LE CORBUSIER
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The following drawings and photographs were compiled to follow the process of design from beginning to end. The material is divided into two groups: (1) sketches and photographs with captions in capital letters and translations from the sketches following in bold letters, and (2) explanatory comments written by Le Corbusier for this publication with their translations in bold type.

The sketches were chosen by Le Corbusier from a collection of drawings that accumulated during the design of the Firminy Church (the drawing fitted over a photograph is not by Le Corbusier). The place where the sketches were made is not known in all cases, but a number of them were made at the site of the church in Firminy, France, at Chandigarh, India, at the Atelier, 35 Rue de Sevres, Paris, and during conversations with clients. The first sketch was made around 1925-1930 for a church project which was never carried beyond the initial design stages. However, in 1960 the development of the same idea began for the Firminy Church, and after four variations of the idea were investigated through four design stages, a satisfactory design was reached. The design stage is noted in the caption of each drawing and photograph since Le Corbusier's stamp 1961, 11, 111, or 111 does not appear on each drawing or photograph. Measured drawings were made from the sketches and models by the architects and draftsmen of Le Corbusier's Atelier, and one set of drawings made for the final design is reproduced on the color insert. This design is scheduled for construction beginning in the summer of 1964. The order of the sketches and photographs is chronological according to the time they were important to the design of the church. The sequence does not in all cases follow the order in which the drawings were made.

Le Corbusier's care and cooperation in organizing this publication is gratefully acknowledged by the editors. Jose Obierie, an architect in Le Corbusier's Atelier, supplied the photographs of the models and the captions of the drawings and models. The timely trip of Arthur Cogswell, former editor of the Student Publications, to Paris enabled him to visit the Atelier on the editors' behalf to aid in choosing the drawings and photographs for publication. Dr. George Poland of the department of Modern Languages at N. C. State, graciously translated the French text into English. Others who aided in the translations were Mary Elizabeth Trent, Brian Shawcroft, Paul Buisson, Jerzy Glowczewski and Fred Allred.

Le Corbusier has corrected the text translations from the French on the final proof.

The editors are very grateful to Fred Bradley of Autokraft Box Corp. who kindly donated their services to print the color insert. Richard Saul Wurman, faculty advisor to the staff, freely gave his enthusiasm and technical advice when it was needed. Dorothy Wurman drafted the map locating Firminy in France.

K.S. & R.T.
the development by
Le Corbusier
of the Design for
l’Eglise de Firminy
a church in France
Publir, les croquis de naissance d'une œuvre Architecturale peut être intéressant lorsque une tâche m'est confiée, j'ai non habitude de la méthode au dedans de ma mémoire, c'est à dire de ne me permettre aucun croquis, pendant le mois. La tête humaine est ainsi faite que elle possède une certaine indépendance : c'est une boîte dans laquelle on peut verser un vide le élément d'un problème. On laisse alors "flotter", "miroter", "fermenter."

Puis un jour, une initiative spontanée de l'être interne, le décide de produire : on prend un crayon, un fusain, des crayons de couleur (la couleur est la clef de l'essence de la démarche) et on accomplit son le pari : l'idée sort ; l'enfant sort, il est venu au monde, il est né.

Jose Oubrerie a permis le plan, Paris 21 mai 64

Publishing the sketches of the birth of an architectural idea can be interesting. When a task is entrusted to me, I am accustomed to place it inside my memory, that is, to allow myself to make no sketch for several months. The human head is so made that it possesses a certain independence. It is a box into which one can pour pell-mell the bits of a problem. Let it "float," "marinate," "ferment." Then one day, out of a spontaneous burst of the inner being the click is produced. One takes up a pencil, a piece of charcoal, a colored crayon (the color is the key to the course) and one gives birth on the paper: the idea comes forth—the child is born, come into the world. It is born.

Jose Oubrerie drafted the plans
Paris May 21 1964 L-C
Une idée d'église, venue automnae
de 1925-30. — Venne un beau jour

voue "un beau jour"

An idea for a church, conceived around 1925-30—conceived on a beautiful day—Happy day!

SKETCH: JUNE 1929 THEORETICAL RESEARCH STAGE I actual size
Sketches made on the site, showing: "Educational Center" (for young people)/"the road"/"the buildings already constructed by Sive and Roux, Architects"

SKETCH: SKETCHBOOK 1960 (AT FIRMINY) VIEW OF THE SITE STAGE I actual size
La grange de fer

A in plan

voir plan
A/the stadium  B/the church
SKETCH: SKETCHBOOK 1960 (AT FIRMINY) AERIAL VIEW OF THE SITE
north/road/dead trees = (where it was wooded) see plan L-C Firminy 2

STAGE I actual size
avec Claudius Petit, maire actuel de Firminy, autographe ministre de la Reconstruction.

première inspiration de l'église : sa forme dans le paysage.
SKETCH: JUNE 24, 1961  (AT FIRMINY) VIEW OF THE SITE
heating plant/trees/apartment building H 45 x 70 meters high

STAGE I actual size
un éclairage de torture

toute la coque de l'église en
compacte (béton brut)
ici est une charpente
ouvrit dans le ciment
et fait de verre de
couleur diverse.

la tribune des chantreuses
et l'orgue électronique.

la chaire
pour les sermons.

la croix, l'autel
l'étage de catechumens, catechisme, classes

Illumination through the roof/An oculus directed so as to send the sunlight over the altar on Easter Morning./The whole casque of the church is solid (rough concrete). Here there is a window in the concrete made of glasses of different colors./The choir loft and the electronic organ/Pulpit/The cross, the altar/the level of Catechumen, catechists, classes.
le plan de l'église

l'entrée

le bancs

le baptistère

le pilier

les tribunes

le chœur

l'orgue électrique

l'escalier pour la tribune

la sacristie

les fidèles ou autres (six cents)

sont debout

ou sont assis

sont debout ou se mettent sur le sol (s'ils en ont le goût)

une église est le Forum de Bon Dieu : on vient on est avec

d'autre en face de statues ou culte : l'autel et les proportions

plan of the church/the altar/the benches/the baptistery/the column of the choir loft and electronic organ/the stairway to the loft/the sacristy/the entry/the faithful or others (600) standing or seated/they are standing or kneeling (if so inclined). A church is the Forum of God: one comes or is with others in front of the instruments of the belief: the altar and the proportions.
Sur le croquis, était prévu un clocher.
LE CORBUSIER

14
6
61

park
vertical

monk

3 = chapel
accessed
by
patron
and
relic
l'escalier

NS

destin

sally
open

1/2

60
le toit
incliné

la cloche
(le porte-cloche)

l'escalier
montant
t à la tierce
du chœur

une rampe
ouverte
(fermée) partant de terrasse de l'église

une rampe partant de la route
en plein air.

the sloped roof/the bell tower (the belfry)/the front of the church/the stairway rising to the choir loft/a covered ramp (and closed) following the curvature of the church/an outside ramp rising from the road

MODEL: BEGINNING OF 1962 STUDY MODEL, SOUTH VIEW STAGE I
Faux le chemin d'accès fermé
(la rampe)
on avait prévu le
il chemin de croix

In the closed entry (the ramp) One envisioned the “Stations of the Cross”

SKETCH: OCTOBER 28, 1961    CHURCH GALLERY    STAGE II    actual size
Stations of the Cross = concrete shell/construction—cantilever stopping before the church wall/ceiling with a slight slope
dans le chemin d'accès (fermé) - ..

par les trous (de droite)

on voit dans l'église.

In the entry (closed) ... through the holes (at the right) the interior of the church is seen.

SKETCH: OCTOBER 23, 1961  CHURCH GALLERY  STAGE II  actual size

undulations for access gallery and baptistery/undulation with ventilation + printed glass or reinforced glass + vertical bands of De Boussois glass in strong colors/permitting omission of the cleaning of the glass, the rain would be sufficient like Atelier L-C never washed 30 years/Stations of the Cross
Eglise Forming

25/10/61

De l'audition par chemin de youb - de captation

D'installation aux arêtes

+ Vue imprimé - bottes

Mise en scène + la bonne verticale

Prenez attention à l'acoustique

Petit jeu j'essaie

Emmanuel L - C

24/11
Solar lighting and electric lighting

SKETCH: NOVEMBER 11, 1961  LIGHT SLOT ON THE PERIMETER OF THE CHURCH  STAGE III

97% of original size

bench/church floor/small round glass slabs lighted underneath by luminous tubes/fluorescent tubes/poured glass slab 2 cm thick/combination a/ sunlight b/ electric light around church (interior)/... luminous tubes
le plan.

Claudius Petit

Tardy le curé

Capellade

Dominican father former architectural student of the Beaux Arts
SKETCH: OCTOBER 30, 1961    STUDY OF THE SANCTUARY    STAGE III  94% of original size
vestry/the cross/lectern/celebrant/no! or better! Communion standing/table with Sacrament/bench for the altar boys
l'antel

la table du sacrifice

C'est un objet sacré

the altar/the communion table/(8 months after a visit to the site)/It is a holy object
SKETCH: JANUARY 8, 1962 FOR THE ALTAR OF FIRMINY STAGE IV 94% of original size

slabs of the base/interior altar Ronchamp/Oubrerie do not forget Rose Window lighting
Des traits de lumière... spirituel
(par la coupe)

On pense à Varese, le musicien français à New York.

C'est incompréhensif,

Il nous en reste à se méfier.
Questions, Vernon. Chapter.

Sketch book, page 44.


"The Dent Du Midi and Mont Catogne in the Rhone Valley in Valais (Valais Canton at the end of Lake Leman) give us the motion of the play of diagonals. (eighteen months after the birth of the idea June 24, 1961 (here December 19, 1962) ... and for the nature of the appropriate volumes ..."

SKETCH: DECEMBER 19, 1962 SECTIONS STUDY
STAGE IV 82% of original size
west/north/west/view to the front/exterior/entry/south
"la Buvon du Moux"

et le Castagn

daus la vallée de Rhône

en Valais

(Canton du Valais ou haut du lac Léman)

plus somptueux

pour la fête du jeu

des Géants

le 18 mai

24 juin 1961

après la réalisation

de l'idée

(ici le 19 décembre

1962)

et pour la

rénovation du

volume à

proposer...
les pentes du terrain et les pentes architecturales entrent en jeu.
L'assiette de la base est constituée...
Elle contiendra trois niveaux

N.A
N.B
N.C, ici le sol de l'église

cette "assiette" est un prisme rectangulaire ajourné de
notions et de poussées de béton armé. Sur le tête
il recevra la couve de l'église (comme un chapeau). Ses
pieds vont chercher les bancs de roche de cette ancienne
carrière, mixturée de rocs et de remblais.

The base of the building is made... it will contain three levels N. A., N. B., N. C. here the ground floor of the church/
this "base" is a rectangular prism pierced by wells and beams of reinforced concrete. On its head it will receive
the shell (like a hat). Its feet will seek the rock bed of this ancient quarry, a mixture of rocks and fill.
les niveaux épousant les variations du sol, seront curvatures.

Chaque fois accidentes.

 Ceci veut dire que les « niveaux » — les sols — seront parfois obliques, parfois déformés, etc.
Cette vue intérieure de l'église (au sol de l'église)
montre au point culminant : le grand autel (pour les grandes messes)
seulement le "pupitre de l'Écriture"
au sol de l'église : les fidèles debout
à gauche du grand autel (en regardant les fidèles), le mur du "petit autel" pour les services quotidien.

This interior view of the church, (or the church floor) shows: at the sensitive point: (1) the high altar (for High Masses) (2) the "pulpit" on the floor of the church: the faithful standing; to the left of the higher altar (facing the faithful), the wall of the "small altar" for daily services.
le grand autel.
la petite chapelle
dessin de la galerie
son mur et son autel

la salle des réunions
les catechuménes, les classes

au-dessus de cet ensemble (de la toche) poètes le verse
coque à l'église

the different floors: the high altar, the small chapel, its wall and altar, beneath the gallery, the meeting room, the catechumen, the classes. Above this whole (of this base) will lie the vast shell of the church.

MODEL: DECEMBER 1962  STUDY MODEL OF THE FLOOR OF THE CHURCH AND SHELL WITH WINDOW SLOT. (drawing by Oubrerie)  STAGE IV
le toit incliné
la cloche

le résultat : des formes pour des fonctions

une lucarne d'écloison solaire

on a signalé l'expédition
de la galerie (amphithéâtre)
du portail

la claustra (feuille de coulum et cadre de béton)
= la "Rose" colorée mise à l'abri de la pluie

the sloped roof/the bell/the result = forms for functions/a window for sun lighting/we have indicated the existence of the gallery (amphitheater)/the windows (colored glass and concrete frames) = the colored "Rose" set in shelter from rain

MODEL: DECEMBER 1962 STUDY MODEL OF THE CASQUE, SOUTH EAST VIEW STAGE IV
Cette lecture date du 2/3.

En extrait de l'album « URB - Rio de Janeiro » feuille 36.

Elle évoque la splendide "Unité" de Ste Sophie de Constantinople longuement étudiée par L-C, au lieu à Istanbul, et la possibilité de réaction poétique de l'entrée de la lumière solaire dans un édifice.

* la "albums de voyage" de L-C

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This analysis dated January 2, 1963 is extracted from the album #URB Rio de Janeiro. It evokes the splendid unity of Santa Sophia of Constantinople, long studied (1910) by L-C in Istanbul and the possibilities (with poetic reaction) of the entrance of sunlight into a building.../#the travel albums of L-C

SKETCH: IN JULY 1936 FOR THE STUDY OF THE LIGHTING OF THE CHURCH STAGE IV actual size
Santa Sophia the rays of the sun at the cosmic hours/(Summer Solstice at Stonehenge England Druidic)
There is the entry of the ray of sunlight on Haile Morning/another light shaft operable on solemn occasion/the casing for the bell/the oblique roof/la clocka la chu de

una arquiva, la chu de

en refeito a la chu de...
two pipes crossed/the roof/two pipes crossed = the cross (here in profile)/the casing for the bell eventually for electronic music
Dans ce grand paysage naturel
est ce lieu de croisée de routes.

In this great natural landscape—on this site of crossed roads


64% of original size
There you are! Mr. Keller Smith. You have given me orders (comment on these drawings) I have devoted the time necessary to it, my work morning has been harshly disturbed/your Le Corbusier

Your comments on some of them (comments)

Also, I've seen some of them, it seems to me that we need to make some changes and rearrange it.
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the pulpit/the high altar/the archbishop's throne/amphitheater of the faithful/the stairway of the sacristy/the entry/the baptism/the ramp/

MEASURED DRAWING: PLAN STAGE IV
**here is the architecture of the church**

<table>
<thead>
<tr>
<th>MEASURED DRAWING: left</th>
<th>SECTION</th>
<th>STAGE IV</th>
</tr>
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</table>

**La coupe d'adresse**

<table>
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<tr>
<th>amp sens</th>
<th>au coeur</th>
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**The section I address with feeling from the heart to the spirit (mind)**

<table>
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<th>MEASURED DRAWING: middle</th>
<th>SECTION</th>
<th>STAGE IV</th>
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**Cette grande église vide?**

<table>
<thead>
<tr>
<th>long travail</th>
<th>de l'Atelier 35 Rue D'Sevre</th>
</tr>
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</table>

**Did travail fait**

<table>
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<tr>
<th>au millimètre</th>
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**This great church empty? = long hours of work from the Atelier 35 Rue D'Sevre. Work done by the millimeter**

<table>
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<th>MEASURED DRAWING: right</th>
<th>SECTION</th>
<th>STAGE IV</th>
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