





LE CORBUSIER

Courtesy of American Institute of Architects
Processing by Ralph Mills

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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 1929-1930 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 EGFIR I, II, III, or IV 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.

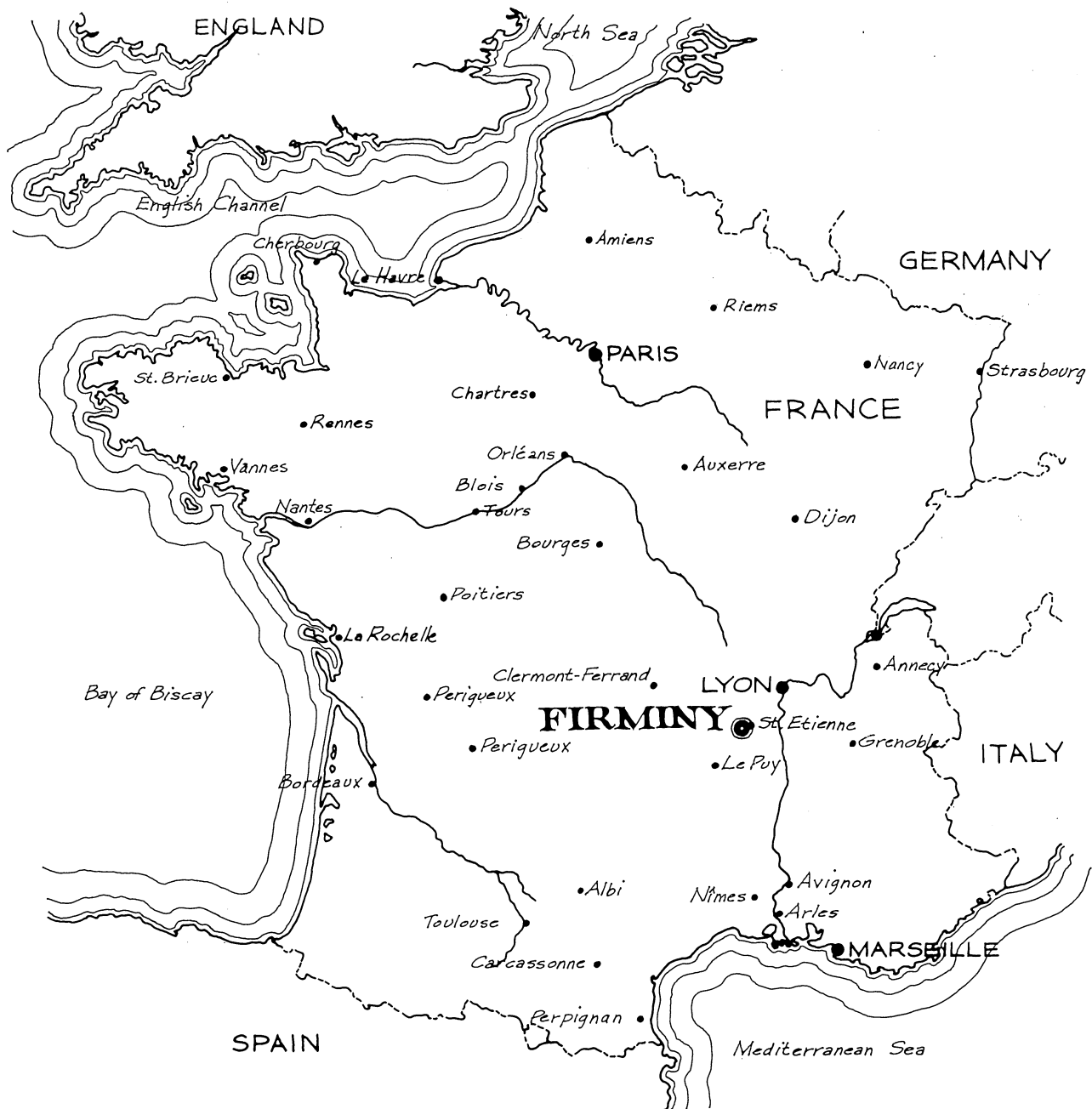
Le Corbusier's care and cooperation in organizing this publication is gratefully acknowledged by the editors. Jose Oubrierie, an architect in Le Corbusier's Atelier, supplied the photographs of the models and the captions of the drawings and models. The timely trip of Arthur Cogswell, former editor of 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 Auto-kraft 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**



Publier les croquis de naissance d'une œuvre
Architecturale peut être intéressant

(Orqu'une tâche m'en confie, j'ai
mon habitude de la mettre au dessus de ma mémoire,
c'est à dire de ne me permettre aucun croquis,
pendant des mois. La tête humaine est ainsi
faite qu'elle possède une certaine indépendance: c'est
une boîte dans laquelle on peut verser en vrac le
élément d'un problème. On laisse alors "floter", "mariner",
"fermenter,"

Puis un jour, sur une initiative spontanée de
l'être intérieur, le déclic se produit: on prend un
crayon, un fusain, des crayons de couleur (la couleur est
la clef de ~~l'acte~~ de la démarche) et on accouche
sur le papier: L'idée sort, - l'enfant sort, il
est venu au monde, il est né.

Jose Oubriere a dessiné les plans. Paris 21 mai 64 L-C

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 Oubriere drafted the plans
Paris May 21 1964 L-C

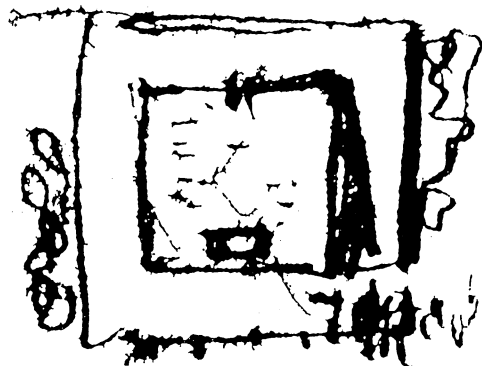
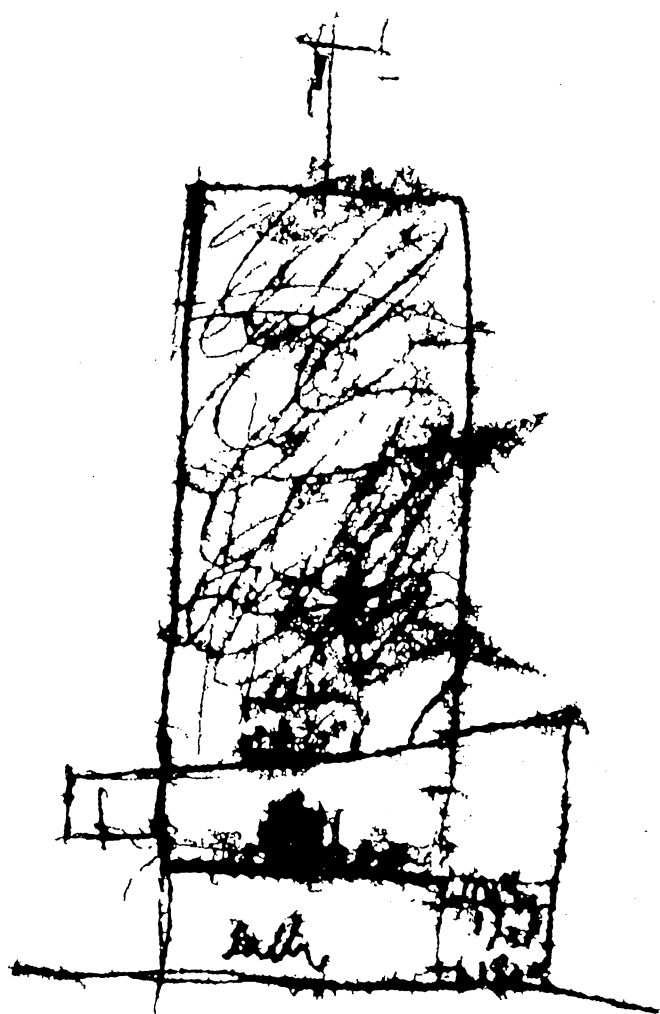
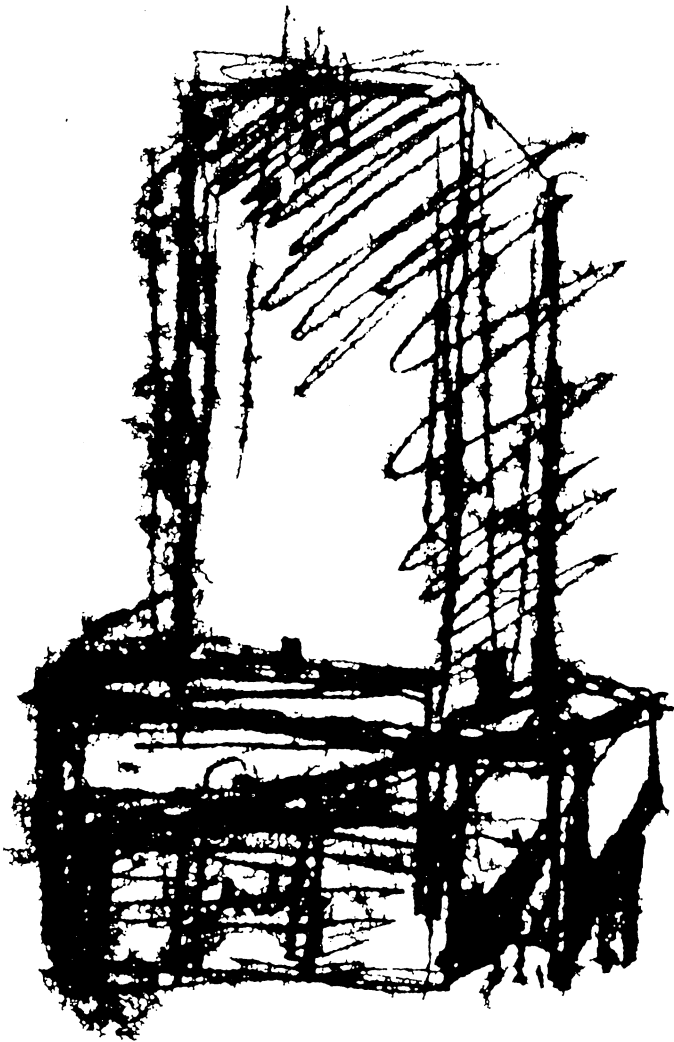
Une idée d'église, venue autour
de 1925-30. — venue un
beau jour
= venue "un beau jour"

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



EGFIX I

Projet fait sur le terrain, montrant :

"maison de la culture" (pour la jeunesse)

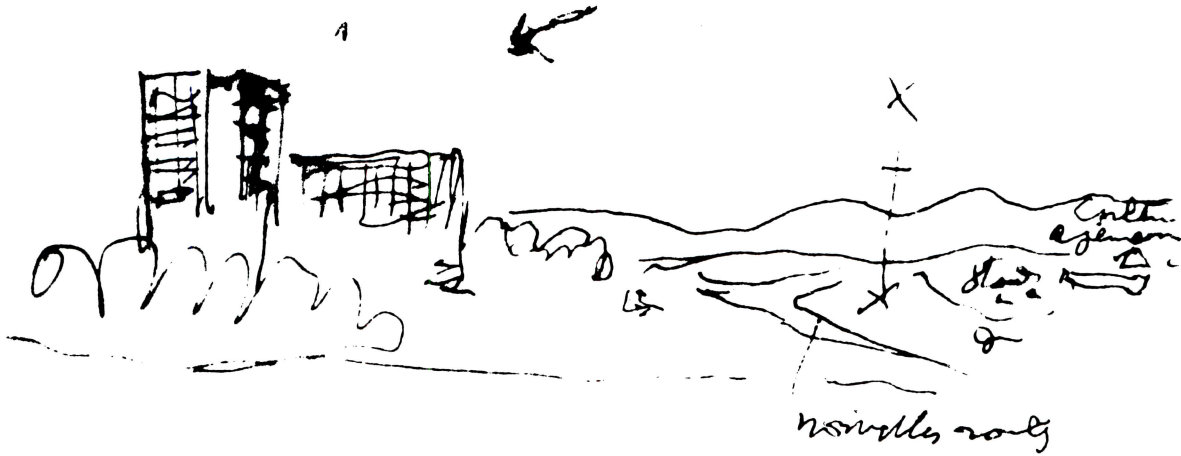
" la route " 4

" le immeuble déjà
construit par
Sive et Roux
architects. "

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

Les immeubles sur le front



A in l'eglise
voir plan.

A/le stade | B/l'église X

A/the sports ground B/the church

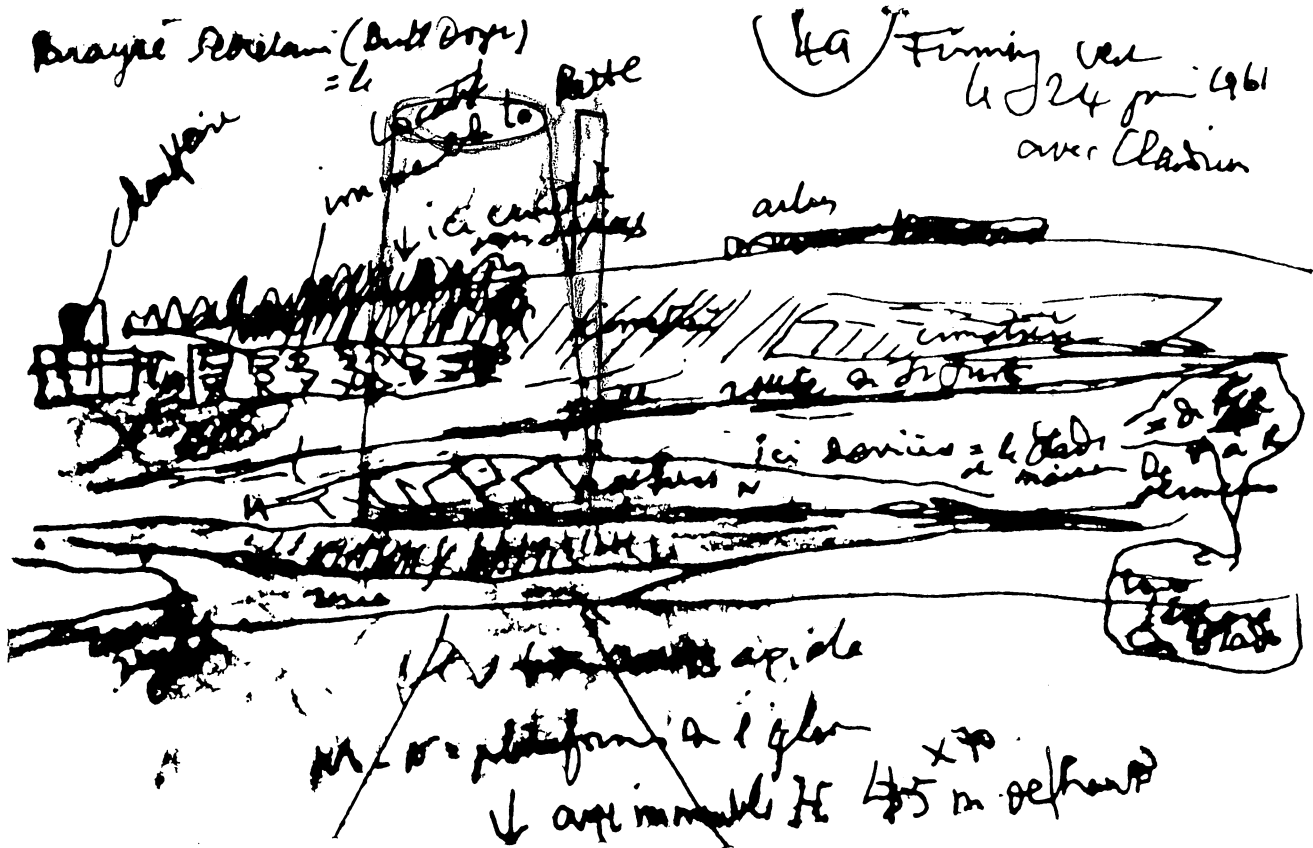


SKETCH: SKETCHBOOK 1960 (AT FIRMINY) AERIAL VIEW OF THE SITE
 north/road/dead trees = (where it was wooded)/see plan L-C Firminy 2

STAGE I actual size

avec Claudius Petit, maire actuel de Firminy
autrefois ministre de la Reconstruction.

première | inspiration de l'Eglise : sa forme dans
 | explication écrite 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 toiture

un oculus dirigé de façon
à envoyer ~~sur~~ sur l'autel,
le soleil à Pâques le matin.

toute la coque de l'église est
compacte (béton brut)
ici est une closture
ouverte dans le ciment
et faite de ~~des~~ verres de
couleurs diverses

la tribune des chanteurs
et l'orgue électronique.

la chaire
pour les sermons.

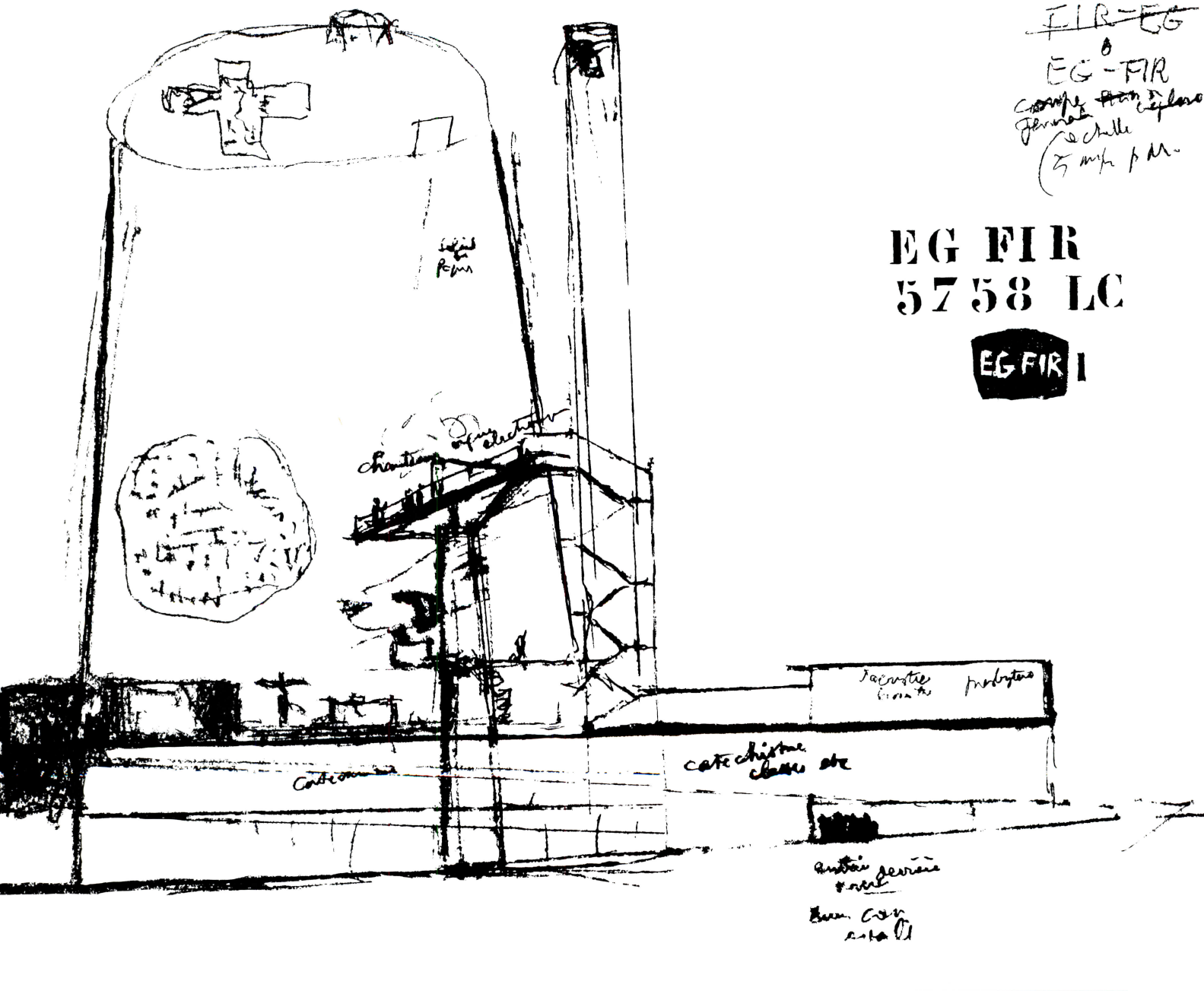
la croix. l'autel
l'étage des catéchumènes. catéchisme, classes

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

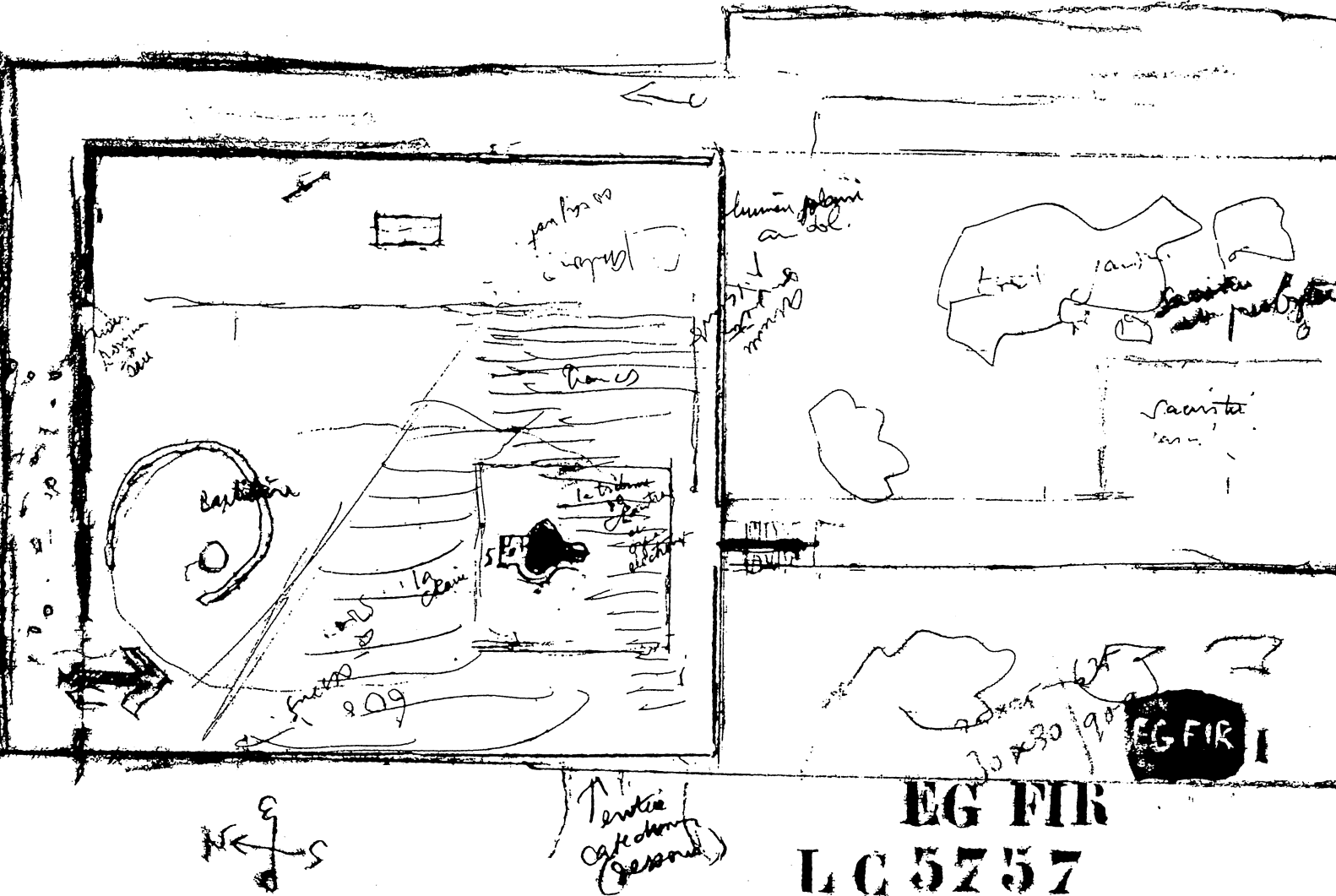
~~FIR-EG~~
EG-FIR
Camp from airplane
Jernat
Schelle
(5 mps p.m.)

EG FIR
5758 LC

EG FIR I



SKETCH: JUNE 10, 1961 SECTION STAGE I 59% of original size
general section scale: 5mm per meter



SKETCH: JUNE 10, 1961

PLAN OF CHURCH

STAGE I

67% of original size

le plan de l'église

l'autel

les bancs

le baptistère

le pilier
ou
la tribune
de chants
et
orgue électronique

l'escalier
pour la
tribune

la sacristie

l'entrée

les fidèles ou autres (six cents)
sont debout
ou sont assis

face au trône liturgique
sont debout ou se mettent sur le genou (s'ils en ont le goût)

Une église est le Forum du Bon Dieu : on vient / on est avec
d'autres en face des outils du culte : l'autel, et les proportions

plan of the church/the altar/the benches/the baptistry/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.

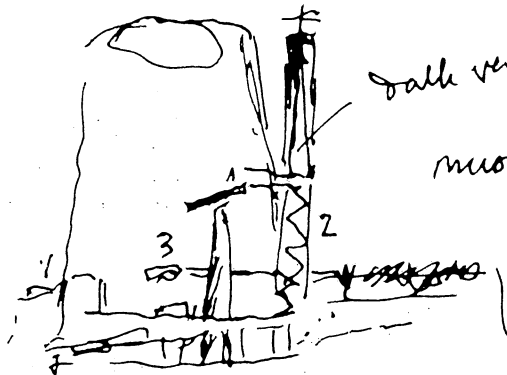
Sur ce croquis était
prévu un clocher

On this sketch a bell tower was provided

SKETCH: JUNE 14, 1961 STAGE I 96% of original size

vertical slabs/electronic equipment/hanging pulpit from a pillar, attached to staircase 2/below: rooms or presbytery

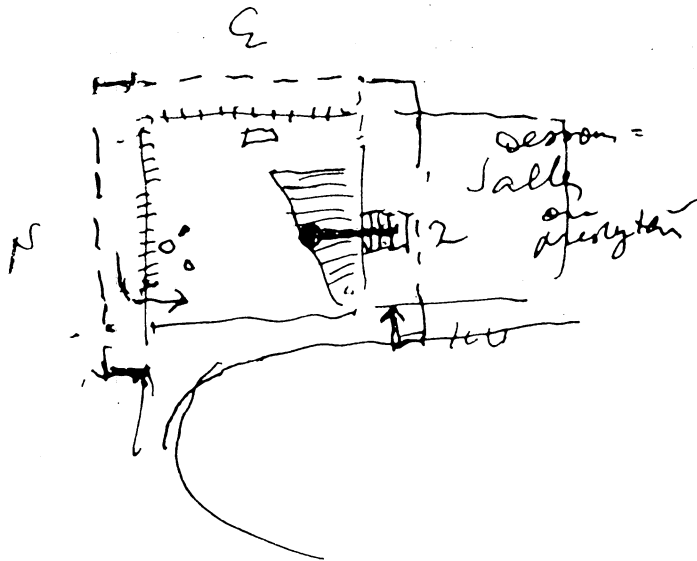
14
6
61



voie verticale.

mur à électrons

3 - chaise
accroché
à
patrons
et reliés
à l'échelle 2



section =
salle
de
réception

le toit
incliné

la cloche
(le porté - cloche)

le devant de l'église

L'escalier
montant
à la tribune
des chœurs.

une
rampe
couverte (ou fermée) partant de devant l'église

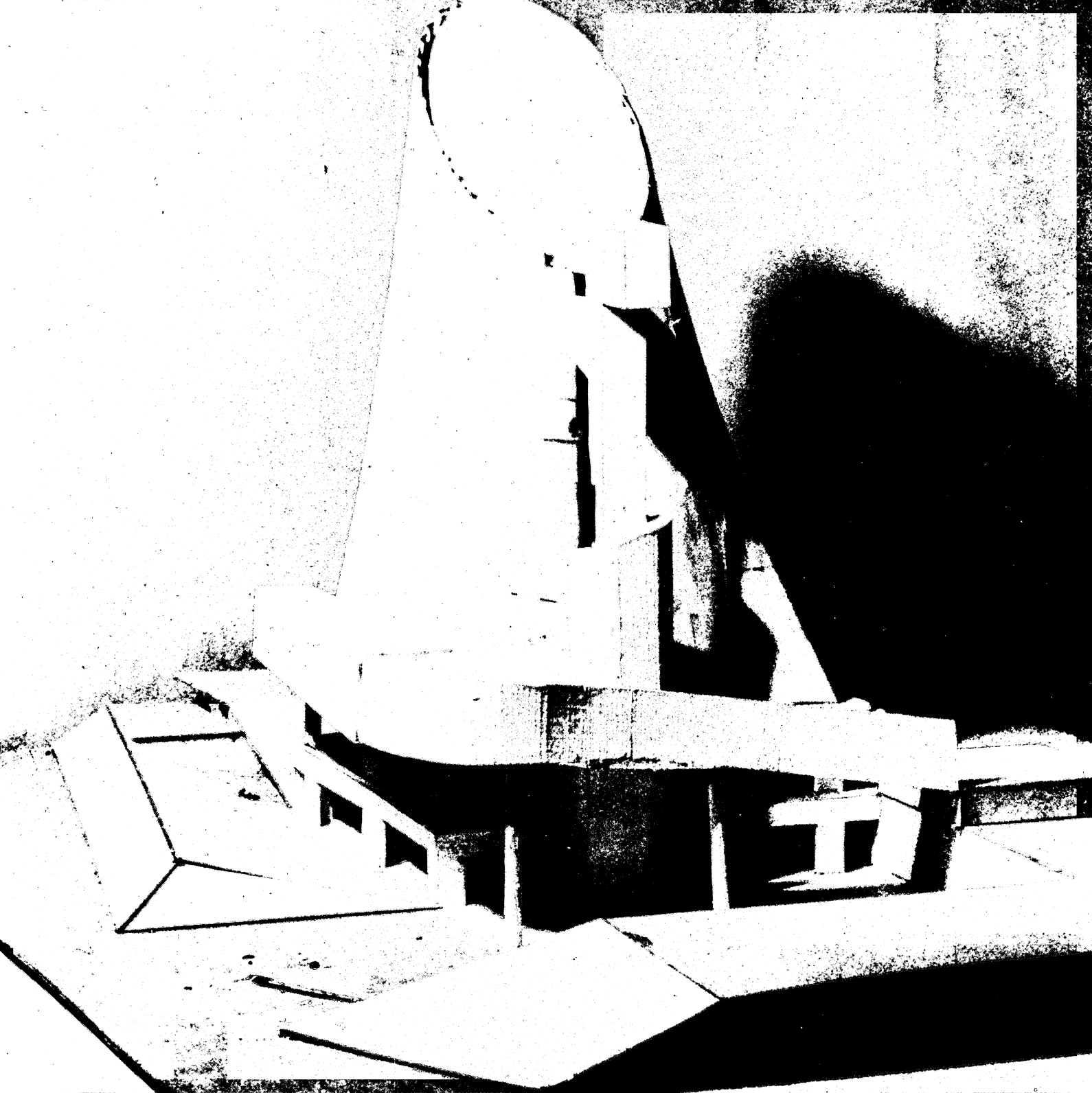


une rampe partant de la route
en plein air.



la rampe
la route

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



Dans le chemin à accès fermé
(- la rampe)

on avait prévu le
"Chemin de Croix"

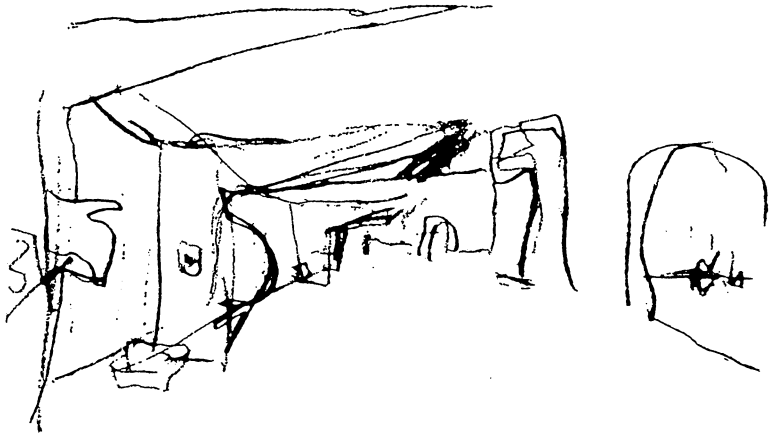
In the closed entry (the ramp) One envisioned the "Stations of the Cross"

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

28
20
61

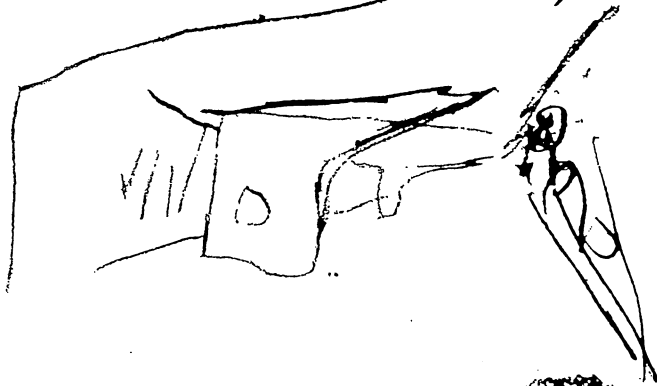
on ~~central~~
eyebrow Friming



2
a. State
of
California

= work & below

lounge, apartment area
& more of the
place
over route
level



EG FIR 17

dans le chemin d'accès (fermé) . . .

par les trous (de droite)
on voit dans l'Eglise.

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

SKETCH: OCTOBER 28, 1961 CHURCH GALLERY STAGE II actual size

undulations for access gallery and baptistry/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

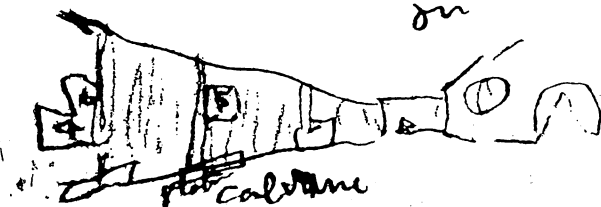
Eglo Firming

28
10
61

de antuleta
pe chem
de roata de
la baptea

antuleta cu acel

+
veru imprimi bobbele
pe ~~veru~~ carne + de ^{bande verticale} ^{bouillon} ⁱⁿ ^{calam} ^{forte}
permanen a fin d'omette
le nettoyage de vites la
pluie deffisat
Gouvern Atats L-C
24 NC



EG FIR 11

et éclairage solaire
" électrique

Solar lighting and electric lighting

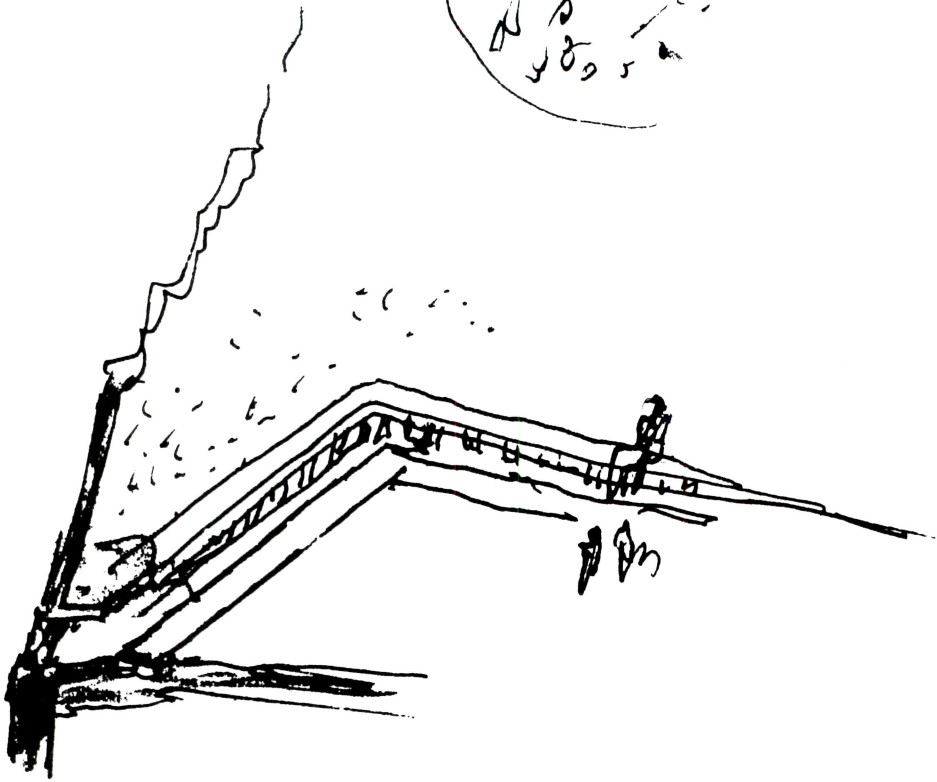
SKETCH: NOVEMBER 11, 1961 LIGHT SLOT ON THE PERIMETER OF THE CHURCH STAGE III
97% of original size

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

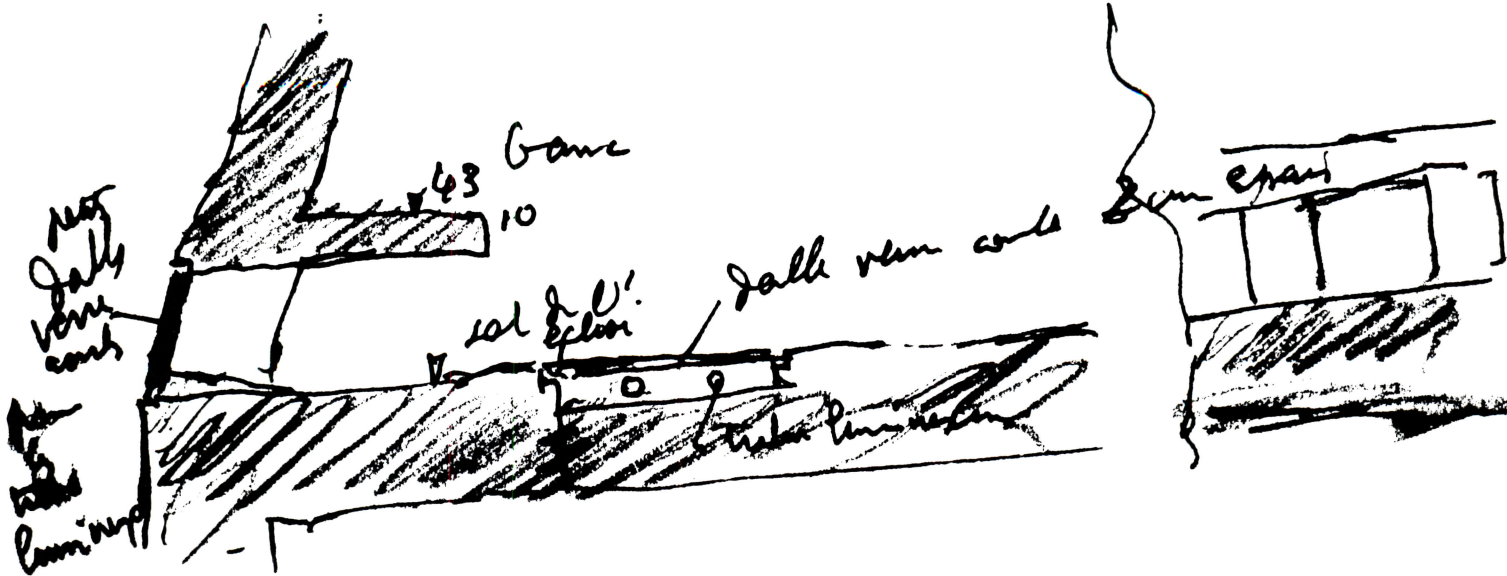
N 30 5

LC

EG FIR ITI



of construction
by a electric
antenna & light
(interior)



not
dally
very
cond

with
laminating

63
10
Gance

sol d'U.
Eclair

dalle ven cond

Sum epas

interior

le plan.

Claudius Petit

Tardy le curé

Capellade

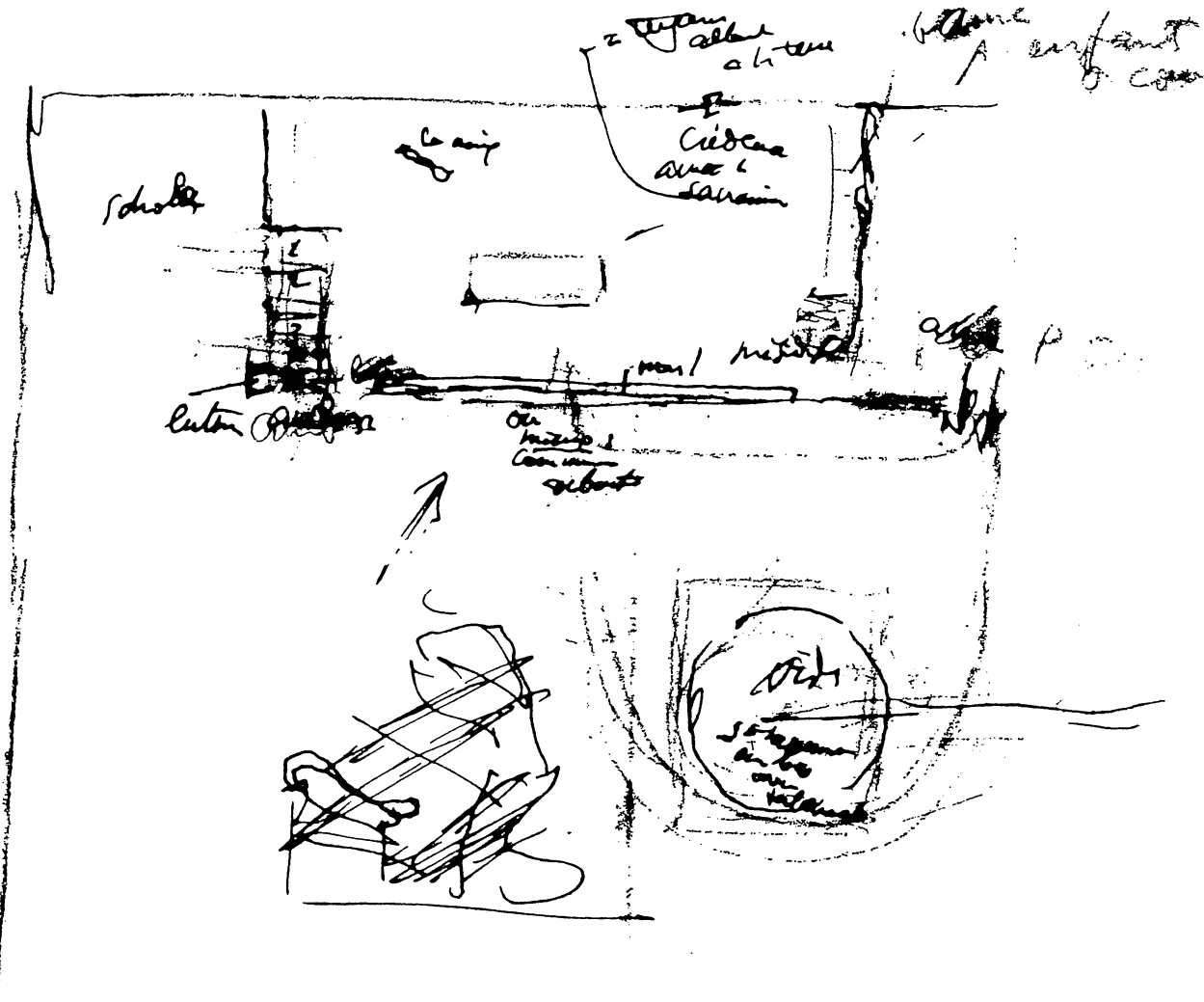
père dominicain

ancien élève architecte

à l'École des

Beaux-Arts

P. Messone



Claudio
Taday Com
R. P. Lucifone
Capellato

III
EG FIR
30 OCT 1961

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

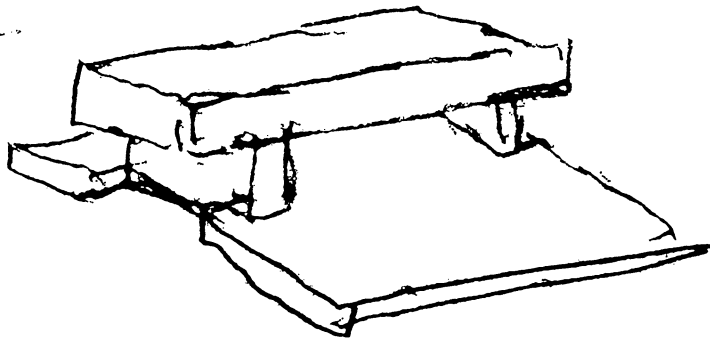
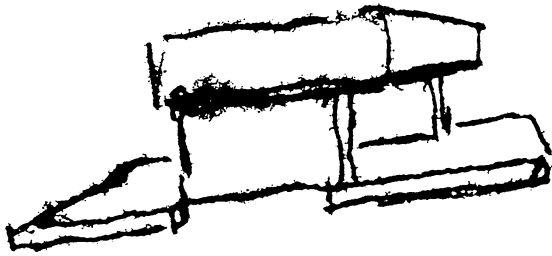
l' autel

la table du sacrifice

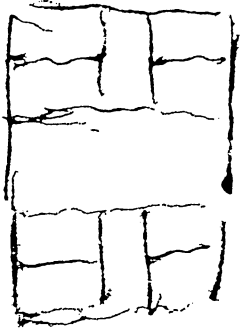
(8 mois après la
visite au terrain)

c'est un objet sacré

the altar/the communion table/(8 months after a visit to the site)/It is a holy object



part, side



until exterior

Ronchamp

EG FIR

*Oubriere
use for
and lighting*

SKETCH: JANUARY 8, 1962 FOR THE ALTAR OF FIRMINY STAGE IV 94% of original size
slabs of the base/exterior altar Ronchamp/Oubriere do not forget Rose Window lighting

Des traits de lumière... spirituelle

(par la coupe)

on pense à Varese, le musicien
français à New-York.

Je suis au pied de l'Himalaya,
à Chandigarh.



Real minute (projections electric)

V
P
rendu? sans quelle heure?
le jour
ou? et?

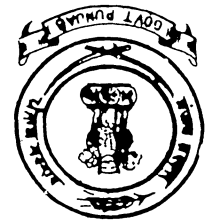
grand roseau (~~est~~ minute)
" " " "

18 June 61

(Sketchbook $\frac{R}{64}$ page { 38
43
44

questions Varosi?
p. chartes?

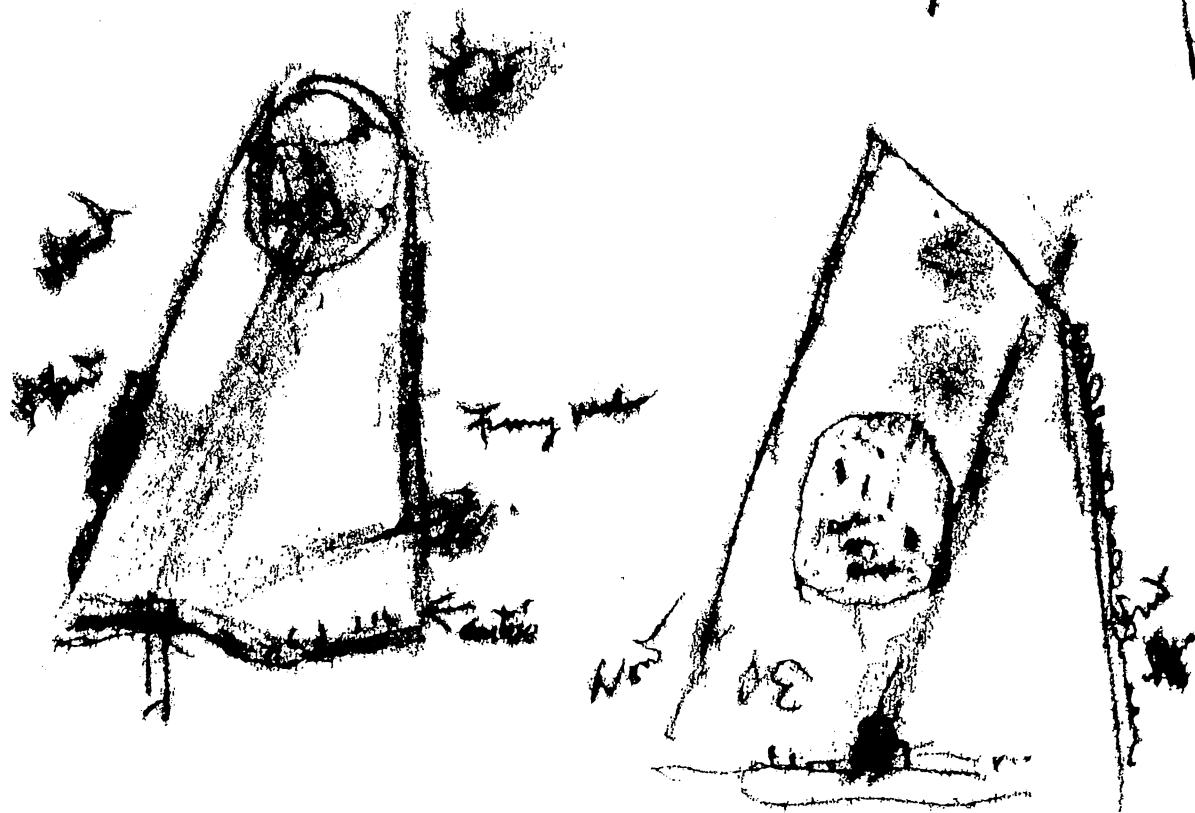
EG FIR IV



Architectural Adviser to Government, Punjab,
Capital Project.

SKETCH: END OF 1962 FOR A TENTATIVE STUDY OF LIGHTING RELATED TO LITURGICAL CELEBRATION STAGE IV actual size

Christmas midnight (electrical projection)/V Good Friday/P Easter/what hour?/where? in?/18 June 1961/VIH Grand Rose window midnight/Grand Rose window



"The Dent Du Midi and Mont Catogne in the Rhone Valley in Valais (Valais Canton at the end of Lake Lemman) 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

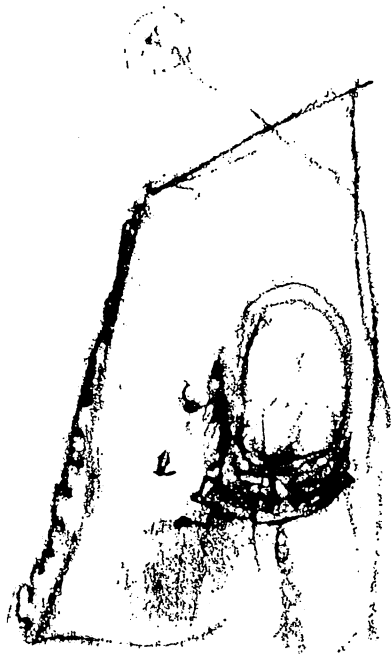
G.F.I.R. IV

ATEX 100
 LE COATON
 33, rue de la Chapelle
 Fribourg - CH - 17-49

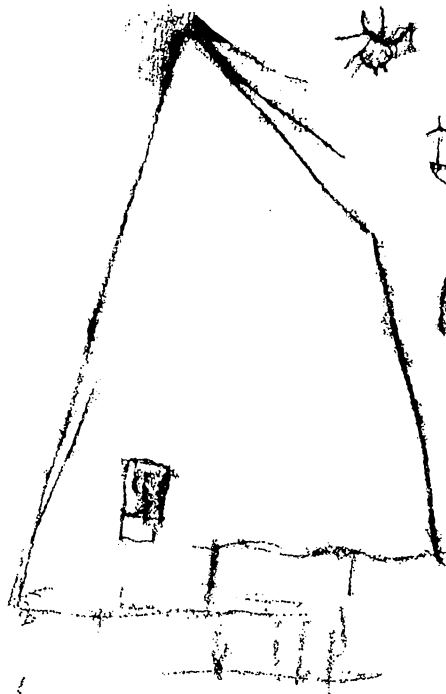
L-L
 19
 12
 62



←
"La Deme du ~~Mont~~
mont) midi"
et le (Catsogne
dans la vallée
du Rhône
en ~~Valais~~ Valais
(Canton du
Valais au
bout du
lac Léman)
nous donnent
du courage
pour
la ~~plus~~ jeu
des
diagonales

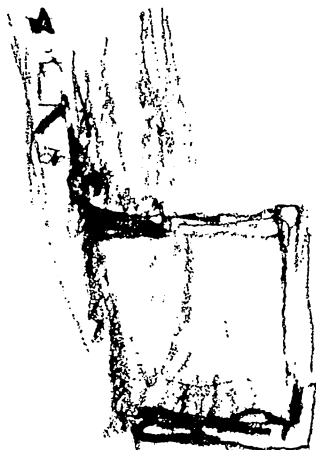


notre



(18 mois
24 juin 1961
après la naissance
de l'idée
(ici 19 décembre
1962)

et pour la
nature des
volumes à
proposer...



Les pentes du terrain
et les pentes architecturales entrent en jeu.

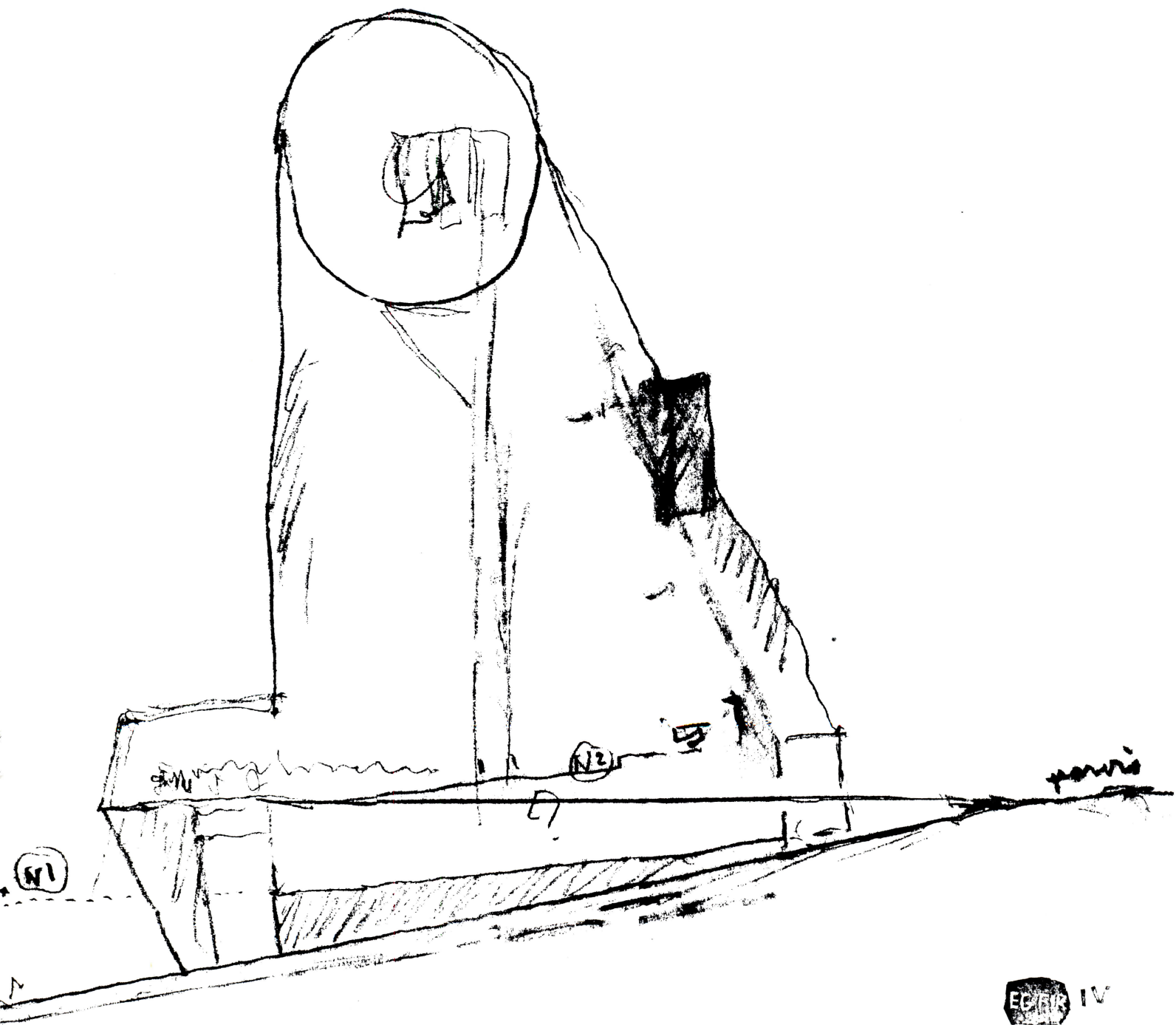
The site slopes and the architectural slopes coming into play

SKETCH: OCTOBER 1962

SOUTH VIEW

STAGE IV

42% of original size



ECIR IV

LE CLOUÉ
30 rue de Clères
Paris-6e-Lit. P9-62

L'assiette de la bâtisse se constituera . . .
Elle contiendra trois niveaux

N. A

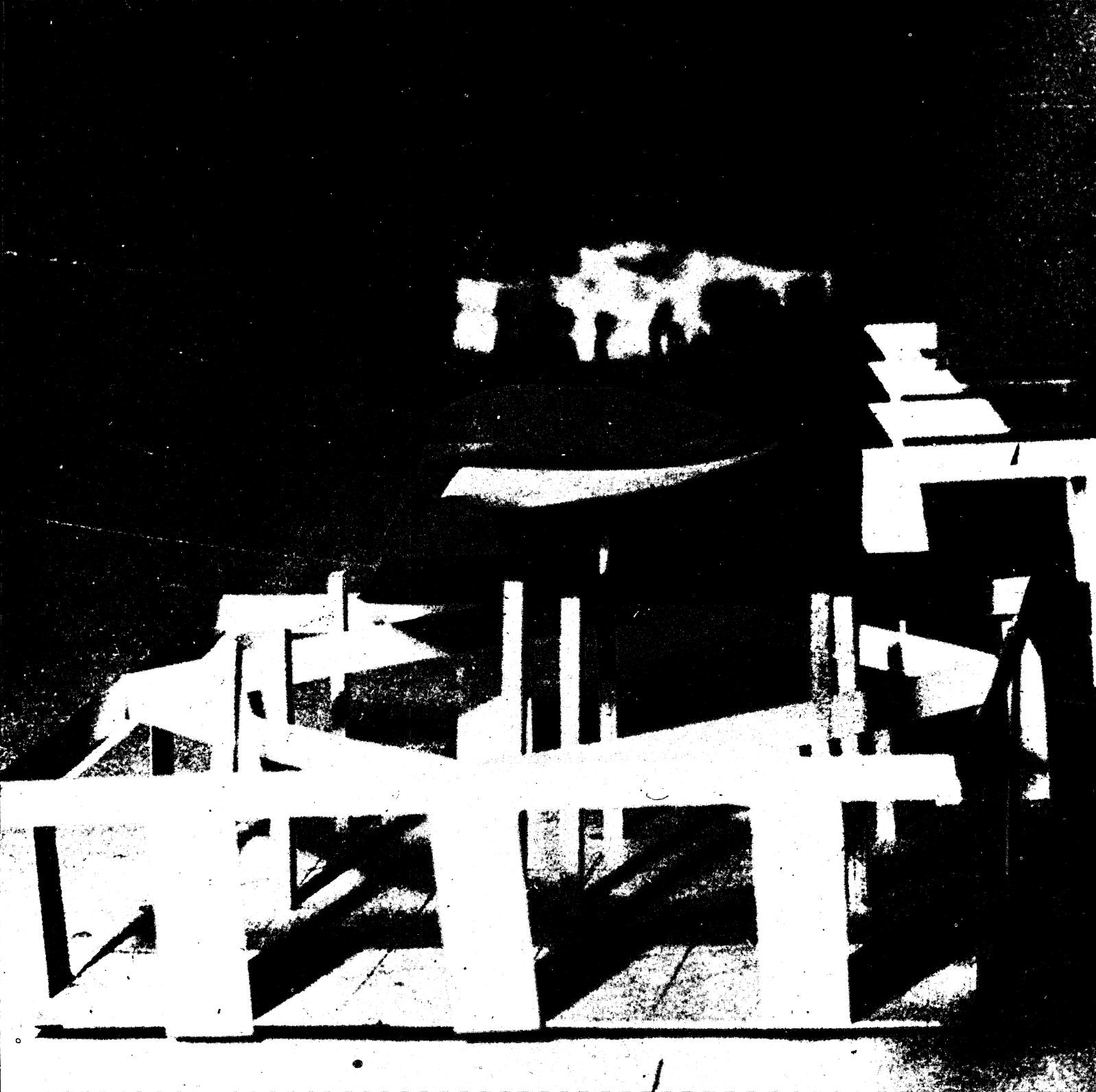
N. B

N. C

ici le sol de l'église

cette "assiette" est un prisme rectangulaire ajouré de poteaux et de poutres de béton armé. Sur la tête il recevra la coque de l'église (comme un chapeau). Ses pieds iront chercher les bancs de rochers de cette ancienne carrière, mélangée 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 [accidents] du sol, seront
[avatars]
Chaque fois accidentés

Ceci veut dire que les "niveaux" — les sols — seront
parfois obliques, parfois déformés, etc.

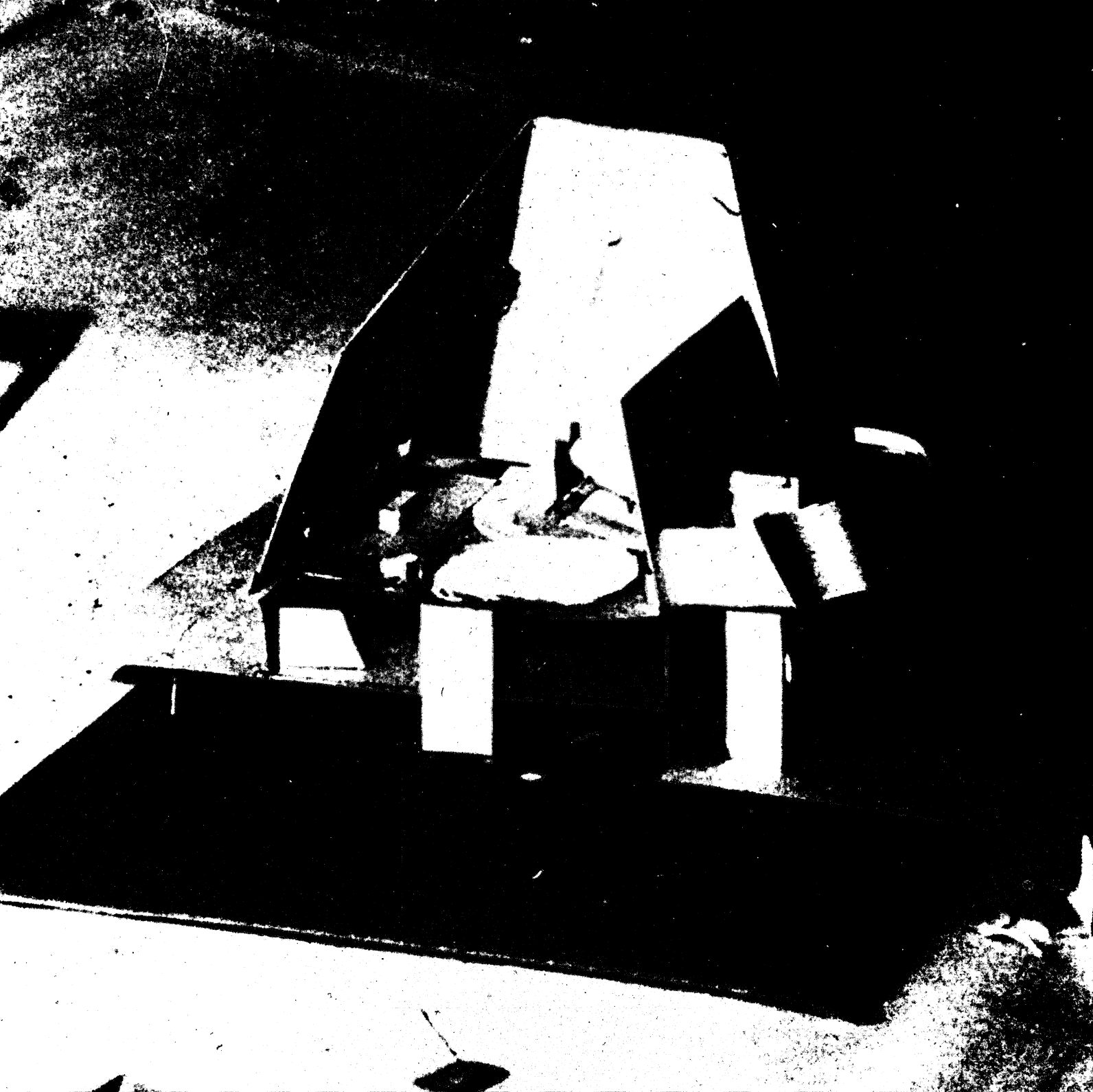
The levels according themselves to the accidents of the ground will be uneven at random./This means that the "levels"
—the floors—will be sometimes oblique, sometimes sagging, etc.

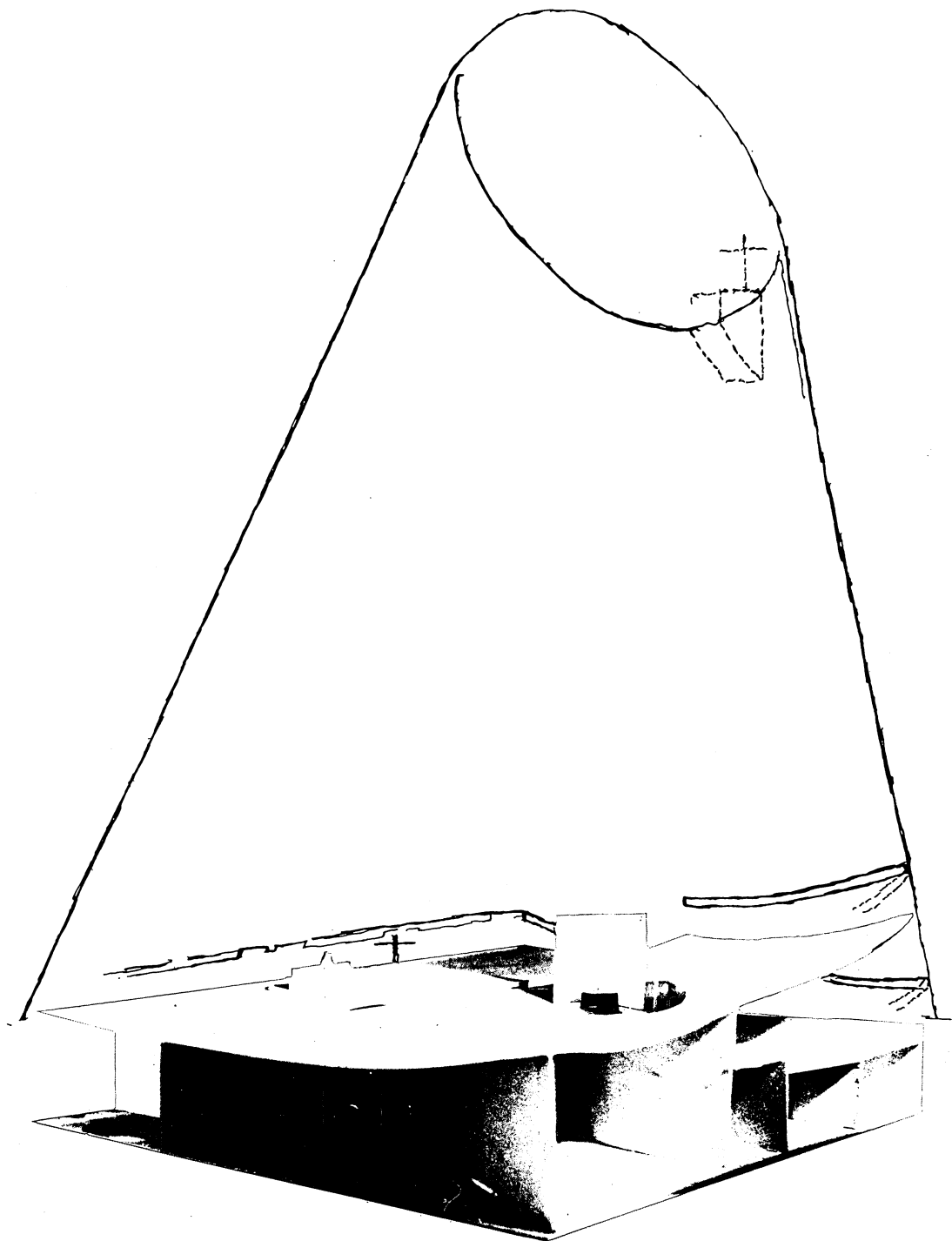


cette vue intérieure de l'Eglise (au sol de l'Eglise)

montre : au point pathétique culminant : 1. le grand autel (pour les grandes messes)
devant le " " " " 2. le pupitre des "Ecritures"
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 quotidiens.

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.





les divers sols:

le grand autel.

la petite chapelle
son mur et
son autel

le dessous de la galerie

la salle des réunions | les catéchumens, les classes

au-dessus de cet ensemble (de la base) posera le vaste
coque de 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 WIN-
DOW SLOT. (drawing by Oubrerie) STAGE IV

le toit incliné

la cloche

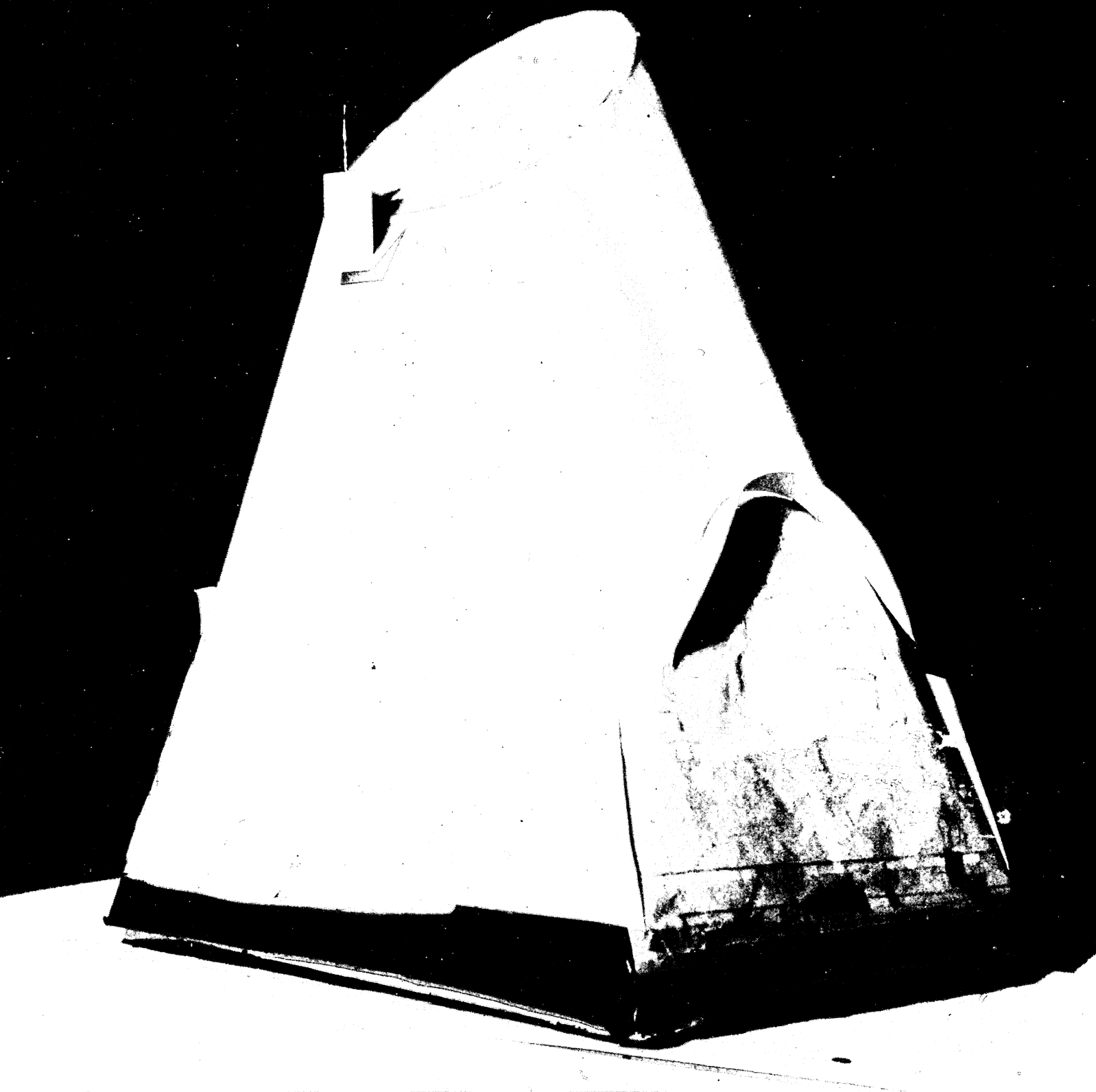
le résultat : des formes pour des fonctions

une lucarne
d'éclairage solaire

on a signalé l'existence
de la galerie (amphithéâtre)
du porteur

la clostura (verres de couleur
et cadres 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



cette "lecture" datée $\frac{2}{1}{63}$

en extrait de l'Album # URB - Rio-de-Janeiro
feuille 36.

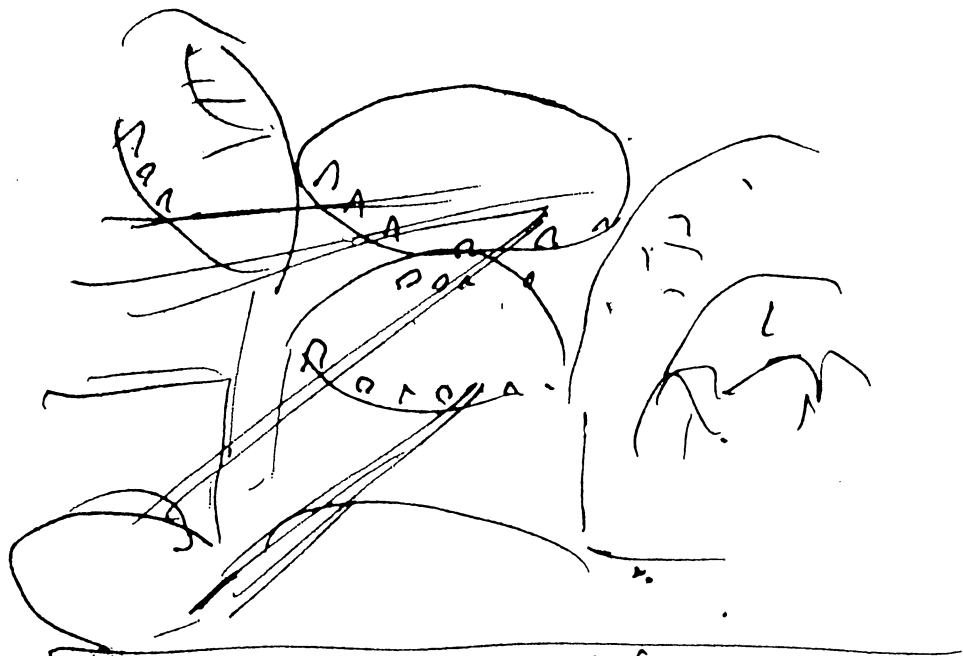
Elle évoque la splendeur "Unité" de Ste Sophie de Constantinople
longue^{ment} étudiée ^{en 1910} par L-C, au place à Istanbul, et
les possibilités (de réaction poétique) de l'entrée de la lumière
solaire dans un édifice....

* les "albums" de voyage
de L-C

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)

ETB IV



Dr Sophie de rayon ^{de la} Lema Cosmique
(de la d'été à ~~Starchen~~ ^{amplifier} d'indique)

de la d'été à ~~Starchen~~ ^{amplifier} d'indique



IV

← entrée du rayon de lumière
de Pâques

← une autre boîte à lumière
ouvrable à l'heure solennelle

la boîte de
la cloche

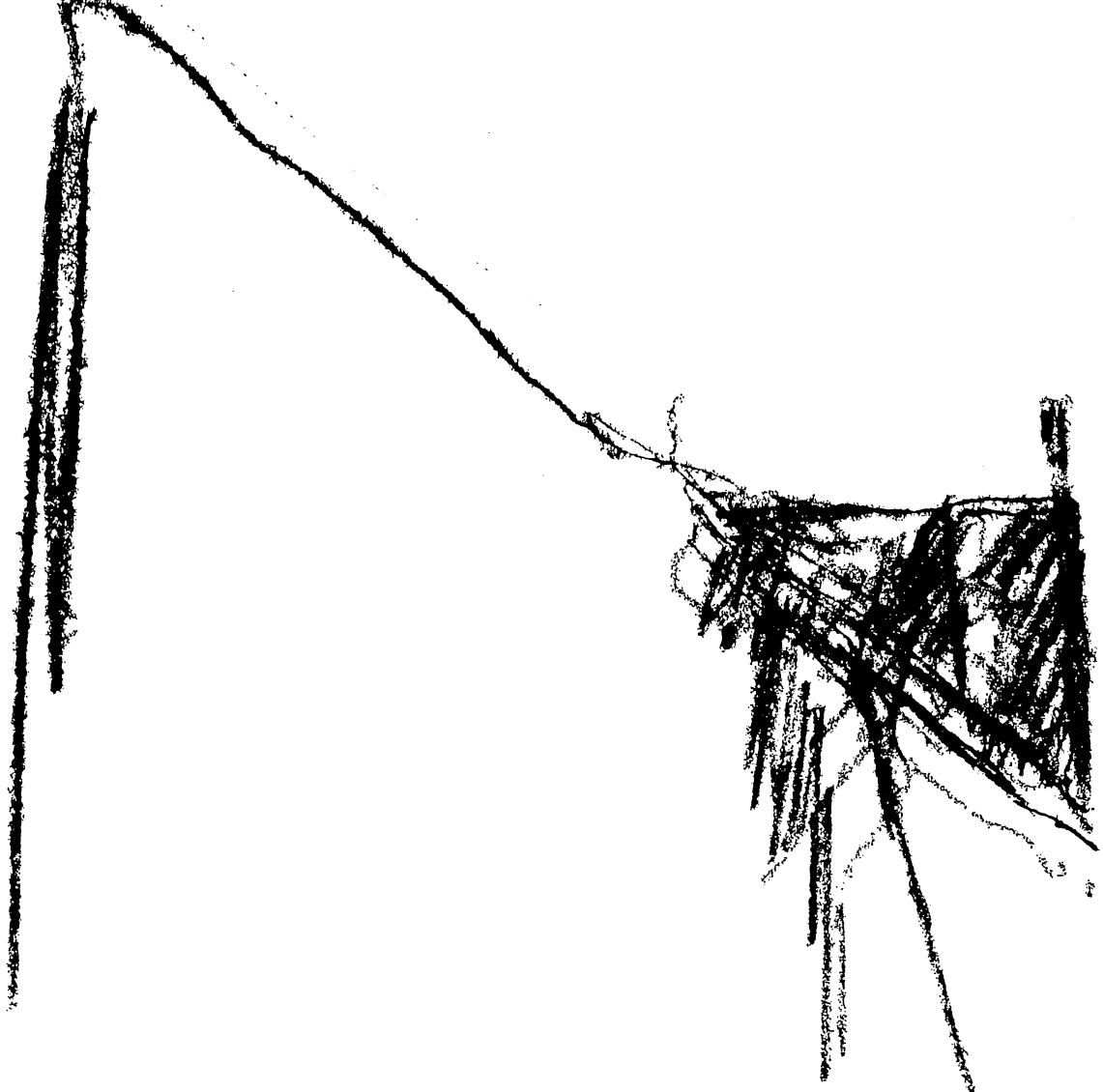
There is the entry of the ray of sunlight on Easter Morning/another light shaft operable on solemn occasion/the casing for the bell/the oblique roof

SKETCH: DECEMBER 3, 1962

BELFRY AND LIGHT TUBE

STAGE IV

88% of original size



(A)

EG FIR IV

(A)

pas de cloches
mais : électronique

← 2 tubes croisés

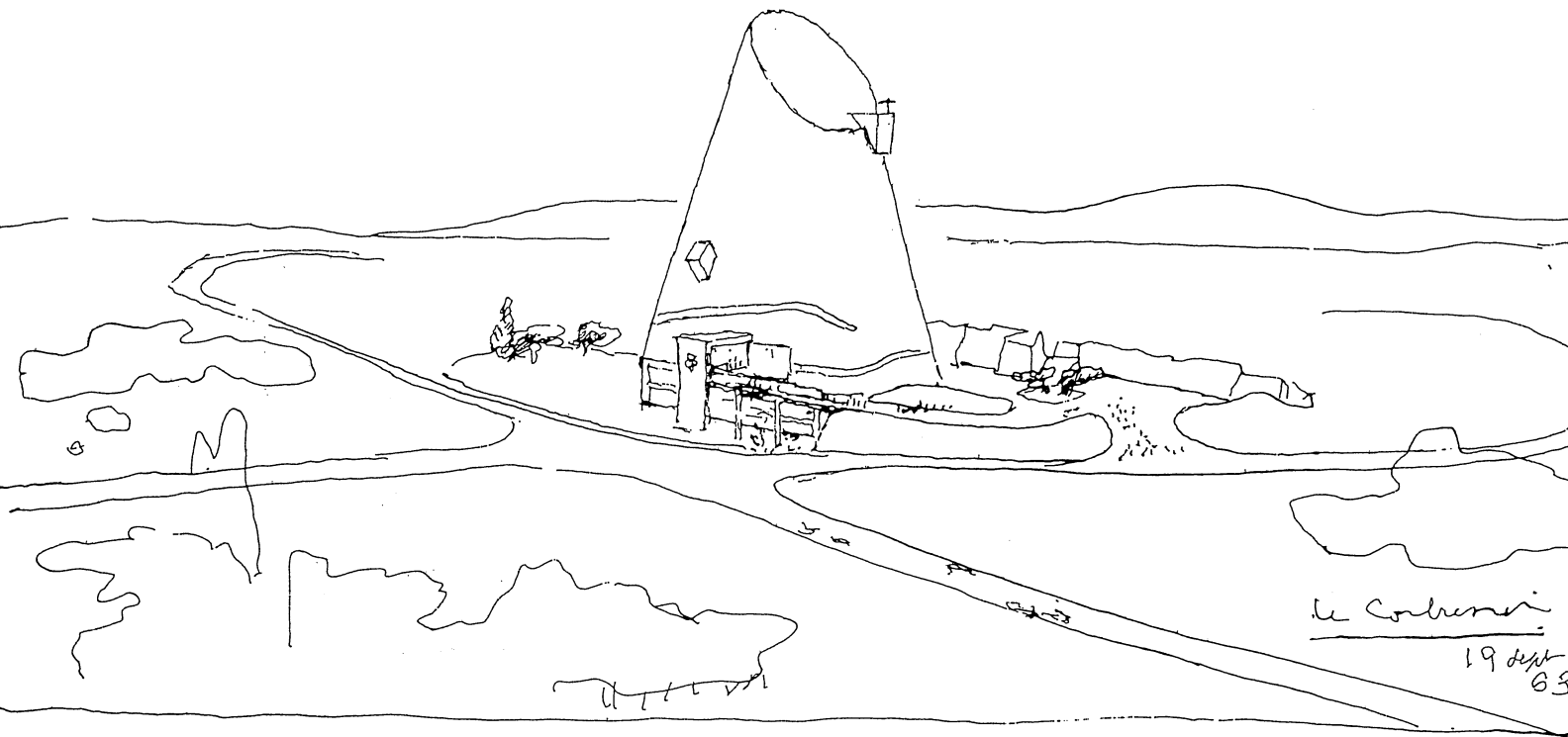
le toit

2 tubes croisés
= la croix
(ici de profil)

la Goutte de La cloche
éventuellement musique
électronique

two pipes crossed/the roof/two pipes crossed = the cross (here in profile)/the casing for the bell eventually for electronic music

SKETCH: DECEMBER 3, 1962 BELLS STUDY STAGE IV actual size



dans ce grand paysage naturel
en ~~ce~~ ce lieu de croisée de routes

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

SKETCH: SEPTEMBER 19, 1963
64% of original size

GENERAL VIEW OF THE SITE AND THE CHURCH

STAGE IV

voilà! Mr Keller Smith
vous m'avez donné des ordres! (commentaires
et dessins) J'y ai consacré le temps nécessaire;
ma matinée de travail a été durement
perturbée.
votre Le Corbusier

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!/yours Le Corbusier

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Acknowledgements: The staff would like to thank Dean **Henry L. Kamphoefner** for his continued support and the secretaries of the School of Design for their invaluable help: **Anne Craddock, Winifred Hodge, Elizabeth Pippin, Elizabeth Young.**

For the support given to the issue, we are greatly indebted to:

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Distributors: George Wittenborn and Co., 1018 Madison Avenue, New York 21, N. Y. and Alec Tiranti, Ltd., 72 Charlotte Street, London W. 1, England

Printed by: The Graphic Press, Inc., Raleigh, N. C.

Ceci n'est donc pas la maquette
définitive ...

This is certainly not the final model ...

MODEL: JULY 1962 VIEW OF THE SITE AND BUILDING STAGE III

le grand autel.

le pupitre

le siège de l'archevêque

l'amphithéâtre
des fidèles

l'escalier
de la
sacristie

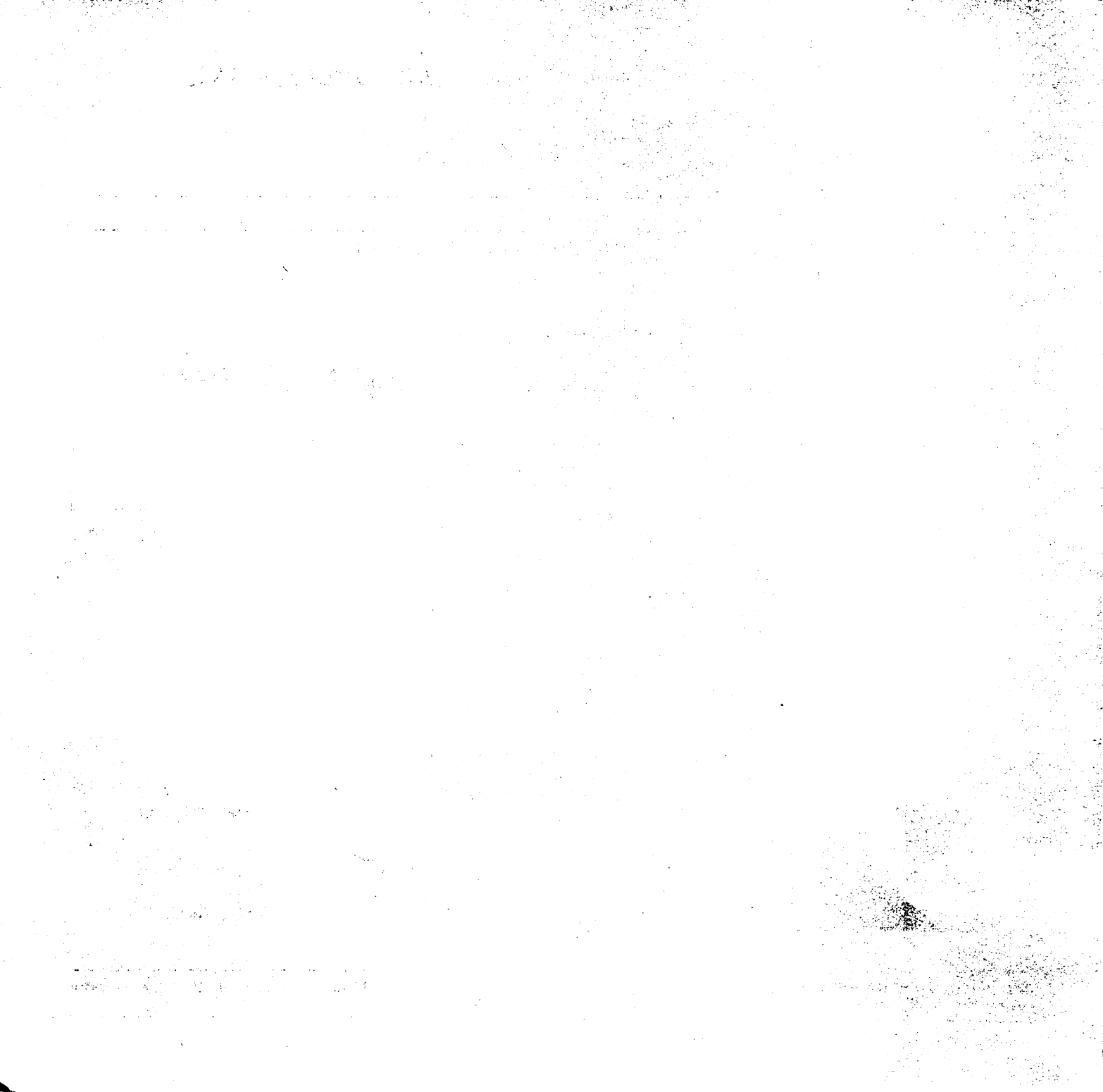
l'entrée

le baptistère

l'accès

the pulpit/the high altar/the archbishop's throne/amphitheater of the faithful/the stairway of the sacristy/the
entry/the baptistry/the ramp/

MEASURED DRAWING: PLAN STAGE IV



ici en l'architecture
de l'église

here is the architecture of the church

MEASURED DRAWING: left SECTION STAGE IV

La coupe s'adresse
aux sens
au cœur

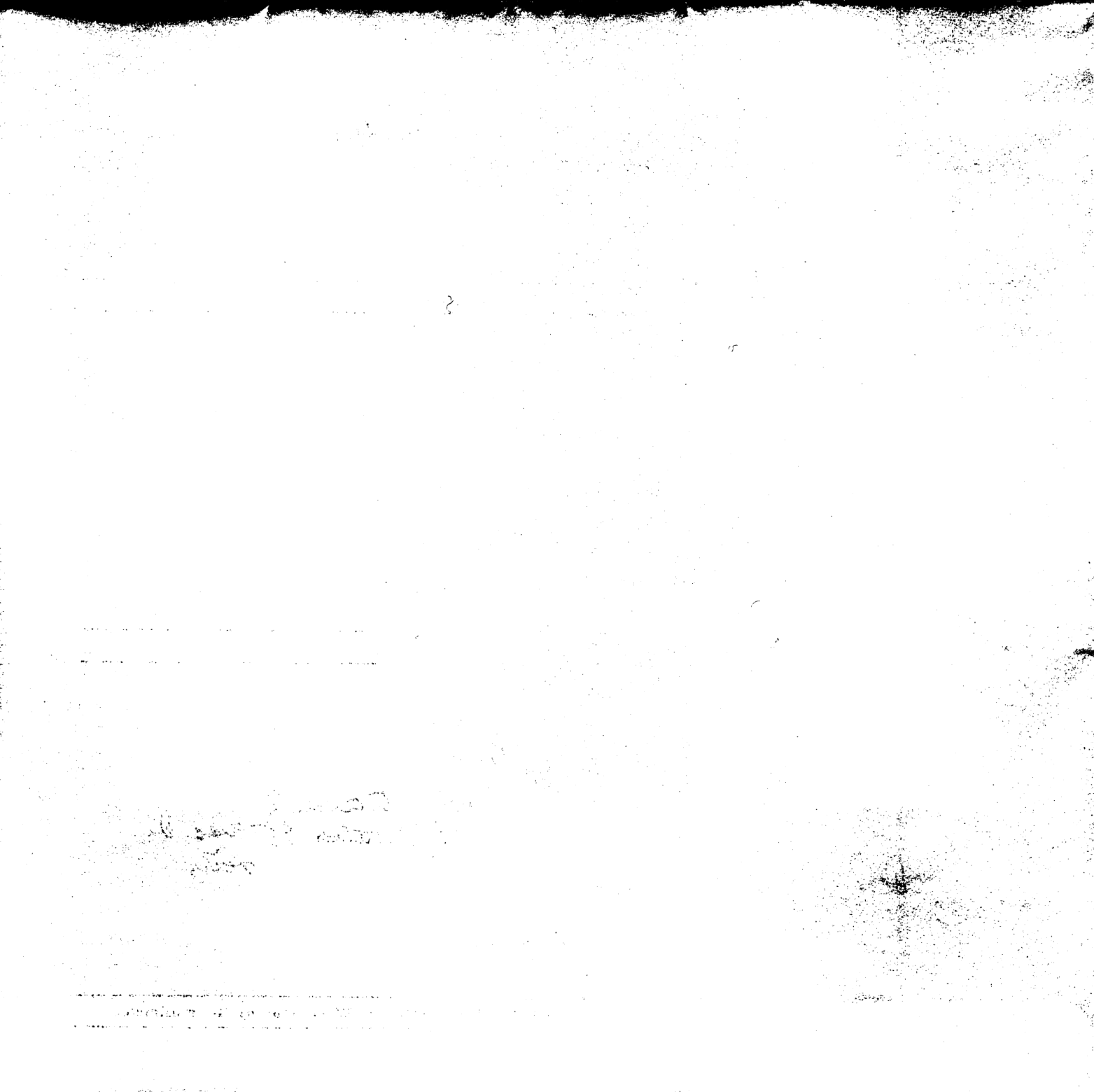
The section I address with feeling from the heart to the spirit (mind)

MEASURED DRAWING: middle SECTION STAGE IV

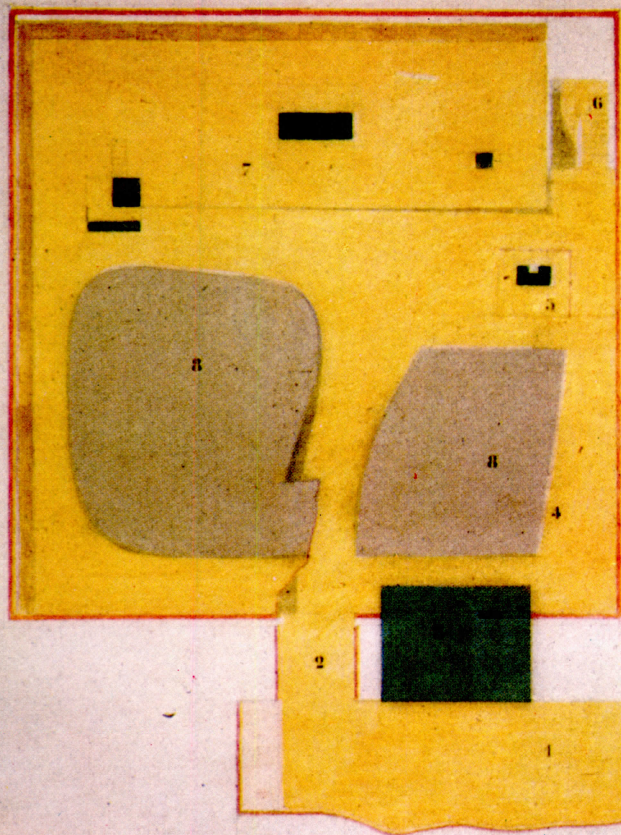
Cette grande église vide ?
= long travail
de l'Atelier 35 rue de
Sevres
- Du travail fait
au millimètre !

This great church empty? = long hours of work from the Atelier 35 Rue D'Sevre. Work done by the millimeter

MEASURED DRAWING: right SECTION STAGE IV



1. 1. 1. 1. 1.
2. 2. 2. 2. 2.
3. 3. 3. 3. 3.
4. 4. 4. 4. 4.
5. 5. 5. 5. 5.
6. 6. 6. 6. 6.



01

12

24w

N3

EG

Small text block, possibly a title or description, located in the upper right corner of the page.

