COPPER) 0.7MM

3 WATERPROOFING 1.5MM

4 COPPER PANEL 1.7MM

5 BLINDS

6 WOODEN FRAME STRUCTURE

7 ALLUMINIUM FRAME 6.8CM

8 VOID 12CM

9 ANTI OXIDATION LAYER 0.5MM

10 TW WIND PROTECTION LAYER

11 ISOFLOC INSULATION 8CM
- 12 STRUCTURE 80X120

13 COPPER BOX "TECU-CLASSIC"

14 WATER PIPE Ø7.5CM

15 COVERING PLATE LAYER

16 "TECU-CLASSIC" ROOF CLADDING

17 COPPER WATER DRAIN

18 STRUCTURE 30X60

19 GIPS BOARD

20 ROOF INSULATION 28CM

21 STAMISOL

- 1 " " 16CM

2 " - " () 0.7MM

3 1.5MM

4 1.7MM

5

6

7 6.8CM

8 12CM

9 0.5 MM

10 TW

11 ISOFLOC 8CM
- 12 80X120

13 " - "

14 Ø7.5CM

15

16 " - "

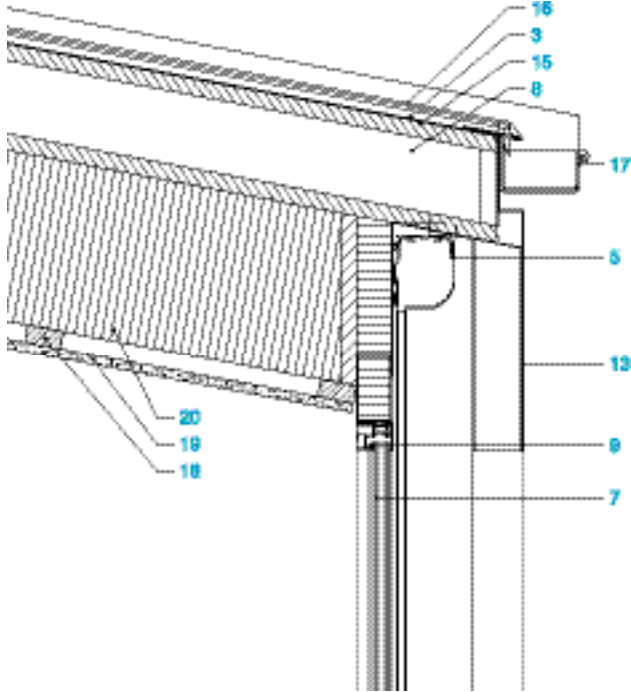
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18 30X60

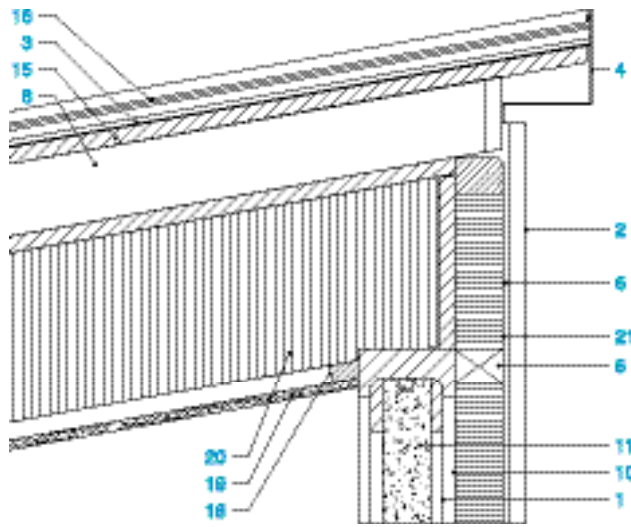
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20 28CM

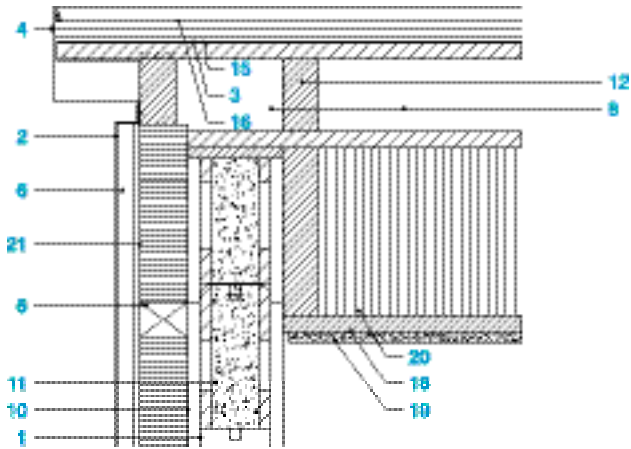
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roof section H / H



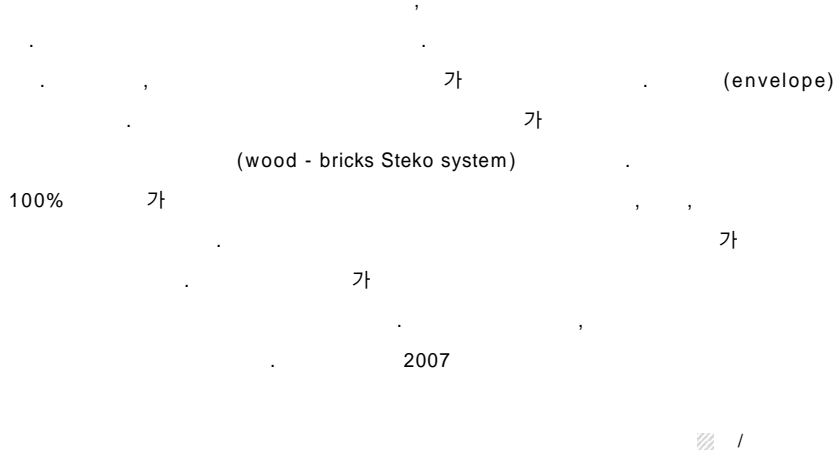
roof section I / I



roof section J / J

An intelligent selection and coupling of building materials is a recurrent strategy in Davide Macullo's works, a strategy that increases its significance in a perspective of a more sustainable way to design and build our habitat. The single - family house in Ticino is a further example of this approach. Wood and copper are unusual materials if linked to the current idea of an high - standard of living. In this work those materials are increased in value, utilizing them for their best sustainable features. A double envelope contains and protects the interior spaces. The internal envelope is built with the wood - bricks Steko system, a constructive technology which adds further "Assets" to the renowned sustainable features of wood, natural, renewable and healthy building material. The Steko system utilized even in the internal partitions is fully recyclable and reduces the time spent on site, with a corresponding reduction in noise, dust, site traffic and other environmental nuisances. The external skin is made of a copper screen, another natural and fully recyclable building material that protects the wooden internal envelope from overheating. Standard prefabricated elements, like the Steko bricks or the copper external skin, are well suited to the simple and compact forms of a project that would reduce energy consumption. In the House in Ticino, all those features appear effectively combined with a high standard of living, defining a new conception of comfort. This project has been awarded with the 2007 International Tecu Award for the use of copper in architecture.

Text / Marco Moro





DAVIDE MACULLO : COMMENCES WORKING IN THE ATELIER OF MARIO BOTTA IN LUGANO IN 1990 AS ARCHITECT RESPONSIBLE FOR PROJECTS ABROAD OPENS HIS ATELIER IN 2000. SINCE 2002 THE OFFICE AIMS AT BECOMING A PLACE OF "CROSS - EXPERIENCES" BY PROMOTING A PROFICUOUS CULTURAL EXCHANGE WITH ARCHITECTS COMING FROM DIFFERENT BACKGROUNDS. THE SEPARATE CONTRIBUTIONS WILL PROMOTE AN ALL - EMBRACING APPROACH TO ARCHITECTURE, SPANNING FROM THE THEORETICAL ANALYSIS OF THE TERRITORY TO PEDAGOGY AND THE SUSTAINABILITY OF THE CONSTRUCTION.

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