Manuelle Gautrand Architecture | Lille Museum of Modern, Contemporary and Outsider Art

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The project concerns the refurbishment and the extension of the Lille Modern Art Museum in a magnificent park at Villeneuve d’Ascq. The existing building, designed by Roland Simounet in 1983, is already on the Historic monuments list.

The project aims at building up the museum as a continuous and fluid entity, this by adding new galleries dedicated to a collection of Art Brut works, from a travelling movement that extrapolates existing spaces. A complete refurbishment of the existing building was next required, some parts were very worn.

In spite of the heritage monument status of Simounet’s construction, rather than set up at a distance, we immediately opted to seek contact by which the extension would embrace the existing buildings in a supporting movement.
I tried to take my cue from Roland Simounet’s architecture, ‘to learn to understand’, so as to be able to develop a project that does not mark aloofness, an attitude that might have been seen as indifference.

The architecture of the extension wraps around the north and east sides of the existing arrangement in a fan-splay of long, fluid and organic volumes. On one side, the fan ribs stretch in close folds to shelter a café-restaurant that opens to the central patio; on the other, the ribs are more widely spaced to form the five galleries for the Art brut collection.

The Art brut galleries maintain a strong link with the surrounding scenery, but they are also purpose-designed to suit the works that they house: atypical pieces, powerful works that you can’t just glance at in passing. The folds in these galleries make the space less rigid and more organic, so that visitors discover art works in a gradual movement.
The architecture is partly introverted, to protect art works that are often fragile and that demand toned down half-light.

At the extremity of the folds – meaning the galleries – a large bay opens magnificent views onto the surrounding parkland, adding breathing space to the visit itinerary. These views make up for the half-light in the galleries: the openwork screens in front of the bays mediate with strong light and parkland scenery, a feature that recalls Simounet's generous arrangements in the galleries that he designed. Envelopes are sober: smooth untreated concrete, with mouldings and openwork screens to protect the bays from too much daylight. The surface concrete has a slight colour tint that varies according to intensity of light.

Manuelle Gautrand
Technical Description

Faced with the radical constructive system of Simounet’s architecture, composed as it is of concrete skeleton and brick skin, for the extension project we were obliged to apply principles that are just as strong in a clear contemporary expression.

Concrete, which appears in the cornice strips on Simounet’s buildings, crowning their clean brick volumes, was a natural choice as the material for the extension’s topomorphic splay.

Architectonic concrete: Building 2000 m² of thin shells for the extension demanded concrete of the highest quality.

Prefabricating the walls panels was ruled out, so as to avoid having unsightly joints between panels (a corollary of this method), and preserve the project’s organic spirit.

The architectonic concrete shells are poured on-site, using self-settling concrete to ensure a perfect spread of the mix in the formwork. A surface pattern generated by a matrix integrated to the formwork limits surface voids and segregation.
Timber formwork for tall volumes: Because of the irregular forms of the volumes, and their intricate angles, the on-site pouring has to be done in an unusual, almost artisan-like manner, which relies on the know-how of the journeymen working for the carcass contractor.

Using steel shutters would have solved the problems of critical pressures inherent to pouring shells as tall as these, some of which reach up to 12 metres. But for the sake of flexibility of use, timber was preferred to build perfect-fit formwork moulds that adapt to the extension’s constantly changing volumetry.

Matrix: Imprinting the biomorphic motif (which is sunk 3 cm and has chamfered edges) on the concrete skin of these complex volumes, demanded a number of tests.

In the early stages, we had thought to use matrix-printed membranes of the kind often seen on motorway barrier walls. Tests enabled us to fine-tune the method for imprinting the motifs, with the creation of several sets of 32 unitary mountings able to be used indefinitely.

For the sheer parts of the shells, these precision-design mountings are built using plywood sheet covered with a thick coat of moulded polyurethane, so as to reduce the risk of tearing when formwork is stripped.
For the parts of the shells that present particularities, such as protruding or set-back angles, the upper and lower edges of the mountings are custom-shaped in the workshop, using MDF coated with a resin film; this means that they can only be used once.

Precise laying out of the motif pattern on the concrete shells, and exact positioning of the mountings in the formwork, is achieved by using real-size polyester membrane stencils. Once the pattern is laid out and marked on the mould face, the matrix mountings are screwed into place from the outside.

**UPFC:** The concrete fan-splay of the extension fits topomorphically into the contour lines of the natural terrain, which is part of a nature reserve known as the Parc du Héron.

Perception of the surrounds from the exhibition galleries was one of the strong points of the project, what with the presence of large bays. But the inflow of daylight via these openings had to be carefully controlled: as every curator knows, strong light is harmful to works of art, and the Art brut collection is no exception.

Because of this, the motifs on the shells ramify to create a concrete lacery screen, which hangs like a curtain in front of each bay in the extension. This device creates an efficient filter, leaving 30% of the glass unobstructed to frame views of the landscape from the interior.

The cell-like composition of the voids on this moucharabieh, and the large dimensions of the bays, some of which measure up to 7.75 x 5.65 m, preclude the use of traditional reinforced concrete techniques.

This is why Ultra-Performing Fibrous Concrete (UPFC) is used to prefabricate the screens on pouring tables, as the best technical solution to respond to specifications.
Fabricating the 250 m² of UPFC panels, each 9 cm thick, demands in turn precise surveying of the position of the motifs on the shells, to ensure seamless joins between the walls poured on-site and the prefabricated elements.

White Ductal is used for this operation, to minimize the risk of carbonation.

The exact colour of the Ductal is reproduced on the concrete shells poured on-site, to secure a perfect match between the different concretes.

Transported to the work-site, each screen panel is hung from a concrete beam and tied in at its base to the slab by means of plates and inserts, pending final adjustment.

Similarly, the doors in the extension project are draped with Ductal panels 4 cm thick, marked with the same pattern as on the concrete shells around them.

5th FACADE: Just as Roland Simonnet developed his architecture right up to the rooftop, designing it as a belvedere that forms a 5th façade, Manuelle Gautrand’s extension, with its site-specific volumes, deploys a topographic presence that aims at immersion in the site.

The roof of the extension runs on from the elevations, with sunken gutters and a resin finish to match the colour of the concrete shells.

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**Location:** Allée du Musée, Villeneuve d’Ascq, France  
**Architect:** Manuelle Gautrand Architecture  
**Representative Architect:** Manuelle Gautrand  
**Project Manager Architect:** Yves Tougard (joint Architect in Works phase)  
**Client:** Lille Métropole Communauté Urbaine  
**Museography:** Renaud Pierard,
Structures: Khephren
Fluids: Alto
Economist: LTA (studies phase), Guesquiere-Delécluse (works phase)
Multimedia: Roger Labeyrie
Fire security: Casso
Refurbishing works of the existing building’s façade and roofing: Etienne Sintive
Landscaper: AWP
Roofing / Finishing: Tommasini
Surface: 11,600 sqm, including the extension: 3,200 sqm - exhibition surface: 4,000 sqm
Global cost: around 30 millions euros inclusive of tax
Design contest: 2002
Studies: 2003-2005
Works: 2006-2009
Museum opening: September 2010
Photographers: Max Lerouge – LMCU, Philippe Ruault, Vincent Fillon