

# LE CORBUSIER

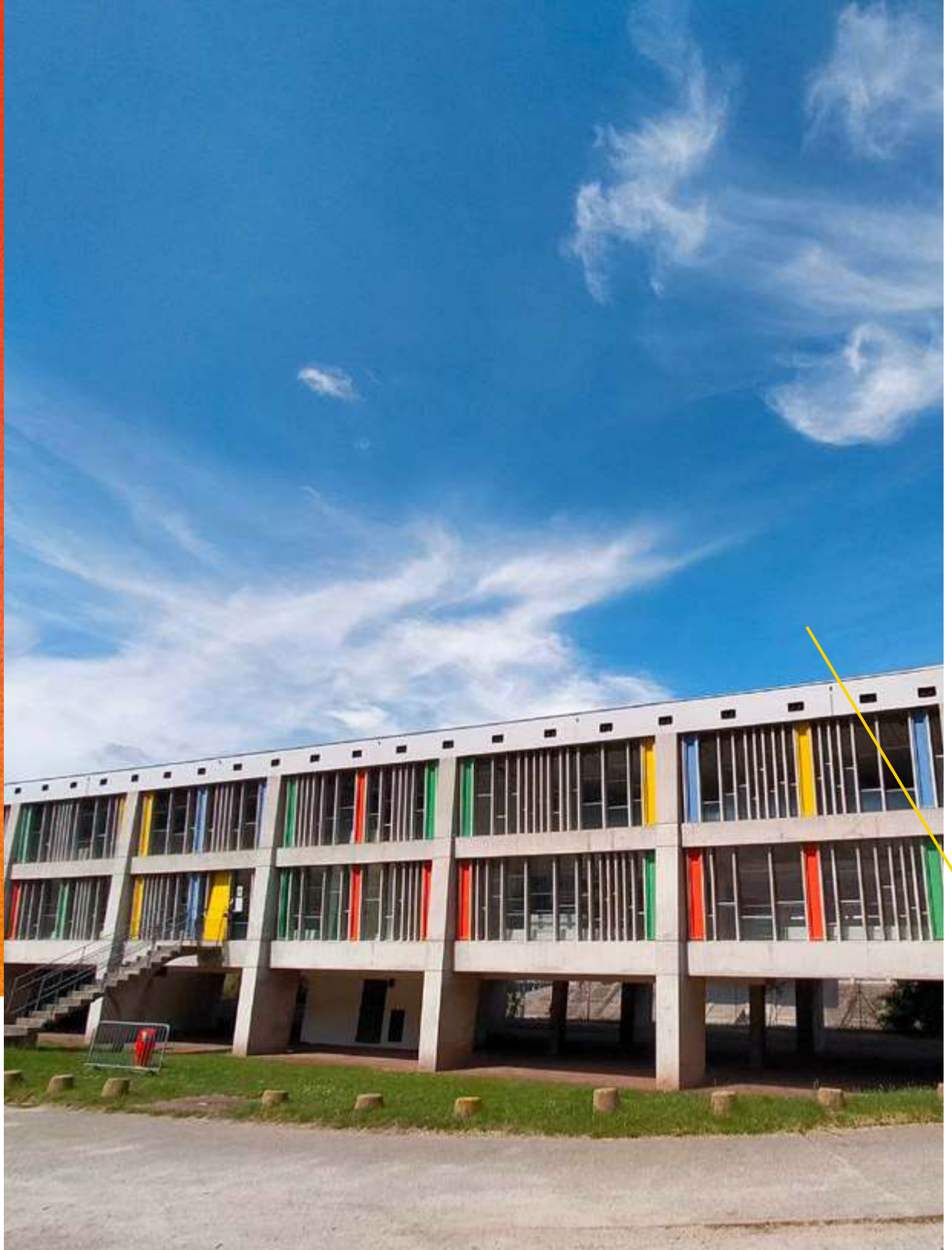
## Une odyssée sensible

Site & Architecture  
Firminy-Vert  
Saint-Étienne  
Métropole

INFORMATION  
SHEETS







/ CULTURAL CENTRE

# CONTENT

## CULTURAL CENTRE

### The reception area

- / THE DOORS
- / THE DOOR HANDLE
- / THE TAPESTRY

04

### The inner street

- / THE UNDULATING GLASS PANELS
- / THE COLOURS
- / THE 1960S FURNITURE

06

### The theatre

- / THE GRAND FOYER AND THE MIRACLE BOX
- / THE ADJUSTMENTS
- / THE CURRENT USE

08

### The foyer-bar

- / THE LE CORBUSIER TABLE
- / PERFORMING ARTS
- / THE MODULOR

10

## ST PETER'S CHURCH

### The history

- / THE COMMISSION
- / THE CONCEPTION
- / THE CONSTRUCTION
- / LE CORBUSIER AND RELIGIOUS ARCHITECTURE

12

### The nave

- / THE LAYOUT
- / THE MAIN ALTAR
- / THE LIGHT SOURCES

14

### The liturgical furniture

- / THE ALTAR
- / THE TABERNACLE
- / THE AMBO
- / THE LECTERN
- / THE CROSS
- / THE EASTER CANDLE
- / THE CELEBRANT'S SEAT
- / THE STOUP
- / THE DESKS
- / THE VIRGIN

16

# THE RECEPTION AREA

## / THE DOORS

Whether open or closed, doors can frame a space. Their sizes, materials and even the way they open are thought out to fix a point or to let the eye wander.

In the entrance of the Cultural Centre, you can see two types of doors:

/ the first one is made of wood and creates a monumental opening. Due to its off-centre pivot system, it becomes light, easy to manoeuvre, and once open it does not obstruct the path from the reception to the theatre.

/ the second one has a classical size and is made of transparent glass for the diffusion of sunlight.

This configuration that juxtaposes a monumental door and a transparent door can also be seen at the two entrances of Saint-Peter's Church.

The monumental pivoting door can be seen in many of Le Corbusier's buildings such as the La Tourette Convent (picture), the Heidi Weber Museum in Zurich, the Ronchamp Chapel and in his flat-workshop in Paris.



/ CHURCH DOOR IN THE LA TOURETTE CONVENT





/ BOREDOM REIGNED OUTSIDE, ORIGINAL CARTOON OF THE BOGOTÀ TAPESTRY, 1951.

## / THE TAPESTRY

In 1935, Le Corbusier was contacted by Marie Cuttoli, a textile editor and artist in the Myrbor art rug workshop which designed tapestry cartoons.

The architect fell in love with this art form which seemed particularly adapted to his vision of a modern habitat: « we have become nomads » he stated in 1950. The tapestry is the perfect transportable work of art that accompanies its owner when moving house. He called them « Nomad Murals ».

Le Corbusier designed over thirty tapestries which were then made by the French Royal Manufacture in Aubusson and in the Pinton Workshop.

The work that can be seen here (top picture) is called *Bogotá* and is inspired by Le Corbusier's trip to Colombia for an urbanism project that never came to fruition.

## / THE DOOR HANDLE

Observe the handle of the transparent door. It is sculpted and shows a strange shape.

At first glance and thanks to its position, you can easily guess that it represents a hand. But if you look closer, you will notice that the highly stylised shape also shows the shape of a dove.

After the Second World War, this bird symbolizing peace, could be found in various works by famous artists such as Matisse, Picasso and Magritte.

Around the same period, Le Corbusier drew the *Open Hand*, which « gives and receives ». Several representations can be seen in his literature and architecture.



/ THE OPEN HAND MONUMENT, CHANDIGARH



/ THE OPEN HAND IN POEM OF THE RIGHT ANGLE, 1955

# THE INNER STREET

## / THE UNDULATING GLASS PANELS

*« One day, Le Corbusier said: 'In India, they place large sheets of glass on walls. It is a cost efficient way to build transparent walls (...) Perhaps we could make actual screens?' »*

Iannis Xenakis,  
in *Iannis Xenakis, M. Nouritza, Fayard, 1981.*

Following Le Corbusier's request, Iannis Xenakis, a mathematician, architect and composer elaborated the « pans de verre ondulatoires » (undulating glass panels).

They were created in 1951 for the La Tourette Convent, with the Modulor\* and a mathematical calculation, which avoided the monotony of a traditional façade.

Resembling a giant partition, the walls are given rhythm by the concrete slabs set apart at various distances, and the tone by the glass walls positioned at various heights. The coloured shutters are used for ventilation purposes.

\* See page II



/ LA TOURETTE CONVENT, REFECTORY



## / THE COLOURS

*« We do not merely decorate, we bring a soul, we animate something by the miracle of colour ».* Le Corbusier, sound archive, 1953.

From the beginning of his career, colour has been a constant in Le Corbusier's buildings. He uses it « like a real magician », to draw the eye to the various qualities of the space and away from problematic elements.

In the 1920s, Le Corbusier worked with natural pigments like ochres and Sienna. At the Cité Frugès of Pessac for instance, all the houses were identical and his use of colours brought a sense of diversity and space to the area.

From 1930 onwards - and in a more systematic way after 1945 - yellow, blue, green and red were used. These colours remind us of what Le Corbusier called « essential joys »: sun, space and vegetation.



/ CITÉ FRUGÈS, PESSAC (NEAR BORDEAUX)

## / THE FURNITURE

The furniture within the Cultural Centre was made by Pierre Guariche. This Parisian designer born in 1926 was one of the cofounders of the “Atelier de Recherches Plastiques” (the Plastic Research Workshop).

His designs marry esthetics and serial production due to the use of industrial materials: metal tubes, plywood, moulded plastics, etc.

As early as the 1950s, he worked on the renovation of Firminy's public buildings. He knew Le Corbusier's work and was already using the Modulor measures.

It was only natural that he was called upon to be in charge of the interiors of the Cultural Centre and the Housing Unit.



/ PIERRE GUARICHE FURNITURE IN THE COMEDIANS' DRESSING ROOM

# THE THEATRE

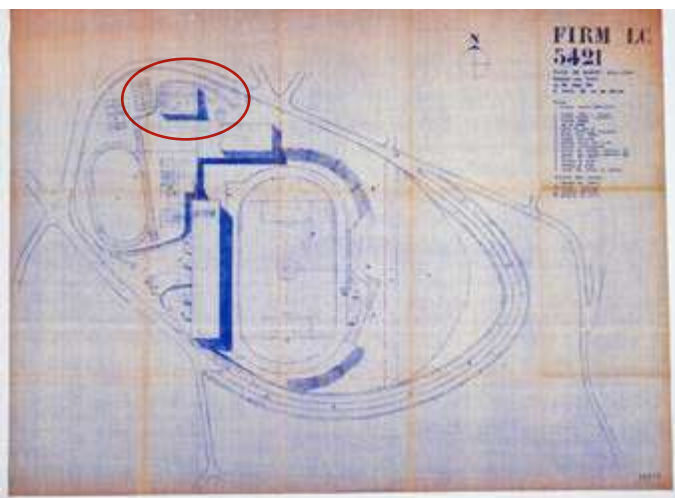
## / THE GRAND FOYER AND THE MIRACLE BOX

Le Corbusier's first sketches show that he initially thought of this great central hall as a multipurpose foyer: an exhibition space, film projections, conferences, receptions and general user-friendliness.

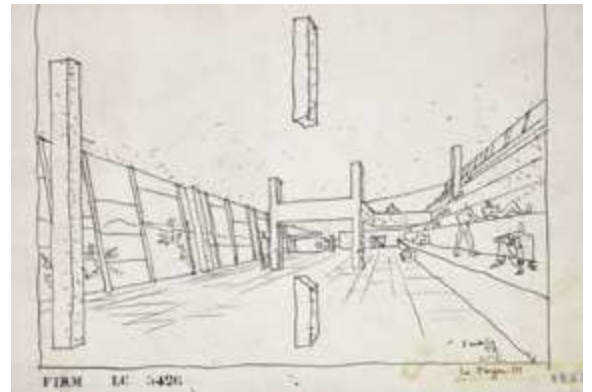
He did not envisage any other furniture apart from a large fountain.

In this first version, Le Corbusier imagined building an outdoor theatre. He called this « boîte à miracles » - the miracle box - and described it thus in 1957: « a rectangular box made of concrete without any of the usual theatre elements but allowing miracles to happen ».

This project was later abandoned for financial reasons: the miracle box was not built and the foyer was eventually made into a performance hall.



/ GROUND PLAN, 1956, ON WHICH STILL APPEARS THE «MIRACLE BOX»



/ SKETCHES, 1956. ON THESE EARLY DRAWINGS, LE CORBUSIER STILL REPRESENTED LOAD-BEARING POLES. THE CREATION OF THE SELF-SUPPORTING ROOF ON CABLES MADE THEM UNNECESSARY.



## **/ THE ADJUSTMENTS**

From the 1960s onwards, this space was progressively equipped while keeping its original architecture: 210 seats designed by Pierre Guariche were installed, the curtains and black paint darkened the space, the parquet floor was laid, the regie theatre booth and the suspension rails were installed.

Have you noticed the shape of the main door of the theatre which resemble the inclined facade of the building?

The movement of spectators is inspired by Greek and Roman theatres. Thus, during shows, spectators do not enter via the large black door but via the green door located at the top of the seats.

## **/ THE CURRENT USE**

Nowadays the theatre is still used by the Cultural Department of the Firminy Council.

Various performances can be seen during the season: plays, concerts, children shows, etc.

It also frequently hosts artistic residencies.



**/ STUDY DAY IN 2022**



**/ CONCERT IN 2014**

# THE FOYER-BAR

## / THE LE CORBUSIER TABLE

Underneath the stairs one can see the only piece of furniture in the building designed by Le Corbusier: a table made of concrete with ceramic inlays.

Its location is surprising, isn't it ? It is indeed used as a guardrail to avoid bumping into the steps of the stairs. Have you noticed? The table ends when the height becomes sufficient to avoid injuries!

## / PERFORMING ARTS

The colourful and narrow doors lead to 6 dressing rooms for the artists performing in the open-air theatre below the building. This theatre was built after Le Corbusier's death in accordance with his drawings.

The actors leave their dressing rooms and discreetly access the outdoor stage via the cylindrical tower hiding a spiral staircase. This is highly practical for an outdoor theatre with no backstage!



/ CULTURAL CENTRE, OPEN-AIR THEATRE



## / THE MODULOR

« It is a scale of proportions which makes the bad difficult and the good easy. »

Albert Einstein, 1946.

The « Modulor » measuring system was developed by Le Corbusier in 1945. It was the result of much research about proportions.

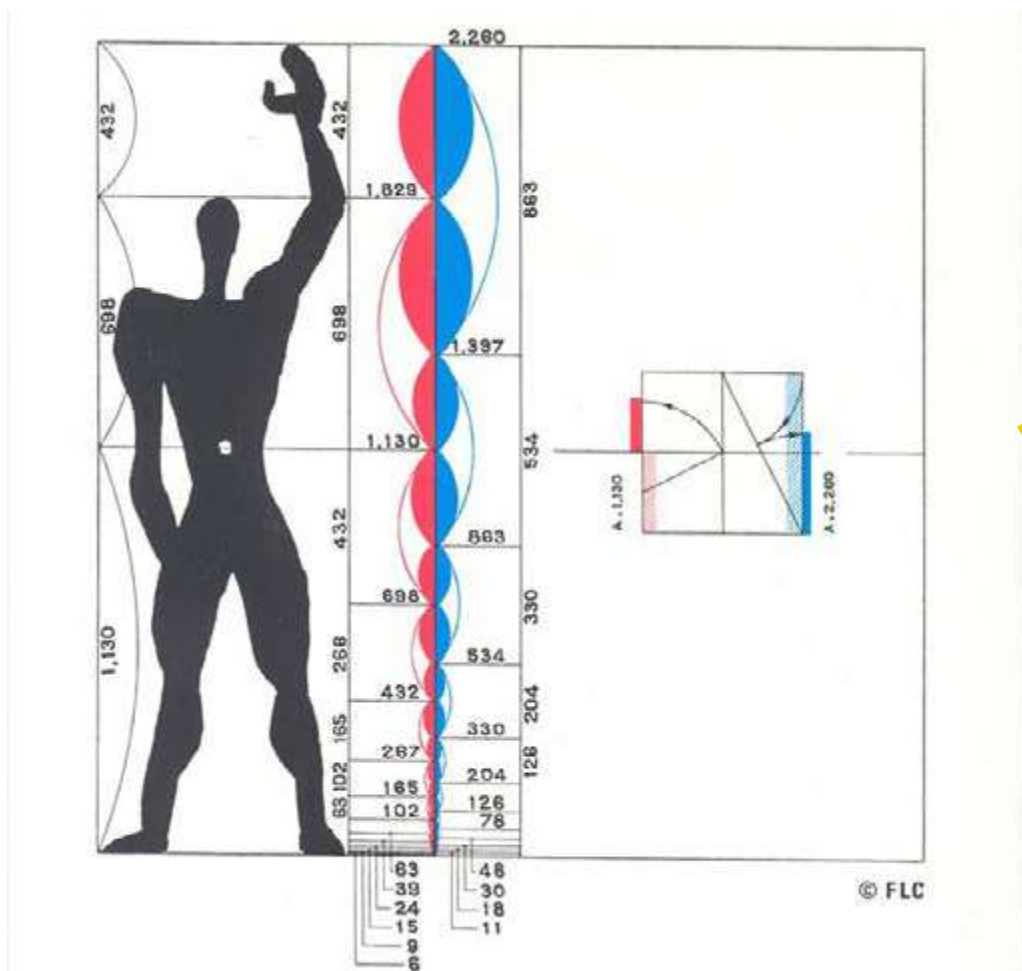
It is comprised of two series of magnitudes put in proportion by the golden ratio. It is based on the measurement of a human body that is 1.83m tall and is thus in opposition to the metric system, seen as « artificial and arbitrary » by Le Corbusier.

Upon this basis, the architect then defines the different measurements needed in urbanism, architecture and furniture. The Modulor intends to be universal.

It must avoid conversions and establish a concordance between different systems of measurement: 1.83m corresponds to 6 feet.

The goals are comfort and the adaptation to the human body, as well as the rationalisation of architecture. It seeks to standardise and to prefabricate. For example, while the conventional height of a room is 2.5m, the Modulor defines this as 2.26m. This height was seen at the time as sufficient for everyday life while allowing to save on materials and space.

Represented by the famous silhouette of a man with a raised arm, the Modulor is present on the façade of numerous Le Corbusier's buildings, including the Housing Unit of Firminy.



/ LE MODULOR, 1945

# SAINT-PETER'S CHURCH

## / THE COMMISSION

Towards the end of the 1950s, the parish of Firminy wished to build a new church at the very heart of the new Firminy-Vert Neighbourhood.

It was placed under the patronage of Saint Peter taken from the name of the old town priory which was destroyed in the 19<sup>th</sup> century.

The architect commissioned for the project was André Sive, who was also the architect for the urbanism project in Firminy.

But Sive died in 1958 without accomplishing the church. The parish then asked Le Corbusier to replace him. He accepted but decided to change the location of the church. In doing so, his aim was to complement the cultural and sports centre that he was already working on.

## / THE CONCEPTION

Le Corbusier worked on the church plans with his assistant, José Oubrierie (1932-).

The preliminary designs were completed during his lifetime. But disputes with the Bishopric delayed the construction.

## / THE CONSTRUCTION

The building work started in 1973, eight years after Le Corbusier's death. José Oubrierie took over the project and supervised the construction.

In 1978, the construction was suspended for financial reasons and only the lower part of the church was completed.

It was only 25 years later - in 2003 - that they found a solution.



/ SAINT-PETERS' CHURCH, LITHOGRAPHY, 1963



## / A NEW OWNER

In order to ensure that the construction would be completed, the *Association Le Corbusier pour l'église de Firminy-Vert* transferred the ownership to Saint-Étienne Métropole.

The decision was then made to change the purpose of the lower part of the church: instead of becoming a parish house, it would be used as an exhibition area.

The church was restored and completed between 2004 and 2006 and was eventually inaugurated on the 29<sup>th</sup> of November 2006.

## / LE CORBUSIER AND RELIGIOUS ARCHITECTURE

Saint-Peter's Church is the third and last religious building conceived by Le Corbusier after:

/ the Notre-Dame-du-Haut Chapel in Ronchamp inaugurated in 1955. This site also includes Renzo Piano's Sainte-Claire Monastery and Porterie, and Jean Prouvé's Campanile.

/ the Sainte-Marie de La Tourette Convent in Éveux (near Lyon), built between 1953 and 1959. A Dominican community still inhabits the convent. With a guided tour one can discover the church, the refectory, the cloister, the chapter...



ND-DU-HAUT CHAPEL IN RONCHAMP, FRANCE

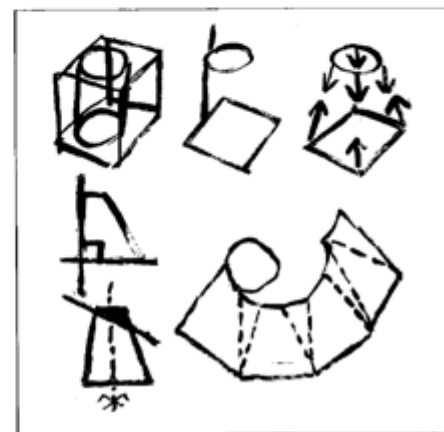
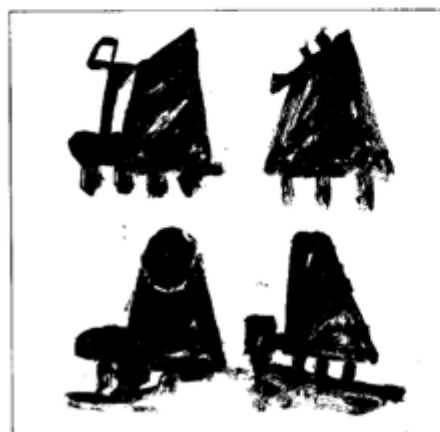
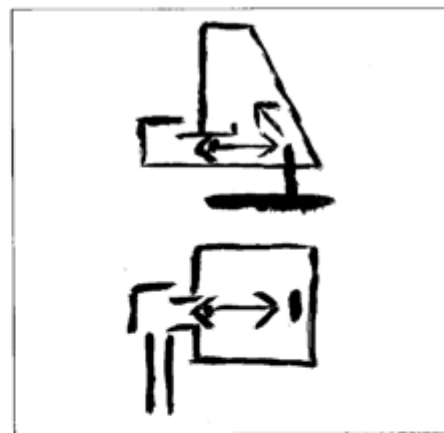
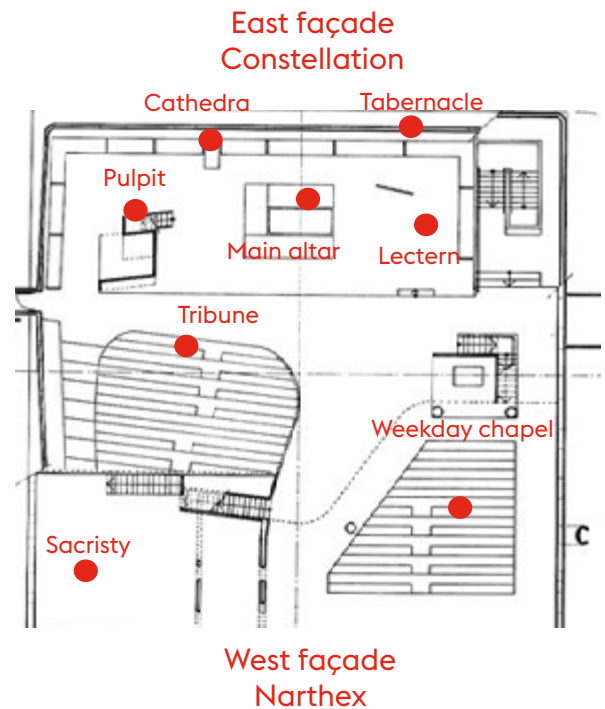
# THE NAVE

## / THE LAYOUT

The nave is built on a square plan rather than the traditional Latin cross.

The square then transforms into a conic roof that culminates at 33 meters.

The elevated installation of some of the pews was in response to the parishioners' request that the choir could be seen by all. Under the gallery one can find a secondary chapel and its altar.



IDEOGRAMS DRAWN BY JOSÉ OUBRERIE



## / THE MAIN ALTAR

Designed by Le Corbusier, the main altar is composed of a horizontal table carried by a vertical pillar. The particularity of this pillar is that it goes through three levels of the lower parts of the edifice in order to touch the earth.

The altar was dedicated by the Bishop of Saint-Étienne on 29<sup>th</sup> of June 2007, the saints day of Saint Peter and Saint Paul. Mass is celebrated here every first Sunday of the month, at Easter and Christmas.

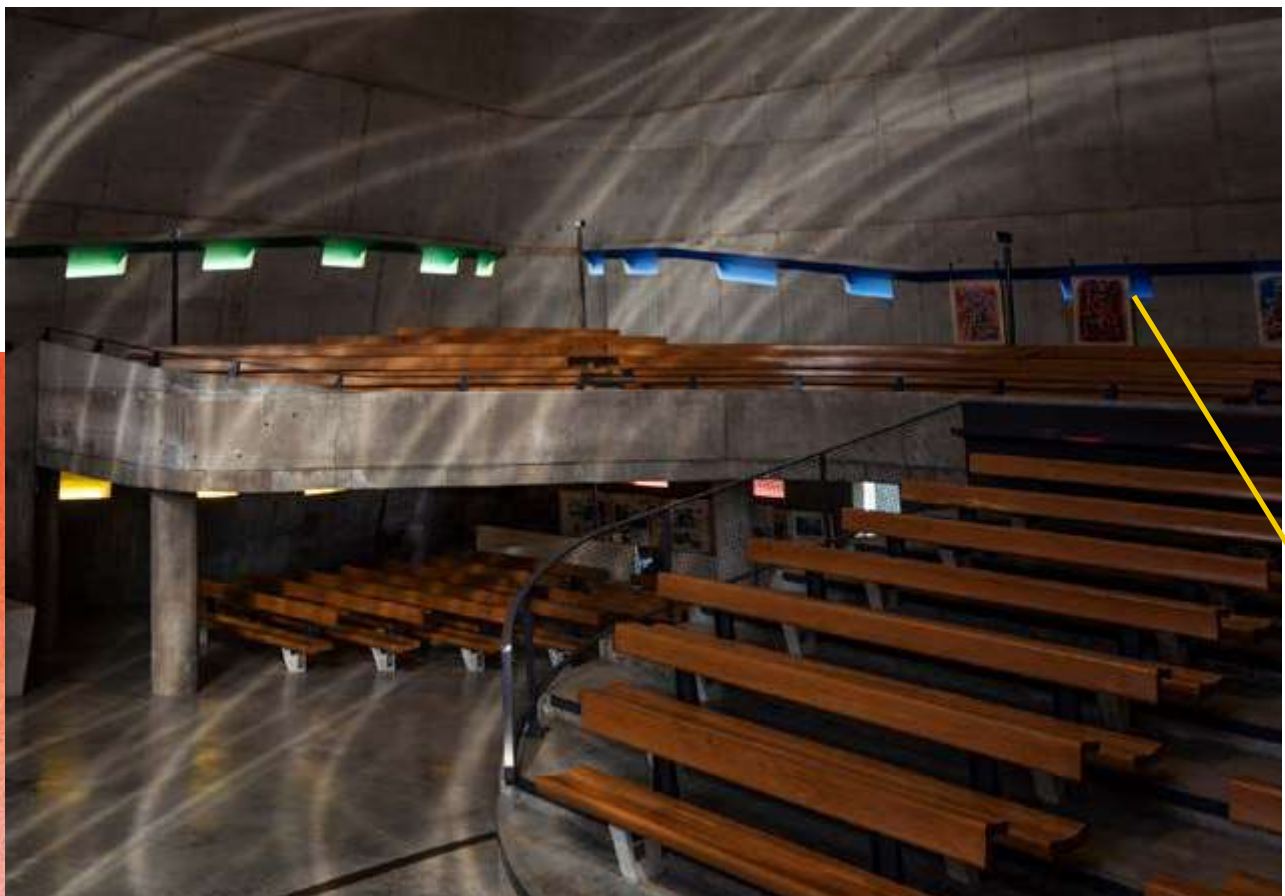
## / THE LIGHT SOURCES

The horizontal openings at the bottom of the roof diffuse a dim light throughout the day. On the outside, they are covered by chutes used to drain water.

The light cannons, on the top of the roof and on the west facade, project light at midday and in the evening.

Above the altar, the east facade is pierced by small holes representing stars. Le Corbusier had indicated them on his drawings without detailing their actual design.

The Orion constellation is eventually chosen by the Saint-Étienne Métropole and José Oubrière for its universal appeal as it is one of the rare constellations that can be seen in the two hemispheres.



SAINT-PETER'S CHURCH, MORNING LIGHT THROUGH THE CONSTELLATION

# THE LITURGICAL FURNITURE

Once the construction was completed, the Association *Le Corbusier pour l'église de Firminy-Vert* entrusted the architect José OUBRERIE with the task of designing the liturgical furniture promised to the sanctuary.

To implement this project, he teamed up with Yves VERNAY, a « companion » in the BLANCHET metalworking company in Montbrison and relied on the expertise of the CHAZELLE masonry company in St-Étienne for all the stone and concrete elements.

Thanks to their collaboration, the liturgical furniture was carried out in the excellence of the different trades and in compliance with the requirements for the celebration of divine worship.

## / THE ALTAR

It is the convergence point of the whole building.

It is the table (usually of stone or wood) on which bread and wine are consecrated by a priest and the Eucharist is celebrated as the memorial of Christ's Last Supper. This altar was consecrated on St Peter's day : June 29<sup>th</sup>, 2007.

Then the anointing with Holy Chrism by our bishop made this stone the very symbol of Christ.



/ SAINT-PETER'S CHURCH, MAIN ALTAR



## **/ THE TABERNACLE**

Receptacle for keeping the pyx (or ciborium) in which consecrated hosts are stored after Mass.

The eucharistic reserve is first intended as the Holy Communion to be taken to elderly or sick people who can't attend Mass.

The small lamp which is lit nearby shows the presence of Risen Christ in the church. It inclines visitors to meditation.

## **/ THE AMBO**

It is a sloping reading-desk from which, during a religious service and especially Mass, readers proclaim the Word of God.

It is also where the person (usually a priest or a deacon) who delivers the homily (= the sermon) stands and where a person addresses the congregation in order to read the Word of God.



SAINT-PETER'S CHURCH, THE AMBO

## **/ THE LECTERN**

Sloping desk made to hold the Gospel book or the Bible after the proclamation of the Gospel. It is turned towards the congregation.

## **/ THE CROSS**

An instrument of torture on which prisoners condemned to death were tied or nailed to be crucified. It reminds Christians of the death of Jesus, but it also means His resurrection. It is the symbol of Easter mystery and, for mankind, the sign of salvation.

## **/ THE EASTER CANDLE**

Large candle solemnly lit during the Easter Night service and placed next to the altar.

It burns continuously throughout the services of Easter time.

It is put out on the evening of Whitsunday. It is lit during christening services.

## **/ THE DESKS**

A piece of furniture with a sloping surface on which books or music scores used in a religious service are laid.



**/ SAINT-PETER'S CHURCH, THE DESK, THE EASTER CANDLE AND THE CROSS**

*« The Church makes sure, with special zeal, that sacred objects contribute in a dignified and beautiful way to the splendor of worship, while admitting, either in materials or forms, either in decoration, the changes introduced over ages by technical progress. » Vatican Council II*

## **/ THE CELEBRANT'S SEAT**

Visible seat turned towards the congregation. It can only be occupied by the officiating priest who performs during Mass in the name of Christ.

## **/ THE STOUPS**

Stone basins to contain holy water. They are placed close to the entrance doors of a church. On entering a church, the faithful make the sign of the cross after dipping their fingertips in the holy water. Making the sign of the cross amounts to a

profession of faith which symbolizes that Christians belong to the «Body of Christ», that is the Church.

## **/ THE VIRGIN MARY**

The Virgin «par excellence» (above all else) is Mary, also known as the «Virgin Mary» or «Mary the Virgin». She is the wife of Joseph and the mother of Jesus. For generations and centuries, the Catholics have placed their trust in Her, regarding their worries, their concern for the world and their wish to progress in faith. Some recall the events of the life of Christ by saying the rosary and the prayer: «Hail ! Mary».



SAINT-PETER'S CHURCH, VIRGIN AND CHILD IN MAJESTY



# LE CORBUSIER

—  
Site & Architecture  
Firminy-Vert  
Saint-Étienne  
Métropole



sense

Photos copyrights : Paul Kozlowski ; Arnaud Frich ; Jessica Lafosse ;  
Jean-Jacques Gelbart - FLC / ADAGP  
Front cover picture: église Saint-Pierre de Firminy-Vert - Conception, Le  
Corbusier architecte, José Oubriere assistant (1960-65).  
Réalisation, José Oubriere architecte (1970-2006).

Une expérience ] Saint-Étienne Hors Cadre [