

# MANUELLE GAUTRAND ARCHITECTURE

CINEMA ALESIA  
PARIS

-  
PRESS BOOK  
JANUARY 2017





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## **CREDITS:**

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# DATA SHEET

## PROJECT:

Renovation of the 'Alésia' cinema  
73 Boulevard du Général Leclerc  
75014 Paris – France

## PROGRAMME:

Eight film theatres with a total of 1380 seats,  
ticket hall, atrium space, offices.

## ARCHITECT:

MANUELLE GAUTRAND ARCHITECTURE  
Manuelle Gautrand, architect

## CLIENT:

GAUMONT-PATHÉ

## DESIGN TEAM:

ON: lighting design  
T/E/S/S: facades  
KHEPHREN INGENIERIE: structure  
INEX: services and lifts  
PEUTZ: acoustics

## OTHER CONSULTANTS:

GETRAP: Project manager, site phase

## MAIN CONTRACTORS:

LEON GROSSE: structure, concrete  
MBE: roof membranes  
SIMCO: facades  
OUTDOOR MEDIA: LEDs  
SLAM: steelwork  
CLIM DESIGN: HVAC - plumbing  
IVT: electricity  
OTIS: elevators – escalators  
BRAD: internal joinery

LINOSONEGGO: seating  
HTI: flooring, fabrics  
TRANSFORMEURS: fit-out  
SICORAP: paintwork, ceilings, partitioning  
CONCEPT RESINE: floor resin

## FIGURES:

- Building  
Gross surface area: 3.600 m<sup>2</sup>  
Cost of works: 12M € ex. VAT

- Cinemas:  
4K projection in the main theatre,  
Dolby Atmos audio system in the main theatre,  
Digital 7.1 audio and 2K projection in the 7 other  
theatres.

- LEDs:  
Number of LED pixel clusters: 229 500  
Number of bars: 3730.

## DATES:

- Design: 2011–2014  
- Site: 2014–2016





## A PARIS CINEMA STEEPED IN HISTORY

### **The project's concerns:**

In 2011, the Gaumont-Pathé group decided to renovate the existing building in order to upgrade the cinemas and to improve user comfort. This was part of a broader scheme to gradually update the image of their chain of cinemas, which often occupy exceptional, city-centre sites, but suffered from being seen as old-fashioned.

The aim is to transform them into high-quality cultural venues, animated day and night, and sufficiently flexible to accommodate a varied programme, mixing cinema with other cultural events: the image of the city cinema was to be entirely rethought.

Through this project, Gaumont-Pathé aims to open a whole new chapter for its cinema architecture, a chapter that is contemporary and innovative, where the accent is on comfort as well as audio and visual quality for the film theatres themselves, but also on original and generous public spaces for before and after the film.

### **The site – the context:**

The Alésia multi-screen cinema is on the edge of a large urban space. Its main facade faces due west onto the broad Boulevard du Général Leclerc, a major thoroughfare in southern Paris. The building now comprises eight screens and occupies a fairly deep site, with a second facade on the side street, Rue d'Alésia.

The main facade on Boulevard du Général Leclerc is long (about 25 metres), and framed by two adjacent buildings, very different from one another: a seven-storey apartment building to the right, a two-storey, mixed-use building to the left.





### **The history of the building: in constant evolution**

On 4 February 1921 a temple to cinema, the 'Montrouge Palace', opened to the public on this site. Built entirely in reinforced concrete, audacious for the time, it comprised a single, magnificent, 2800-seat film theatre. In 1930 the Gaumont chain took it over.

In 1951 the building was completely transformed, with a gleaming new cinema inaugurated on 10 October 1951: the new 2000-seat film theatre boasted a large balcony and preserved the majestic reinforced concrete arcades, but lost the boxes on either side of the stage. It was equipped with a large screen to cater for the growing trend of large-format films, which led to the advent of the great 'CinemaScope' films in 1953.

In the 1960s the cinema shed its 'Palace' designation and became simply the 'Montrouge Gaumont'.

In 1973, like so many others, the large theatre was partitioned into four and the cinema became the 'Gaumont-Sud'. Screen 1 (900 seats) was made by extending the old balcony, while screens 2 and 3 (400 and 300 seats respectively) were made from the old stalls. The small screen 4, a new, 120-seat theatre, was placed up above

In December 1986 a new era began with the transformation to seven screens and, above all, a new sky-blue facade sporting a giant clapperboard.

The new screens 4, 5 and 6 (100, 150 and 150 seats) were made by hiving off space from the rear of screen 1 (reducing its capacity to 520 seats), screens 2 and 3 were untouched, and the old Gaumont-Sud screen 4 became screen 7.

A little anecdote regarding the clapperboard: it was mechanised to clap shut, but in the face of protest from local residents over the noise, was soon immobilised ....

The last renovation was completed on 26 May 2004, with the inauguration of a new 'Gaumont-Alésia'. It involved the complete transformation of all the spaces (screens, halls, circulation...), in line with a new identity for Gaumont cinemas designed by Christian Lacroix. At this point the cinema was given a new facade, less flamboyant than its predecessor.







## A NEW CINEMA FOR THE 21ST CENTURY

### The project has two main aims:

- To showcase the film theatres and visually identify them as physical spaces, as much from within the building as from without.
- To showcase the films, this time directly on the facade. Here the films themselves, rather than the theatres, take their place ... The facades are covered in a kind of huge curtain of LEDs, which is used to screen a range of animation: film extracts, stills, colours and abstract images can be used to bring the facade to life.

These are the means by which the cinema hopes to resume its position within the city: internally, the architecture aims to display the cinema's unusual and spectacular volumes, while externally it envelops itself in film extracts and moving images, which also speak of cinema ....

### An assembly of theatres, stacked and slotted together

The film theatres are arranged within the building so that virtually every volume is visible and identifiable. The contents of the project form a sort of vertical sculpture, where the theatres slot into one another like a puzzle.

The tiered seating in the theatres is made visible on its underside, forming magnificent stepped ceilings.

These ceilings are then extended into the adjacent space to create partially tiered lobby areas: little amphitheatres that slope down towards the theatre entrances. These create spaces for informal projections, supplementary spaces where yet again cinema is present and disseminated.

It is almost as though the stalls in the film theatres had reached out beyond their boundaries to welcome the public into a universe bathed in film and projections ...

### The public is welcomed in a vast space beneath tiers of theatre seating

As already mentioned, the aim was to make the project more fluid and accessible to all members of the public: entrance is made via a large hall, which runs the full depth of the building and links the Boulevard de Général Leclerc directly to the Rue d'Alésia.

Within this vast, light and airy space are all the reception services: first in line from the Boulevard entrance are ticket sales, an information point, automated ticket and information points and refreshments, with a seating area and a cafe. Beyond these, to the left, is access to the different theatres, above and below, and then a quieter space towards the Rue d'Alésia entrance, with areas for screening films. This sculpted space is tucked into a hollow beneath the tiered seating of one of the theatres above.

All the circulation interlinks within the majestic, triple-height atrium. A series of escalators and walkways behind the facade lead to the different mezzanine levels and upper-level theatres. The public can be seen, and can move around to look at the spaces from below or from above, as well as enjoying views onto the outside world.



Within this array of stairs, walkways and escalators, large areas of tiered seating are arranged. These punctuate the public spaces, providing further spaces for sitting and chatting before going in to see a film.

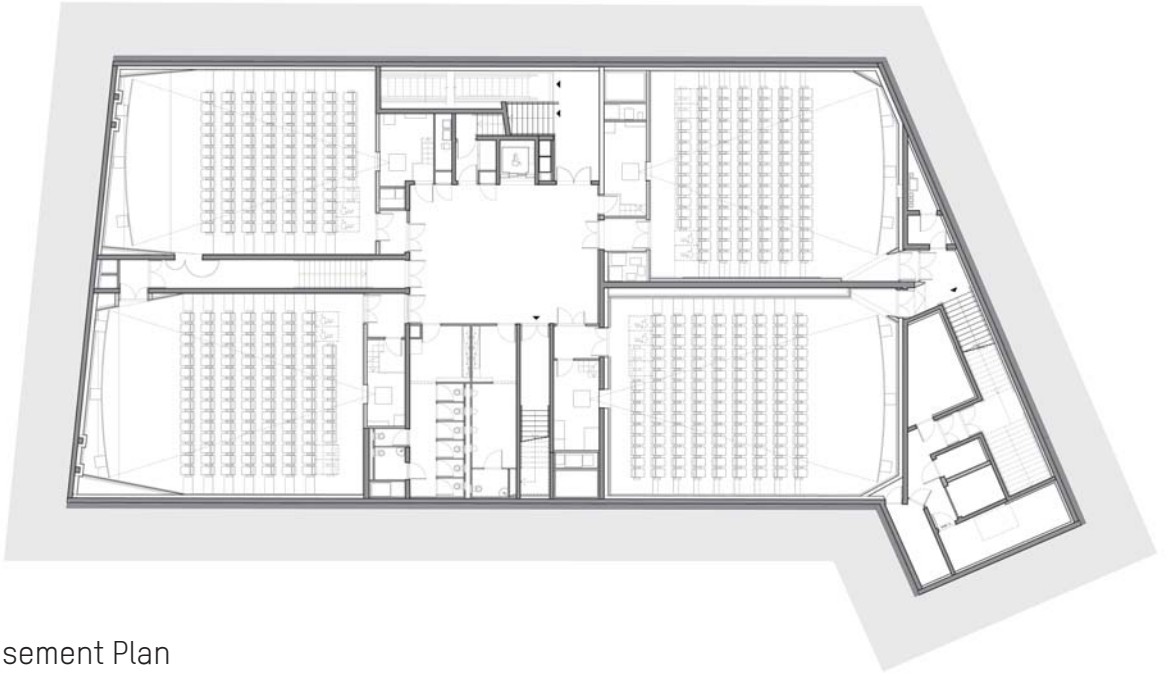
With their backs to the facade, these little amphitheatres address the film theatre wall, onto which moving images can be projected and viewed from the banked seating. A sneak preview of the film, for example ...



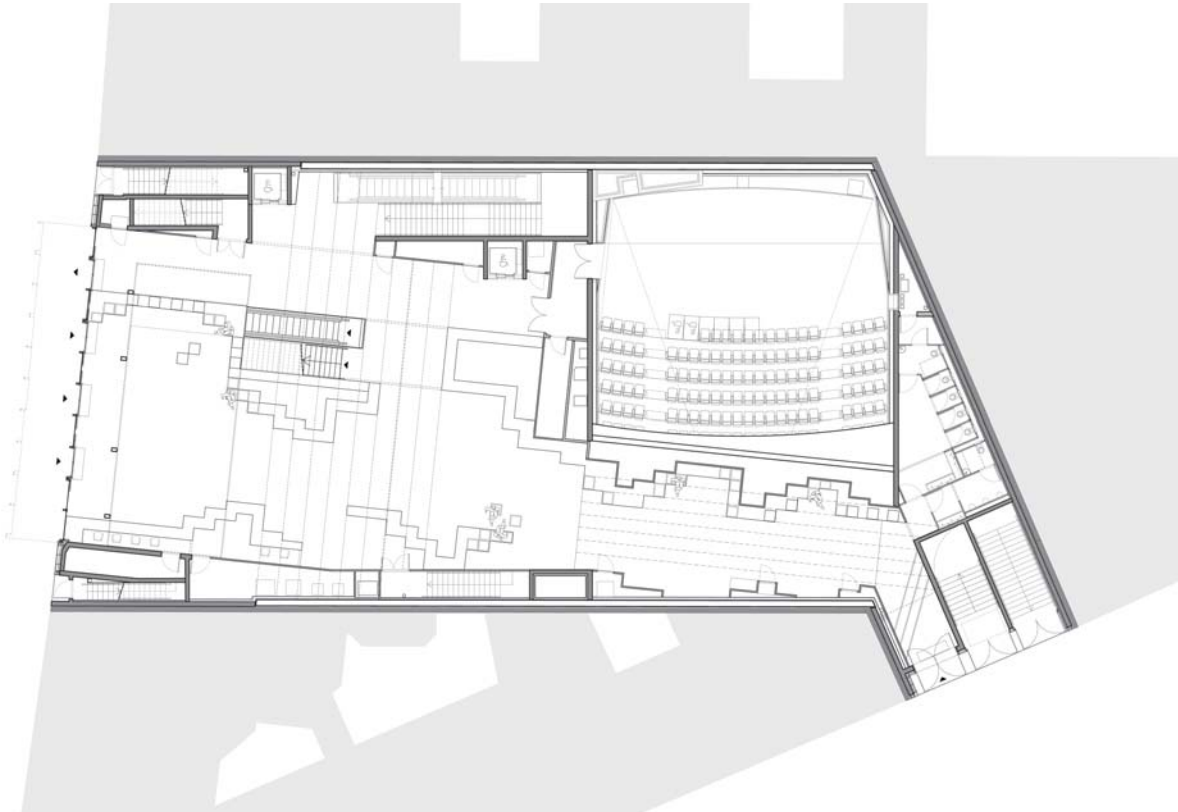




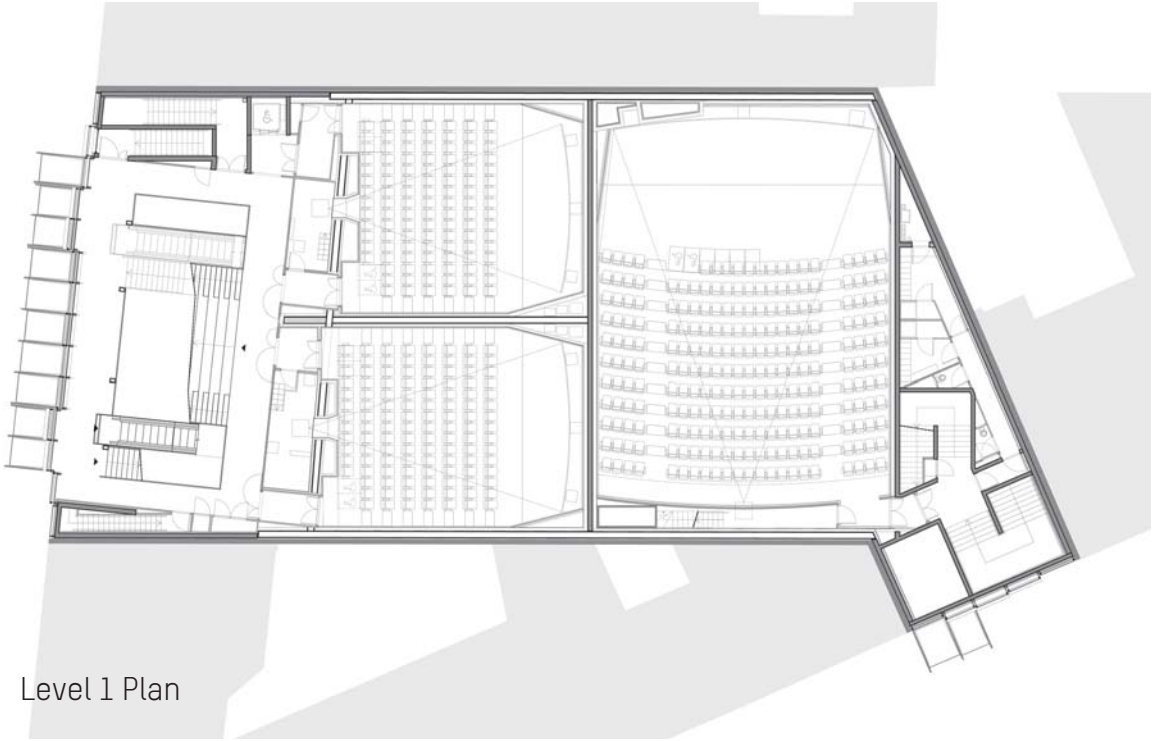




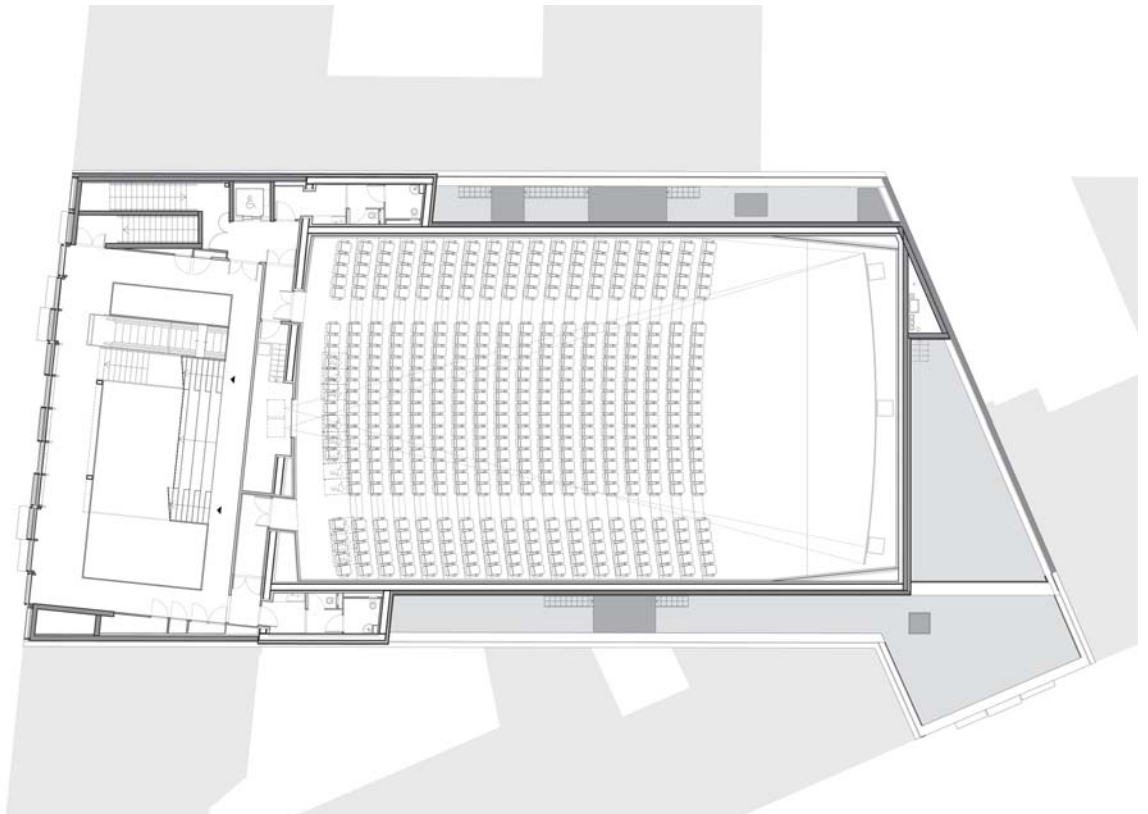
Basement Plan



Ground Floor Plan



Level 1 Plan



Level 4 Plan













## THE VERY LATEST IN TECHNOLOGY FOR THE PROJECTION ROOMS

A cinema's standard acoustic challenges come from the need to thoroughly insulate the projection rooms against internal and external sound, to reduce the background noise from technical equipment, and to ensure suitably muffled internal acoustics in order to provide a true rendition of the film's soundtrack.

The Alésia cinema project presents a multitude of specific features that create supplementary acoustic challenges and generate an increased level of complexity, in particular:

- Several directly adjoining residential buildings needing to be insulated against the high sound levels generated within the cinemas;
- A mixed structure of concrete and steel, requiring different solutions according to material;
- The client's stipulation that amongst the eight screens of the new cinema, some should be equipped with surround sound (3D sound).

The necessary conservation of the original perimeter walls, on which the new structure would be supported at given points, constituted a major extra acoustic constraint because it created transmission points of sound and vibration into surrounding buildings.

In order to acoustically isolate the film theatres from one another and from the neighbouring buildings, the number of structural bearing points was kept to a minimum, and insulating, self-supporting cladding was used for the theatre walls and ceilings (ceilings suspended from springs with acoustic insulation), but also for the flooring (floating floor and tiered seating were isolated on anti-vibration supports).

The acoustic environment within the film theatres needed to be particularly carefully determined so as to ensure the correct rendition of the films' soundtracks and avoid any problems of echo.

Differentiation must be made between the general theatres and the surround-sound theatres. For the former, the absorbent acoustic materials employed have already been thoroughly tested. For the latter, the innovative choice of surround-sound in cinemas 3, 5 and 8 requires a specific approach. This system entails the installation of a number of supplementary speakers in the walls and ceiling (by comparison with standard viewing) in order to obtain optimum 3D audio effect and the sensation of being plunged into the audio action of the films.

The cinemas:

- 4K projection in the main theatre,
- Dolby Atmos surround sound in the main theatre,
- Digital 7.1 audio and 2K projection in the 7 other theatres,
- numbered seating in all the theatres,
- «duo» seats for couples and «trio» for families,
- free Wi-Fi access throughout the cinema.









LA  
**FILLE**  
DE **BREST**

DRÉ







## A FACADE LIKE A PLEATED CINEMA SCREEN

Given the urban setting of this project, the main facade on the Avenue du Général Leclerc plays a vital role: it is virtually right above the Alésia metro exit, giving onto the generously broad pavement. The maximum authorised height on this section of the street is 21 metres, with a maximum width of 25 metres; thereby it is more than 500m<sup>2</sup> of facade that stands over this very visible section of the Avenue.

The facade is broken down into into a dozen vertical strips, like ribbons. Each strip supports several facets, alternately orientated upwards or downwards, as if folded.

In the central area, these great pleats are made of glass and covered in regularly spaced LED modules, forming a large, animated grid.

Towards the edges of the facade, the large pleats are opaque and formed of metal cladding, sometimes covered in the same structure of LEDs, sometimes simply folded to maintain the rhythm.

These pleats discretely integrate the constraints imposed by the urban planners: one is not aware of a lack of continuity between the upper and lower sections of the facade, although fragmented by successive recesses. Indeed the project is formed of 12 vertical ribbons, each following its own rhythm of folds.

These ribbons can function either independently of one another, each showing a different picture from its neighbours, or as a whole, showing one single picture across all the LEDs, thus greatly increasing the number of different possibilities.

The bottom section in each ribbon folds upwards to form surfaces that are almost horizontal, creating a vast canopy that overhangs the pavement by some 3 metres. These panels are also covered in LEDs, providing the public with different images, which are this time almost within reaching distance.

This gives the public the sensation of walking into the picture as they go into the building.

The facade is principally viewed from outside, but it also constitutes an important feature on the inside: the various theatre entrances, the foyers, walkways and large areas of tiered seating all showcase the facade, providing the chance to discover its internal face.

And this facade is just as beautiful from the inside: comprised of large glazed panels protected by the grid of LEDs, it provides views of the Avenue down below, the church opposite, and also the sophisticated workmanship of the modules of LEDs affixed at regular intervals to the grid of parallel metal supports. At dusk, the luminosity of the LEDs is perceptible from the inside, illuminating the foyers and circulation spaces with the diffuse colours of the animated images.

The dense arrangement of LED modules also serves as sunscreen for this sunny facade. Solar as well as thermal gain (as the sunscreen is positioned on the outside) are thus reduced.

The Rue d'Alésia facade also plays an important role in the project as it too provides access into the cinema, which was not previously the case. The aim is to make these cinemas more visible and welcoming to the neighbourhood, so the Rue d'Alésia entrance is vital.

This facade uses the same themes established on the Avenue du Général Leclerc, but much more discretely: its reduced scale allows for a small surface made up of a few pleated ribbons, but without LEDs.



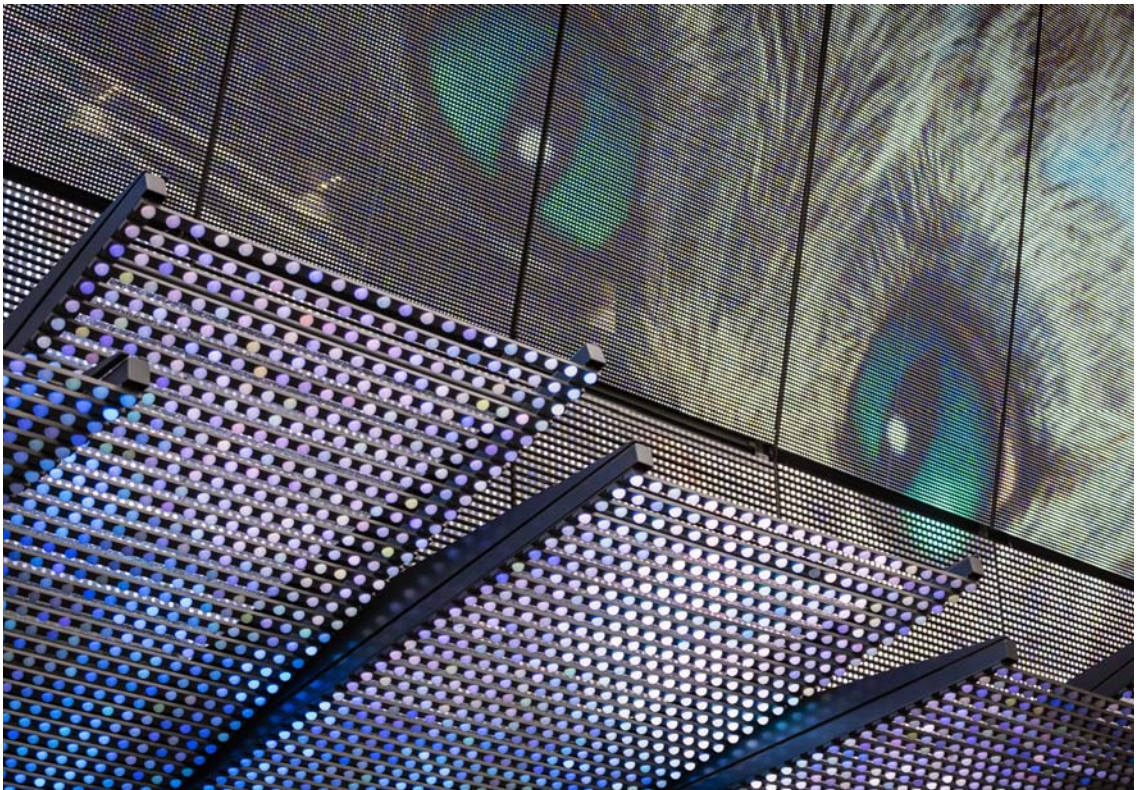


MA FAMILLE  
T'ADORE DÉJÀ















# ARCHITECTURE OF LIGHT

*By Vincent Thiesson, lighting designer, ON*

## **Integral to the project**

Clever installation of the LEDs, which follow the folds of the facade and act as a sunscreen, while also ensuring the transparency between the interior and exterior, has transformed the building into an architecture of light. Like Oscar Nitzschke's 1936 Maison de la Publicité scheme for the Champs Élysées, the project uses moving light, revisited and adapted to contemporary cinema and communications.

## **Play and variation of spacing between the LED clusters, or 'itches'.**

The aim of the project is not to create a rectangular screen, but to display images in a more poetic manner, more like an art installation. To achieve this there is a play on spacing the LED clusters, from 20mm at the centre of the facade, providing a clear, crisp image, to 80mm towards the edges, gradually breaking down the image. This effect is completed with just occasional clusters around the periphery, giving the impression of light stippling that blurs to nothing in the fold of the metal cladding. Along the lower section the image folds upwards over the canopy, bringing a touch of Broadway to the cinema entrance.

## **Diffused light**

Finished with a translucent cover, the diode is less dazzling and softer, replacing with a diffuse light the blaze of diodes that has invaded so many towns and cities around the world since the advent of this technology. The size of the cover varies from 10mm to 40mm to cater for the variations in pitch, ensuring an even distribution of non-directional lighting.

## **Technology specific to this architecture**

By maintaining the transparency of the facade, particularly at night, it has been possible to give the impression of an image hung in space. A dark image reveals the soffits of the film theatres and the circulation spaces in the atrium behind; a pale image brings out the folds in the facade.

## **Careful management of light levels**

The use of a cover over each LED cluster on the facade ensures a perfect, even exposure of each cluster, from any angle of vision up to 180°. This means that the screen intensity can be reduced to just 5% after night falls. Natural light levels are monitored in order to adjust the luminosity of the screen.

Technical information:

Number of LED pixel clusters: 229 500

Number of bars: 3730

# BENEATH THE DIODES, A HUGE GLAZED FACADE

*By Tom Gray, founding partner, T/E/S/S*

## **A facade like a cascade of pleated ribbons**

The facade is broken down into a dozen vertical ribbons, each of which is composed of a series of sloping surfaces zigzagging down the facade. At the bottom, above the doors, these ribbons fold back up on themselves to form a large entrance canopy.

## **A steel curtain wall**

The facade structure is composed of rectangular steel sections that rest on the walkways behind the facade, onto which they transfer the wind loads. However, these walkways have limited structural inertia vertically, so all the vertical loads of the facade are transferred down into the ground at street level. At the top, the structure turns back to form the roof structure. Here, the rectangular sections are replaced by hot-rolled laminated sections, hidden behind a suspended ceiling. The stability in the plane of the roof is ensured by crossed wind-bracing, and the in-plane stability of the facade is ensured by Vierendeel truss action with rigidly fixed connections.

Whole sections of the facade grid, like giant ladders, are prefabricated with welded connections in modules of transportable size.

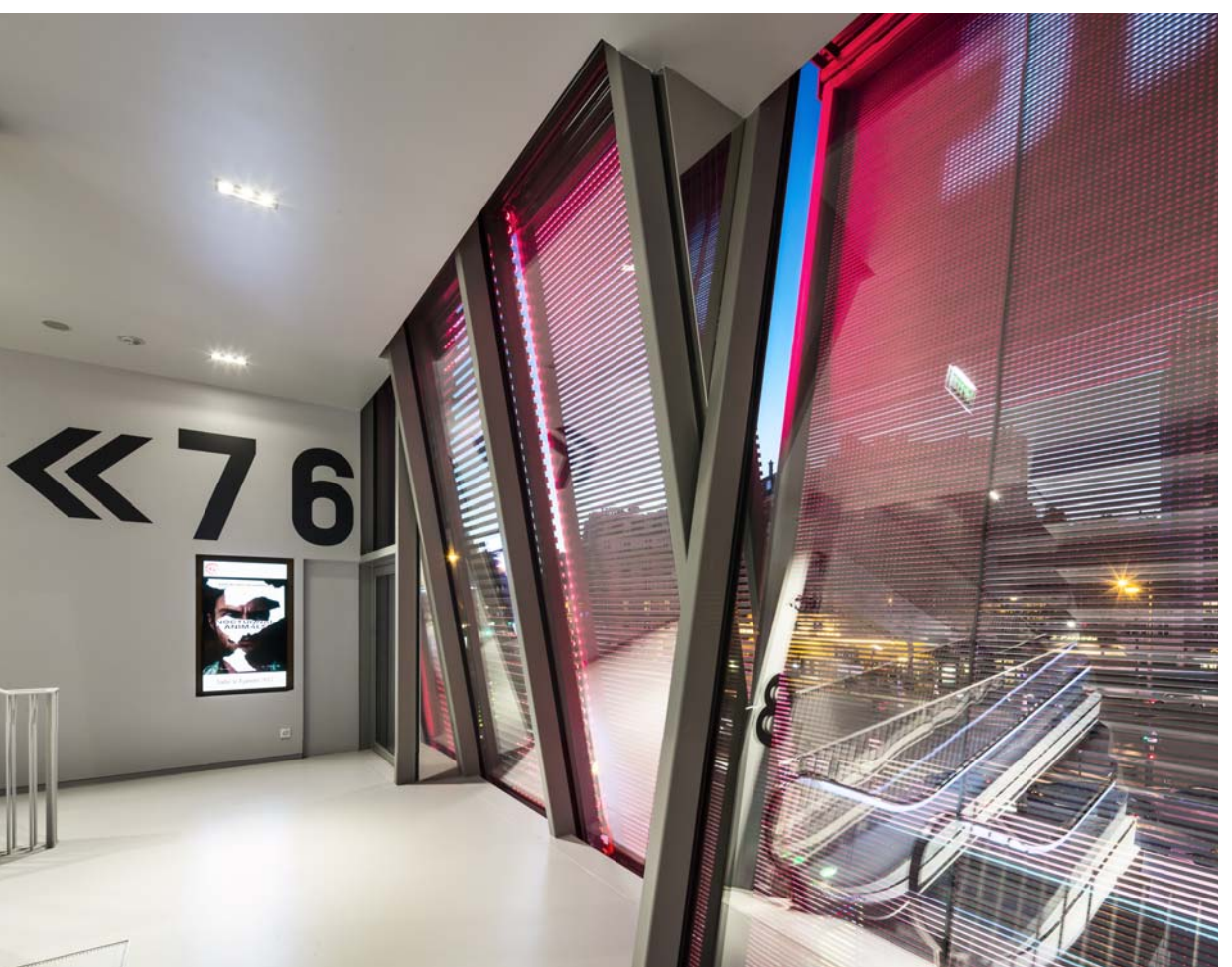
The mullions of the facade are doubled up when there is a non-alignment of the facade between two ribbons. The subsequently exposed sides of the mullions are clad and insulated to prevent thermal bridges.

## **Filler panels**

The facade is composed of three large panels of glass (1.70m wide by up to 4.7m high), double-glazed with a solar coating. The use of large panels of glass reduces the thermal loss of the building, since thermal loss through the joints in curtain walling is higher than thermal loss through the double-glazing. As a consequence, by reducing the linear quantity of joints, the U-value of the building is increased. The LEDs placed to the exterior of the glass acts as solar shading and reduces solar gain. The opaque areas of the facade are either opaque insulated panels set into the curtain walling, or solid rain-screen panels over an insulated concrete wall. Openings for fireman's access are situated within sections clad in solid panels.

## **LED supports**

The U-shaped bars that hold the LEDs are fixed to a prefabricated frame made from rectangular steel profiles. In order to clean the glass one must have access behind the LEDs and so every second panel slides behind the adjacent panel. In order to allow for this movement, the LED panels in most parts of the facade are organised in alternating vertical strips, which are in different planes. However, in other sections of the facade the panels are all aligned to allow for a continuous sharp image, and so one panel in two must translate backwards prior to sliding behind its neighbour. This complicated mechanism was developed with the contractor through prototypes. The large panels move on rails that are fixed to the main curtain walling through blade-like brackets, which are situated at the level of the floor slabs.





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