ENGLISH TEXT

NORMAL BLOCKS

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Normal is a synonym of usual, common or customary, although the ordinary and even the vulgar could also be termed *normal*. This adjective implies something that is taken as a norm and is therefore regular and orderly, logical and systematic. In a wider sense, *normal* is that which has been approved by use and custom, though also by rule and order.

The concrete block as we know it today is *normal* for the strict regulations by which its physical characteristics are controlled. This is because its manufacture and use are regulated (to such an extent that the bibliography that it has generated is basically a set of technical *norms*). However, it is also normal for its undeserved insignificance. It is a material too often reduced to the role of mere cladding and is only visible in screen walls and or perhaps used for walls in primitive slum dwellings. In spite of this, its genealogy proclaims that it is destined to rise above such humble roles. The fact is that the plebeian status commonly attributed to the concrete block is totally unjustified; it has in fact quite a different nature and its low reputation is unfounded. These lines are designed to correct this injustice and render due homage to the much maligned concrete block.

The concrete block first saw the light of day around the middle of the nineteenth century, when it began to be produced both in Great Britain and the United States. Although the first patents for solid blocks date back to the beginnings of this century, the first hollow blocks did not appear until 1850, when they began to be produced by Englishman Joseph Gibbs.[1] Other patents followed in quick succession, mostly involving isolated experiments that never became standardised or entered into mass production. The evolution of this new material did not really take off until the arrival of other technologies such as Portland cement at the turn of the century.

Right from the beginning it was considered to be a substitute for natural stone: concrete blocks were like hollow ashlars, although cheaper to produce and put into place. It is therefore not surprising that from the start they had to contend with the disadvantage of being considered an imitation, a reputation they only managed to get rid of when they only imitated the essence of stone and not its appearance. However, those blocks with a stone-like appearance could be made on site, when the nearest quarries were miles away or when stone and wood were in short supply, and this feature soon made them popular. In a telling phrase, one quarryman of the time was heard to exclaim, "Why should I hew these stones when I can make them in a mould?"[2]

The block was therefore conceived as *an economic alternative to a traditional material*,[3] however, this humble origin was also the cause of a perpetually unsatisfied longing. If materials could speak, concrete would say "I want to be granite" (Louis L. Kahn, who also suggested that steel *wished to tell us that it could have the strength of an insect*), while a concrete block would like to be a block of stone in a masonry wall. This, at least, is "what it is trying to be".[4] So, why shouldn't we listen to it and try to give it a clear path?

The poor relation of a block of natural stone, the concrete block would soon reach higher status at the hands of well-known architects like Frank Lloyd Wright and Louis I. Kahn. Wright knew that concrete *in situ* lacked articulation and so used the block as a basic element in his textile tectonics. "The only thing we had to do was to educate and refine it",[5] confessed the architect. His was the first attempt to rescue the block from what he considered to be a vulgar imitation of stone.

It is also true that, for its shape and relief, the blocks Wright used to build, among others, the Millard house (1923), also known as *The Miniature*, have little in common with the standardised blocks in use today. This second generation of blocks saw the start of their heroic period in the fifties, when architects began to understand that the further blocks got from appearing like stone, the closer they would be to its substance. The normal standardised block came into being after a long process of refinement that eliminated some of the evident characteristics of the first blocks and highlighted their intrinsic qualities. Only in this way did they reach higher status, after conversion into a commonplace material.

Louis I. Kahn used them to build his hollow columns in Trenton (1954-57) (Fig. 01). In this, his most celebrated work, modern construction with concrete blocks had its mythical origin. In spite of this being a service building (a bath house), on few occasions since then has the concrete block attained greater symbolic significance. Kahn thus saw this elementary building in Trenton as the transformation of the remote origins of architecture as the tectonic art that Laugier considered to belong to primitive shelters. The simple wooden poles of primitive constructions had become hollow block columns, than which no better use has ever been made.

Shortly afterwards, Kahn again resorted to blocks when building new offices for the *Tribune Review* (1958-61) (Fig. 02), although for a completely different purpose. Here, his efforts were aimed at designing a complex structure for the newspaper offices. In this case the blocks did not play a load-bearing role but served as the necessary intermediary between the real structure of the building – brick supports and prefabricated concrete beams - and the *keyhole windows*[6] that identified the building on the outside. One would think that Kahn's idea was to avoid the concept of the window as an interruption of the wall and to show it as if it were crevice or aperture between the concrete blocks arranged in a pattern and the rigid structural framework.

This example from Kahn is no more than a particular case from the general attitude of the mid twentieth century. About this time a fair number of architects resorted to *normal* blocks to construct churches and buildings dedicated to the arts, in which the material in no way seemed out of place in such august surroundings. Concrete blocks here enshrined Man's highest aspirations, beliefs and culture, and the most austere material enclosed the tranquillity and silence required in such places. The only ornaments were the joints between the blocks. The blocks embodied *a zero-degree of expressiveness*[7] and exuded a kind of grey silence that signified the clear voice of a transcendental message.

Gerrit Rietveld and Aldo van Eyck used them in the sculpture pavilions in the Sonsbeek Park in Arnheim (1955 and 1966, respectively, both were afterwards rebuilt in Otterlo) (Figs.03 and 04). Rietveld's sliding surfaces were then not to be those *polished, abstract planes of the Schroder house*[8], but walls with thickness, texture and articulation visible on their surface; walls made with blocks in which the architect rejected the traditional construction in favour of unexpected latticework. Aldo van Eyck, for his part, celebrated concrete blocks and provided the outline of the building plan with the complete semantics of his work. The many-sided walls, which were endowed with the quality that the architect described as *labyrinthian clarity*[9] seemed like the remains of ancient architecture, but one that could now be lived in, thanks to its light, ephemeral covering – paradoxically, the whole construction would indeed be ephemeral.

Sacred blocks were produced by, among others, Louis I. Kahn in Rochester (1958-69) (Fig. 05), Bakema & Van den Broek in Nagele (1958-62), Aarno Ruusuvuori in Huutoniemi (1961-64) and Tapiola (1963-65) and Aldo van Eyck in The Hague (1968) (Fig. 06). In Rochester, the block formed the background of the central structure, although it did not quite reach the top of the space, as if it were no more than a detached layer of the perimeter wall, which enclosed the school quarters and had an external brick facing and thus created a passage that otherwise would not have existed. In The Hague, Van Eyck joined the oppressive quality of the crypt with the powerful Gothic elevation of the space by the uniform texture of the blocks, as the stone had done in former times from the thick base of the walls up to the fine ribs of the vaulted ceilings. The exterior is a hermetic mass of concrete blocks whose enigmatic silhouette hides the spatial complexity of the interior.

It could be said that these buildings are designed for permanence, perhaps because their architects did not hesitate to evoke the blocks of stone used to build venerable structures, those that nobody can remember when they were built or who they were built by, whose memory is lost in a well of forgetfulness, except for the inscriptions left by the masons on the stones. Once they have fulfilled their inexorable destiny, of the ancient stone structures and the latest concrete block buildings one day only the beautiful ruins will remain.

One of the architects who for years explored to the limit the potential of concrete blocks was the Dutchman Herman Hertzberger. This he did not only in his well-known Centraal Beheer office building in Apeldoorn (1968-72) (Fig. 07), but also in many different schools and private homes. There is in the Centraal Beheer a certain ambiguity between the interior and exterior, similar to what the architect had found

in the streets of Paris or in some seventeenth century Dutch landscape paintings.[10] If an authentic interior does exist there, it consists of each of the cells of which the building is composed. But here the bright interior is projected over the surrounding streets and contrasts with the concrete blocks used in their structure, similar to those found in the outer walls.

For Hertzberger, the hollow blocks represented the reciprocity of form and usage, in other words, the capacity of some essential forms or archetypes not only to carry out a specific program (foreseen by the architect) but to generate another, more informal or unexpected. He claimed that *form and program evoke one another*.[11] Thus, for example, the low walls that in the Montessori school (1960-66) (Fig. 08) divide the playground into sandpits, or those that serve the same purpose in the Diagoon dwellings in Delft (1967-70) (Fig. 09), or even the windowsills in the Home for the Elderly in Amsterdam 1964-74) (Fig. 10). All of these were constructed of concrete blocks and aimed to generate a *fixed frame of reference* for whatever use the occupants wished to make of them. The spaces inside the hollow blocks were for Hertzberger compartments that can be used in different ways,[12] for example as plant pots in a garden or to hold fencing posts or to keep newspapers by a sitting-room fireside. Such blocks, *unfinished on their own* [...], *clamour to be put to some kind of use* [and] *are an incentive to do something with them*.[13]

Hertzberger's confidence in the use of concrete blocks for building can only be compared with some later isolated experiences, such as the series of experimental houses designed by the Catalonian architects Soldevila and Llorens since the seventies, or the first houses built by the Swiss architect Mario Botta. For example, in the *Casa Riera* in Alella (Catalonia, 1984) a double wall of blocks encloses a plain bare container between whose four walls the interior space evolves in the shade of a free section. And emphasising even more this desire for liberty as opposed to the stability of the enclosed – almost hermetic – volume, the intervening floors are light and made of wood, as if they were only temporarily occupying the existing space. For Botta also the house is like a prism containing concrete blocks in which a well-defined system of cavities is carved out. The roughness of the blocks is no obstacle to the gestation of their own language. The silence of the material allows the eloquent expression of space and volume in these first Botta projects.

Since its very beginning the concrete block has conferred a style and measure on house design. Wright's precocity was a warning of what could be expected in the sixties: buildings designed by Colin St. John Wilson in Great Britain (Grantchester Road, Cambridge, 1961-64), Paul Rudolph in the US (Frederik A. Deering house, 1958-59; and the Arthur W. Milam residence, 1960-62, both in Florida), or the already mentioned designs of Herman Hertzberger in Holland, Soldevila and Llorens in Spain and Mario Botta in Switzerland (Cadenazzo, 1970-71; Riva San Vitale, 1971-73 and Ligornetto, 1975-76, among others), were to show the worth of a truly versatile material, capable of running the architectural gamut from the foundations to the top, from a shelter to a temple, as the impassive support for a variety of styles and aspirations, without changing its appearance, refining its design or altering its character.

In these attributes lies its true worth.

Illustrations:

Fig. 01. Louis I. Kahn. Trenton Bath House, New Jersey, 1954-57
Fig. 02. Louis I. Kahn. Tribune Review Building, Greensburg, Pennsylvania, 1958-61
Fig. 03. Gerrit Rietveld. Sculpture Pavilion, Sonsbeek, Arnheim, 1955 (Otterlo, 1965)
Fig. 04. Aldo van Eyck. Sculpture Pavilion, Sonsbeek, Arnheim, 1966 (Otterlo, 2006)
Fig. 05. Louis I. Kahn. Unitarian Church, Rochester, 1958-69
Fig. 06. Aldo van Eyck. Catholic Church, The Hague, 1968
Fig. 07. Herman Hertzberger. Centraal Beheer, Apeldoorn, 1968-72
Fig. 08. Herman Hertzberger. Montessori School, Delft, 1960-66
Fig. 09. Herman Hertzberger. Diagoon Dwellings, Delft, 1967-70
Fig. 10. Herman Hertzberger. De Drie Hoven (Home for the Elderly), Amsterdam, 1964-74

Endnotes

1 LLORENS DURAN, Josep Ignasi y SOLDEVILA BARBOSA, Alfons, *Construcció amb bloc de formigó*, Edicions UPC, Barcelona, 1997, p.13. Also: H. SIMPSON, Pamela, "Cheap, Quick, and Easy: The Early History of Rockfaced Concrete Block Building", *Perspectives in Vernacular Architecture*, nº 3 (1989), p.108.

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THE CASA JARDÍN DEL SOL OR WHAT CANNOT BE PHOTOGRAPHED

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The *Casa Jardín del Sol* (Sun Garden House) is named after the narrow, winding road that leads to Calle Jara and takes us literally to the edge of a cliff that is almost impossible to describe because of the overwhelming dizziness caused by looking at the ocean waves breaking on the shore far beneath one's feet or the seemingly endless view when the horizon is so high above the sea. This emotion is precisely the essence of the design and construction of this house.

Such emotion is often inspired by landscapes on the Canary Islands when as the spectator admires the islands' unusual natural setting, so beautiful, striking and unique. This link between the constructed object and the landscape is a basic trait of Canary architecture, a trait that "not only dictates the layouts and materials used but also the physical appearance of projects and commissions [...] Architecture and nature are, after all, part of the same idea."[1]

If we agree that architecture and nature are two facets the same concept able to dictate both technical and structural solutions, then this project tallies with this premise, as is often the case in the present-day architecture on Tenerife. This last-standing architecture, deep rooted in a timeless and very powerful local tradition, has come to terms with the chronic shortage of ceramic materials. This fostered the use of stone materials from the islands themselves and, from the 1950s onwards, the gradual adoption of reinforced concrete.[2]

Indeed, reinforced concrete proved to be the ideal vehicle for interpreting the two forms of architecture prevailing on Tenerife. Both of them are based on the "modern tradition" that peaked in the 1930s and became surprisingly popular, and "differ only in the expression that the building materials convey in the work"[3]: expressionism, of which the team of architects AMP is a foremost example; and the formal restraint practised, amongst others, by N3 Architectos S.L., the group to which the architects of this house belonged.

However, the apparent formal restraint conveyed by this house built as a strict, clear-cut object in the white light of the Canary Islands, clashes with the architects' desire to make it blend into the landscape and endows it with an unavoidable, expressive facet. But the real reason for this clash is a collection of unsettling photos, for objects can be photographed but emotions and the personal relationship forged with a place and with space cannot.

Looking at the images of this house we can see that very few conventional photos are possible: the upper volume of the entrance against the backdrop of the sea or the house viewed from the side road to the north, with its huge, concrete wall – with dormers on both the inside and the outside – now engulfed by a climbing plant. The formal and technical aspects of the concrete volumes in all these images are extremely meticulous and bathed in strong daylight, and characterised by a patently bare form that conveys a sheer, limit concept typical of a contained object seeking to differentiate itself from its surrounding background.

Despite all this, the house does not always look like an emphatic object isolated from its setting. The architects' first step was to design and build a new topography that imitates and emphasises the natural slope of the chosen site but, unlike the neighbours' prominent houses, this house blends in with the backdrop. A string of terraced plots of land hide the house (apart from the entrance block) from the street and integrate it into the setting, causing the perception of the house in its setting to unfold as one walks through it: something which it difficult to capture in photographs.

This project, part of this latent desire to be a maker of emotions, experiments with the level of the roof built on several heights and the plane of the concrete and wooden floor featuring a variety of textures accentuated by carpets, although the climate makes them unnecessary most days. However, despite being involved in the different levels, neither of the two staircases (the main entrance staircase and the other leading down to the basement gym)in the house can be seen: an attempt to conceal any mechanism that transforms moving through the house into yet another object belonging to it, which, once again, makes it difficult to photograph them.

In addition, the seamless plane mechanism that delimits the space defined by the house at a given moment, seeks to deny its conclusive nature. The infinity pool added to erase the boundary plane makes the view of the inhabited area blur into the sea, even if only occasionally. As a result, the swimming pool becomes a mechanism that removes any sense of separation whilst incorporating the changing and sometimes adverse weather that characterises the Canary Islands into the spatial experience of the house. Photographs usually show the building on sunny days, but it would be just as attractive on stormy days when everything is enshrouded in a greenish-grey light difficult to imagine if one has never seen it, a light which, in the spatial ambit of the pool-lounge, could plunge us into the unreal.

The discussion about whether the house is torn between being an object or an anti-object[4] emphasised the importance of the selection of the location for the house and how it interacts with its surroundings: a key factor when defining a project.

In addition, control over the structure is asserted by adapting it to the expectations created by a project which, without being obviously present, entails highly technical solutions such as the cantilever employed to keep the corner of the lounge transparent and which requires a modification of the structure, of which only a discreetly positioned metal column can be seen together with a huge concrete beam that also blocks the sea view unwanted when entering the house. The structure ensures effortless transitions between the different levels of the roof, always maintaining an impression of controlled transparency.

Another variable that caters for the project and the site is the suitability and modification of comfort factors. As regards environmental comfort, it must be said that the Canary Island climate is usually but not always mild, there is occasionally bad weather. However, the architects opted for large, jointless, glass panels in the lounge, with no air chamber and a series of roller blinds to shield it slightly from the sun. This area is heated by a simple chimney. All this gives priority to spatial connections rather than the total comfort we are used to. Another aspect of this ambient comfort is that the main entrance to the bedrooms is from the outdoors, a typical characteristic of homes on the Canary Islands in which circulation is based on a patio – and they are shielded from excessive sunlight by ipé wood shutters which are even more reminiscent of Canary houses. Mention must also be made of the different way activities are organised: in this instance the kitchen leads on to the dining room/lounge, thereby creating a single zone that does not separate functions and enables people and activities to interact in a traditional, multifunctional manner, with work and leisure alternating in a space controlled, as we said before, by the ceiling height and the different textures of the flooring.

We could carry on describing the house, but it does not seem necessary. It only remains to say that it is a recent architectural project by Corona y Amaral Arquitectos SL, formerly N3 Arquitectos SL, which has, furthermore, received many awards and been described at length elsewhere. Also worthy of mention are the project and construction of the jet-foil station, the ferry port and the new North Tenerife airport[5].

The house reminds some of us of the Canary Islands, and memories, as we know, cannot be photographed either.

Endnotes

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2 RUIZ CABRERO, Gabriel, *Guía de arquitectura contemporánea. 1962-2006. Tenerife.* ACTAR, Barcelona, 2008, p.14.

3 RUIZ CABRERO, Gabriel, *Guía de arquitectura contemporánea. 1962-2006. Tenerife.* ACTAR, Barcelona, 2008, p.24.

4 KUMA, Kengo, *Anti-object: The Dissolution and Disintegration of Architecture,* AA Publications, London, 2008, p. 32: "Nevertheless, we are composed of matter and live in the midst of matter. Our objective should not be to renounce matter but rather to search for a form of matter other than objects. What that form is called – architecture, garden, computer technology - is not important. Until a new name is given to that form, I will call it the 'anti-object'."

5 For further details, see: http://www.coronaypamaral.com/main.html

COMMENTS ON THE JD HOUSE (CASA JD) BY BAK ARQUITECTOS.

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The JD house is located in Mar Azul, 400 km to the south of Buenos Aires in a splendid natural enclave characterised by the lush woodlands on the southeast mountainside and the proximity of the Atlantic ocean.

The location

The challenge faced by the architects María Victoria Besonías and Luciano Kruk was to integrate the new-build house into a very dense woodland landscape that exudes nature in virtually all directions and forms a microclimate that attenuates sea breezes, filters the sunlight and has extremely high humidity.

The architectural solution of minimalist resources and fragmentary decomposition falls within the Nordic style employed so masterfully by Alvar Aalto in the Saynatsalo Town Hall, establishing an on-going dialogue between nature and things manmade on a small, human scale.

To achieve this desired symbiosis, the mechanism of spatial interpretation was employed – in addition to the fragmentation mentioned earlier – characterised by large or slanted openings that imbue and infiltrate the building virtually throughout, making it permeable and exposed to the beholder's gaze, as in the Farnsworth previously.

In this instance, pines of considerable stature (25 - 30 metres tall) are incorporated into the architecture in an attractive, natural manner as if they had been born at the same time and had always coexisted: a feeling similar to when one approaches the Asplund Wood house in Stockholm cemetery.

The location on the terrain

According to Sullivan, the positioning of a new building on its site was extremely important because this was the key to mastering the project.

In this instance, the location of the JD house on the steeply-banked terrain is deliberately ambiguous. When climbing the slope towards the house, it seems to be separate from the land as if declaring its independence, whilst the terrain stretches out seamlessly underneath like the site of Aalto's summer house in Muuratsalo.

However, if we walk down to the house from the north of the mountainside, it seems to emerge from the bowels of the earth and provides a clear, logical solution for runoff.

Two apparently contradictory stances that complement each other and help bridge the gap between nature and architecture.

On the other hand, its relative location on the upper slopes of the mountain provides magnificent views not interrupted by other buildings. This focus enables us to understand the tremendous transparency that characterises the house to the surrounding observer since because the wood, by forming part of the house, is precisely the filter ensuring its privacy.

In short, the house and the wood not only live in harmony but complement each other and merge together into a single unit.

Orientation

The house overlooks the sea at the bottom of the slope, i.e. towards the southwest, and the rear faces the northeast. Because the house is in the southern hemisphere, this means that the house is designed to hide from the sun and seek the shade.

The orientation is not, however, as clear-cut as this statement suggests because there are NE-SW views through the lounge and dining room with slanted windows in the upper part of the two intersecting angles, in the double-height area. As a result, filtered sunlight enters the house all day long from top to bottom.

To understand this approach, remember that the house was built basically as a summer home, that the ocean views are breathtaking and that the SSE sea breezes are extremely refreshing and can even be annoying, hence the wall and balcony that protect that side of the house.

Concept and form

Although it is true that the geometric design of the house stems from the intersection of two prisms arranged by height and their comparative location, it is also true that the architects were very keen to break the envelope down, particularly towards the foot of the mountain, to give the beholder a fragmented image stemming from planimentric experimentation with vertical and horizontal planes that fold in upon each other and, in particular, suggest prismatic geometry.

This type of organisation belongs more amongst the premises of the search for indoor-outdoor spatial interpenetration put forward by De Stijl's avant-garde movement led by Van Doesburg which was embodied in the Schröder de Rietveld House (1924) and influenced works by Le Corbusier, such as Villa Shodan (1956), than in the actual breakaway from the envelope initiated by Wright in 1902 with his Willists House, and was finally confirmed by Mies, first in the drawing of the brick house (1923)and subsequently in the Barcelona pavilion of 1929 with its on-going search for open, flowing space.

Spatial quality

This interpenetration of indoor and outdoor space endows the house with a continuous and basically horizontal quality shown in four aspects: an on-going planimetric shape whose formwork emphasises the direction of the intersection; the seamless, polished floor; the design of the full-length benches used for spatial definition; and the transparent glass panels installed opposite each other to link apparently separate spaces such as the two balconies though the chimney area, or the two outdoor NE and SW areas through the sitting room.

Hence the architects do not contemplate the architectural full-void dilemma but, following in the wake of the modernity of on-going research into space, situate themselves within the synthesis of the two, in the open and yet flowing space which is achieved, according to Giedion, interior-exterior interpretation, without any defining boundaries of each space arising between them.

In other words, they contemplate space expanding from inside to outside and its outdoor-indoor interpenetration. But they do not want to lose the impression of sheltered space, a space that people need in order to develop their freedom, and so a suggestion of the box, i.e. the original prismatic shapes, is retained.

Where the two prisms intersect, the mezzanine mechanism is employed to create vertical, double-height space. One criticism at this point is that the bathrooms are an obstacle to the desired spatial interconnection fostered by the mechanism itself, with the mezzanines.

Materials

The house of built of two basic materials: concrete and glass. The meticulous and accurately-sized concrete, slatted formwork, visible both inside and out, creates an envelope consisting of seam less panels or sheets that fold in upon themselves, dissolve into fragments and even define most of the furniture completely, thereby conveying an obvious impression of airiness and lightness.

The joints between the large glass panels are reduced to a minimum in a serach for maximum abstraction and transparency.

The third material, wood, used to floor the two SW balconies, reflects the sunlight into the house, creating a warm atmosphers that counteracts the hardness and coldness of the concrete.

Light

Natural light enters the house at a horizontal, NE/SW angle ly from The natural
La iluminación natural se nos presenta a modo de plano de luz horizontal, que atraviesa la casa de NE a SO, intensificando la tensión de la pendiente de la ladera del bosque, y acrecentando la continuidad del espacio y de la relación exterior-interior-exterior.

Natural lighting is presented as a horizontal plane of light, which crosses the house from NE to SW, intensifying the tension of the slope of the hillside forest, and increasing the continuity of space and external relations, internal / external .

This approach to capturing light, was enthroned in the pursuit of excellence of the focal light, characteristic of the architecture well into modernity, which was capable of passing light vertically from top to bottom and from center to perimeter, light from the periphery to the interior, with the Neue National Galerie in Berlin, thus becoming a light in a horizontal continuity.

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TWO ROCKS IN PARADISE: *CASA PARATY**

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The *Casa Paraty* was built on one of the 365 islands – one for each day of the year, according to the legend – between the old colonial city of Paraty and Angra des Reis (between Sao Paulo and Río de Janeiro. The location is a tropical paradise surrounded by crystal-clear waters, white sands and thick vegetation from which emerge the enormous cliffs of the Brazilian coast. From among the trees the two boxes of which the house is composed can be seen rising like two rocks hollowed out by the action of the water, two large pieces of concrete suspended over the sloping ground, leaving a deep shadow at their feet.

This is the first impression when we approach from the sea, the only way to get here. Two abstract, deep, volumes, weightless in spite of their seeming solidity, rising over the jungle and pointing out to sea, almost wishing to touch it. The path or the masonry walls around the swimming pool and the ground floor attempt to close the first gap between the stereotomic and the organic.

The entrance is below the lower volume. A great threshold is thus created, a large surface in the shadow that extends along the adjoining terrace and reaches the surface of the water in the swimming pool, whose border is reduced to a line and gives the impression of being a continuation of the sea. This floor is divided into three sections. On the south side is the entrance and the stairs that unite all the levels. On the north are the service stairs, stores and bathrooms. In the center the sauna and gymnasium open on to the terrace.

The first block is divided along its length by a brick-faced wall. At the rear, again divided into three sections, we find the main stairs and the entrance hall on the south side, the kitchen in the center and the office on the north. These rooms receive light and ventilation through the patios that seem to anchor the building to the mountain. At the front of the house we find the ample living room and a covered

terrace. Thanks to a foldable glass screen, both of these can be converted into a single unobstructed space open to the landscape.

There is an open roof on top of this parallelepiped, connected to the upper block by a glass-covered stairway. The rooms are distributed symmetrically around the stairs and a generous play area. There are six bedrooms, each with its own bathroom *en suite*, except for the master bedroom, which has two complete bathrooms. Only one bedroom, the games room and the toilets connected to the master bedroom extend over the three rear patios and are joined by an internal passage. We are surprised by the smaller size of the rooms on this level compared to the larger spaces and terraces at the front of the house. For example, none of the bedrooms has an exterior terrace over the landscape.

The open roof can be used as an observation platform. There is also a roof-garden with sculptures, medicinal plants and a space for growing vegetables and, as Gabriel Kogan wryly observed, is used as a home by the poisonous spiders found in the area.

The whole building forms a generously-sized residence of about 870 m^2 between both essential, excessive superimposed volumes that are embedded into the sloping terrain.

As in other Kogan designs, we are struck by the audacity of the structure; two boxes arranged in a diagonal that share only one layer of concrete measuring 468x30 cm. They are two independent self-supporting lower and upper structures of 27x18 m and 25x18 m, respectively. The beam thickness varies between 30 and 47 cm with the cantilever, which reaches 5.62 m in the first floor and 8.20 m in the second. The cantilever is achieved by pre-stressing internal beams and slabs and the presence of concrete walls inside the boxes. Seen from the outside, the two solid structures seem deceptively light and, wider at the front the rooms seem to open out towards the sea.

In contrast with the rectangular shape of the two boxes, the interior spaces are all conditioned by the same texture of the horizontally placed concrete panels in the walls and lengthwise in the floors. The lack of visible joints between the slabs gives a compact consistency to the rooms, on one hand, and on the other any construction defects are covered over and the surfaces acquire a smoother, tactile aspect far removed from the *béton brut* typical of the older generation of Brazilian architects like Vilanova Artigas, Mendes da Rocha or Lina Bo Bardi.

The interior is defined by the narrow range of materials used – rough-cut stone walls, wooden lattices, textured concrete, large glass surfaces, wood-tiled and carpeted floors. The furniture was designed by, among others, George Nakashima, Luis Barragan, Lina Bo Bardi, Sérgio Rodrigues, Joaquim Tenreiro and José Zanine Caldas. The *Casa Paraty* belongs to an exclusive selection of luxury residences that include House 6, Ilhabela House, House 53, BR House and Panamá House. These houses are typical of the taste for elegantly simple formal architecture of bright open spaces inside basic volumes and surfaces, but are especially defined by their attention to finish and minor details in the tradition of other Brazilian architects like Oswaldo Bratke and Rino Levi.

It is interesting to note the differences between the two boxes. The lower is completely open, and resorts to the use of glass to cover large areas that connect with the terrace to form a large open space that joins the house to the adjoining landscape. In this way, there is an almost literal continuation of the building's natural surroundings, the large hall, the swimming pool, the sand and the palm trees unite in a single scenario. The rear patio draws the air from the inside, which prevents damp and allows the residents to enjoy the open-air life so typical of the tropics. The upper volume, however, is divided up internally and is less open to the exterior due to the lattice-work shades that protect the rooms from too much sun.

The entire layout is held together by the single flight of stairs, which is full of interest. The front door beneath the large overhang is no more than another panel in the featureless wooden surface that covers the different rooms on this level. We cross this threshold into a shady hall. A passage crosses over like a sheet of water to the staircase formed by concrete steps projecting from the wall. We go up to a landing with walls covered with the local masonry, and the light streams in from the rear patio and through the glass ceiling. On reaching the third-level terrace with its green carpeted and stone-covered floor, the space is suddenly reduced and in the flood of light we can see the countryside far into the distance. On the top floor, we again return to a smaller rectangular space, dominated by the stairs. The light filters in through the wooden lattices and creates interesting patterns of light and shade on the wooden floor. Water, rocks, tree-trunks, wood, stones and vegetation form the typical features of these islands and are reproduced in this voluptuous, extraordinary and surprising sensorial and architectural experience.

Endnotes

- The *Casa Paraty* is one of the latest projects of Marcio Kogan and his studiomk27, which was founded in 1980. Born in 1952 and a graduate of the School of Architecture of the Mackenzie Presbyterian University of Sao Paulo, he is one of Brazil's leading architects. He has received many international awards, including the Wallpaper Design Awards, Chicago Athenaeum International Award, DEAD Award 2010, LEAf Award 2009 and the International Property Awards, all for his design of the *Casa Paraty.*

ARCHITECTURE ON A SLOPE. THE HOUSE ON THE NÚÑEZ FARELLONES AND VALDES ROAD. CHILE.

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Location

Descending the Andes to Santiago de Chile, the River Mapocho cuts through a mountainous area to form a deep valley where a variety of locally adapted shrubs grow on the hillsides.

The site is on the northern slope of one of the hills that border the river, east of Santiago de Chile. A thorn tree stands near the site, which is dominated by views across the valley of the *Santuario de la Naturaleza*, and Mount Pochoco (1,700m).[1]

Given the imposing nature of the location, the building design aims to create a space for people to enjoy the intense sensations offered by the site, and enable visitors to feel that they are part of the valley itself.

For this, the first task was to establish a horizontal space in which to sit quietly and admire the beauty of the landscape.[2]

The intention was not to position a building delicately on the site, nor dig into the ground and create a fully integrated element similar to a primitive cave. Instead, the intention has been to create a horizontal structure embedded into the hillside. It is an artificial structure that leans into the landscape.[3]

Thus, the architecture seems to achieve the dream of exploring an area by flying over the landscape, metaphorically expressing the freedom to effortlessly overcome gravity.[4] (Fig. 01)

The base

This platform is conceived as a horizontal prism pointing north, a stone element that emerges from the mountain and leans over the slope of the hill. It resembles a rock formation transformed into a living space, and thereby creates a area completely surrounded by nature.[5]

This prism is materialised as a mass of reinforced concrete, inside which an intimate living space has been excavated.

Holes connect the stereotomic interior to the outside. Concrete walls frame views over the landscape. This result is a small area, somewhat introverted and intimate, yet at the same time connected to an immeasurable external space. The excavated space is constructed from inanimate material, and contrasts with the views over the natural landscape, which is living and constantly evolving.[6] (Fig. 02)

Inside, unclad concrete enables a clear identification between the outdoor and interior spaces, and the exposed ends of the concrete profiles reflect the stratified formation of the surrounding natural stone structures.

The pavilion

Straight geometries jut from the mountainside on this stone structure, creating a surface with limitless space for the contemplation of the landscape. The result is a horizon of wood and water that brings warmth to shelter life, and freshness to withstand environmental dryness.

This area is divided into two: an exterior space on an elevated horizontal plane; and behind a vertical glass surface, an interior space that forms the most public

area of the house – protecting the inhabitants from the sun and rain. The result blends harmoniously with the surrounding hillside.[7] (Fig. 03)

The sitting room is the centre of the house, a comfortable interior space from which to enjoy the greatness of nature, with views extending to the horizon.

The room creates a tectonic element with dark surfaces and structures that generate a neutral atmosphere which does not compete with the exterior light. The partially visible concrete structure reminds us of the discontinuous origin of the constructed space.[8]

The paved floor reaches to the outdoor terraces, expanding longitudinally, and pointing to the 'Santuario de la Naturaleza' valley. Laterally, the furniture raises our gaze to the mountain summits. At the edges of the platform, the concrete is visible, recalling the stereotomic materiality that sustains the whole.

To the south, a thorn tree on a raised patio of concrete and stone hides a guest house that is built into the hillside. The approach to this structure is scaled through a downward path of terraced spaces that leads from the road to the interior of the house, in a transition from the vastness of the mountainside, into an enclosed and habitable space.

Fig. 01. Frank Lloyd Wright, Fallingwater, Bear Run, Pennsylvania, 1934-37. View of the house from the lower falls. From: McCARTER R. *Fallingwater, Frank Lloyd Wright*. Phaidon, New York, 1994, p. 9

Fig. 02. Tumba Nabatea. Petra, Jordan. 4th century BC to 1st century AD. View of rocky landscape at Petra from the interior of a Nabateo tomb excavated in the rock. October 2008.

Fig. 03. Alberto Campo Baeza. Blas House. Sevilla la Nueva, Madrid. 2000. Cross sectional view, from: www.campobaeza.com.

Endnotes

1 North is the direction of sunlight in the southern latitudes. The climate is Mediterranean (33º latitude) and rainfall is concentrated in the winter months, while the dry season lasts from seven to eight months (ERRÁZURIZ K., Ana Maria. *Manual de Geografía de Chile*. Andrés Bello, Santiago de Chile, 1987, page 70.)

2 Interesting studies and reflections by A. Campo Baeza discuss the development of local architecture. The contrast between the stereotomic platform and the tectonic pavilion are typical of Greek temples and is present in many of his works, such as the Blas house, 1999; the Olnick Spanu house, 2008; or the Rufo house, 2009. (CAMPO BAEZA, A. "The establishment of the architecture. Stereotomic and Tectonic." Pages 2000-2001. Mairea, Madrid, 2001.)

3 The different possibilities of building on a slope are evident in a diverse selection of modern works: the Chemosphere house by John Lautner, 1958, resting lightly on the landscape; the Bianchi house by Mario Botta, 1971, sitting on a hillside and reached by an access bridge; or the Ku house of Markus Wespi and Jérôme de Meuron, 2005, built penetratingly on a slope.

4 This approach is reminiscent of that employed by Frank Lloyd Wright in the Falls house. For Wright 'overhangs reflect the horizons of nature in a most dynamic way by interacting with gravity.' (Hoffmann, Donald. *Frank Lloyd Wright. Architecture and Nature.* Dover Publications, New York, 1986, p.22)

5 Jörn Utzon has written an interesting article regarding platforms: he highlights the suggestion that they have the power to take-off and 'suddenly discover a new dimension of life.' (UTZON, Jörn. "Platforms and Plateaus." In *Zodiac,* No. 10, Milan, 1962. Translation in *Cuadernos Summa/New Vision* No. 18. Buenos Aires, 1969.)

6 The concept of stereotomic as a solid that shapes space is discussed by authors such as: G. Semper, K. Frampton, or A. Campo Baeza; and discussed in depth by Jesús Mª Aparicio Guisado in his book *El Muro* (APARICIO GUISADO, Jesús Mª. *El muro*. Nobuko, Buenos Aires, 2006.)

7 There is an obvious reference to the Farnsworth house by Mies van der Rohe in which two horizontal planes rise from the ground to define the living space, enclosed with glass, and forming a 'place of rest and contemplation, which allows us to appreciate nature in all its magnitude' (GASTÓN GUIRAO, Cristina. *Mies: el proyecto como revelación del lugar*. Barcelona: Fundación Caja de Arquitectos, 2005, p. 143)

8 In contrast to the concept of stereotomics, the tectonic 'expresses the absence of matter that results from lightweight walls that let nature become incorporated into architecture.'(STEW APARICIO, Jesus M ª. *The Wall.* Buenos Aires: Nobuko, 2006, p. 18).

DIALOGUES WITH THE PAST: HOUSE IN FRONTENEX (GENEVA, SWITZERLAND), BY CHARLES PICTET

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Scholars of this discipline acknowledge that the problems faced in architectural design are almost always the same. The same questions are repeated and the solutions differ. However, this contributes in part to the richness of the profession, and undoubtedly, accounts for the criticism raised. In the case of the privately developed house built by Charles Pictet on an old property used for farming and agricultural trade in Frontenex, which is located to the East of the Swiss city of Geneva, the questions raised relate to how to create a dialogue between the present and the past. How should a contemporary residential project in a historical setting be approached? What relationship should be established between the new and the old to assure that they are independent and do not enter into conflict?
If on top of all of these not minor questions, the dwelling includes a 21st century warehouse converted into a living area, how can both the old and the new be blended in a spatially recognizable manner? The value of this house built in 2006 clearly stems from the architect's answer to each of these problems, and the result is commendable, as evidenced by the Beste Umbau nomination in 2008 and the Romande d'Architecture Award in 2010.

Usually difficulties are what set the project process into motion. Challenges lead decisions to be made and provide grounds for each of the measures taken, thereby giving credence to the finished work. In this case, the site is defined by an orthogonal grid on which each of the parts of the historical setting is conveniently placed. Only the restored building in the house plan deviates from the rest of the construction, requiring a more conducive southern orientation to perform its functions given that it was formerly used as a greenhouse. Each of the house's units is attached to this restored building, which is notably uneven, despite the fact that the result does not violate the system of Cartesian axes. The house features wide and generous spaces and is divided into three levels. However, the basement, ground floor and first floor surroundings are quite differentiated. The project plans evidence directed spaces with polygonal boundaries and hollow areas of different sizes and shapes, pointed in specific directions. These mechanisms are especially evident on the ground floor, where the new building comes into contact with the old greenhouse. The path leading to the entrance to the house behind the old building which is slightly sloped up to entrance of the main unit, and passes through the courtyard located on this slope is the best example of the spatial experience pursued. Volume is thereby obtained whose limit in height is the greenhouse ridge, but whose malleability contributes to the uniqueness and independence of the entire project. Without doubt, the concrete material characterising the construction aids in achieving a respectful blend with the aged stone of the restored building, while maintaining a contemporary appearance. The end result offers brilliant responses to the questions initially posed, being sincere and harmoniously rooted to the land and its circumstances.

It is precisely this tectonic nature which is a common denominator of many of the projects of Charles Pictet. The architect has had a long and distinguished professional career, and his works evidence his longstanding experience in the field of restoration and the large variety of projects he has undertaken. The constructive rigor denoting the woodworking in Les Diablerets (Ormont-Dessus, Switzerland) is present in many other works. Both the holiday home in Le Dia converted in 2000 (Distinction vaudoise d'architecture 2000), and the seasonal cottage newly built in 2008 (Distinction Lignum 2009, Distinction Romande d'Architecture 2010) are examples of elaborate and studied constructions covering all details of the project. In parallel is the resounding example of the stables of Vandoeuvres (Geneva, 2008; Mention Hochparterre Die Besten 09, Mention à la Distinction Romande d'Architecture 2010). Here, the pieces of clay shape the space, as if it were an excavation of the same material. A firm and convincing determination repeated work after work, given the conceptual simplicity achieved, and which is not uncommon in lines of work developed by other contemporary Swiss architects. "One Project, one material" appears to be the theme of the works described, a rewarding aim given the strength of the formal and material construction of the projects.

Returning to Frontenex, concrete is the material explored. Raw material is used in a genuine and transparent way, without secondary details and elements, combined with a perfect understanding of its fluid and pliable state. Arguably, no other material would be right for this building. Design and realisation work hand in hand. Concrete is used for the walls, and remains visible both inside and outside of the house. It is also used for the pavement, extending from the new floor into the greenhouse. It is only this material that can be used to flare hollow areas, slope roofs, bend walls and shape the retaining walls of the ground level courtyard. Concrete allows for an all encompassing structure which seems to be the result of pouring and shaping the concrete in a single instance, and then placing the structure face to face with the historic surroundings. Concrete is also shown to be the best alternative upon examining the tones and textures obtained. Whereas the greenhouse was built using natural stone masonry whose design has been unified over the passing years, concrete is a liquid stone which can be molded according to will and taste, thus being the contemporary image of historical material(. There is no other way to more respectfully create a dialogue between the present and the past.

HOUSE IN ESTORIL

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Distinguishing traits of Jorge Mealha's work in general, and particularly his detached houses, include his obvious commitment to the location and its *topos*; his use of clear-cut volumes with geometric effects that create interesting perspectives and spatial relationships; and his contained control of the materials used and his meticulous construction which provides a logical support for the entire syntax of his polished architectural language. The house in Estoril was completed in 2004 and is a clear demonstration of the architectural resources usually employed by the Jorge Mealha studio.

The house in Estoril is situated on a steep slope covered in lush green grass that overlooks the sea and has breath-taking views of the horizon. The building slots firmly into the slope where three levels have been excavated in the terrain, incorporating it as a value added to the building's spatial quality. Its amenities are laid out on three levels with the main rooms on the middle floors, leaving the lower storey for the swimming pool and the upper storey for just the entrance and the light and ventilation devices consisting of merely discreet, angular, white volumes that subtly indicate the presence of a building hidden from view beneath and behind the slope so as not to detract from the landscape, the blue sky and sea, the green land and the white chosen for this building framed by this horizon.

As the architect himself explains, the amenities made it necessary to design two identical houses. The project catered for this requirement by understanding function to be not only the arrangement of the same number of rooms, bathrooms, etc, not only simply fulfilling certain basic needs such as eating, sleeping, etc, and not only demonstrating that they have a similar surface area and interact in a similar way. In this instance, Jorge Mealha extends the identity criteria to all architectural concepts –perspectives, views, transparencies, illumination, materials, construction – the logical result of which is a symmetry more visible in the project's drawings than in real life due to the single nature of the volumes he uses to break it down and create a seamless whole that blends into the landscape.

The two houses are therefore designed with four levels on different elevations carved out of the project's sloping terrain. The highest level features just the entrance, simply a lobby, and a staircase oriented towards the axis of symmetry, allowing light in from the side: an attractive device that emphasises its spatial features. Also extending beyond this elevation, as we mentioned earlier, are the skylights: the only illumination for the corridors on the bedroom storey. The middle level houses the night zone consisting of one double and three single bedrooms, two bathrooms and a toilet. The next level, the day zone, has a large lounge, dining room and kitchen that overlooks a balcony carved out of the sloping terrain with an outdoor staircase at the bottom that connects this level to the entrance level and which, like the main staircase, is an interesting way of letting light into the darkest areas to increase the sense of depth and perspective. Situated on the bottom storey are the solarium and swimming pool, the bottom and sides of which are made entirely of exposed concrete.

The two main floors, the night zone on slope level -1 and the day zone on slope level -2, form two L-shaped volumes facing each other. When positioned symmetrically, they form two T-shapes, also opposite each other. This geometric layout takes advantage of the sloping terrain to create interesting intersections, spaces and transparent areas: one of this project's main features. This initial interaction increases in complexity by emphasising certain singular volumes such as the entrance staircases and the illumination and ventilation elements on the first level which, as we said before, are the only parts that can be seen from the highest level, discretely, without interrupting the magnificent landscape: the project's real main feature.

The interacting contrasts and counterpoints are an interesting way of incorporating the terrain's slope, views and symmetry into a wealth of varied architectural interpretations that combine uninterrupted views, intersections and green areas on the roofs of the different sections, as if it was not symmetrical, as if there was no slope, as if it was not there: always giving pride of place to the magnificent Atlantic landscape.

The execution is in keeping with the original project. The exposed, grey concrete used mainly for the main volumes accentuates the overall horizontality even more. The white surfaces offset the exposed, grey concrete and highlight the vertical planes and volumes such as the entrance and the sun breakers. As a result, the horizontal planes in contact with the ground are made of exposed concrete, as are the outdoor roofs and the main indoor areas. The white planes are vertical and pick up the earth in preparation for the horizontal encounter with the main volumes in exposed, grey concrete, accentuating the horizontal tension of the whole building and highlighting its transparencies and windows located in strategic points. The volumes that extend beyond the upper level are also white, discreet and unobtrusive whilst the roofs are transformed into gardens, with the same turf as in the immediate surroundings, fenced off by the grey concrete curb of the horizontal plane underneath. The horizontal planes are grey and the vertical planes, white, the only colour being the blue sky and the green slope.

But the way architect Jorge Mealha kick-starts a dialogue between contrasting materials - their texture, colour, light – is far from new. The same mechanisms can be seen in his detached houses, including of course the house known as "Casa no Meco 03" in which he employs dry-stone walling for the vertical planes and white concrete and timber lattices for the household areas and floorings, and the "House in Tróia" in which he uses masonry and white elements. The house in Estoril must be considered from the same viewpoint, with these constant features visible between the white elements (forming an ever-present backdrop and counterpoint) and the exposed concrete (the main material with such great modelling possibilities).

The exposed concrete was painstakingly installed: the edges maintain the same width to emphasise the idea of volume, the variations in the formwork ensure the continuity of the vertical, horizontal, upper and lower lines that emphasise the idea of volume vs flatness. At no point does anything deviate from this focus or the pattern of slats: both are elements that make no attempt to conceal the formwork that created them but they also convey the architect's mastery of the materials chosen and his meticulous control of the work which, in keeping with Mies's "less is more", strips the work of all superfluous elements in an unceasing desire to abstract flatness and volume, leaving nothing to distort the building and a building that does not distort nature: white, grey, blue and green.

MATERIAL AND TIME: DAVIDE MACULLO AND THE HOUSE IN LUMINO

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*"Habitation means living in a space; and space is lived in through its perception in time. Time is the key component in a project to build a space and the image we perceive is nothing more than its consequence." (**Davide Macullo**- Le percezione del habitare).*

Time as a raw material for architecture and its identification as a starting point for the design of a living space is a radical position. However, this position is also wide-ranging, generous, and paradoxically timeless. Davide Macullo is an architect who designs homes and he understands this process very broadly – going beyond the tasks strictly concerned with construction. He sees time as a function of heritage and climate, as well as a guideline that defines the way we inhabit space. These reflections are incorporated in all of his works.

An understanding of history as a material for the present, the reinterpretation of local building traditions, an intense and respectful dialogue with the landscape and environment are features that characterise the architectural work designed in the Ticino canton of Switzerland over the last 50 years. Architects such as Luigi Snozzi, Livio Vacchini, Aurelio Galfetti, and Mario Botta have pioneered an architecture that is *rooted* in the broad sense of the word, much of which has been inspired by the work of Davide Macullo.

Davide Macullo (Giornico-Switzerland, 1965) currently works and lives in Lugano. In 2000 he started his own studio, having worked during his early years as an architect with Mario Botta. He received an extensive education: in addition to studying architecture at the University of Art and Design in Lugano, he previously had studied technical and business subjects at Zug and Lucerne. His great emphasis on the constructive aspects, and his commitment to an interdisciplinary approach, are probably the results of his broad education. He has travelled widely throughout Asia, Europe, and America, and these journeys have contributed to shaping his approach. His education and training also tell us something about his philosophy with respect to his work: Macullo is professional pluralist who listens, and understands architecture as primarily the result of teamwork.

Macullo has been very productive over the past ten years and has addressed numerous issues in various countries. However, it is notable that his work has always had a special place reserved for the design and construction of houses. From his early projects, such as a weekend house in Rossa (1989-1998), until his more recent works such as the Lumino house (2007-2009) and the Carrabia house (2005-2007), several common threads can be seen that characterize his work in the residential sector: formal abstraction; construction directly linked to the expression of selected materials and their careful application; a precise constructive definition; a constructive dialogue with the vernacular tradition; a sensitive response to the landscape; a commitment to the environment and sustainability; and a clear commitment to teamwork.

When we study the residential works of Macullo it is surprising to see how these radically abstract formalizations begin with a deep respect and concern for defining traditionally defined spaces, while making a reinterpretation based on a clear vision of the times in which we live.

The house in Lumino is a clear example of his residential work and it includes a number of recurring themes that appear in nearly all his houses. Firstly, commitment to creating a space where people can enjoy an intense relationship with the surrounding landscape, especially from the patios. The shape, size, and position of these patios vary in his houses, although generally these spaces are open to the exterior. Lumino, similarly to the location of most his homes, is a village in the Swiss Alps, and therefore surrounded by natural views. These open patios therefore appear as filters, or spaces of intermediation between a human scale and the grandeur of the landscape.

This relationship between interior and exterior is completed by an elaborate and precise sequence of openings to the house, or reworked interior patios. This house has two entries: either along the house and under a suspended patio, or from the outside to the heart of the house using an outside staircase leading to a patio. The patio becomes the key point of the space. This dual circulation, together with a composite section based on two mid-level bodies that are out of phase, causes a spiral motion that connects the different areas of the house, as well as the interior and exterior. The result is an intense game of scales and levels.

Another aspect of the residential work of Macullo is the attention given to redefining the hierarchy and relative position of domestic space in terms of 'enjoyment time' and so reflecting the various habits of everyday life. According to the architect, this variable factor is fundamental to the perception and projection of different spaces. The centre of the house and the place of arrival is the dining area/kitchen that links two distinct areas: the dormitory areas located on the lower levels; and the more public area that occupies the higher level. As the bedrooms are arranged on the lower floor, they can all be linked to their own exterior spaces and independently accessed from outside. The sense of private space is reinforced by providing autonomy of use.

For Macullo, each house involves research on the expressive possibilities and use of materials, and he makes a tectonic rather than epidermal interpretation in the process. Each material is treated according to its intrinsic possibilities, thereby generating volumetric solutions that are visually diverse. Macullo used reinforced concrete in the Lumino house. The entire volume is constructed in grey concrete: it is an abstract and timeless monolith located on the expanding edge of the village. The house is in a close dialogue with the nearby mountains. The choice of concrete enables Macullo to incorporate a double integration with the environment. The vernacular buildings that surround the house are made of one material, stone; and the proximity of the Alps refers to another mineral presence. From the formal standpoint, the monolithic character of the building is reinforced by the choice of a material that is both cladding and structure. Thanks to the structural possibilities of concrete, it is possible to build a volume that is 'carved' in the same way as a rock. The result features two volumes delicately suspended above the ground; and this aspect gives the building an unsettling apparent weightlessness. A geometric definition of the ground floor based on simple shapes (in this case, two U-shaped figures) is a precise example Macullo's geometry, taking advantage of the structural and expressive possibilities of the materials to generate complex volumes.

Sustainability for Macullo means building in the most solid possible manner, aiming to make buildings that last forever. His houses incorporate this commitment in their design, and feature spatial and material decisions that respond to the local environment. His buildings have minimal impacts and take maximum advantage of the materials used, depending on the climatic conditions. His understanding of sustainability is singular and deeply interesting, and he justifies his approach as a response to the geographical difficulties of building near the Alps. His buildings, however, provide lessons for everyone.

The house in Lumino is a synthesis between art, technology, construction, and environmental commitment. The use of time as a raw material for architecture is perhaps the key to understanding this house – built on the basis of criteria that will remain in force in the years ahead.

A DWELLING-PLACE

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In 2007, Sou Fujimoto made the O House in Chiba, Japan, as a holiday home for a couple. The O House is a new cave-dwelling[1] concept built on undulating terrain on the southeast coast of Tokyo. It constitutes a new place and is one of Sou Fujimoto's flagship projects in which he investigates the very meaning of architecture.

We should, therefore, begin by taking a look at two personal aspects of Sou Fujimoto's career that have influenced his approach to architecture considerably. Firstly his great admiration for Einstein which drove him to seek the simplicity and beauty that lie within mathematical formulae, and to work with diagrams that are simple and easy to understand. And secondly, the impression Tokyo[2] had upon him when he moved to a flat there from the island of Hokkaido north of Tokyo, causing him to reflect upon variations, the house as a city, the city as a house, the outdoors, and the breaking down of the outer envelope: a recurrent feature in his projects.

In the O House, Sou Fujimoto researches into essential aspects of architecture and, in the words of Julian Worrall[3], "it is a variation of his own 'primitive huts', he imagines the original conditions from which architecture arose and in which the sense of space is simply a question of proximity and distance, distance and proximity between the rocks, water, glass, concrete... to build a dwelling-place."

The O House uses concrete walls, glass panels, a roof and a floor to construct a space that establishes new distances between the rocks and the ocean and forms a new place. This is why concrete is the ideal material, it takes on the hue of the

coastal rocks and stands out, not because of its colour but because it is man-made, and it finally builds a place that emerges from the ocean, from sea level, halfway between things natural and manmade.

A glance at the project report shows that the project is underpinned not by functional considerations but its relationship with the ocean: "a house that lets the ocean make its presence felt", a house that interacts with the ocean from different angles and enables the people moving about in it to discover and find these different views. Each area – the lounge, bedroom, bathroom, etc - has a particular function and connects with the ocean in a specific way.

An analysis of how each room evolved in the project's successive plans confirms that the apparently chance layout of each room is in fact the outcome of great sensitivity and a search for precise but ambiguous links. The project's basic plan evolved into a centralised, seamless space with offshoots dependent on spatial perception. The first linear diagram with a section parallel to the sea (for daytime activities) and a section that turns back upon itself (for night-time activities) evolved into a second plan that features the first offshoot. This offshoot, like a branch on a tree growing towards the light, becomes a place for cooking and eating. It extends and reaches outwards and disconnects slightly from the main section, paving the way for the next developments. Diagram three features another two offshoots: one occupied by the recreational bathroom area, and one that constitutes the lobby. The next two diagrams show the modifications and details added as the project evolved towards specific spatial relationships that offer a unique space and certain necessary functions which together create a "string of comfortable lounge areas along the façade".

A leisurely stroll across the layout of the house gives us an idea of the physical sensation of walking through the house itself – an experience described by Toyo Ito after visiting the T House – and, in a way, the pleasure this may bring.

The O House is a low-lying dwelling which is ambiguous in appearance. The rear is inaccessible, impenetrable and distant, concrete wall that has no doors or windows and forms a barrier that separates the outside from the inside. But hidden behind this concrete-wall frontier is an inside-but-outdoor space, an interior that embraces nature and the ocean stretching out before it.

The first ambiguity we see as we draw near is the location of the entrance. Surprisingly, the front door to the house does not invite us in or display itself, it is hidden away. The doorway in a concrete side wall leads into a patio-lobby surrounded by the concrete walls. A transition from a completely outdoor area to a patio with a glass front that reveals another link to this place: a space full of reflections and transparencies where the concept of an outer envelope fades away to reveal a unique space with no visual barriers that reaches out, room after room, to bond with the ocean.

The relationship with the outdoors changes and imposes a different viewpoint in a seamless space in which we can stand on different levels and see the horizon in many different ways. One offshoot, the one used as a bathroom, is on a higher level, above the horizon, whilst the offshoot that becomes a kitchen is reached by descending a few steps to discover a different relationship. The entrance is higher than the outdoor level, making the kitchen area feel cosy. The different levels are not caused by the terrain's contours but built deliberately to create specific relationships.

The concrete formwork walls again convey this indoor-outdoor dualism. The outer walls were built using smooth, untextured, phenolic form liners of equal size, whilst horizontal, wooden forms were used for the inside of the house to emphasise the line of the horizon.

The use of different forms for the walls combines with the contrasting glass panels in the outer envelope to produce a host of reflections that vary according to the point of view. The ground level sometimes looks continuous, but at other times the reflections multiply the spaces. The rocks outside seem to occupy indoor areas, the frontier disappears and gives the impression of being face to face with an ever-changing nature at the whim of light and reflections.

These constant reflections blur the boundary, leaving us wondering if we are indoors or outdoors. The boundary disappears and the materials outdoor – the water and the rocks – penetrate the indoor space. The end product is a nebulous, outer envelope, a shape that is too blurred to be defined: a little water, a little rock, a little concrete, a little of each, or, in the words of Sou Fujimoto: something completely different and new but at the end of the day a place that sticks in your mind, a dwelling-place for people who blend the indoors with the outdoors; things natural with manmade; and the house with the landscape.

Endnotes

1 The nest and the cave are primitive stages of architecture but to a certain extent they represent opposite realities.
For the person or animal living in it, a nest can be described as a functional place fitted out cosily. A cave, on the other hand, is indifferent to its inhabitants. It is a place that occurs naturally without taking into account whether or not it would be a cosy dwelling. It is not, however, unsuitable for living in. Caves have nooks and crannies and unexpected spatial recesses and contradictions.
Is an "artificial cave" possible in "man-made architecture"? The great mystery is whether it is possible to deliberately make something that exists for no purpose, or something that extends beyond its purpose.
FUJIMOTO, Sou, "Futuro primitivo", 2G, Sou Fujimoto, No. 50 (2009), p.130

2 I was born in Hokkaiko, and I felt strange when I arrived in Tokyo, as if I had suddenly become aware. When I compared the houses in Tokyo with those in Hokkaido, I thought that their encapsulation was very vague (...)
(...)The sensation of going out of a house by following a gradual order was, in my case, extremely powerful. From then on I thought it was a shame to delimit the indoors and outdoors by a partition or a wall. Why not design a house that is gradually transformed into the city?
NISHIZAWA, Ryue, "Conversación entre Ryue Nishizawa y Sou Fujimoto", *El Croquis: Sou Fujimoto 2003 2010*, No. 151 (2010), pp.10-11

3 Since Vitrubius, the "primitive hut" has been an imaginary authority that a systematic theory could be built on. To date, Fujimoto's work could be understood to be an elaborate series of variations of his "primitive huts" whose maximum expression is to be found in his earliest tenders: the House of Infinity and the House of the Primitive Future. Like the physicist he never became, pondering upon the milliseconds that followed the Big Bang, Fujimoto imagines the primordial conditions from which architecture sprang. A world before walls, roofs and furniture in which the sense of space is simply a question of proximity and distance. Cave-like shelters in a matrix of matter in which inhabiting becomes the improvisation of a place.
WORRALL, Julian, "La importancia de Sou Fujimoto", *cit.*, p.23

KATHARINA GRÖSSE'S STUDIO
AUGUSTIN UND FRANK ARCHITEKTEN A NAVIGATOR'S DREAM

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If you woke up in Katharina Grösse's house, you would immediately know that it's daytime and that, unexpectedly in Berlin, it's a sunny day. You would know because no sooner than you open your eyes, you would see a translucent space flooded by the intensely bright mixture of countless changing colours reflected by highly polished surfaces.

At first you might think that this dreamlike and yet tangible world is a device conjured up by a simply positioning a flat, multicoloured surface that catches the light and shatters it into millions of shining particles that swirl around in the air between the surfaces of the objects. But you might also think that you are still dreaming and that this spatial dimension transformed into colour is an inherent part of the surrounding materials – polycarbonate, wood, steel and concrete – or better still, that it lies on the dividing line between the physical surface of these objects and the light now shining onto them. And so, in a whirl between the frontiers of light, colour and matter, you begin to penetrate the artistic universe of Katharina Grösse, in her house.

If you woke up in Katharina Grösse's house you would probably be surprised as you wander though its well laid out areas by how the light alters the physical quality of each room and defines the limits of the changing settings. You would enjoy the organic nature and ease with which a place can accompany someone through their life and radically alter their sense of belonging: "the house is the place I live in at last, a place like my body but bigger"*.

So, with the impression of living inside a creature aware of itself, our navigator would drift along on an incredible awakening as if travelling through the entrails of a peaceful animal or steamer serenely contemplating its surroundings as it slowly glides by.

The gaps through which this device challenges the outside world are huge and impenetrable like "great glass walls that link the inner gaze with the outside"*. Indeed, it has giant eyes that point in all directions and capture every angle of the setting and every hue of the changing light.

However, looking more closely, the oneironaut will easily see that the walls, the animal's skin, has openings at the corners to let air in, opaque gills designed to maximise efforts and to dialogue with the real needs of the inhabitant, for the studio's design has virtually no gestures or language, just the well-structured priorities arising from the far-reaching conversation between the architects and the artist.

Maybe the first of these priorities is to safeguard the delicate balance between a dwelling place and a space for the artistic creativity so essential to the project. Before long our traveller reaches a large, dead-end space that could well be the device's stomach judging by its capacity to transform and constantly generate energy. "The work area is like a fine membrane between the inside and the outside. A monitor that enlarges everything to enable it to be observed"*. The workshop does indeed seem to have been designed to be concentrated in a specific time and space, simultaneously and sequentially. This gigantic magnifying glass reveals a fragment of the infinite realm of possibilities that Katharina then develops elsewhere. Its magnifying power enables us to see in each work gestated here a slice of time beamed out towards thousands of different universes, and to understand a little more about the interaction between this accumulator and the outside world.

Once outside, recovering from the colourful and physical hive of activity in the workshop, the visitor gradually wakes up, breathes in the cold morning air and strokes the concrete walls, in the artist's words, like the skin of an animal marked by time or its own shape. Contemplating these walls our traveller understands how the building was shaped and possibly what Katharina Grösse means when she says that concrete was the material of her childhood.

* Interview with Katharina Grösse, January 2011.

MAISON DU BÉTON

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Atelier st is a new studio founded in Leipzig in 2005 by architects Silvia Schellenberg-Thaut (1978) and Sebastian Thaut (1977). Both architects were trained in the WH Zwickau school of architecture between 1997 and 2003. They have completed a dozen works to date, including houses and small buildings, as well as entering a number of competitions, and currently have various projects in development.[1]

In their short career to date, the architects have received several awards and their work has been exhibited in several competitions. Among these awards, the team recently won the Architektur Forum Zwickau 2010 for the Maison du Béton (2006-2009), a detached house built in concrete in Cainsdorf.

Cainsdorf is a municipal district to the south of the town of Zwickau, on the left bank of the river Mulde Zwickauer. The neighbourhood is a mixture of residential houses and low density agricultural buildings and farmland, which runs along a promontory with steep slopes and views over the valley.

The house occupies a generally rectangular plot, with a significant slope to the northeast that follows the length of the plot towards the centre of Zwickau-Cainsdorf. The ground level was artificially landscaped by removing land from the upper half of the site and so creating a horizontal platform at the level of the access road, where the house was built, while respecting the original slope of the remaining lower half of the plot. The house is essentially built on two stories, and is located on the edge of the slope leading to the lower half of the plot. This location enables the construction of a service floor with car parking in a partially buried lower-ground level. A functional side access provides a secondary access to the house and garage. The house thus acquires a dual scale, responding to the street and the countryside. From the front, the house enters into dialogue with an existing farmhouse, and from the other side, the house looks out over the valley and can be seen from the middle distance.

In this way, the house is concisely set into the land. It resembles a cut prism from which parts of the volume have been extracted where intermediate spaces were needed (pedestrian and car access and terracing). This concept is favoured by the extensive and direct use of the facade material, and the unambiguous provision of empty spaces that give precedence to volume rather than layout in the absence of proper elevations. Nevertheless, the volumetric unity that is achieved does not attempt, or succeed, in providing visual consistency. On the contrary, the deliberate choice of a faceted form [2] is an exercise based on multiple perspectives, in a similar way to Cubist poetics.

The solid carved appearance of the house separates it from the heterogeneity of the neighbouring buildings, while a concrete construction protects its integrity. However, this choice of material is not merely a surface cladding. The use of concrete has no plastic or semantic connotations, and comes from the adoption of a holistic system of construction, that has proven to be precise and durable and covers structure, walls, and partitions.

The house forms a spatial monolith. The supporting base wall (20 cm) and slabs (22 cm) of reinforced concrete are arranged according to the layout of the floors and the space provided for each section. The house is framed in a double outer shell in order to respond to the extreme weather conditions of its location. The inner wall is plastered on the interior and connected to the outside walls with 15 cm inlays of white concrete that have been varnished and waterproofed. These connections are reinforced with steel connectors and these are, in turn, sandwiched between 10 cm of insulation material.

The physical reality of the piece eloquently resembles a mineral crystal. The subtle calligraphy of the concrete joints provides a second reading of the volume by enabling the carefully designed shape to be deconstructed to reveal the supporting beams. These surface fissures temper the marks remaining from the construction formwork and weave together holes and levels in a sequence of horizontal and vertical stops. The result is an alteration in proportion and scale. The indentations in the polyhedral volume are clad with anodized aluminium panels – a solution taken from curtain wall technology. The windows can be better described as over-sized holes cut into the walls and the accompanying window frames are hidden behind concrete inlays. Patios and windows at concave and convex angles both undermine and reinforce the solidness and seriousness of the construction. A concrete box so becomes the representation of a house, where the internal order of the space is hidden from external view.

Beyond its category as an object in itself, the interior of the house offers roominess. As a counterweight to the material nature of the outside, the interior is conciliatory, generous, and flexible. This is achieved with a range of natural materials that make the space comfortable and enjoyable. So the stone appears cream coloured against dark wood, furniture is built-in, and warm colours act as a counterpart to white. Moreover, everything is bathed in light.

However, the undisputed star of the house is space. The house is orientated around two complementary spatial conceptions. The hall and stairway in relation with the height of the sitting room, and the bridge-like hallway on the first floor serve to emphasise a double-height vertical space. Meanwhile, a horizontal component is found in the main room [3] that unites the dining room, the sitting room, and the fireplace. Light is polarised by the angled glass panels to reveal the full length of the house.

If you look closely at the plans and elevation of the house, it can be seen that the orthogonal line virtually overlaps the two diagonal lines, and thereby underlines the series of horizontal and vertical spaces with crossed and perpendicular lines. The weave of these imaginary lines indicates the tension and high degree of concatenation that rules the house: a carefully crafted and unique space.

Definitely, the Maison du Béton is a careful and meticulous work, content, committed, and sensitive. It perhaps begs the question: can a house look like its own model?[4] This question, however, is another issue.

Notes:

1. For information on the profile, and the work of the studio, visit the website at http://atelier-st.de
2. This option seems to interest the architects. The recurrence of this expressive mechanism in other works by the team suggests an iterative work of discovery that is leading to formal identity as an architectural attribute. In this regard, see, for example, the family home in Lucka (2008), the pharmacy at Marienthal Zwickau (2009), a building for the Eibenstock Forestry Service (2010), or a variety of even more far-reaching proposals presented in various competitions.
3. The relative position of the linked uses of this room (the living heart of the house) in relation to the access to the plot and the presence of the valley opposite is surely a justification for the southerly orientation.
4. Many pictures of the house and photos of the model can be found at http://www.archdaily.com/46546/maison-du-be%CC%81ton-atelier-st/.

ARITHMETIC AND MATTER

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Architects often ask themselves what architecture really is, but the answer to this question can only be found by studying the best examples, which always provoke a reaction and either make us think again about what we do or confirm our existing convictions. The house in Los Peñascalas offers several interesting answers to this rhetorical question.

Making architecture resemble arithmetic is to understand it as an art that studies numbers and the operations that can be carried out with them. The numbers involved in the architect's calculations are the parts of which architecture is composed, which is reminiscent of Vitruvius' opinion of what knowledge architects should possess. Besides the different subjects of grammar, drawing, geometry, optics, history, music, medicine, jurisprudence and astrology, he placed special emphasis on arithmetic. This was used not only to calculate the costs of the building, but simple arithmetical methods also had to be applied to determine its geometry and proportions.[1] This use of arithmetic is applied to and associated with the idea of *getting the sums right* and the skilful handling of numbers. The poet Gerardo Diego considered this practice to be similar to literature, understood as commercial arithmetic and accounting, because poetry is nothing other than pure arithmetic.[2] Good architecture aspires to this principle. Part of the root of the problem synthetically enunciates the question and, since it is architecture and not algebra, is able to operate with numbers that do not always give a constant difference between the consecutive steps in an arithmetical progression. Curiously enough, the house in Los Peñascalas is also known as the *1+1=1 house,* due to questions encountered by the architects on reformulating the arithmetical problem of the sum of the house's parts.

The classic architect demands order, disposition, proportion and distribution from the parts of architecture and thus accepts the module as the unit of measurement. With numbers he rehearses the harmonic measurements, makes the master lines appear, or the golden number or more modern creations like the Modulor. All these concepts are an arithmetical reason, a comparison of dimensions, in which number is based on a direct relationship with Man, or, as Rafael Albertí sang: *To you, marvellous discipline / part of, the whole reason for beauty.*[3] The presence of human measurements in architecture gives a continuous sense to history, converts the practice of architecture into a numbers-based arithmetic in which the dimensions of the human body establish progressive relationships that configure the basic geometry and strict metric control of the building. The correct dimensions are essential in all architecture that is in empathy with classical practice, but architecture also depends on measurements for its harmony with the universe. Since the time of Vetruvius we have known that this relationship gives an essential quality to architecture, to the proportion among the different parts of a building and to the proportion of the parts to the whole.

Classical architecture used the column as the element that introduced order, proportion and a variety of meanings into a building. But the house in Los Peñascalas has no columns. There is, on the other hand, special attention to the horizontal plane. The floor is a simple platform that presents an unobstructed domain for a family to create its own private world. Covering it, the plane of the roof evokes a tectonic world that stands out for its sublimely disproportionate mass. In this horizontally ordered architecture it is the material that has the word, breaks its silence, expresses itself and challenges the user or observer to take issue with it.

In this house it seems that scale has disappeared since there is only one defining material, which does not easily reveal its proportions. It only acquires a small subtle modulation in the variety of different panels and sections. The dimensional autonomy of each of the parts makes up the ambiguity of the whole. Everything in this house appears to be material. This magical solution of arithmetical architecture offers a change of domestic scale, since the idea of space changes as it questions our thoughts on architectural matters.

The house in Los Peñascalas is like an enormous architrave suspended and sustained by ethereal matter. It is a great frieze which, in its classical resonance has three *fasciae* and, had it followed the Vitruvian dicta, its proportions would have been determined by the height of its columns, while bearing in mind that *the higher the eye has to look, the more difficulty it finds in penetrating the density of the air.*[4] But, in a house without columns, where everything is material, heavy and ethereal, the height and position of this architrave are the simple results of the creation of a form that seeks to put order on the place from which it emerges. Introducing order is therefore equivalent to confiding in the moral action of architecture, in the value of its first ideas and in that of the final constructed results.

The house in Los Peñascalas is a simple form that is born from the conception of an idea to build. Its architecture is much more than the mere evocation of the classical *firmitas*. Its structure is stable and resistant and conveys the idea of architecture based on materials. On approaching its walls, we still seem to hear the whispering of G. Semper.[5] It evokes the art of building as the latest stage in the evolution of the use of materials and technical progress, in which form is the direct result of the material and the construction system. The concept of material in this house is its hallmark, because it is a mass that proceeds ideologically from the location and it manages to establish an immediate link with the landscape in which it is framed.

Everybody knows that a mere description full of metaphors accompanied by a visual description is not enough to do justice to an example of architecture. For architecture to be discovered, it must be seen personally from the professional perspective. There are limits to making it understandable from the critical perspective and one is continually restricted by the conventions of criticism itself. Architecture is a constructed reality, heroic or anonymous, that can be understood by its motives. The architecture of this house extracts the material with which it is made from the landscape and, thanks to a profound knowledge of the discipline, it manages to keep on growing with it, spontaneously and naturally, like all the other elements of which it is composed.

The house in Los Peñascalas aspires to be a natural response to the place; it wants to grow like any other element in the landscape; it wants to be man-made artificial stone in close proximity to the granite outcrops, to become part of the terrain and be related to the natural context. It wants to adapt itself and slightly alter nature so as not to be identified with standardised suburban models. The house seems to want to inhabit a great perforated rock hanging in an idealisation of the material of which the landscape around the Monte del Pardo is made.

Life inside the house goes on inside the material, so that living there is to occupy a private world that humanises space and makes it a personal place. The material is contained within a simple volume and is in no way an iconic reference to a single-family residence. Its program of needs is elementary: dining-sitting room with kitchen, two bathrooms and three bedrooms, but, as an arithmetical sum it is asymmetrically duplicated to give an idea of luxury which does not consist of abundance of materials and objects, but of having greater living space. The program

is simple and makes good use of the different parts of the house - or numbers. The particular relationship of the house with the landscape and the surrounding grounds is based on the physical and visual apertures of the intermediate level. In this way, new possibilities are opened up for the normal type of single-family residence by connecting it to its immediate surroundings.

The answer given by the architecture of the house in Los Peñascalas to the rhetorical question we raised at the beginning of this text is not dogmatic nor does it claim to be universal. It is merely a strict solution, the consequence of multiple variables. Its finest achievement is to have discovered a satisfactory answer to the initial problem. Its arithmetical formula produces a house suited to the owners' needs using local material. The house in Los Peñascalas offers us an alternative ideological stance on how to occupy space, an alternative that is fast becoming popular in many of our cities.

Endnotes

1 This would appear to be a sensible option for re-adoption at the present time. AURELI, Pier Vittorio; MASTRIGLI, Gabriela, "L'architettura dopo il diagramma", *Lotus* nº 126 (2006), pp. 95-105.

2 Esta parece ser una opción sensata a retomar en el presente. AURELI, Pier Vittorio; MASTRIGLI, Gabriela, "L'architettura dopo il diagramma", *Lotus* nº 126 (2006), pp. 95-105

3 ALBERTI, Rafael, "A la divina proporción". In: *A la pintura*, Alianza, Madrid, 2003 (1948).

4 VITRUVIUS, M.L., *Ten Books on Architecure*. Book III, Chapter IV, Editorial Iberia, Madrid, 2000.

5 In certain architectures we begin to "hear" the tectonic expression of the building. FRAMPTON, Kenneth, *"Rappel a l'ordre*, The Case for the Tectonic". In: NESBITT, Kate, ed. *Theorizing a New Agenda for Architecture: An Anthology of Architectural Theory*, Princeton Architectural Press, New York, 1996, p.522.

DETACHED HOUSE IN MOTRIL, OR THE ARCHITECT'S HOUSE

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Located on a rectangular plot, this family house in Motril, Costa Tropical de Granada, was more than just another project for the architect Ángel Gijón. This project is special because it is his own house, an architect's house.

These circumstances make it different from other houses designed by the architect. In theory, every architect wants a project without the limits imposed by a client, but it is precisely this lack of limitation that adds difficulty to a project [1]. Building the house was a singular opportunity to express the architecture in which he most believes. In the recent history of architecture, we can find homes that have become declarations of intent, as with the home-studio of Frank Lloyd Wright in Oak Park, the Experimental house in Alvar Aalto, or the Konstantin Melnikov house in Moscow. (Fig. 01)

Gijón Angel's house shows us his idea of architecture. His vision features strong architectural volumes of white concrete, it is abstract architecture with an image that stands out from the traditional surrounding buildings, and is finished with facing bricks and roof tiles (Fig. 02).

Despite the fact that more than 80 years stand between the houses of Konstantin Melnikov and Ángel Gijón, the relationship of the buildings with their environments shows some similarity. The contrast between the house and its immediate neighbourhood illustrates the distance that still exists between the idea of architecture that architects may express in their own homes, and the idea of architecture found in the societies to which they belong.

Unlike most two-story houses, Ángel Gijón has chosen to focus the daily activities on the ground floor, freeing the first floor for additional functions such as a study and guest bedroom. The result is a predominantly horizontal volume. This arrangement also allows for a vertical relationship between the double height living room and study. This arrangement reinforces the role of the living room as the main piece that articulates the house.

Without detracting from the vertical spatial relationship, in my opinion, the horizontal relationships between spaces and the indoor-outdoor relationships are the keys to understanding this house. Each room on the ground floor is linked differently to the outdoors. The kitchen is large and extends outside to a gazebo covered with a light canopy. The dining room opens at one corner, thereby gaining views of the pool. The master bedroom is opposite the pool and connected to the outside by a large entrance that offers views and direct access to the rear patio. Finally, the secondary bedrooms are linked to patios on the side of the house.

The house reflects a conceptualisation of abstract volumes of white concrete enclosed in an urban environment, yet opening to a rear garden. The various project phases have reinforced this initial idea: from implementation as a C-shape open to the landscape, through to the predominance of the horizontal component, and the constructive realisation in volumes of exposed concrete. In this sense, the union of structure and enclosure is appropriate because it provides more power to the areas and volumes that define the spaces, thus demonstrating permanence.

Particularly interesting is the solution provided for the doors, which reach from floor to ceiling, meaning they are not holes in the wall, but spaces between walls. Large sheets of sliding glass connect the reception with the dining room, and the dining room with the utility area of the kitchen. Accordingly, the reception can be isolated as an independent room, or opened to the adjacent spaces and thereby enriching the spatial relationships between the rooms of the house.

While we have focused on describing this house as the architect's house, we could also refer to it as the constructor's house. Not that Angel Gijón was the builder, but his experience in the family construction materials business, makes him an architect with a wide knowledge of materials. In other words, he is a practical architect who respects the vital role that builders play in the definition of architecture.

In this house, construction did not represent the end of the process, but was present from the very beginning and throughout the project development – from the first idea, from the earliest sketches of imagined volumes. As Mies van der Rohe remarked: 'from the beginning of a project the presence of materials is vital in the production of real architecture, otherwise a project is just a formalist structural design for somebody else to build'[2].

The clear lines of the house create an emphatic image and are accompanied by carefully positioned materials. The flawless execution of the white concrete walls is not the result of good fortune, but the result of a good knowledge of the building trade. The formwork was made with phenolic boards, and the appropriate steps were taken in selecting sealing joints – essential for a good concrete finish.

A final point to mention is that Angel Gijón is clearly committed to protecting the environment. In a quest to minimise pollution, the architect chose a special Italian patented concrete, TX Active, which facilitates cleaning and reduces the level of air pollutants. In the words of the author:

"Architects must put effort into creating a new sustainable model city. We must address the uncertainty that man poses in his impact on the Earth, we must defend alternatives in rethinking the city and its surroundings with respect to sustainability." [3]

In summary, this family house in Motril, Costa Tropical de Granada, is the home of architect Angel Gijón. A house that expresses his dreams of an abstract architecture of white volumes. A house that protects the environment and is open to the land and sea. A house that is made from concrete and practical experience. A house that helps extend the future of the city of which it forms a part. The home of an architect.

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3 El Mundo, 26 October 2009, edición Andalucía, Pag.25.