Residential Skin & Details provides analysis of both the technical and the aesthetic importance of details in modern residential architecture. Featuring the work of renowned architects from around the world, this book presents 32 of the most recently completed designs for residential architecture.

Each project is presented with colour photographs, plans sections and elevations, as well as numerous construction details. There is also a descriptive text, detailed captions and in-depth information for each project.

Residential Skin & Details is an excellent reference work for practising architects as well as architecture and design students.



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First Crescent

Location: Camps Bay, South Africa Architect: Stefan Antoni Olmesdahl Truen Architects **Gross Floor Area:** 684m² Completion Date: 2007 Photographer: Wieland Gleich & Karl Beath

> The owner's brief was to design a dramatic, memorable Clerestory frameless glazing (skylights) replaced structure house. The house needed to suit his specific aesthetic and framed views which might otherwise have been considerations and have the flexibility.

contemplative feeling. The pale colours reflect light in all spaces complementing the casual feel of the house.

light and seamless, ensuring uniformity between spaces. creates a dramatic space for enjoyable living - that is Moreover, it features the joinery – single tone and always in fashion. understated, with stylish square door "knobs" in bedrooms as well as "Walnut" cladding to the cantilever tread with rich contrasting colour.

missed. Sandblasting of the full height glazing at the eastern boundary enabled the designers to maximise light to the Materials were selected by architects to create a calm and linear passage and maintain views of the mountain peaks whilst adhering to council's requirements and ensuring privacy of the neighbouring property.

Polished porcelain tiles were used throughout - large, The design is primarily in response to site and aspect and





First Floor Plan:

1. Passage 2. En-suite 3. Bedroom 4. Shower 5. Kitchen 6. Scullery 7. Dining Room 8. Living Room

9. Terrace 10. Balcony 11. Pool



008 / 009

Section through Roof at Bedrooms (Below):

- 1. 30mm recess to u/s of external RC soffit to cease at centre of aluminium frame
- 2. Min.125×100mm finished recess required for motorised blind installation
- 3. Additional min.150mm required for curtain track installation
- 4. 9.4mm skimmed Rhinoboard bulkhead by specialist to align with wall/columns
- 5. Aluminium bu specialist
- 6. Timber filler by main contractor
- 7. No plaster to u/s of soffit
- 8. 25×25×2mm steel fixing angle for Hulabond by specialist
- 9. Recess from bending of 25×25mm Hulabond
 10. Hulabond to be fixed with pop rivet to steel angle by specialist
- 11. 4mm white Hulabond by specialist
- 12. Min.30mm stone chips to later arch.spec.
- 13. Geoflex uniflash (or other) lapped onto steel and over Derbigum
- 14. Steel beam to eng.spec.
- 15. Fixings for Shuttaborad to eng.spec.
- 16. Polyurethane joint between steel beam and angle by specialist
- 17. 25×25×2mm steel fixing angle for Hulabond by specialist
- 18. Line of steel beam beyond to eng.spec.
- 19. Recess from bending of 25×25mm Hulabond

- 20. Hulabond to be fixed with pop rivet to steel angle by specialist 21. Steel beam to eng.spec.

- 22. RC slab to eng.spec.
 23. 25×25×2mm steel fixing angle for Hulabond by specialist
- 24. Recess from bending of 25×25mm Hulabond
- 25. Hulabond to be fixed with pop rivet to steel angle by specialist
- 26. Steel 'hanger' beyond to eng.spec.
- 27. Line of steel beam beyond
- 28. Derbigum SP4 torch fused with 75mm side&100mm end laps 29. Bituminous coating
- 30. 22mm Shuttabord to fall to spigots to eng.spec. detail
- 31. Line of steel beam beyond 32. Geoflex uniflash (or other) lapped onto steel and over Derbigum
 - 33. Steel beam to eng.spec.34. 500mm spigot with fixing plate to eng.spec. and detail

 - 35. Fixings for Shuttaborad to eng.spec.
 36. Polyurethane joint between steel beam and angle by specialist
 37. 25×25×2mm steel fixing angle for Hulabond by specialist
 - 38. Recess from bending of 25×25mm Hulabond
 - 39. Hulabond to be fixed with pop rivet to steel angle by specialist











Ground Floor Plan: 1. Entrance

- 2. Kitchen
- 3. Lounge
- 4. Bedroom
- 5. En-suite 6. Dressing Room
- 7. Study
- 8. Pond
- 9. Passage
- 10. Scullery 11. Dining Room
- 12. W.C.
- 13. Terrace Dining
- 14. Sun Deck
- 15. Terrace Lounge
- 16. Pool





Section through Skylight at Pond (Above): 1. Glazing

- 2. 2mm aluminium plate to top of wall beyond
- 3. 50×38mm GMS RHS
- 4. Stone slab to be epoxy fixed to lining
- 5. 50mm water pipes
- 6. Water level
- 7. Mosaics/tiles to be epoxy fixed to lining
 8. 100×75×8mm grade 316 stainless steel angle, epoxy fixed to fibreglass lining by specialist

- 9. RC trough and 'rimflow' to eng.spec
 10. Stone slab at slight angle
 11. Edge of tile and start of plaster
- 12. Plastered and painted
- Cemflex and fibreglass waterproofing to specialist detail

Casa SA

Location: Leon, Mexico Architect: parquehumano Gross Floor Area: 600m² Completion Date: 2009 Photographer: Paul Rivera, Archphoto



The site is a lot located in Leon (Mexico's seventh most populous city), an area characterised by a semi-arid climate (temperature ranges from -2°C in winter to 36°C in summer), with cold winter wind from the northeast.

The conception of this project began with a question: whether or not the designers would be able to create a building using a model-making process to develop the design. One of the most important determining factors for the project was the son of the client, who is visually impaired. The challenge of the project was then to generate a sensorial experience rooted in sounds and smells within a design that allowed for easy orientation, modulated totality in 90cm and whose spaces were in direct contact with the outdoors.

The volume of the building responds to the movements of the sun and wind in order to create a state of comfort without the use of mechanical systems. The main volume of the building contains the studio, the dining room/reflection pool, television room and bedrooms. The intersecting volume holds the living room, the dining room, and the kitchen.

Geometry, structure, and construction were viewed as a single concept during the creation of this project. The decision to use a structural system consisting of reinforced concrete slabs, which lend themselves to modular repetition, allowed for quick construction and lower costs.









- Wall Details: 1. Quarry 60x40x4cm thick seated
- with cement sand mortar
- Reinforced concrete beam
 Rolled steel tube
- 4. Cement sand levelling smooth finish. Final finish with acrylic pasta and vinil paint colour S.M.A. 5. Red annealing brick wall, 7x14x28cm, seated
- with cement sand mortar
- Run chain al 1/2 height
 Quarry 60x40x4cm thick seated with cement sand mortar

- Lightweight panel or Duroc
 Quarry Galarza
 Anodised aluminium socket
 Reinforced concrete beam

- 12. Quarry Galarza
 13. Polystyrene coffered drowned in slab
- 14. Cement sand levelling smooth finish. Final finish with acrylic pasta and
- vinil paint colour S.M.A. 15. Cement sand levelling smooth finish. Final finish with vinil paint colour S.M.A.
- 16. Run chain al 1/2 height
- 17. Red annealing brick wall, 7x14x28cm, seated with cement sand mortar
- 18. Arm stone seated on cement sand mortar
- 19. Marble S.M.A.
 20. Levelled firm of concreted
- 21. Poor concrete staff



- Waterproofing
 Steel angle colour black 4"x4"
 Quarry 60x40x4cm thick seated with
- cement sand mortar
- Reinforced concrete beam
 Final finish with acrylic pasta and vinil paint colour S.M.A.
- 6. Aluminium frame (special design)
- 7. Dome
- 8. Red annealing brick wall, 7x14x28cm, seated with cement sand mortar
- 9. Waffle concrete slab
- 10. Polystyrene flooded in slab
- 11. Cement sand levelling smooth finish. Final finish with acrylic pasta and vinil paint colour S.M.A.
- 12. Wood coating on frame
- 13. Red annealing brick wall, 7x14x28cm, seated with cement sand mortar
- 14. Concrete beam
- 15. Cement sand levelling smooth finish. Final finish with acrylic pasta and vinil paint colour S.M.A.
- 16. Quarry 60x40x4cm thick seated with cement sand mortar 17. Aluminium base
- 18. Concrete beam
- 19. Waffle concrete slab
- 20. Waterproofing
- 21. Quarry
- 22. Concrete ramp H=10 CMS.
- 23. Red annealing brick wall, 7x14x28cm, seated with cement sand mortar
- 24. Reinforced concrete wall
- 25. Cement sand levelling smooth finish.
- Final finish with acrylic pasta and vinil paint colour S.M. 26. Tile 5x5cm, S.M.A.
- 27. Levelled concrete
- 28. Reinforced concrete base
- 29. Poor concrete staff





- Ground Floor Plan: 1. Garage 2. Office 3. Dining 4. Family 5. Kitchen 6. TV-room 7. Chamber





KKC

Location: Fukushima, Japan Architect: No.555 Architectural Design Office **Gross Floor Area**: 341m² **Completion Date**: 2009 Photographer: Torimura Koichi

> Floating in the air, cut into two buildings, the plan has Exterior walls are wrapped in galvanised sheets so that become reasonably clear.

It is divided into private buildings and living buildings; outdoor spaces are made in the meantime, and the alley. The central alley leads to the parents' house at the back of It has the natural forms of the surrounding forests. In the have an atmosphere surrounded by nature. centeal alley, adults enjoy the golf, with children running around. The family members are in eye contact at all times.

Floating in the air under the building is a garage and garden. In the garden, the parents and family can enjoy coffee and bread, having a great time.

privacy is completely protected. It is the same outside the open window.

Inside is a plain white space, made of maple wood floors and furniture only, with grass and a central alley. It is so the site. The alley is also connected to the irregular ridge. even inside the building, because the designer wanted to











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- 8. Screen cover
 9. Steel sash

Section Details:

- alvanised steel column Ф216.3×8.3 Structural plywood t=12.0
 Steel plate t=12.0
 Concrete deck slab t=110
- Concrete deck stab t= 110
 Fake grass
 Maple flooring w=210, t=14.0
 Plasterboard t=9.5

- Stainless eaves
 Structural plywood t=12.0
 Aerated zone
 Galvanised corrugated sheet
 Steel square pipe 50×50×3.2
 Galvanised corrugated sheet
 H-type steel 300×150×6.5×9
 Urethane foam t=30
 Concrete deck slab t=110











Ground Floor Plan: 1. Garden 2. Garage





- First Floor Plan: 1. Terrace 2. Living/dining/kitchen 3. Bath 4. Central Alley 5. Bedroom





East Brighton Compact Green House

Location: East Brighton, Australia Architect: Zen Architects Landscape: Fat Elvis Garden Design and Grant Harper Gross Floor Area: 138m² Completion Date: 2009 Photographer: Emma Cross







The East Brighton Compact Green House is an exemplary compact three-bedroom house, achieving a high level of sustainability and architectural design on a modest budget. With a house footprint of $138m^2$, this dwelling is small for its neighbourhood, demonstrating that large houses need not be the benchmark for family homes. Nothing is oversized – through clever design and an emphasis on quality not quantity, this family's needs have been comfortably met with minimal environmental impact.

A timber-lined curved roof peels upwards at the front and rear of the house, creating a striking street presence in an area dominated by multi-storey developments. The soaring rear roof integrates the building form with the existing jacaranda tree, creating a dramatic and beautiful outdoor entertainment area. The open plan living area connects both physically and visually to the rear deck and garden to enlarge the sense of space within a modest footprint. A sunken lounge room with integrated cabinetry, steps and seating breaks up the living area and provides an intimate and playful sitting space.

Simple passive solar design principles are integral to the building form. The sweeping main roof is designed to protect high level windows from unwanted summer solar gain while allowing desirable winter sun penetration, and the rendered polystyrene cladding enabled creation of a unique self-shading wall design for the lower building volume.

Proven sustainable technologies help to further reduce operational energy and water demands. The innovative waste water filtration system treats all grey water on site and is integrated into landscaping, including an ornamental creek bed at the entrance.







Construction Details of Eave: (Left Above)

- Steel beam to engineer's specification
 Double glazed timber bi-fold door

(Left Above)
1. Zincalume roofing to edge of building
2. Ply to underside of ceiling
3. Curtain pelmet over steel beam. MDF painted selected colour. Hinged panel to front of pelmet for maintenance
4. Polycarb roofing over eave
5. Timber battens space with 20mm gap between to underside & end of rater
6. Curved steel beam to sit under rafters
7. Double glazed timber framed window

Curved steel beam to sit under raties
 Double glazed timber framed window
 Pack-out window to prevent thermal bridging between steel beam and window frame
 100mm mild steel fixed louvres welded to steel frame

- (Right Above)
 1. MDF curtain pelmet painted selected colour, hinged panel to front of pelmet for maintenance

- tor maintenance
 Top fixed half round eave gutter
 FC sheet to wrap under gutter edge to be as thin as possible
 Rendered FC sheet match rendered poly below
 100mm thick extruded polystyrene to finish underside of gutter
 Extruded polystyrene cladding system installed to manufacturer's specification and rendered slope sill away from window





Ground Floor Plan: 1. Deck 2. Dining Room 3. Kitchen 4. Lounge 5. Sitting 6. Bedroom 7. Study 8. Entry Hall 9. Master Bedroom 10. En-suite 11. W.C. 12. Bathroom 13. Laundry 14. Storage 15. Carport



Villa Amanzi

Location: Phuket, Thailand Architect: Original Vision Gross Floor Area: 800m² Completion Date: 2008 Photographer: Marc Gerritsen



It is nestled in a cascading, west-facing ravine with a dramatic slab of rock defining the northern edge and a stunning outlook over the azure blue of the Andaman Sea to the south.

The defining elements are the rock and the view. They dominate at every juncture. They resonate on first approach, through the migration from public to private space, in the living and in the family areas, in the gardens, in the bedrooms; and they continue to command respect down the tropical jungle steps that arrive at a secluded rock platform, flanked by the same seam that welcomed you 60 metres above. Constant reference to these elements instills a feeling of solidity that contrasts with the openness of the house, reinforcing the dynamism and vibrancy that pays homage to the magic of the location.

The home grows out from the rock; the bedroom element rests between it and the wing that strikes the perpendicular, rising vertically from the slope. This composition defines the open living and dining space that is simply a transition between two garden areas. It is intimate but open and the uninterrupted clear span creates a bridge under which the conventions defining indoor space disappear.

Cantilevered over a massage sala, the swimming pool completes the composition. It is the focal point that draws the eye to the view and instills a calmness that provides balance with the energy of the architecture.

First Floor Plan: 1. Entrance 2. Living Room 3. Dining Room 4. Kitchen 5. Staff 6. Storage 7. UT. 8. Pool 9. Sala 10. BBQ





















Wall Section Details:

- 1. G.M.S. 100×50 C-channel purlin on G.M.S. angle spacer, horizontal spacing to metal roof manufacturer's specification
- 2. Vapour barrier wrapped to window head backed with zinc plate
- Standing seam metal roof 51mm standing seams, Zincalume finish
- 4. Expanded foam sound insulation layer under metal roof
- 5. Rockwool insulation layer on expamet mesh support
- 6. Vapour barrier attached to zinc plate wrapping down to window head7. 3mm THK ALUM. capping

- 12. Louvre support in PVF2 finish
- 13. Cement render finish
- 14. Recess for blind 100mmD from external ceiling

- 17. Emulsion paint on gysum board ceiling18. Formed 20×20mm recess
- 19. Formed 20×20mm recess
- 20. Emulsion paint on c/s render

- 24. Formed 20×20mm recess
- 25. Structural steel beam enamel
- painted with anti-corrosion treatment
- 26. Emulsion paint on c/s rendering 27. 20×20mm S.S. skirting
- 28. Structural steel beam with
- anti-corrosion treatment
- 30. Emulsion paint on gypsum board ceiling

- 32. LW. concrete water feature





House SNR

Location: Tel Aviv, Israel Architect: The Heder Partnership Gross Floor Area: 400m² **Completion Date**: 2008 Photographer: Amit Geron

> The house is situated on a typical suburban plot and is The house's plan is made of two rectangular forms that are framed between two edge gables. The house is based on a contemporary study of the archetype the "gable house" which is widely spread in SA, Australia and other countries. This type is usually a single storey house connected to the the family functions will be joined on one level. ground with two side gables and a central entrance with a thatched pitch roof. This house takes these "classic" Each rectangle houses different elements. The first faces elements and adapts them to our times.

> the street level and built in mixed technology. The two long side elevations are made from industrial steel elements and covered with frosted glass sheets. The two other elevations The strip of "public areas" all opens up to a wide veranda are made from exposed concrete and close the house as a box. The roof above, which is made of exposed metal construction, has a sloped angle butterfly roof. The slope of the roof continues beyond the building line, creating a shaded "veranda" space below which functions as a direct the east-facing rooms will also receive west light in the continuation of the internal spaces.

connected to each other through a central spine system. The clients requested that the house will be single storey so that the house will appear low to its surroundings and that all

east and holds all the "private functions" of the house, i.e, bedrooms, bathrooms, while the second faces west and The house's plan is a clean, crisp rectangular, raised above holds the "public functions" such as the living room, dining room, kitchen, study and family room.

> overlooking the pool with a strong relationship between the inside and outside. The central spine intermediating between the two rectangles has a low flat roof allowing the locations of high windows into the adjoining rooms so that afternoon and the western rooms will be able to have east light in the morning.

> This central space has green stone floor finish which flows into all the rooms and functions as a frame for a natural wood floor in the centre of each room. The overall colours of the house are monochromatic and give a quite and sombre setting. The orange of the kitchen stands out in its individuality.











Facade Details:

- 1. Galvanised siding bent to form
- 2. Galvanised and painted steel beam
- 3. Steel roof beam
- 4. Glass opening section5. External electric aluminium shutter
- 6. Aluminium siding
- 7. Overlapped insulation as per specialist's detail
- 8. Floor sealing as per specialist's detail
 9. Timber deck as per architect's choice
- 10. Lightweight concrete to falls
- 11. Concrete floor
- 12. 20mm thermal insulation
- 13. Lightweight concrete to falls
- 14. Waterproof layer as per
- specialist's detail 15. Dry wall thermal
- insulation galvanised
- metal frame
- 16. Removable aluminium panel 17. Aluminium window
- 18. 50mm stone skirting board 5mm shadow gap Gupsum board
- 19. 400/400/20mm stone floor







- Façade Details (Right): 1. Galvanised siding bent to form 2. Galvanised and painted steel beam 3. Steel roof beam

- Glass opening section
 Wall insulation as per specialist's detail
 External electric aluminium, shutter

- 7. Aluminium siding
- 8. Galvanised metal frame 18mm OSB board above thermal insulation
- 9. Wall insulation
- 10. Overlapped insulation
- 11. Metal mesh
- 12. Timber deck
- 13. Lightweight concrete to falls
- 14. Concrete floor
- 15. 20mm thermal insulation16. Lightweight concrete to falls
- 17. Waterproof layer as per specialist's detail
 18. Lighting fixture
 19. Dry wall
- Thermal insulation
- Galvanised metal frame 20. Lighting fixture
- 21. Perspex
- 22. Thermal insulation
- 23. 50mm stone skirting board 5mm shadow gap Galvanised metal frame
- Gypsum board
- 24. 400/400/20mm stone floor





Ground Floor Plan: 1. Entrance 2. Living Room 3. Dining Room/Kitchen 4. Family Room 5. Study 6. Children's Bedroom 7. Master Bedroom



House on Fire Island

Location: New York, USA Architect: Resolution: 4 Architecture Gross Floor Area: 314m² **Completion Date**: 2008 **Photographer**: Resolution: 4 Architecture

> Located on Fire Island, a barrier island off Long Island, NY, this bay front house is the summer retreat for a family in the form of continuous sliding doors break down the who lives and works in Manhattan.

The house is designed as two distinct volumes, to provide the parents and their adult children with separate quarters for living and entertaining. The volumes are clad in cedar and connected by a glass bridge, sheltering a courtyard and pool, which receive western exposure for maximum daylight.

the outdoors. The typical configuration of private spaces the front door. Plenty of parking for bikes is also provided. stacked on top of a lower public zone is flipped; in this Natural ground cover of beach grasses and brush keep the residence, the communal upper level enjoys the best views site low maintenance and sensitive to local vegetation. The and access to outdoor decks for entertaining. Kitchen, cedar siding ages to a silvery grey, and adapts this modern dining, and living space flows out to the bay beyond, ideal volume to the beachfront vernacular.

for watching summer sunsets. Large expanses of glass boundary between interior and exterior, and add to the airy openness of the house.

The house embraces local island traditions, through both its construction process and its design. Cars are prohibited on the small island, so the house and its material were brought on barges to the site and transported via wagons and bikes, the primary means of getting around. The design of the large curving entry ramp accommodates for this mode of The design of the house prioritises views and access to transportation, allowing wagons to be wheeled right up to







- Section Detail Deck & Railing:
 1. 2×8 railing top plate beyond @ bench wall
 2. 1/2" reveal between top plate & cement board
 Finish grade 2×8 railing with countersunk fasteners & mitered corners
 4. 1/8" S.S. cable rail through 1/4" hole
 5. Cedar decking
 6. 2×10 joists
 7. Line of 4×4 finish grade cedar space beyond
 8. Finish grade cedar 2×6
 9. 2×12 cedar fascia
 10. Built up 2×10 header beam
 11. Counter sunk fasteners
 12. Cedar siding beyond
 13. 2×2 cedar trim beyond
 14. Andersen sliding door@ master bedroom beyond
 15. Aluminuim panel beyond







H

HÅ

23

Wall Section (Facing Right): 1. Railing or parapet wall 2. 1 1/4" X 4" clear cedar deck Information (1997) 1 1/4" X 4" clear cedar deck Tapered rigid insulation 3/4" exterior grade OSB roof decking R-30 BATT insulation 5/8" GWB ceiling 1/2" GWB; TYP. 8'-1" A.F.F. Soffit 2 1/4" X 3/4" painted wood trim 5/8" prefinished bamboo floor 1/2" soundboard 3/4" CDX plywood Sound attenuation blankets Cedar siding; TYP. Exterior walls to be 2 X 6 Construction, 16" on Centre, R-19 insulation, 1/2" OSB sheathing, air Infiltration wrapped; U.O.N R-30 BATT insulation; TYP. 5/8" prefinished bamboo floor R-30 BATT insulation; TYP. 5/8" prefinished bamboo floor 3/4" CDX plywood 2x12 BOX beam 1/2" mahogany plywood Simpson H-3 framing anchor 2x12 girder with blocking a side 3/4" DIA. galvanised through wall bolts w/Washers TYP. 2x8 cleat 24" long Each side 3x8 brace (N & S) with 2 5/8" galvanised bolts 3", 8", CCA polet JET, below mean sea level









Ground Floor Plan: 1. Master Bedroom 2. Master Bath

- 3. Bedroom
- 4. Bath
- 5. Laundry 6. Entrance 7. Study

- 8. Kitchen 9. Living/Dining 10. Pool 11. Outdoor Shower

Sow Geneva

Location: Geneva, Switzerland Architect: Stefan Antoni Olmesdahl Truen Architects (SAOTA) Gross Floor Area: 1,400m² Completion Date: 2010 Photographer: Stefan Antoni



On either side of the 20-metre-wide channel sits the two portions that make this house, the main house and the annex. What link the two buildings are the cinemas, spa, auditorium and garages underneath. The main house is a combination of round-edged cubes and triangular masses that form the L-shape of the living spaces. A double volume living area with a curved wall on the façade facing the lake, flows into a dining area and kitchen on the ground floor and bedrooms, a lobby and en-suites on the top level. The top floors are accessed by a glass cylinder encased lift.

The beaten stainless steel gate and polished stainless steel fence posts, prepare one for the understated elegance that is the character of this house. The main entrance sits between a sloped façade and a stone-clad wall. The sloped façade reflects the triangular nature of the site, giving the house an organic dynamic in its dark grey Alucobond and glass finish. The garage doors and external walls are finished in Balau timber that will eventually weather into a lovely silver patina.

The second building, the annex, is finished in floor-toceiling fixed glazed panels, glazed sliding doors and the same slatted Balau timber finish as the garage and links the two buildings above ground visually with a hint as to their link beneath.

The main materials used in this project externally were concrete, glass and different types of marble. Internally, the main finishes were different types of marble for floors and feature walls, stainless steel wall cladding, glass, and walnut for joinery finishing.





North Wall Section Details: 1. Building alignement 2. Seal coat UV resistant 3. Insulation 140mm 4. Vicente print 4. Vapour barrier 5. Concrete slab 6. Tightening straps
 7. Gutter 8. Aluminum cladding dark grey 9. Rockwool 9. Rockwool
 10. Aluminum cladding dark grey
 11. Steel column VKT
 12. Aluminium window U=1.1 W/m²K
 13. Aluminium cladding light grey
 14. Aluminium cladding light grey H450×3600mm
 15. Ventilated framework
 16. Destinated framework 16. Rockwool 120mm 17. Concrete suspended wall 220mm 18. Aluminium window U=1.1 W/m²K 19. Steel column VKT Steel column VK1
 Aluminium cover dark grey
 Recomposed wood cladding
 Lighting to ceiling
 Cabinet
 Lighting closet
 Jerusalem marble 25mm
 Constant account of the constant 26. Concrete screed 70 27. Floor heating 28. Insulation 50mm 29. Concrete slab 280mm 29. Concrete slab 280mm
 30. Ventilation duct
 31. Plaster board suspended ceiling
 32. Indirect lighting cupboard custom-built
 33. American walnut
 34. LED
 25. Etriploce steel burbed 35. Stainless steel brushed 36. Drawers custom-built American walnut 37. Jerusalem marble 600×600×25 38. Screed 70 39. Floor heating 40. Insulation 50 41. Concrete slab 500











- 2. Pond 3. Guest Suite 4. Circulation

- 10. TV-room 11. Kitchen
- 12. Scullery 13. Dining Room 14. Guest W.C.



Ground Floor Plan: 1. Driveway Entrance
Family House

Location: Valais, Switzerland Architect: clavienrossier architectes hes / sia Gross Floor Area: 230m² Completion Date: 2009 Photographer: Roger Frei





The designers kept what was useful for the project: cellars, ground floor and half of the first floor of the old house, demolished the remaining elements and rebuilt according to new rules what was made especially for the project.

The designers wanted to create a strong contrast between the remaining part and the new structures. They chose to oppose clear geometric lines with existing rough old stone walls. Volumes of visible tinted concrete replaced the double-sided roof and the transformed area. They tried to create an ensemble, to establish a dialogue with the existing. The oxides added in the concrete made the hue similar to a tuff, stone found in a very small quantity in the stone walls. Both of the new concrete volumes are sitting atop the 60-centimetre-wide existing wall. The idea of sloped walls was chosen to erase, at least visually, the thickness of wall; to be opened outwards while maintaining a solid appearance with the existing structure. The variousslopes faces enhance the highly varied game of the shadows throughout the day.

The openings in the existing part were small and vertical. The designers kept them to accentuate the contact with the newly created on top. They made large horizontal windows, thus becoming frames on the landscape. They chose to make a single front opening on each concrete façade.

This desire of openness is also visible in plan. Interior walls are not touching the façades. This system allows to experiment in each room a transversal view onto the landscape.

There are no corridors. Circulation is made along the external wall, from room to room. The overall view continues beyond the windows, opening onto the surrounding landscape.









- Wall Details (Right): 1. Bitumen roofing felt, two layers 7mm 2. Reinforced concrete slab 22-30cm 3. Thermal insulation 12cm 4. Vapour barrier 5. Plaster 1cm 2. October 10

- 5. Plaster 1cm
 6. Curtain rail
 7. Larch sliding window
 8. Fair-face reinforced concrete, coloured
 9. Existing stone wall 60cm
 10. Thermal insulation, 1x4cm, 1x8cm, 12cm
 11. Reinforced plasterboard 2.5cm
 12. Oak parquet flooring 1cm
 13. Screed with underfloor heating 7cm
 14. Separating layer
 15. Impact sound insulation 2cm
 16. Concrete slab 20cm
 17. Thermal insulation, expanded polystyrene 2cm









Ground Floor (Left), First Floor (Facing Below Left) and Second Floor Plan (Facing Below Right): 1. Entrance 2. Cellar 3. Laundry 4. Carnotzet 5. Technical room 6. Living Room 7. Kitchen 8. Bathroom 9. Master Bedroom 10. Terrace 11. Internet/Ironing 12. Bedroom







Two Houses

Location: Bratovici, Croatia Architect: ARHITEKTRI Gross Floor Area: 384m² **Completion Date**: 2010 Photographer: Miljenko Bernfest, Aleksandar Markovic



Site Plan (Facing Below): 1. Entrance 2. Living Room 3. Kitchen/Dining 4. Bedroom 5. Terrace

While working on this project the main question that was raised was how to integrate a contemporary facility into the existing ambient of a small Istrian town, how to incorporate something modern into the existing area, which in itself entails a string of details and functions that considerably vary from the rural image of surrounding households, all the while striving to keep the balance with the community in general.

The investors' request was that two identical country retreats be situated on the lot with a joint swimming pool and accompanying details. During the designing process local structures and materials were researched in detail, particularly the way in which the materials (primarily stone) were used, shaped and experienced. The path led from traditional Istrian Casitas to family estates. The Casita as the most primitive structural form, but with a clear and well-defined outline (wall, opening, roof) and fascinating group of separate facilities which function as a whole.

It was attempted to unite these concepts to create not only new structures in space, but for the purpose of those new facilities complementing the situation and environment without disturbing tradition or unnecessarily imposing themselves.

The abovementioned contemplations resulted in a house that follows the clear and simple contours of the neighbouring facilities (rectangular ground-plan, angled roof), which with its three-way restrictedness quite clearly defines the completely open fourth side. Furthermore, with its stone-lined façade and roof it directly communicates with the location it is situated in a subtle, but expressively individual manner.

The dialogue between the old and the new is established by the entirety of the two houses and the supporting storeroom as a perfect counterpart to the neighbouring family estates that encompass several facilities within their property, and stacked-stone structure alongside the family estate as a by shaping, structure and texture at the same time clearly separate the private from the public, allowing the creation of an intimate contemporary ambient.



















Section Details – Wall & Ground:
1. Stone slates, 16cm
2. Stainless steel anchors
3. Mortar
4. XPS thermal insulation, 10cm
5. Hydro insulation
6. Brick blocks, 25cm
7. PVC hydro insulation protection
8. Hydro insulation
9. Concrete foundations
10. Concrete base, 10cm
11. Hardwood oak floor, 2cm
12. Cement glazing, 6cm
13. PE foil
14. XPS thermal/sound insulation, 12cm
15. Concrete slab, 30cm











Section Details - Wall &Door: 1. Stone slates, 16cm 2. Stainless steel anchors

- 3. Mortar
 4. XPS thermal insulation, 10cm
 5. Concrete wall, 25cm
 6. Perforated screen

Maison du Beton

Location: Zwickau, Germany Architect: atelier st Gross Floor Area: 236m² **Completion Date**: 2009 Photographer: Bertram Bölkow

> High over a river meadow, a sharp-edged dwelling The smooth surface of the concrete is improved, in house rises on the gentle ridge of the Cainsdorfer local situation. It uses the available hillside situation of a generous property, contrasts by his clear geometry, The disguising of the building incisions in the façade was nevertheless, consciously and strikingly with the grown realised as a curtain wall façade with anodised aluminium landscape. The polygonal volume adapts itself in its boards. relative cubic capacity of course in the context of a heterogeneous structured outskirts situation.

Nevertheless, by the clarity and precision of the form, the big single openings and not least by the material of the extremely smooth view concrete façade, the house changes the usual picture of the surroundings.

The building was completely established as a monolithic, ferro-concrete construction with nuclear insulation. Topmost demands were made to the external highly demanding view concrete intention bowl of the bivalve outer wall concerning the quality of the concrete. By means of a two-ply, constructive armouring, an extremely slender external wall strength was achieved in a dimension of only 15cm.

addition, with a fine colour glaze and is protected by a clear hydrophobising prolonged before decomposition.

> Sections: 1. Living Room 2. Bedroom 3. Office















Plans (Facing Below Three): 1. Entrance 2. Foyer 3. Guest Room 4. Living Room 5. Kitchen 6. Dining Room 7. Bedroom 8. Office 9. Bathroom 10. Dressing Room 11. Garage 12. Store







Façade Section Details:

1. Roof edge sealing liquid plastic

- Roof construction:
 Synthetic/plastic roofing membranes white 2-3 layer sloped roof insulation 100-200mm vapour barrier PE Foil 0.6mm ceiling reinforced concrete 200mm, smoothed and painted
- Façade construction: wall sheet/ wall cladding reinforced concrete 150mm thermal insulation 100mm wall plate reinforced concrete 200mm lime-gypsum plaster 10mm Coating with Malervlies
- 4. Sun protection Venetian blind
- Aluminium block window system with integrated casement, light bronze anodised and insulating glazing Float ESG 10+ SZR 26 +VSG 14, U= 1,0 W/m²K
- 6. Ceiling construction: strip parquet on adhesive 10mm heated screed 70mm Sound Absorption 30mm Ceiling panel reinforced concrete 220mm, smoothed and painted
- 7. Hung metal covering
- Aluminium block window system with integrated door frame, light bronze anodised and insulating glazing Float ESG 12 + SZR 31 +VSG 16, U= 1,0 W/m²K
- 9. Floor construction: stone flooring in medium bed 30mm heated screed 50mm Sound Absorption 30mm thermal insulation WLG 30, 45mm waterproofing V60S4 5mm floor slabs reinforced concrete 250mm
- PE Foli, gravel filling/capillary breaking 150mm







Linear House

Location: Salt Spring Island, Canada Architect: Patkau Architects Gross Floor Area: 340m² Completion Date: 2009 Photographer: James Dow



A farm located on Salt Spring Island, an island in the Strait of Georgia between Vancouver Island and the mainland of British Columbia, the site of this house is bisected from east to west by a long row of mature Douglas fir trees. There is a gentle slope falling across the site from south to north. The south half of the property is an orchard containing a variety of fruit trees; the north half of the property is a hay field.

There was an existing cottage on the site which has been sold and relocated to a neighbouring property. The existing barn, garage and studio buildings remain. The new house extends 84 metres in a straight line along the south side of the fir trees. The orchard has been made more regular with the addition of further fruit trees so that the clarity of the juxtaposition of cultural landscape to the south, and natural landscape to the north of the new house is reinforced.

The new house is subdivided by a breezeway into a principal dwelling and guest quarters. The exterior of the house is clad in charcoal-coloured fibre-cement panels which render the house almost invisible when seen against the dark green foliage of the fir trees. Interiors are described by a luminous inner lining made of translucent acrylic panels. Over forty skylights bring sunlight into roof and wall assemblies during the day which causes this interior liner to glow softly; while at night, fluorescent lights mounted within the skylight openings turn the entire interior into a luminous field. Areas within this overall luminous surround are subdivided and defined by the insertion of reinforced concrete fireplace masses and wood cabinet-like service spaces. Glazing within window openings, the largest of which is about 24 metres wide, is fully retractable, so that during the prolonged fair weather of Salt Spring Island the house can be transformed into an open-air pavilion.





















Ground Floor Plan: 1. Living Room 2. Bathroom

- 3. Bedroom

4. Kitchen & Dining



Floating House

Location: Yangpyung-gun, South Korea Architect: Hyunjoon Yoo Architects Gross Floor Area: 297m² **Completion Date**: 2009 Photographer: Hyunjoon Yoo Architects

> The given land has beautiful scenery facing the Bukhan River in the north. Meanwhile, lots of restaurants and motels are seen in the south and decadent neon signs are a guest house for their daughter's family who sometimes seen from here to there creating visual pollution.

an elegant Korean restaurant which was built in a traditional Korean style. They wanted to build a house in the given land about five minutes away from the restaurant. They wanted to overlook the river from a high level, at the height of the second floor. A Feng Shui specialist had advised them not



to make a door facing east and not to let people live in the southwest. They wanted a study room, a barbeque place, and visit them. They also wanted to make a big yard to play and jump about and a low-level swimming pool for their The clients are a couple in their fifties and sixties who run grandchildren. The wife wanted a design that gives a heavy and magnificent feeling.

> The house was located in the north as far as it can be for a big sunny yard in the south. The guest house was located in the south so that the restaurants and motels are not seen from the yard. The guest house was built as if it were the fence to be located as far as it can be in the south. It looks as if it was put inside the thick fence. To view the river from the yard and the guest house, the main building was levelled up to be a piloti. The roof of the main building was made as a plain roof and there is a roof garden in which people can overlook the river from a high level. As a result, the river is viewed from every part of the house.

> To make the house look as big as possible, a one-metrewide balcony made of the same materials as the main building was built at its four sides. The regulation defines that a balcony with one metre width is not included in total floor area. By doing so, the interior looks as if it keeps expanding when it is seen from inside the building. Also, since all the buildings were lifted from the floor for one floor's height, the pilotis space could be more expanded.

> Not to make the pilotis look big-headed like most piloti space with small and minimal columns, the columns were made thicker than necessary and a waterspout was installed inside to make the first floor look like a heavy rock. Black concrete was used for a magnificent style, creating the feeling of tiles used in traditional Koreanstyle houses. As a result, the house created an image which is similar to the Korean-style restaurant of the clients.



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Landscape Plan: 1. Gate 2. Lawn 3. Dining Room 4. Plant 5. Pool













T – House

Location: Kyoto, Japan Architect: atelier BORONSKI **Gross Floor Area**: 211m² **Completion Date**: 2010 Photographer: Kei Sugino

> On a small hill overlooking Kyoto city, a suburban house for a young couple negotiates some tough "Historical" design regulations. Many design points are pre-set. Therefore, the orchestrated. Despite the external restrictions, the fluidity finally let the house feel very free.

> composition. The main external walls (running east/west), the private volumes (overlapping and bridging) and the resultant void space.

The main Living, Dining, Kitchen area on the ground floor opens onto the main terrace facing the garden to the east allowing classical indoor/outdoor living, and the house is conceived of as a simple container with private ceiling height in this area varies from 2.5m to 7.5m. The spaces lodged randomly within, but the randomness is two main bedrooms bridge the building and their north/ south facing walls of glass allow the external cladding of the interior void spaces and curved connecting stairways to continue into the rooms (one white plaster, one black timber). The bathroom on the first floor has a large internal window overlooking the garden to the east and There are three primary elements at work in this the guest bedroom on the second floor pushes straight out to the west. Beside and below this bedroom are two minor terraces that spatially overlap. The second lounge area on the second floor is just a floor slab, a viewing platform that bridges the main void and allows sweeping views of the city to the east. There are also two top-lights allowing vertical views to the sky.

> Externally the house is mostly clad in traditional materials of burnt cedar boards (with clear lacquer finish) and white plaster. The garage door facing the street (to the west) is fully camouflaged as a wall of horizontal louvres that continues up to form the railing for the first floor terrace.

1. Living 2. Bathroom 3. Living&Dining&Kitchen 4. Terrace 5. Guest Room 6. Bedroom 1 7. Bedroom 2 8. Garage 9. Utility













Roof Details:

- 1. Insulation: Glass wool 24K t=150mm
- Toplight: Double glazed wireless fire-rated glass t=6+12+8
 Roof: Galvalume low profile
- metal roofing t=0.4mm Ashphalt roofing
- Waterproof plywood t=9mm (2×) 4. Eaves: Cementitious board t=8mm
- 5. Pipe: 89×4.2mm
- 6. Roof: Galvalume low profile metal roofing t=0.4mm Ashphalt roofing
- Waterproof plywood t=9mm (2×) 7. HTB2-M16
- 8. GPL-6 9. PL-12
- 10. PL-12×120×370
- 11. PL-89×4.2 12. Cementitious board t=8mm 13. Pipe: Φ =89×4.2
- Base plate: PL-12 Caulking
- 14. D25 welded to base plate
- 15. Mortar
- 16. Wall: burnt cedar siding t=15mm Breather-type building paper Air cavity t=27×50@450 Polyurethane-foam insulation
- t=40mm 17. Pipe-space



Curtail Wall Details:

- Curtail Wall Details: 1. Roof: Galvalume lowprofile metal roofing t=0.5mm Ashphalt roofing 940 (min.lap 300) Waterproof plywood t=9 (×2 offset lay) Battens 40×40@450 Rafters 105×105@1240 Ridge beam 105×270 Fibreglass wool 28K t=150 2. Compatitious beard t=8mm

- Cementitious board t=8mm
 Solid edge member ex. 200×60

- Solid edge member ex. 20
 Wool carpet Rubber underlay Self-levelling compound
 Anchor bolt: D12@600
- +steel angle: 60×30×9 6. Suspension bolt: Φ=9 7. H 194×175×6×9

- 8. Accordian type insect screen H=2800 W=2600
- 9. Marble tile 400×400 t=20 White mortar t=40
- 9. Marble tile 400×400 (=20 white mortar t=4
 10. SUS grating + channel
 11. Crushed stones t=150mm (compressed)
 Sand t=50mm (compressed)
 Therma-slab electric heating panels
 Sand t=100mm (compressed)
 Compressed Crushed stones t=100mm (compressed)
- Crushed stones t=100mm 12. D29 13. D13@150 14. Polystyrene t=40 15. DPC (t=0.2mm) 16. Sub-slab concrete t=50

- 17. Crushed stones t=100mm (compressed)





Section:

- 1. Garage
- 2. Living 1 3. Terrace 1
- 4. Terrace 2 5. Bedroom 2
- 6. Terrace 3
- 7. Bedroom 1
- 8. Living 2





Ground Floor Plan (Facing Below): 1. Carport 2. Garage 3. W.C. 4. Kitchen 5. Dining 6. Living 7. Terrace 8. Reflection Pool 9. Spa



Casa G

Location: South Iceland, Iceland Architect: Gudmundur Jonsson Arkitektkontor Gross Floor Area: 450m² Completion Date: 2008 Photographer: Bragi Thor Josefsson



The concept of Casa G is based on reading and feedback to the landscape it exists on. The characteristic landscape situation and view differ distinctively in each direction. Towards south is the view to the sea and islands, towards north the characteristic triangular mountain, towards east the glacier and towards west the river and canyon.

Those elements are the creator of the project, the transitions between the landscape views giving the entrance from the north and the curved plan giving a vitalised focus towards the seaside in south. When turning back the north view towards the mountain is as well enhanced with the widening view due to the fan-shape of the tilting wooden wall, being a mediator between the northern and southern landscape characteristic.

The tilting is an answer and an interpretation of the glacier towards east; they are communicating and the only and huge window in that wall is creating "a painting" of the glacier experienced from the interior.

The guest-wing of the building stretches to the canyon and the river towards west. Thus the building concept is a composition and dialogue of views and experiences of the various nature at site. The choice of materials is based on the need to give a warm and cosy experience of the interior. In order to enjoy the view towards south and the sea, the fireplace has glass wall towards the outside, giving view through the fire and the smoke is mechanically transported through a chimney which is hidden in nature and delivered discretely approx. 30 metres away from the house.







- 32. Drain-board
- 33. Zink 34.18mm waterproof plywood





















Streckhof Reloaded or Container

Location: Zellerndorf, Austria Architect: Franz zt Gmbh Gross Floor Area: 1,680m² Completion Date: 2009 Photographer: Lisa Rastl



A subdivision dating to the 1970s in Zellerndorf, a town in lower Austria, provides a setting for the single family houses. The building massing is reminiscent of shipping containers – in stack contrast to the neighbouring houses whose roofs are pitched. Dividing the programme among three bar-shaped volumes of the same size and arranging them like a string of pearls along a glazed corridor is also out of ordinary: the architects' design is a representation of the region's traditional extended farmhouse in which the individual uses of residence and barn coexist.

Stables are placed in a row. In this instance the programme is spread throughout three separated boxes. The first, situated nearest the street, served as garage and storage place. In the middle the family congregates in the open kitchen living room; the third accommodates the master room, children's room and bathroom. The three wings are linked by the hallway – glazed on both sides – which literally penetrate them protruding as a canopy above the entrance dominating on the opposite end in the glazed window, which the residents use as an alcove for playing and reading.

Intimate courtyards were created between the boxes. The largest one has a boardwalk terrace with swimming pool; the French doors in the bedrooms and living spaces open to it. Thanks to the offset arrangement of the bars, the garden both interlocks with the building and appears to flow right through the highway. At once simple and refined, the building envelop is constructed of translucent corrugatedpolycarbonate sheet. Its honeycomb core disperses light and furnishes the façade with a slight sheen, reinforced by homogeneity of the black membrane behind it. In order to reduce the building cost, the clients did a large part of work themselves. Thus the construction method is simple - load-bearing brick masonry, roof elements of pre-faceted wood, and adhesively bonded glazing. The building stands out largely owing to the unusual combination of readily available materials.















- 320mm thermal insulation between

- 20mm oriented-strand board; vapour barrier
- 100mm thermal insulation between
- 100/50mm timber battens
- 30/15mm counter battens; 15mm plasterboard 2. 30mm corrugated polycarbonate sheet, translucent, with honeycomb core, bolted to wind-tight membrane, moisture diffusing, black
- 15mm oriented-strand board
- 100/50mm timber counter battens
- 200mm thermal insulation between
- 100/50mm timber battens
- 250mm brick masonry vertically perforated brick
- 15mm gypsum plaster











Ground Floor Plan: 1. Entrance 2. Workshop 3. Garage 4. Hallway 5. Kitchen 6. Dining/Living 7. Technical System 8. Study 9. Reading Alcove 10. Bedroom 11. Bathroom 12. Walk-in Closet 13. Child 14. Terrace/Pool





- Wall Details (Left):
 1. 60mm heating screed, sanded, colour mixed in, polyurethane coating 30mm impact-sound insulation 20mm oriented-strand board
 180mm thermal insulation between
- 180mm thermal insulation between
 180/80mm timber beam
 20mm cement-impregnated chipboard
 2. 8mm screen-printed glass
 20mm oriented-strand board
 200mm thermal insulation between
 200/60mm timber posts; 20mm OSB; vapour barrier; 8mm mirror glass, fixed with adhesive



Villa BH

Location: Burgh-Haamstede, The Netherlands Architect: WHIM architecture Gross Floor Area: 267m² **Completion Date**: 2010 Photographer: Sylvia Alonso

> Villa BH is a modern, environment-friendly house with a remarkable experience of space, light and the natural context.

enclosed at three sides with similar plots and freestanding houses. On the back (northeast) of the plot there's an old embankment with several tall trees, whose existence is protected by local regulations. From the living programme, On the other side of the patio is the main bedroom. By the kitchen, dining and living area are all orientated on this embankment with the large trees. Here the villa has a 20-metre-wide façade.



making the façade of the patio totally from glass panels, the main bedroom has a great see-through view towards the existing embankment with the several tall trees as a central focus point on the plot.

The ceiling of the living area has an extra height in the shape of a sloped roof. The physical appearance of this area becomes hereby more specific and highly qualitative. Lifting the roof in this area also allows perspectives to the existing treetops, which give this plot its specific character, from all the different areas inside the building.

The villa is designed as environmentally friendly with extra insulated façades, with 30-centimetre-thick of insulation. With this thick insulation there's a timber construction, which suits the thickness of the package. The roof is as well extra insulated and covered with sedum, which also regulates the distribution of the rainwater more gently. On the flat roof are 20 solar panels for electricity. A heat pump warms the interiors in the winter and cools them in the summer with natural temperature differences retrieved deep in the ground. As an extra heating there are two fireplaces for wood, one in the living and one in the TV-room.





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North-East Façade Vertical Details: 1. Sheet aluminium covering

ò

- Vapour-retarding layer Plywood 22mm Structural beams 96x271 Acoustic ceiling
- 3. Siberian Larch

2. Roof construction: Substrate layer 80mm

Filter mat Drainage 25mm Protective layer Waterproof foil Insulation 160mm

- tongued-and-grooved, waxed 4. Aluminium window frame with
- double insulated glass5. Steel beam IPE 3006. Steel beam HEB 180
- 7. Steel connection 15x15

- 8. Steel tube 100x50
 9. Aluminium sliding door with double insulated glass
- 10. Floor:
- Synthetic seamless floor finishing 3mm 70mm screed around underfloor
- heating Insulation 120mm
- Reinforced concrete slab 200mm 11. Steel tube 50×100
- 12. Prefab concrete





North-east Façade Corner Horizontal Details (Above):

- 1. Aluminium sliding door with double insulated glass
- 2. Structural steel column, HEB 180

3. Wall:

- Siberian Larch tongued-and-grooved, waxed Cavity 38mm
- Waterproof vapour transm. foil
- Plywood 18mm
- Insulation + wood construction 246mm
- Plywood 18mm
- Insulation 59mm
- Vapour-retarding layer Plasterboard 15mm





- 3D Volume Bird's-Eye View:
 1. Entrance Garage
 2. Carport
 3. Patio
 4. Roof Terrace
 5. Sedum Roof
 6. Sloped Sedum Roof Above Living
 7. Solar Panels
 8. Skylight









Orchid House

Location: Pilar, Argentina Architect: Andrés Remy Arquitectos Gross Floor Area: 465m² **Completion Date**: 2008 Photographer: Andrés Remy Arquitectos







The Orchid House was born of the order of a couple with two children, whose characteristic, enthusiasm and daring made this a great challenge. Growing exotic orchids is a pastime of this young couple, which was the first release for the design of this project, hence the name we attached to the house.

Sustainability implies a lot of varieties, such as efficient and rational use of energy and water, natural ventilation and lighting, and low-environment-impact materials.

Its location and withdrawn free municipal line meets privacy requirements by the customer and the colonisation of the land search. The concept came from the client's hobby, growing orchids. The house is based on the different parts of the orchid: the roots, the stem and the flower.

The sun rays impact in the interior of each room is also studied, to determine the optimal depth to place the windows. This gives a unique volumetric outcome to the project. Taking advantage of sun rays in winter increases the interior temperature up to a comfortable level. The design includes glazed volumes with good thermal insulation and small windows in the worst orientation, such as the south façade.

The windows consist of aluminium frames supplied with thermal bridge breaker and double-hermetic-glass. A wide variety of insulating materials were also used, as well as water-based paint and wall and roof air chambers. In the lower floor, the convenient location of the opening windows allows natural air flow helping to decrease the humidity in the room. What's more, the big thresholds create a good distribution of fresh air.

All this gives account of the complexity of the house, a glass and concrete flower, designed according to a programme of needs and the client's concerns.







Ground Floor Plan (Right): 1. Entrance 2. Kitchen 3. Dining Room 4. Lounge Room 5. Balcony 6. Toilet 7. Laundry 8. Garage














Wohngarten Sensengasse

Location: Vienna, Austria Architect: Josef Weichenberger architects & Room8 architects Area: 17,380m² Completion Date: 2009 Photographer: Lisa Rastl & Ditz Fejer



The project responds to the existing situation with a linear building structure along the Sensengasse and a freestanding, "point-house" positioned in an extended park.

The linear construction, composed of three connected individual buildings, creates a membrane-like break between the park area and the urban space. In doing so, particular attention has been paid to permeability with paths and visual connections in the direction of the park on the one hand and the partly two-storey ground floor area forms part of the open urban space on the other hand.

These spaces with their views upon the surrounding greenery create a "green break" in association with the untouched and completely preserved tree avenue in the Sensengasse which fuse the façade of the garden and the airy opening of the "vertical green" together with the park to form one organic whole.

The row of trees along the Sensengasse is taken up into the arrangement of the individual structures, so that the project reacts with sensitivity to the existing tree stock. The green area does not end at the perimeter of the property. Instead, it interweaves with the planted greenery of the old hospital, the sports ground and the school.

Through the combination of a sensible development together with an eventful layout of paths through the area, it was possible to maintain the quality of this urban recreational area. The freestanding "paint-house" marks the construction's boundary to the northwest and stands, as a result of the now clearly-defined park perimeter, literally in the middle of greenery.











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- Section through Loggia:
 1. Steel piping d=42
 2. U-profiel or sword
 3. Fitting anchors in supporting rails
 4. Ground plate on EPDM-base thermically separated
 5. Rosette
 6. FSG-glass railing
 7. Steel piping closed and welded
 8. Pre-cast concrete segment
 9. Weather grooving
 10. Sheet steel angle 4mm
 11. Flat steel angle
 12. Steel-U-profile galvanised and laminated
 13. Waterspoud plumbing integrated
 14. Shrouding galvanised
 15. Concrete slabs in gravel bed
 16. U-profile with plates at the railing stands, galvanised and laminated
 17. Railing stands steel square pipe 50/50 galvanised and laminated
 18. Railing stands plumbing integrated
 19. Steel-profile bolted down with countersunk screws



82 Apartments in Carabanchel

Location: Madrid, Spain Architect: Amann-Cánovas-Maruri Arquitectos Gross Floor Area: 4,441.33m² **Completion Date**: 2009 Photographer: Miguel de Guzmán, David Frutos

> The building is closed on itself, creating a permeable tape multiple measures through holes, which in turn articulated construction, which conforms strictly to the limits of the to housing. These holes allow a separate provision of plot and understands that regulatory constraints are part of the project. This situation of minimum bandwidth builds a considerably large courtyard ready to lead a public space in The cell is a house with a backyard. The patio is a garden the heart of the project.

expansion, boldly assuming an ambiguous condition of exterior and interior and the connection between the various existing topographic elevations.

visually connects the whole city from the appearance of bodies is metallic colours to the user's choice.

guidance and protection.

through which occurs perspiration of the building and housing. A sunny place in winter and a cool place in The public space is ajar and connected to the whole summer. The interior and exterior, garden and street, light and shadow are mixed together.

The exterior body is constructed of sheet metal, and thus acts as a façade trans-ventilate, whose holes are blending That island concave, plowed and converted into a forest, with lattices and their corners are curved. An ordered set of



















Wall Details:

- Wall Details: 1. Plate guerdon 2. Plate arch drilled e: 3mm 3. Top guide slide type 4. Tappet 5. Galvanised welded mesh 6. Platen support flooring. No

- 6. Platen support flooring, Neoprene
 7. Sliding support profile
 8. Pleader ceiling, insulated, water repellent











- Plan: 1. Clothes Laundry 2. Terrace 3. Dining Room 4. Kitchen 5. Lavatory 6. Corridor 7. Washing Room 8. Bedroom

Tripode llot B Lodgement

Location: Nantes, France Architect: Barré Lambot Architectes, Béranger Vincent Gross Floor Area: 4,400m² **Completion Date**: 2009 Photographer: Philippe Ruault

> a block, facing the future business district. The location on the Loire basin contributes at the desire to provide multiple unobstructed views of the city. 137 housing units "studio separate volume, by a different skin (the façade is made of type" of an area of 21 square metres each are organised on champagne colour aluminium panels), by the pattern of the 11 levels and are served by two lifts and inner circulations façade including double height living rooms' glazing, by with daylight. A meeting room is located in west front on the ground treatment of the building facing the basin. Each the 10th floor. Residents get the benefit of a vast garden on the ground floor, designed by Florence Marty, landscape a good quality of use. The goal of this kind of residence is architect.

> This housing complex takes place on the western limit of This mix of programmes (office/residential) and the common structural principles formally identified the housing part. The office and residential parts are distinguished by a room benefits from two windows (floor to ceiling) assuring to meet the needs of young workers, trainees or job seekers, trainees and working students, people from broken homes... Residence Nantes, commissioned in November 2009, is the sixth built in France since 2003. The residence overlooks its 33 metres "head" of the island, the three sets of offices below.

> > Dwellings, with an average size of 20 square metres, are fully furnished and equipped. The studios are arranged over 11 floors serviced by two elevators in transparent cages and corridors with daylight. Two lounges welcome families, while a laundromat and a common meeting room are available to residents. The ground floor has a "water garden" filled with aquatic plants involved in the management of rainwater.

Ground Floor Plan: 1. Entrance 2. Foyer 3. Toilet 4. Parking

















West Side Details:

- 1. Granite floor
- 2. Aluminium joiner
- 3. Acoustic ceiling
- 4. Aluminium curtain wall
- 5. Concrete column
- 6. Matrix prefabricated element
- 7. Glass balustrade
- 8. Matrix prefabricated concrete element
- 9. Bamboo matrix 10. Aluminium curtain wall
- 11. Opening frame
- 12. Matrix prefabricated element
- 13. Matrix console
- 14. Blind
- 15. Matrix prefabricated element
- 16. Zinc foil bend to shape
- 17. Metallic balustrade







- 10th Floor Plan:
- 1. Kitchen & Dining 2. Meeting Room
- 3. Toilet
- 4. Bedroom
- 5. Stairs



- Site: 1. Channel 2. Recovery Channel of Rainwater 3. Parvis 4. Green Roof 5. Parking Access 6. Bicycle Access 7. Office Access



- Brain for intration
 Wood terrace
 Black waterproof membrane
 Bedrock
- 5. Watertightness
 6. Concrete slab
 7. Dilatation joint
- 8. Concrete slab
- 9. Grille
- 10. Concrete bench

12 Towers in Vallecas

Location: Vallecas, Madrid, Spain Architect: Bunch (Sara de La Mata) + nodo17architects (Manuel Pérez Romero) Design Team: Birga Wingenfeld, Michael Moradiellos, Félix Toledo Lerín Builder Foreman: Vicente Rubio Gross Floor Area: 18,422m² Completion Date: 2008 Photographer: Amparo Garrido

The designers propose an ambiguous project, with an urban vocation. In contrast to the great works of the urban planning programmes in the suburbs, they go back to the scale and density of the historical centre. How many doorways do you see in a ten minute walk in the urban planning programme in the Vallecas Extension compared to the number you see in the same period of time in the historical centre of Madrid? Perhaps five compared to fifty.

The project is located in a double block, half way between the closed block in the suburbs and the closed block in the historical city. The designers are interested in fragmentation and compactness, two terms which are primarily opposed but compatible. This is a compact project formed by different parts, an unitary closed block which is divided into small towers. The project is seeking its position as it changes in height, from the fragmentation of the ground floor to the compactness of the first and second floors, dissolving into independent pieces on the upper floors. There is a dialogue between two systems, the collective and the individual.

This social housing project in Madrid has an original façade design with polycarbonate panels in three hues of green. In fact, it is one of the first residential projects which features plastic materials as a skin. The programme, including 123 social housing apartments, is called to be one of the new urban icons on the outskirts of Madrid. This social housing block completes the volume of an already existing private housing development. The materials, openings, scale and orientation try to detach from the usual brick construction systems. Clearly focused onto an open green area, it dresses its south-west façade with bright-blue louvres while the others, made out in prefab concrete, form a cube which seems to float over the neighbour's yellow fence. A robotparking system takes care of the small amount of space left in the tiny plot.

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Wall Details from Courtyard: 1. Plate roof joint with Tyrolean finish 2. Utility rooms wastepipe 3. Utility room roof joint with plate façade4. Vertical finish façade plate

7. Vertical perforated plate finish 8. Utility rooms wastepipe

9. Vertical finish plate with coping
 10. Carpentry with gravel covering
 11. Utility room plate with

with covering 5. Finish façade plate with carpentry 6. Vertical finish façade plate

with arcade

sheet covering 12. Windowsill with covering
 13. Vertical façade plate joint with carpentry

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Ground Floor Plan: 1. Living & Dining 2. Kitchen 3. Bathroom 4. Bedroom 5. Courtyard

CASP 74

Location: Barcelona, Spain Architect: Bach arquitectes, Jaume Bach, Eugeni Bach Gross Floor Area: 3,966m² **Completion Date**: 2009 Photographer: José Hevia

Designing a building in the heart of the Example in Barcelona 150 years after the implementation of Cerdá Plan requires a debate on how the façades of the building suit the needs of the 21st century dialogue with history.

From this will the architects have designed the building CASP 74. Using a contemporary language they recovered the traditional solutions of the Example prototypical façades at a temperature of 1,250°C). These parts are rectangular but adapted them to new needs and technology.

reinterpreted here to get a building not only integrated into the built landscape, but also does so with energy saving solutions both active and passive. The programme is building 27 offices distributed in PB + 5, and two business premises with loft across the street. In the basement there is a parking area for 34 vehicles.

The street façade is subject to strict regulation of the rules of the Example in Barcelona, and is solved by fixed panels formed by special stoneware pieces upright framed by a thin stainless steel frame and a sliding aluminium blinds giving complete privacy and light control. The stoneware pieces are designed by Bach arquitectes, and made by Ceramic stoneware Cumella (dyed, extruded and cooked sections 120 x 80mm with clear enamel glaze, so that the changing effect of bright and spare parts gives vibration The balcony, booklet blinds, cornices and colours are and complexity to the façade. The façade of the courtyard of the block is resolved with a grid of large steel-framed windows of the houses. Sun protection and privacy are solved here with a blind lacquered aluminium folding, recreating a front moving and changing from abroad. On the roof of the building are installed solar collectors for hot water, connected to conditioning system to reduce energy consumption.

- Façade Details: 1. Continuous deck over forged e=10mm
- Würth metalised fabric insulation
 UPN 160. FERR 700 colour painted series of amount ferrum
- 4. Fixed frame formed by I90'1 or parts subject to special perimeter stone

- 5. Aluminium skid mark grey lacquer technal lead formed by rectangular vertical profiles
 6. Special piece stoneware 120x80x680mm, architects Bach design and production
 7. Ceramic Cumella. colour KT-7-1. long faces in some parts are nameled 3mm neoprene Ceranic Currenta. Colour K1-7-1: long faces in some parts are nameled smith to between separation of the pieces of stoneware
 Galvanised steel profile 50x30x3mm rigid and support for parts of sandstone
 Sliding window brand model gti techno lacquer grey aluminium lead

- 10. The last hole to allow side welding with internal support mat.ventilation should allow entry of water
- 11. Double crown set with high strength bolts. Holes for bolts withnotch for adjustment of the crane plumbing

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Bonairestraat

Location: Groningen, The Netherlands Architect: pvanb architecten Gross Floor Area: 3,500m² **Completion Date**: 2009 Photographer: Rob de Jong/Studio for Architectural Photography

> The family homes and apartment blocks designed by PVANB architects display brick architecture applied with great care and craftsmanship. They form a tangible translation of the varied residential programme, and continue the brick tradition of the pre-war and post-war tradition in an individual way with simple resources.

> first phase of the restructuring of a block with obsolete architecture from the post-war reconstruction period. In the street, the existing uniform residential programme has been replaced by two rows of single-family homes bearing a discount buy-back guarantee, which makes them ideally suited to starters on the housing market. Two compact apartment blocks stand on the inner courtyard behind these, each with six apartments for young people with an autism indication. These homes are reasonably sheltered from the street and other public space. The expressive exterior

façades of the row houses and apartments are clearly akin, but nevertheless visualise the specific residential programme and the specific assignment issuing from their programme.

The design solution adheres closely but naturally to both the urban planning assignment and the architectonic The new construction on the Bonairestraat represents the requirements of the context. The row housing and apartments are clearly anchored in their surroundings, but simultaneously form an enrichment of the traditional sobre but refined brick buildings of the working-class neighbourhood. The main intention of the existing block has been retained and reinforced. To support the programme, an extra "incision" has been made in the construction on the Bonairestraat, thus making the previously closed-off inner area more accessible. The situation, form and elaboration of the row housing create a fluent transition to the semi-public inner courtyard, which offers protection without being hermetically closed off from the neighbourhood and public life.

> The urban plan is supported by careful materialisation and detailing, which make the distinction between the street and the inner courtyard convincingly tangible despite the block being opened up. The three-storey family homes have been divided into urban houses with a carport that also serves as a roof garden, and row housing with a garden and storage area. However, the front façades of both rows have been taken as a single continuous wall, which is accentuated by a light over-measure in relation to the volume. The consequent dynamically designed wall consists of an extensive palette of brick patterns and variations in bonds, which produces a surprising visual wealth whereas only one colour of yellow-green brick has been used. The end and rear façades have been implemented in two shades of grey, just like the adjoining roofs. The soft grey tints bring a tranquil atmosphere to the landscaped inner courtyard, which emphasises the uniquely crafted apartment blocks.

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Type C Section Details: 1. Exposed brickwork 2. Prefab concrete 3. Cement layer 4. Concrete 5. Insulation Insulation Wood Wooden window frame Wooden windows Plasterboard Waterproof plywood Fibre cement Cast stone Bituminous roofwork

Hoornwerk

Location: Deventer, The Netherlands Architect: KCAP Architects & Planners Gross Floor Area: 19,200m² Completion Date: 2008 Photographer: Luuk Kramer

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dwellings which did not fulfill contemporary standards anymore. Housing cooperation Ieder1 took the rigorous step of pulling down the complete quarter and started a new development. Hoornwerk is located on a triangular area which is close to Deventer city centre. This part of Insurance Bank.

Between this context and the programme a paradox arises: on the one hand the demand for a small, intimate urban environment; on the other, a structure is needed for large ensembles of buildings placed in a green environment providing spacious views. The urban plan reacts to this paradox and combines the advantages of a small-scale city-structure with that of larger object-like units through programming different building types (dwellings and apartments), care and grouping them around a semi-public courtyard or system of alleys.

Hoornwerk is a district with former factory workers, The concept comprises of three larger ensembles comparable to islands in a sea of green. The relatively dense islands are separated by broad and generous green wedges. These green spaces are car-free and consist of a high user quality. The layout has a park-like character. The adjacent housing is orientated towards, and in some cases is accessed the city has been subject to significant change and new from, the green. The threshold between public and private developments like the IJsselland College and the Social green is subtly differentiated by discrete height differences.

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Façade Details:1. Aluminium profile2. Water resistant plywood3. Gravel4. Roofing5. Insulation6. Reinforced concrete7. Brickwork8. Steel construction to support the bricks9. Wooden window frame10. Insulated glass11. Aluminium profile12. Vent13. Plywood14. Aluminium handrail15. Steel construction fence16. Layered glass17. Hand wood floor of the balcony18. Steel construction of the balcony19. Pre-made timber framing20. Plasterboard21. Water permeable foil22. Insulation23. Water resistant foil24. Air ventilation space

Siamese Twin, 41 Apartments

Location: Lelystad, The Netherlands Architect: H.J. Scholten, M. van der Scheer, R.M. Vos, S.E. Kindermans / AAS Architecten Site Area: 2,800m² Gross Floor Area: 1,800m² Completion Date: 2008 Photographer: SAPh, Rob de Jong, AAS Architecten

> AAS architects built this apartment complex on the edge of the new Landstreken residential district, in the south of the city of Lelystad. With its height of seven storeys, the complex is a landmark and forms the end-point of a visual axis running through the neighbourhood. At first sight, the building looks like a block of basalt, but when seen from nearer by, it strikes an unusual balance between closed mass and openness. The complex is strongly orientated towards the water that plays an important role throughout the entire Landstreken district. The apartments on the ground floor have a large terrace on the water and there are jetties beside the complex to connect to the open waters of the Markermeer and the IJsselmeer. The design of the apartment complex also blends in well with the surroundings; the material choice is based on the brick deployed in the adjacent buildings.

The complex consists of two linked volumes. At the point where the two volumes meet, one of the two entranceways leads upwards. Surrounding this entry are four apartments per storey. The other main entrance, on the north side of the complex, provides access to three apartments on each floor. There are four larger apartments on the ground floor. Access galleries connect the lifts and stairwells. The building does have a central entrance, but in the event of fire the galleries can be used as escape routes. The use of material, the colour scheme and the subtle balance between open and closed elements give the building an exciting appearance, without being fashionable or influenced by trends.

An unusual feature of the apartment complex is the kink in the west and south façades. The point where the kink is positioned shifts upwards per floor, which creates an exciting curve in the façades. The building is always wrapped around you; as it were, it enfolds you. The staggered effect evokes associations with Indonesian sawa's (terraced rice fields). The appearance of the building is always different; it moves along with you as you walk round or through the building.

The amount of detailing has been kept to a minimum. For instance, in order to avoid the situation where only the window frames at the kinks in the façade have double posts, all the window frames have been implemented with double posts. This has been continued on the entrance side on the ground floor. The utmost care has also been taken with the design of the other details. To give an example, AAS designed a hot-dip galvanised steel coping themselves that was not only applied on the brick parapet walls, but was also extended to the window sills. The colour scheme is bright and clear; in the exterior, the dark brickwork is compensated by the eye-catching light colour used for the paintwork: narzissengelb (daffodil yellow – RAL 1007).

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- Details of the Balcony:
 Hot-dip galvanised steel screen
 Hot-dip galvanised steel coping
 High performance glazing
 Brickwork
 Steel tube for brickwork and coping
 Hot-dip galvanised steel spout
 Concrete flagstone on props
 Insulation and asphalt roof covering to a fall
 Pre-cast wide plank flooring
 Insulation
 External ceiling

Zuiderzeeweg

Location: Amsterdam, The Netherlands Architect: Fact Architects Gross Floor Area: 12,395m² Completion Date: 2010 Photographer: Luuk Kramer

For this complex Fact Architects designed a very durable The students can live, study and hang around in peace and comfort in an environment of traffic and construction sites. and special façade. The dark wooden parts with the orange texts give the complex a sustainable and robust appearance. The exterior area is designed with the same clear approach.

Zuiderzeeweg is a housing project for students. The location is temporary; in the future all the buildings will move to a definitive location. The blocks are made from high-quality prefabricated units and are prepared for future environmental requirements.

The buildings and grass walls enclose a courtyard consisting of lawns and an orange sports field. Along the ring road bicycle parking bays and spaces for bins are situated, separated by walls with overgrown roses. At the main road concrete blocks that can be used as seating are placed.

Ground Floor Plan: 1. Sports Field 2. Grass Field 3. Grass Hill 4. Bicycle Parking Bays 5. Container Bays

168 Social Housing

Location: Madrid, Spain Architect: coco arquitectos Gross Floor Area: 19,000m² **Completion Date**: 2010 Photographer: Miguel de Guzmán, Ignacio Izquierdo, coco arquitectos

> This project is the result of the winning proposal (first prize) in a competition promoted by the Municipal Housing Agency in Madrid. The strong sloped plot was placed in the very edge of the city.

where any action demands the same audacity, for example, a leaning building. The construction expresses the language enough to accommodate any domestic activity. of kinetic, fitting its shape parallel to the slope while the ground floor retrieves the level of the plot-defining streets.

just one or two bedrooms, assigned to young people. This allowed them to think about new housing concepts.

The building plan is a thin strip, with narrow apartments opened onto two different scenes: one side the city, the other the wide private garden. Every unit has a space which crosses from side to side, opening simultaneously to both of them. The designers seek for dwellings with blurred Outlying contexts surrounded by city border highways, frontiers between spaces, where inner room shape can fields, malls... require consistent answers. These are places be changed, with the presence of an extra room: a room floating outside the building, attached to the façade, large

The designers from coco arquitectos approach social housing from present society, where customising your own The designers were required to create small dwellings, with house is a way to seek for individuality. In this context, the new room - freely set in the façade - expresses this new understanding: a random image with all elevation being unique, every single dwelling different from each other, and only the intervention of the users helping it to acquire significance.

















Terrace Details:

13

- Galvanised steel drip
 Anodised aluminium window with Climalit glazing
- 3. Thermal insulation
- 4. Stretcher bond brickwork
 5. Mortar coat

- 6. Air pocket
 7. Interior brick layer
- 8. Plaster
- 9. Pavement
- 10. Mortar screeding 11. Sound insulation
- 12. Concrete floor slab

- 12. Concrete floor slab
 13. L-shape steel angle
 14. Folded galvanised steel framing the window
 15. Window shutter
 16. Aluminium sheeting
 17. Anodised aluminium sliding door with Climalit glazing
 18. 4+4/12/4 security Climalit glazing
 19. Galvanised steel structure
 20. Galvanised perforated metal mesh
 21. Corrugated coated steel wall panel
 22. Wall panel structure: galvanised steel tube attached to brick
 23. Stainless steel screw
 24. Terrace roof in galvanised steel sheet
- 24. Terrace roof in galvanised steel sheet
- 25. Exterior pavement26. Galvanised steel structure attached to concrete beam
- 27. Floor slab in bent steel sheet28. Galvanised strip for floor finishing



Student Housing Novoli

Location: Florence, Italy Architect: c+s associati Gross Floor Area: 7,690m² **Completion Date**: 2006 Photographer: : Marco Zanta, Pietro Savorelli

> The student housing in the former Fiat area in Novoli, It is here that the building reveals the extent to which Florence, was designed to adapt to the constraints of the brief – the perimeter of the lot, the fixed alignment, the original compositional and typological solutions that have produced an articulated, light-filled interior landscape inside severe walls.

Despite the double-courtyard layout, the building is far from passageway that cuts crosswise through it is seen as a "city gate", a way through the block and a focus for communal activities, as well as access to the students' lodgings. The the interior. twin themes of "urban silence" and "constructed mass", borrowed from historical city's fabric but updated to reflect today's different formal and plastic awareness, are evident on the solid though not impenetrable exterior façades. The continuous reinforced concrete base, grey wood shingles and glass-brick fascia are silent, evenly-coloured, unbroken surfaces, but they are also loaded with positive vibes and nuances ready to be transmitted to the interior.

the elementary mass visible from the street is in fact a complex structure whose layout, planimetric variations building height – and to use them as a springboard for and deviations of section generate a lean-looking though atmospheric interior of raw concrete streaked by form work and in some places deeply gouged. Understanding the building's functional layout – shops, entrance and refectory on the ground floor; study rooms and services on the upper levels facing the principal street and lodgings (for inward-looking and imposes order on the wider context: the 250 students) in the other three blocks – explains the layout of the external façades, and indicates how the kinds of materials used are related to the amount of light that reaches

















- Fixed Panels Vertical Section:
 1. Roof panel copper surface finishing
 2. Steel structure
 3. Copper gutter
 4. Roof panel bearing
 5. Raid water head aluminium sheat
 6. Double waterproof gaiter
 7. Rough floor
 8. Reinforced concrete and hollow tiles mixed floor
 9. Plaster finishing
 10. Wood façade "Prodema"
 11. Insulation panel sp.: 50mm
 12. Concrete board
 13. Double plasterboard
 14. Base board
 15. Rubber floor
 16. Acoustic insulation
 17. Lighting "CYL LIGHT-GUZZINI"
 18. Reinforced concrete finishing
 19. Plasterboard false ceiling
 20. Plasterboard
 21. Insulation
 22. Wood finishing
 23. Zinc plating steel window
 24. Floating floor
 25. Wood finishing











Strata Hotel Residence Koenigswarte

Location: Sexten, Italy Architect: Plasma Studio Gross Floor Area: 1,510m² **Completion Date: 2007** Photographer: Cristobal Palma

> Since the overall shape was developed from the local planning guidelines, the linear distribution of units and the views and sun directions, it is a result of the constant negotiations among all these parameters as well as a topological answer to the picturesque typologies frequently built in the area. From applying the logic of topographical mapping, i.e. the indexing of horizontal sections as continuous lines, the volume is formed as a series of strata that – as an artificial entity – maintains a dialogue with its natural environment. The bands surround the volume at different scales, peeling off from it, flowing into the landscape and blurring the boundaries of the building. In addition, these horizontal sections operate as control lines, enabling the generation of curved hyperbolic-parabolic geometry.

Whilst the horizontal bands are always straight, the Made by laser-cutting and folding from flat sheet, the posts relationship between them is geometrically complex and at the same time crucial for the global morphology. To achieve their accurate positions at the various heights. the necessary precision and make the mounting of the elements a straightforward affair, the designers devised thin posts from galvanised steel.



contain brackets to hold the timber strips automatically at

With these steel uprisers in the same module as the apartment layout, the balconies become in-between zones that negotiate – functionally and structurally – the internal rationale of the apartments ruled by efficiency and repetition with the exterior as extension of the topography.









Ground Floor Plan: 1. Stairs 2. Living 3. Bedroom 4. Bathroom





- Two layers of waterproofing insulation Vapour barrier

- Vapour barrier 250mm reinforced concrete 2. Wooden joist 110×80mm 3. Wooden joist 80×80mm 4. Counter lath 5. Reinforced concrete Two layers of insulation 120mm Façade coating 6. Wooden joist 50×40mm 7. Posts for the wooden sticks 8. Wooden sticks 60×30mm







Railing Balcony Details: Vertical Section:

- Vertical Section:
 1. Flat-steel fixed with a countersunk-head screw
 2. Laser-cutting steel sheet (t=8mm)
 3. Angle of the railing-post changes according to the horizontal position on the balcony of it
 4. Bended lug
 5. Wooden sticks (6/3cm)
 Elevation of the Railing-Post:
 6. Unfinished part steel sheet (t=8mm)
 7. Laser-cutting edge
 8. Bending edge
 9. Parameters for the cutting-edge: Independent from the various angles of the railing-post, the wooden sticks have to be vertical with an interval of 12cm
 Horizontal Section:
 10. Bended lug
 11. Wooden sticks(6/3cm)















- Wall Details: 1. Exterior wall construction Reinforced concrete 200mm Insulation 120mm
- Insulation 120mm Stamisol colour 2. Balcony floor construction Wood slat 30×30mm Lateral slat 60cm PVC-profile 8mm Bituminous sheet 5mm Reinforce concrete 180mm 3. Balcony floor construction Wood slat 30×30mm Lateral slat 60cm PVC-profile 8mm Bituminous sheet 5mm Reinforce concrete 180mm
- Reinforce concrete 180mm









Kop van Oost

Location: Groningen, The Netherlands Architect: Mecanoo Architecten Gross Floor Area: 6,200m² Completion Date: 2011 Photographer: Mecanoo Architecten

> Kop van Oost lies on the outskirts of the city of Groningen. Because the port areas were adaptively reused into large-scale office complexes in the nineties, this former port area was designated to be developed into residential destination with the new name, Kop van Oost, or Eastern Head. Mecanoo gave the area a vibrant design with two apartment complexes, a broad promenade along the Eemskanaal and a public square. The first phase is realised in 2009, and the second follows in 2011. Each apartment complex is composed of a row of fourstorey gallery flats. Two slender apartment towers on the corners of the complex range in height from 35 to 70 metres. The residences rest on top of a transparent plinth with commercial spaces and lie in a beautiful inner courtyard with a wooden deck. The deck is equipped with a tennis court, a playground for children with different equipment and plant boxes with random seating on the periphery. In the parking level beneath, oval holes let in



Each apartment complex is composed of a row of fourstorey gallery flats. Two slender apartment towers on the corners of the complex range in height from 35 to 70 metres. The residences rest on top of a transparent plinth with commercial spaces and lie in a beautiful inner courtyard with a wooden deck. The deck is equipped with a tennis court, a playground for children with different equipment and plant boxes with random seating on the periphery. In the parking level beneath, oval holes let in natural daylight. The gallery is located separately from the residences, snaking itself among a row of columns. Extra steps are located here and there throughout, linking the galleries and giving the residences a direct entry to the deck. The "accidental façade" created by the two apartment complexes allows residents to choose a variety of house styles: from a student house of 40 square metres, to a luxury apartment of 400 square metres with several outdoor spaces. There is also the freedom to choose the type of balcony and façade openings desired.

The building has another appearance in two different elevations. In the closed east and west sides, window openings are "scattered". The beautiful dark bricks are baked in the last remaining Groningen brick factory Strating, in Oude Pekela. The stone has a capricious look and is partially shiny black. Here and there, the bricks jut out from the masonry surface. The south and north sides appear transparent, and feature spacious balconies, sliding patio doors and large window panes in aluminium frames. The towers are topped by a glass penthouse. These two apartment complexes have become a special feature in the skyline of Groningen.











Penthouse Details (Facing Left):

- 1. Masonry extruded brick 100mm 2. Cavity 40mm
- 3. Mineral wool 120mm
- 4. Concrete 270mm
- 5. Steel T-profile
- 6. Emergency overflow
 7. Protruded brick 90mm
- 8. Aluminium edging strip
- 9. Hot-galvanised strip steel fence
 10. Cellular concrete
- 11. Concrete slabs on spacers
- 12. Two-layer modificated bitumen
- Polystyrene insulation 10mm
 Rough floor concrete 450mm
- 15. Curtain wall
- 16. Drain and drain pipe in concrete17. Finished floor 70mm
- 18. Plasterboard 12.5mm
- 19. Lighting bracket
- 20. Anodised aluminium board 2mm
- on battens
- 21. High-grade insulation 60mm
- 22. Polyurethane-foam 23. Shadowbox structure
- 24. Rough floor concrete 300mm
- 25. Steel structure penthouse
- 26. Roof deck concrete 260mm
- 27. High-pressure laminate 8mm
- 28. Polystyrene insulation 220mm

Wall Details (Facing Right):

- 1. Bearing structure for the ceiling
- 2. Anodised aluminium board
- 2mm glued on battens 3. Steel lintel, attached to steel
- load-bearing structure 4. Masonry extruded brick 100mm
- 5. Protruded brick 90mm
- 6. Wooden frame for attaching
- wall ties 7. Mineral wool 120mm
- 8. Aluminium dripstone anodised
- 9. Polyurethane-foam
- 10. Ventilation
- 11. Anodised aluminium board 2mm, bent
- 12. Acoustical adsorption 13. Curtain wall
- 14. Finished floor 50mm
- 15. Rough floor concrete 300mm
 16. Plasterboard 12.5mm + Gypsum
- plaster 17. Hot-galvanised strip steel fence
- h=1200mm
- 18. Polystyrene insulation 10mm
- 19. Two-layer modificated bitumen
- 20. Concrete slabs on spacers 21. Drain and drain pipe in concrete
- 22. Multiplex 18mm
- 23. High-grade insulation 60mm
- 24. Wooden cover fillet
- 25. Aluminium edging strip 26. Polystyrene insulation 220mm



















- Plan: 1. Entrance 2. Slender towers 3. Public Square 4. Apartment 5. Gallery



De Rokade

Location: Groningen, The Netherlands Architect: arons en gelauff architecten Gross Floor Area: 15,400m² **Completion Date**: 2007 Photographer: Allard van der Hoek

> In 2003, Groningen municipal council launched a project "The Intense City" to keep the city compact by increasing four apartments are situated in L-form around the inside the building density of districts around the Centre. The Rokade Residential Tower Block is situated on one of the first increased density locations, and marks the corner of the Corpus den Hoorn Laan and the Sportlaan, the avenue The apartments' façades, load-bearing construction and providing access to the Hoornse Meer district.

> Maartenshof, which has been extensively renovated. The apartments for purchase are intended for the "younger Residential Quality directives. seniors". The building is linked to Maartenshof in a subtle way. In this way, Maartenshof can supply Instead of an expensive and dark underground parking diverse forms of care to the buyers, without this delicate relationship being visible to the outside world.

true of De Rokade. The building is 21 floors high and

seems very slim due to the cross-shaped ground plan. The angles of the tower. In this way, the dwellings combine the beautiful view with an introverted quality.

installations have been made ready for three different layout possibilities. The present and future inhabitants will De Rokade is adjacent to the nursing and care home, be able to determine their own ground plan in this way. The building is extra sustainable according to Groninger

garage, the architects have elevated parking to the two floors above the physiotherapists' practice accommodation. The inhabitants reach their parking place on the ground or Towers in The Netherlands often have a minimum of four first floor with a car lift. The garage, naturally ventilated, dwellings per layer for budgetary reasons. This is also has daylight and a view and, with construction costs of €15,000 per parking place, is cheaper than the traditional underground box.







Façade Construction Details Circular Window (Left):

- 1. Circular rainwater deflector, RAL 9006 coated aluminium
- 2. RT 62 circular window frame
- 3. Prefabricated insulated
- Freiablicated fiscated window mounting
 Masonry, white glazed brick, glued
 Insulation, mineral wool
- 6. Waterproof foil
 7. In-situ concrete



Roof Construction Details (Facing Right): 1. Rooftrim, aluminium 2. Aluminium plating, RAL7026 3. Prefab element, concrete

- 4. Bituminous roof covering
 5. Pressure-resistant insulation
 6. Tiles inspection path, concrete
- 7. Fixture
- 8. Waterproof foil
 9. Removable sunscreen cover, aluminium
- 10. In-situ concrete floor
- 11. Prefabricated floor
- element, concrete 12. Noise insulating, natural
- ventilation 13. Sunscreen, available in red, yellow and orange
- 14. Aluminium window frame



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Entrance Sliding Door:
1. Automated sliding door Curved sandwich structure Sanded stainless steel plating inside/outside, outside with glasspearl-blasted lettering
2. Structural floor-edge curved, deepened, radius 1,835mm
3. Mullion clad in aluminium
4. Position underlying concrete foundation
5. Curved sandwich structure Sanded stainless steel plating inside/outside, outside with glasspearl-blasted lettering
6. Horizontal cladding flush, with front mail boxes/mullions
7. Carpet trimming
8. Prefab concrete slab, surface finished in skid-free pattern









White concrete, smooth and tight
 Curtain wall cornice styles
 Aluminium strip 50×2mm in whole façade run, even in curtain wall styles

Plan:
1. Entrance Hall (Residential)
2. Car Lift
3. Commercial Space (Fysiotherapist)
4. Commercial Space (Dentist)
5. Hallway Connecting Rokade to Services of Nearby Elderly Home

The Mountain

Location: Copenhagen, Denmark Architect: BIG Gross Floor Area: 33,000m² **Completion Date: 2008** Photographer: Philippe Ruault

> How do you combine the splendours of the suburban backyard with the social intensity of urban density?

The Mountain is the second generation of the VM Houses - same client, same size and same street. The programme, however, is 2/3 parking and 1/3 living. What if the parking area became the base upon which to place terraced housing - like a concrete hillside covered by a thin layer of housing, parking and a housing block – the designers decided to merge the two functions into a symbiotic relationship. The parking area needs to be connected to the street, and the homes require sunlight, fresh air and views; thus all apartments have roof gardens facing the sun, amazing views and parking on the ninth floor. The Mountain appears Mount Everest. In the daytime the holes in the aluminium as a suburban neighbourhood of garden homes flowing over a 10-storey building – suburban living with urban density.

The roof gardens consist of a terrace and a garden with plants changing character according to the changing seasons. The building has a huge watering system which

maintains the roof gardens. The only thing that separates the apartment and the garden is a glass façade with sliding doors to provide light and fresh air.

The residents of the 80 apartments will be the first in Orestaden to have the possibility of parking directly outside their homes. The gigantic parking area contains 480 parking spots and a sloping lift that moves along cascading from the tenth floor to the street edge? Rather the mountain's inner walls. In some places the ceiling than doing two separate buildings next to each other – a height is up to 16 metres, which gives the impression of a cathedral-like space.

> The north and west façades are covered by perforated aluminium plates, which let in air and light to the parking area. The holes in the façade form a huge reproduction of plates will appear black on the bright aluminium, and the gigantic picture will resemble that of a rough rasterised photo. At night time the façade will be lit from the inside and appear as a photo negative in different colours as each floor in the parking area has different colours.













- Façade Details: 1. Terrace pavement 2. Light external wall with façade plates 3. Paint treatment, concrete ceilings 4. Facia columns and beams 5. Glass walls, terraces







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Roof Details:

- 2. Gutter (roof) 3. Light external wall
- 4. 22mm wood
- 6. Terrace decking

1. Fence by the planter 5. Insulation and membranes, terracces 7. Windows, terraces
 8. Painted concrete ceilings 9. Painted concrete walls
 9. Wooden floors
 11. Ceilings towards parking





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