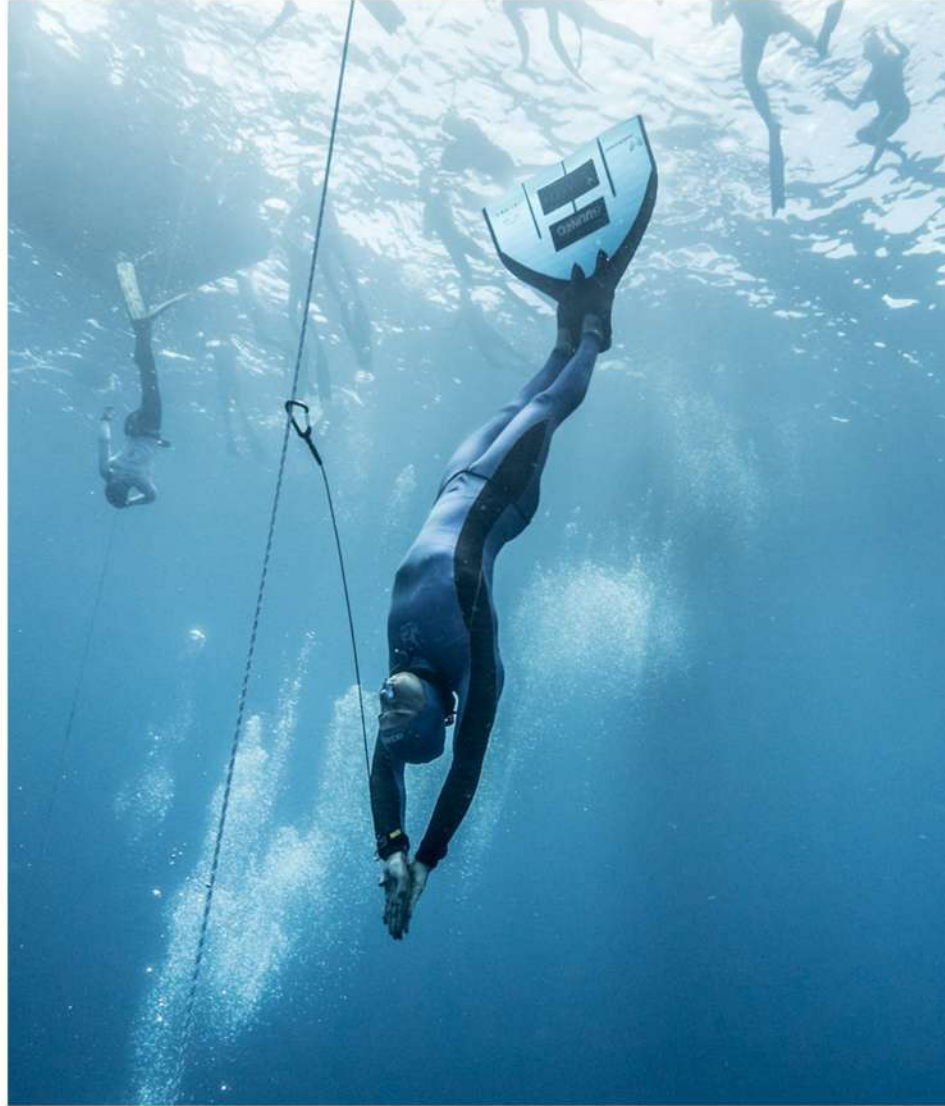


FREEDIVING CHURCH

Eindhoven University of Technology
Master program
Architectural Urban Design and Engineering
2024

Project supervisor: Narindath Maraj
Author: Liliia Polukarova

Freediver (skate-star.ru)



The notion of the sacral is rather difficult to grasp, although it seems to be very clear to everyone without explanation. In architecture, sacral spaces are primarily those connected with religion, memory, and the feeling of transcendence: churches, cemeteries, and memorials. However, the sacredness can be found in other architectural typologies, far from religious themes. The deepwater swimming pool, for instance, can be named a sacred space since the process of deep diving can give one a feeling of transcendence and help to calm one's mind and body. The aesthetics and typology of the swimming pool have not much in common with the sacral architecture, so this project is an attempt to merge two architectural types and adjust the temple typology to the function of a swimming pool.

ANALYSIS

SWIMMING POOLS (COMMON AND DEEPWATER)

Private school swimming pool in Surray, Great Britain
(archi.ru)



Swimming pool Deep Dive, Dubai (60 m)
(bangkokbook.ru)



CHURCHES, TEMPLES, BASILICAS

St. Sernen basilica in Toulouse, France
(bigphoto.name)



Echo (caused by water, heard on surface) Echo

No echo (underneath the water)

No music Music

Natural/electric light or no light Natural light

Swimming, no thinking (ideally) Praying, standing, sitting, watching, thinking

Training body (and it leads to the mind and soul) Training mind and soul

Civic space **Sacral, sacred space**

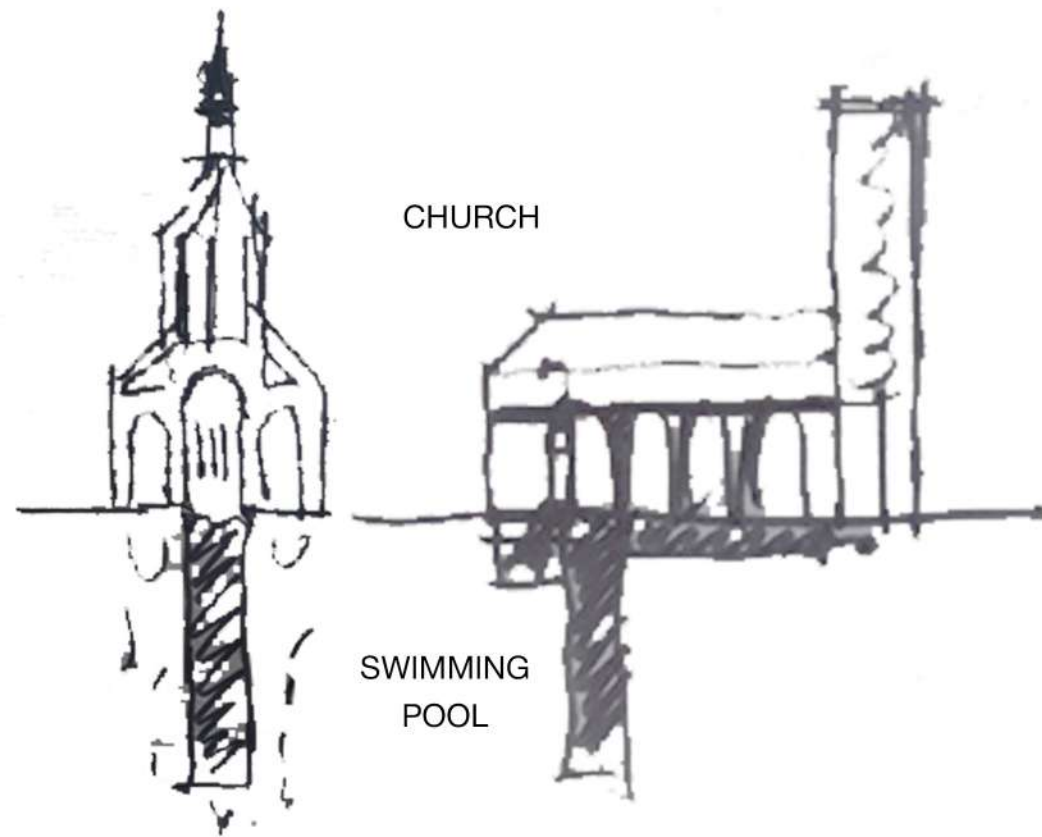
No religion Religion

Rather new type (but water is eternal) Old type

Feeling of transcendental
Meditation
Getting rid of pain, calming mind

SACRAL

PROJECT IDEA



church + swimming pool

swimming pool as reflection of a church, and vice versa

REFERENCES

ATMOSPHERE

Harry Potter and Deathly Hallows 2 (youtube.com)



ARCHITECTURE

Moritzkirche in Augsburg, Germany
(johnpawson.com)



REFLECTION CONCEPT

Pirates of the Carribean 3 (youtube.com)

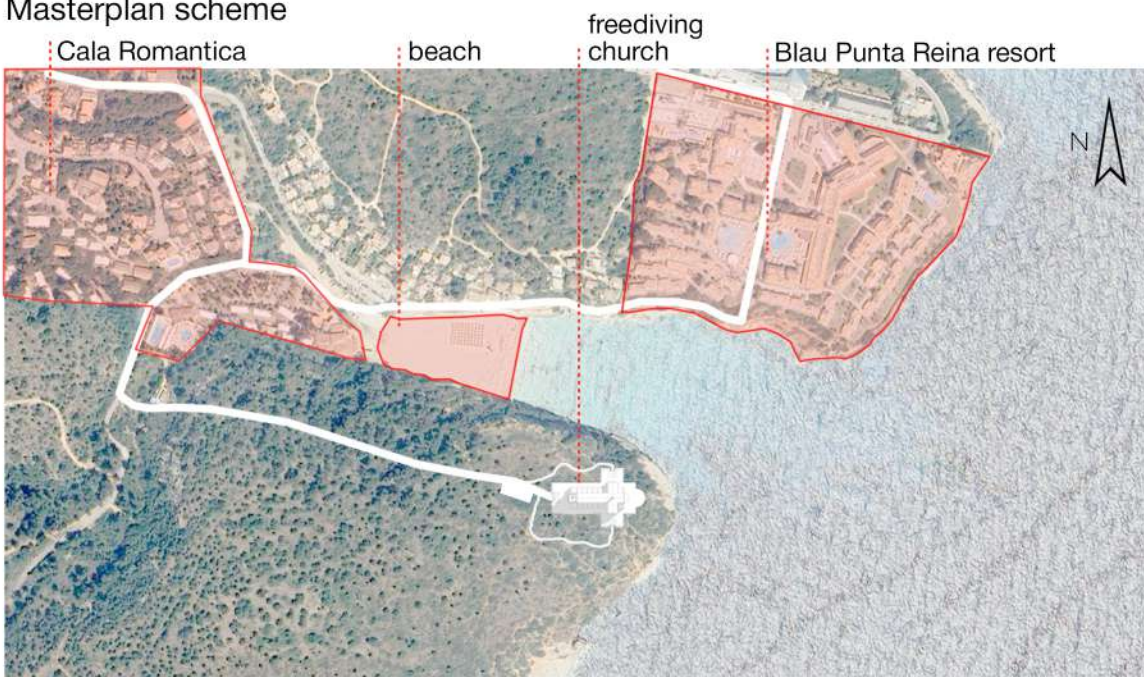


LOCATION

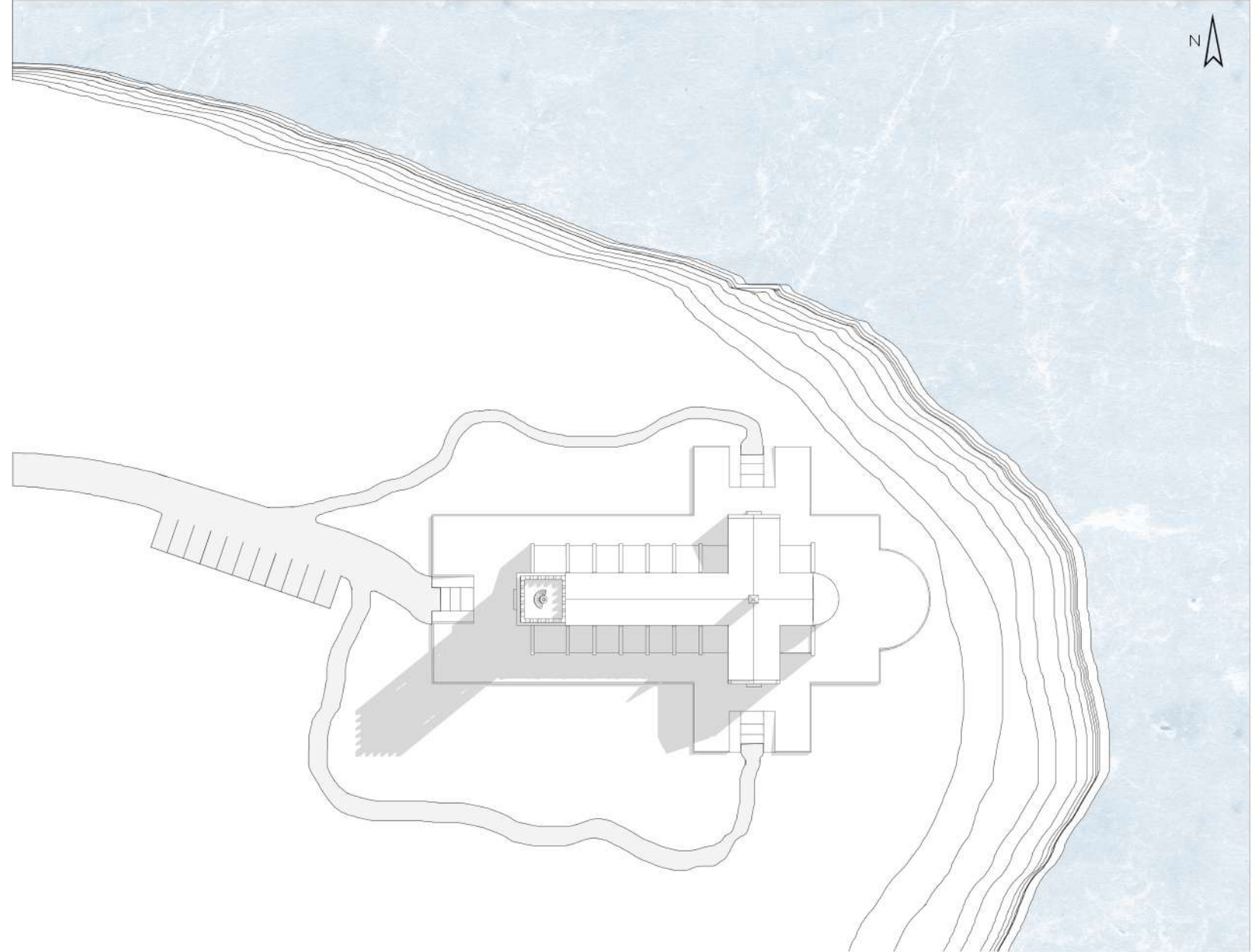
Location map (Majorca, Spain)



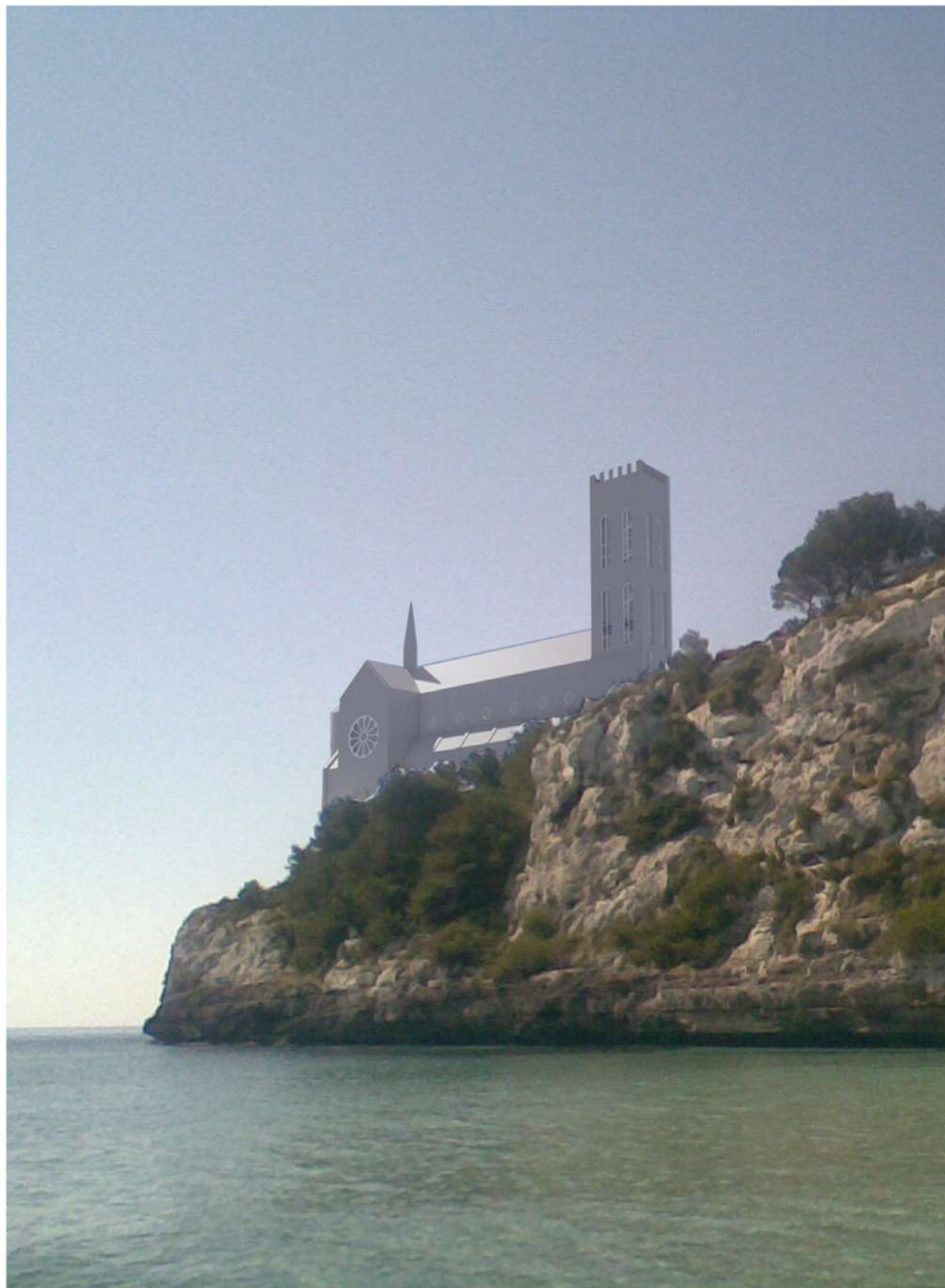
Masterplan scheme



Master plan
Scale 1:1000



View from the beach

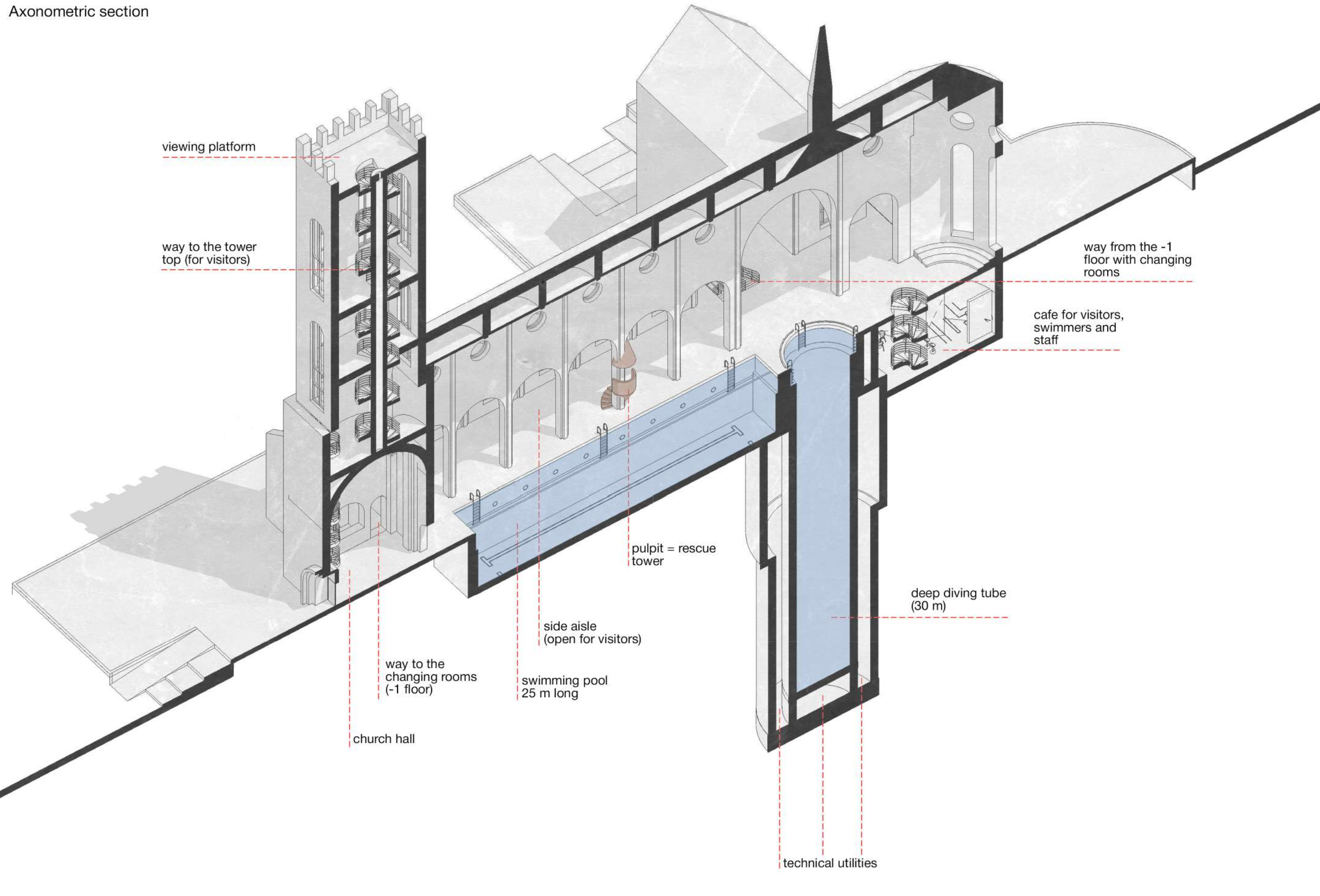


(c) L. Polukarova

View from the cliff



Axonometric section



viewing platform

way to the tower top (for visitors)

way from the -1 floor with changing rooms

cafe for visitors, swimmers and staff

pulpit = rescue tower

deep diving tube (30 m)

side aisle (open for visitors)

swimming pool 25 m long

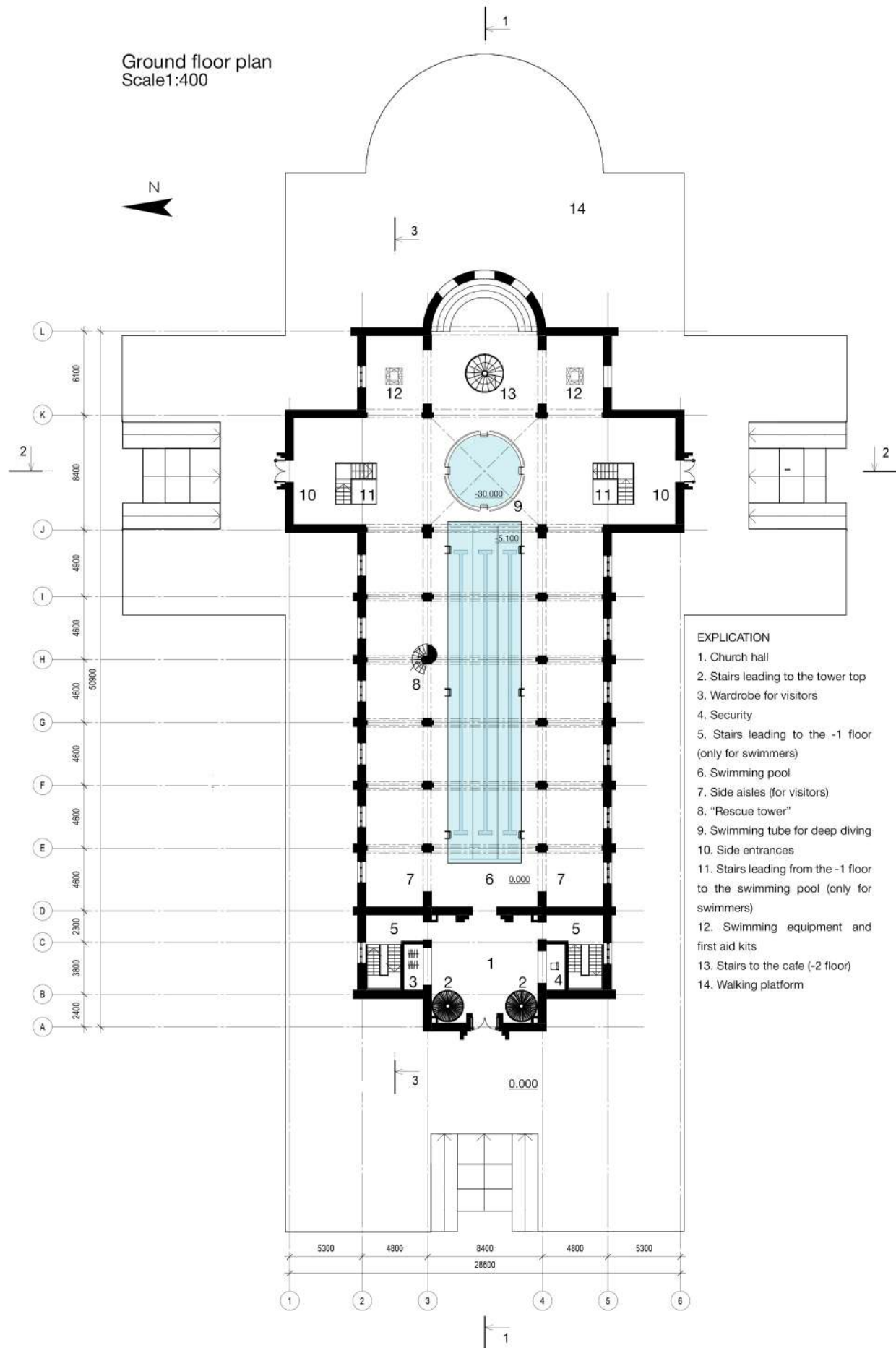
way to the changing rooms (-1 floor)

church hall

technical utilities

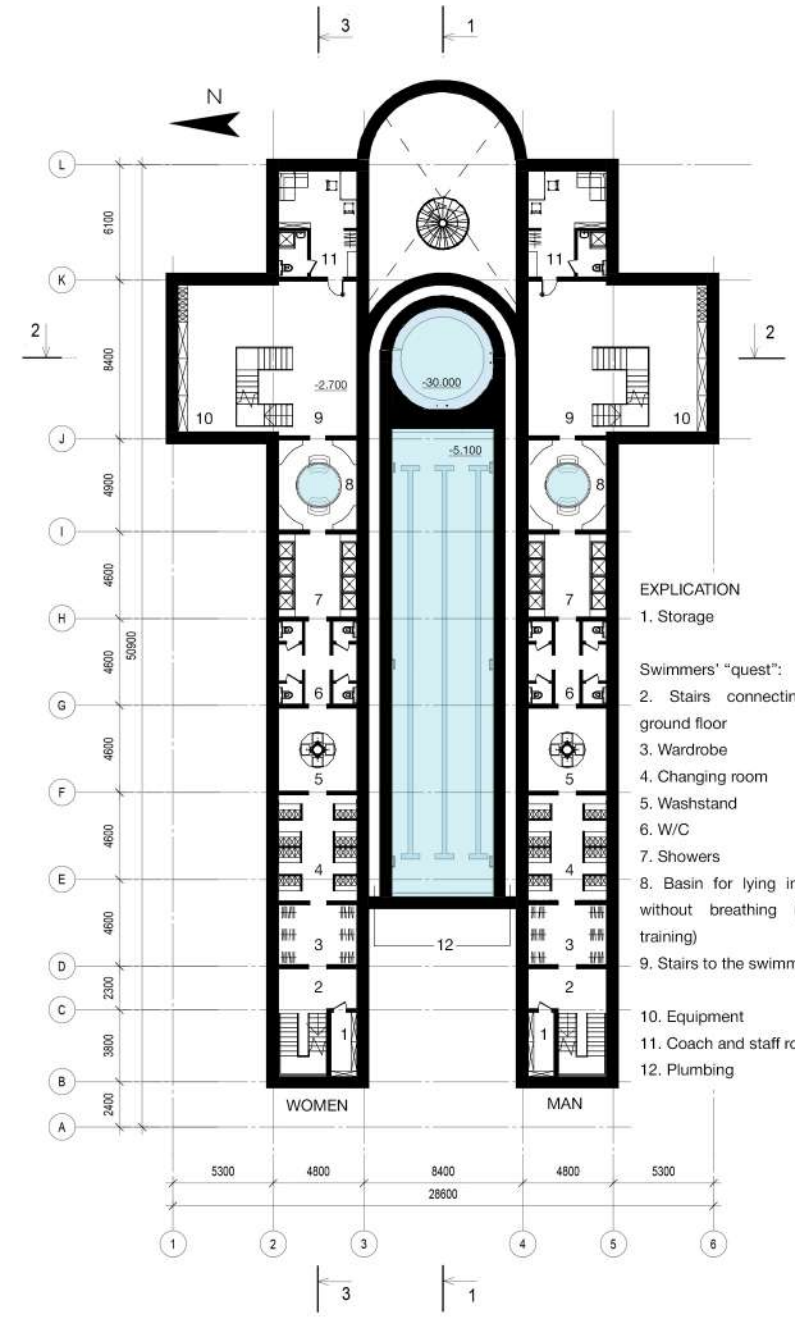
PLANS

Ground floor plan
Scale 1:400



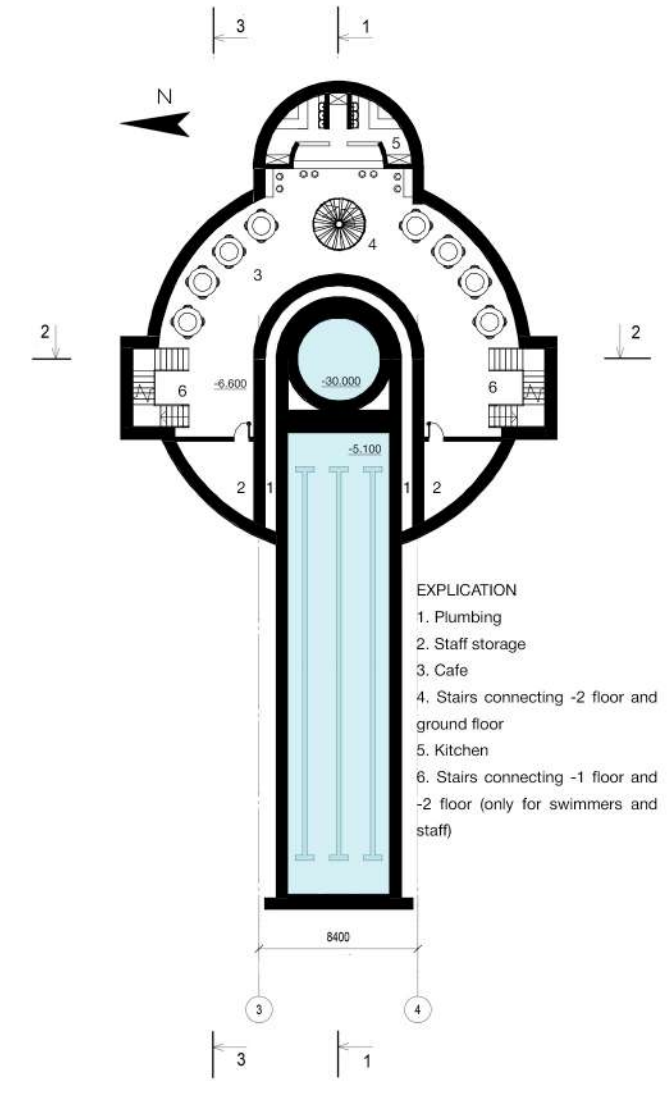
- EXPLICATION**
1. Church hall
 2. Stairs leading to the tower top
 3. Wardrobe for visitors
 4. Security
 5. Stairs leading to the -1 floor (only for swimmers)
 6. Swimming pool
 7. Side aisles (for visitors)
 8. "Rescue tower"
 9. Swimming tube for deep diving
 10. Side entrances
 11. Stairs leading from the -1 floor to the swimming pool (only for swimmers)
 12. Swimming equipment and first aid kits
 13. Stairs to the cafe (-2 floor)
 14. Walking platform

-1 floor plan (-2.800)
Scale 1:400



- EXPLICATION**
1. Storage
 - Swimmers' "quest":
 2. Stairs connecting -1 and ground floor
 3. Wardrobe
 4. Changing room
 5. Washstand
 6. W/C
 7. Showers
 8. Basin for lying in the water without breathing (preparatory training)
 9. Stairs to the swimming pool
 10. Equipment
 11. Coach and staff room
 12. Plumbing

-2 floor plan (-6.600)
Scale 1:400



- EXPLICATION**
1. Plumbing
 2. Staff storage
 3. Cafe
 4. Stairs connecting -2 floor and ground floor
 5. Kitchen
 6. Stairs connecting -1 floor and -2 floor (only for swimmers and staff)

Section 1-1
Scale 1:300

+40.000
+37.500

+26.500

+20.500

+12.100

+0.000

-2.900

-5.100

-6.800

2400 3800 2300 4600 4600 4600 4600 4600
31500
A B C D E F G H I

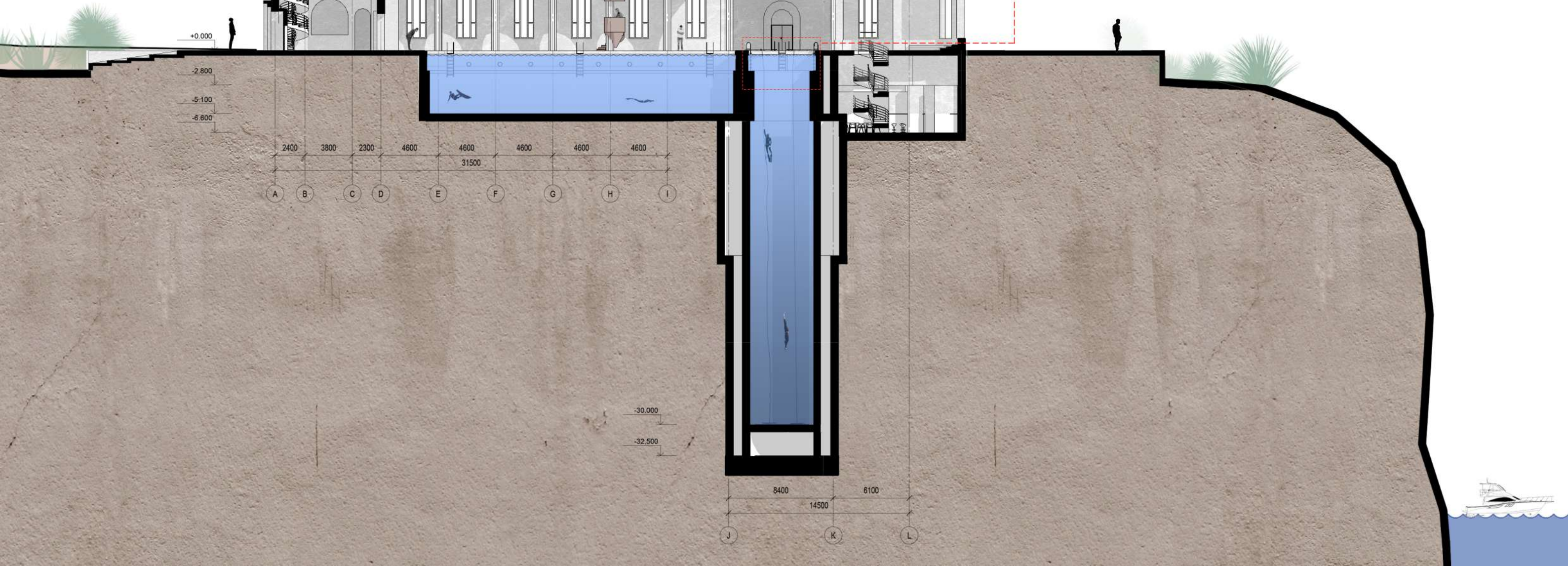
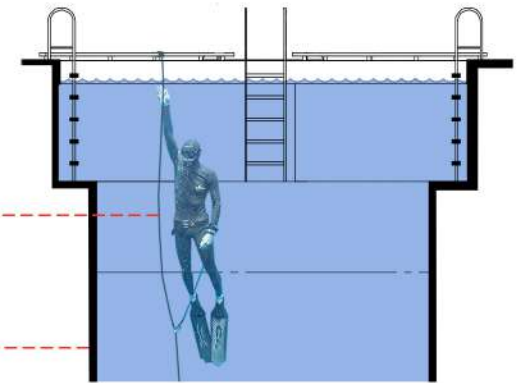
-30.000

-32.500

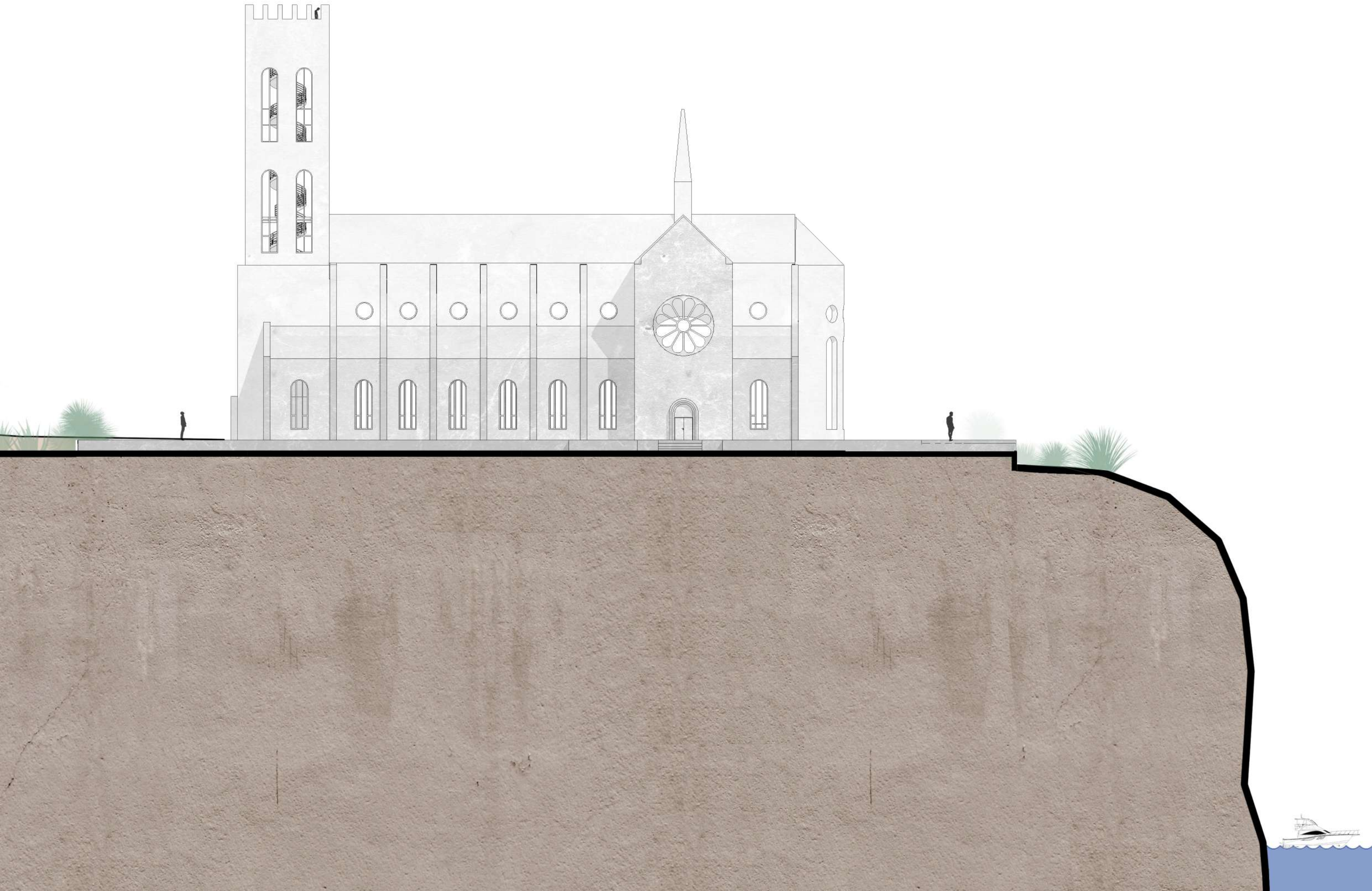
8400 6100
14500
J K L

Section 1-1 element
Scale 1:100

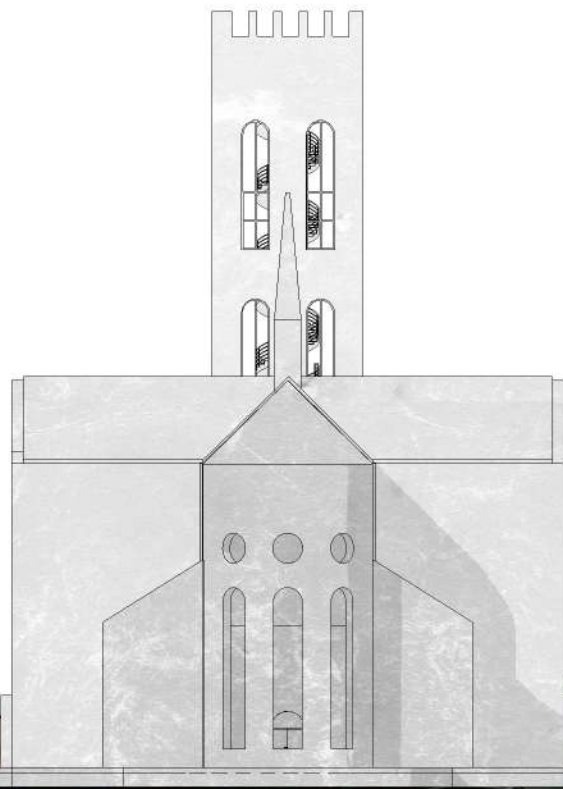
security rope
for deep dives



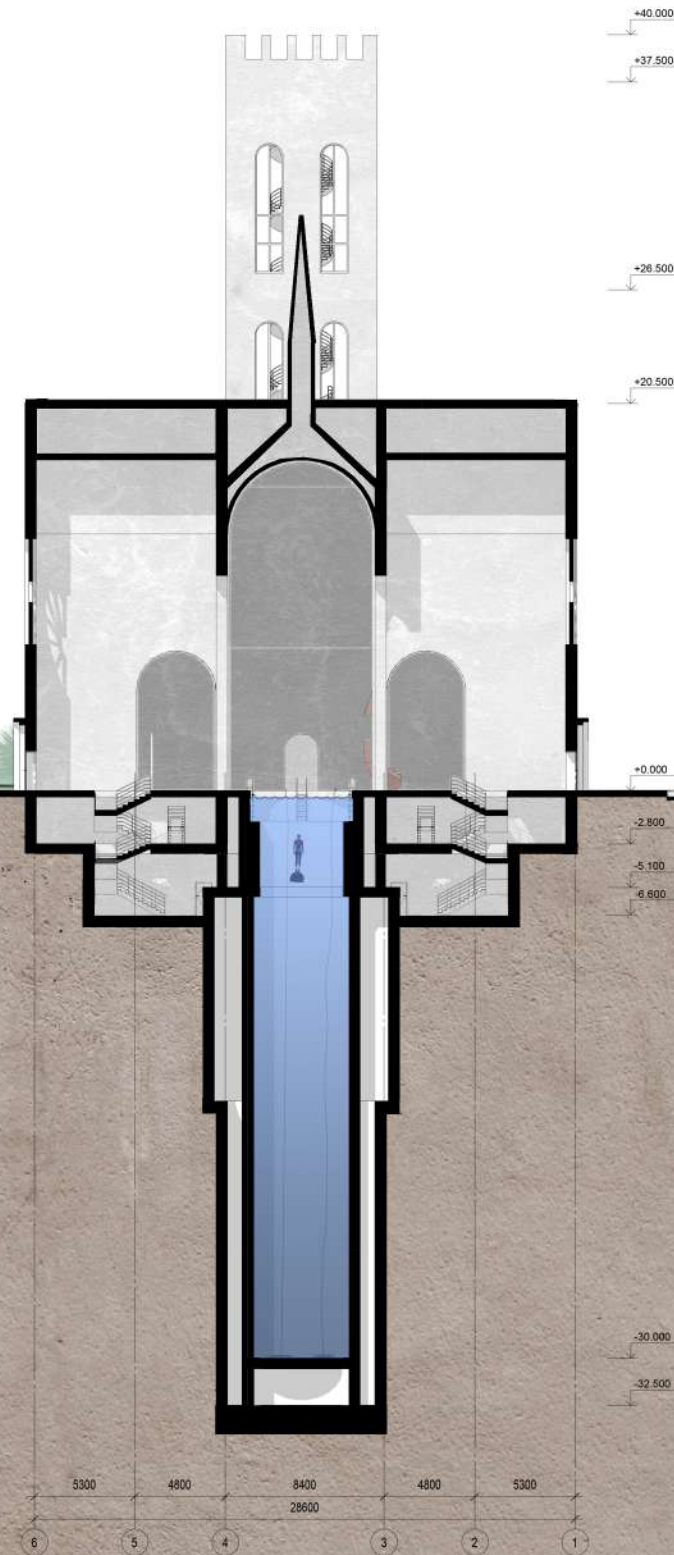
South elevation
Scale 1:300



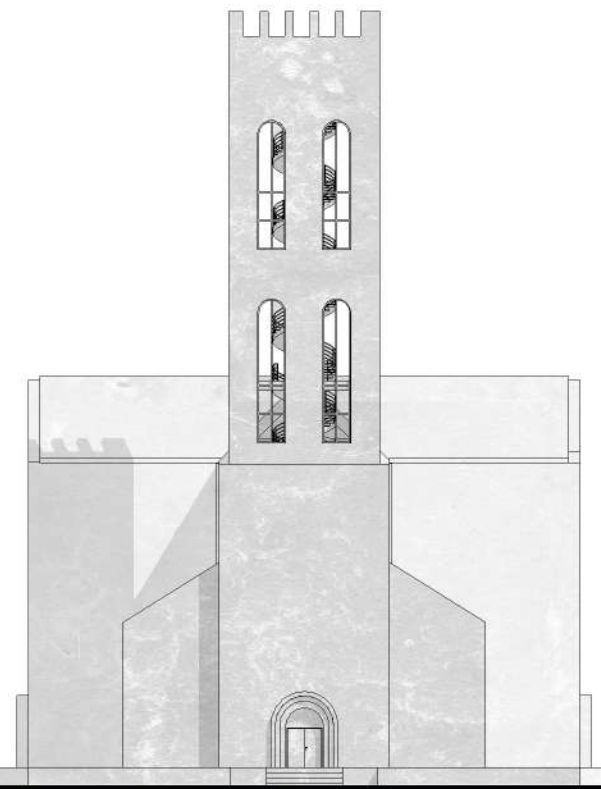
East elevation
Scale 1:400



Section 2-2
Scale 1:400

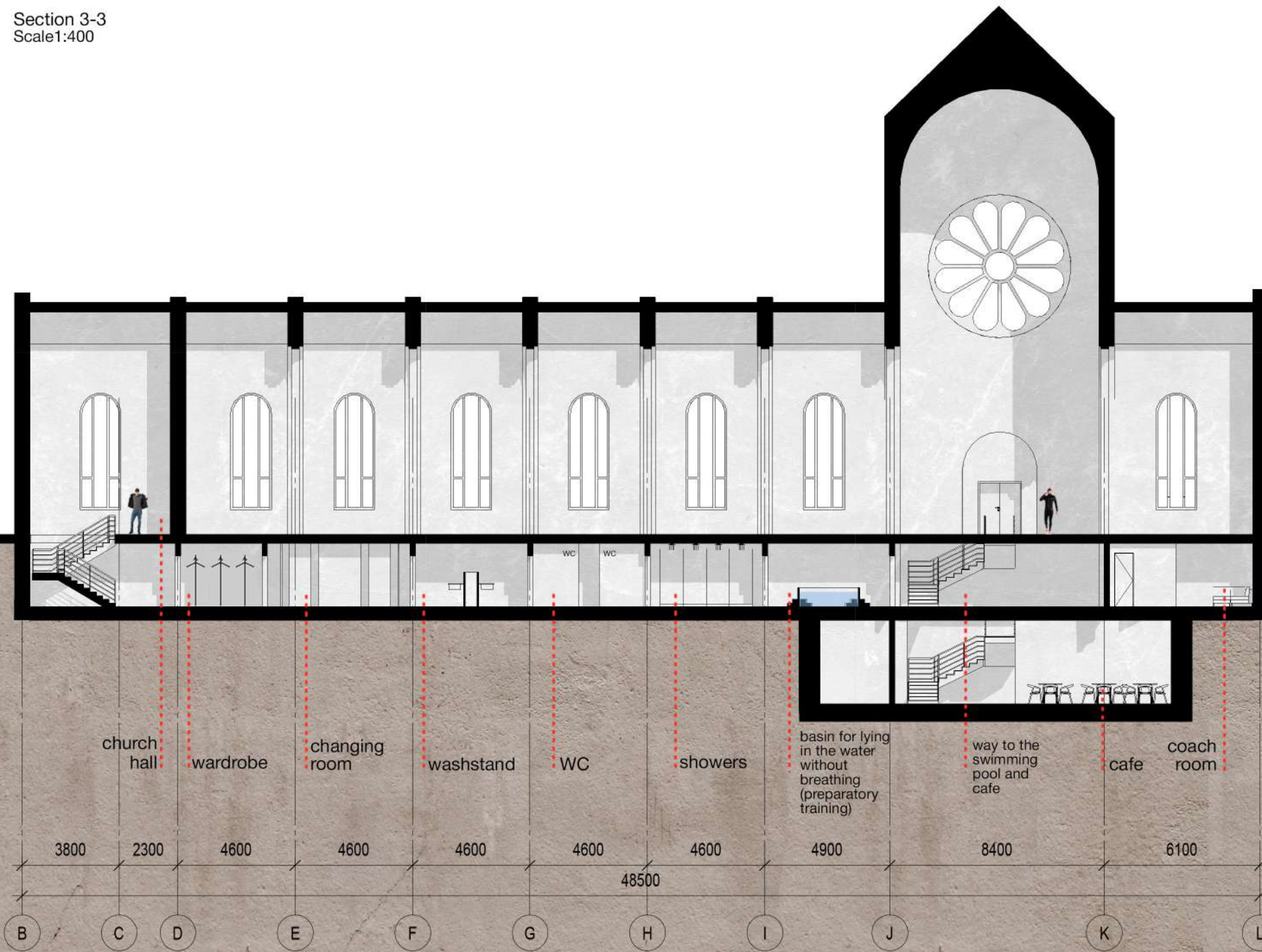


West elevation
Scale 1:400



Section 3-3
Scale 1:400

+20.500
↓



church
hall

wardrobe

changing
room

washstand

WC

showers

basin for lying
in the water
without
breathing
(preparatory
training)

way to the
swimming
pool and
cafe

cafe

coach
room

3800

2300

4600

4600

4600

4600

4600

4900

8400

6100

48500

B

C

D

E

F

G

H

I

J

K

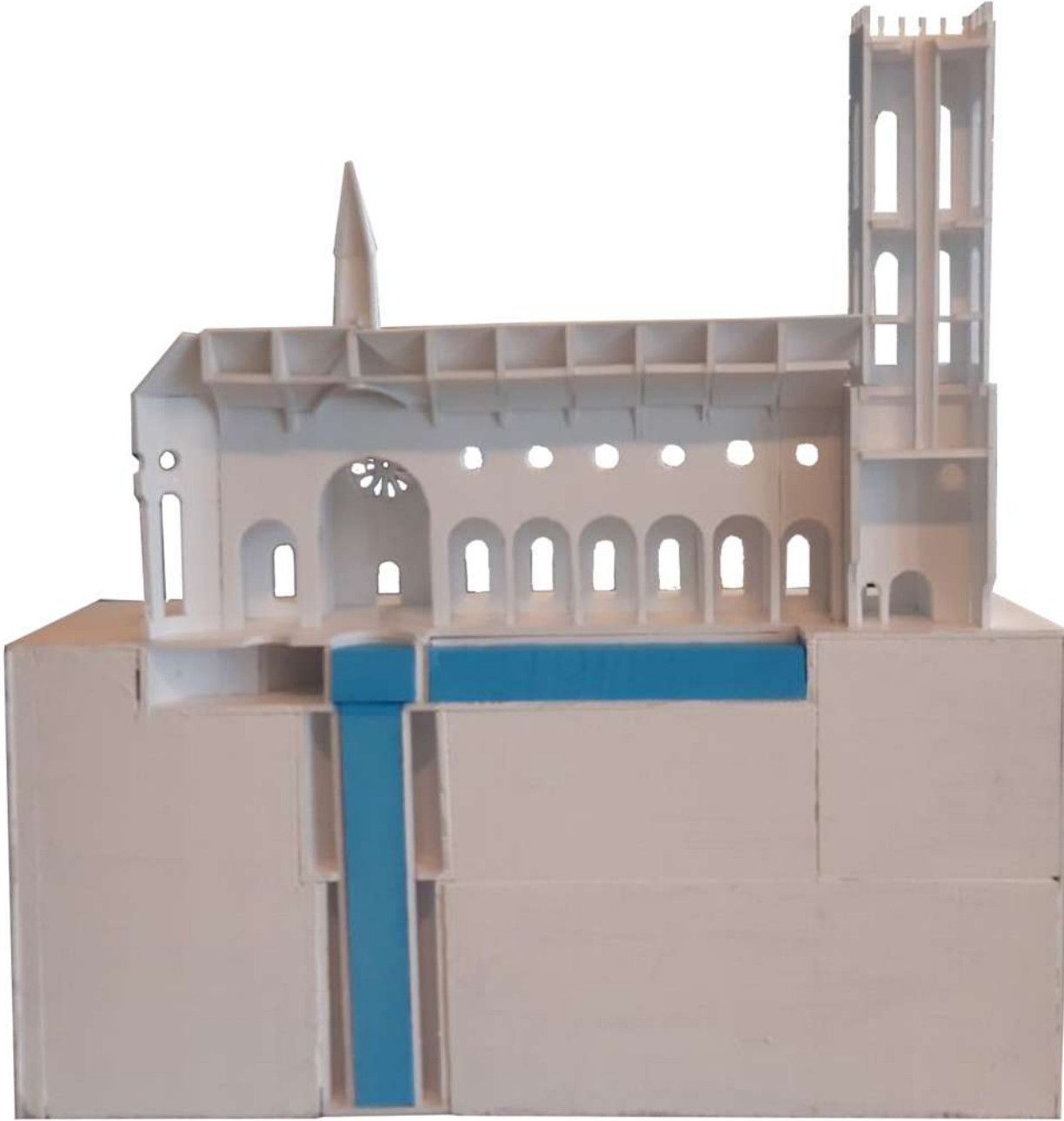
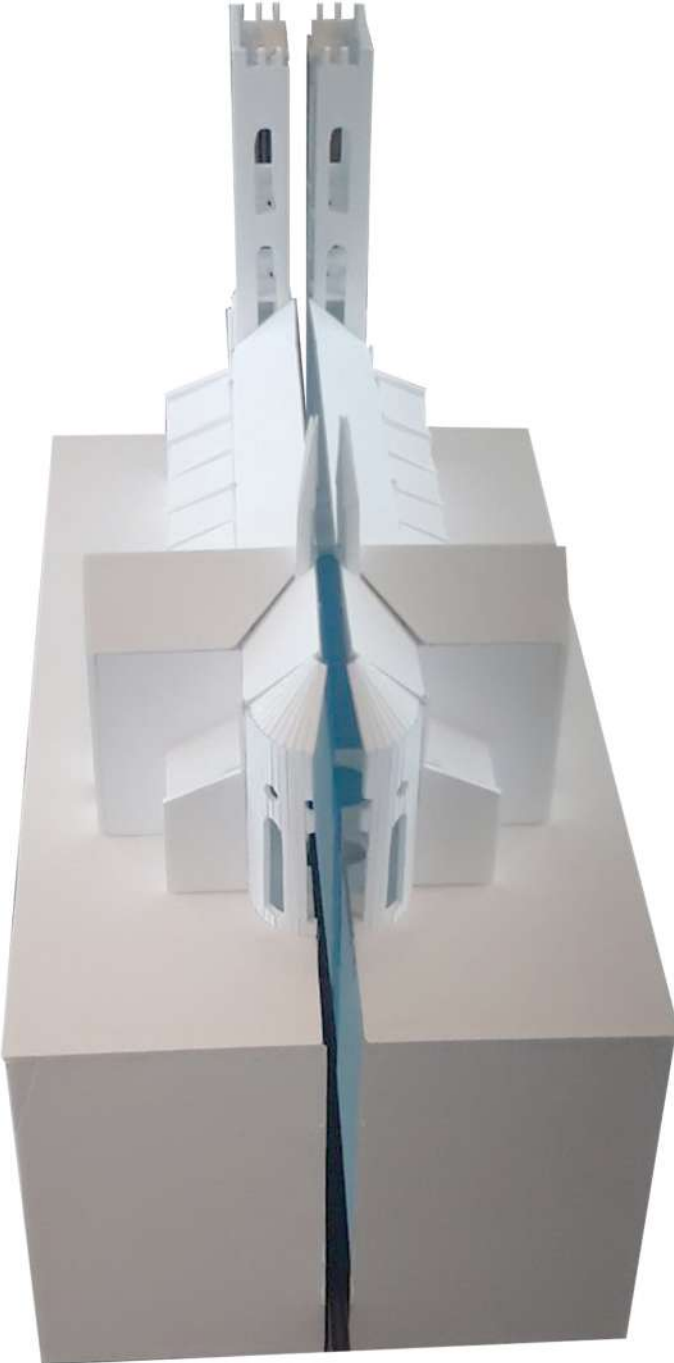
L

+0.000

-2.800

-5.100

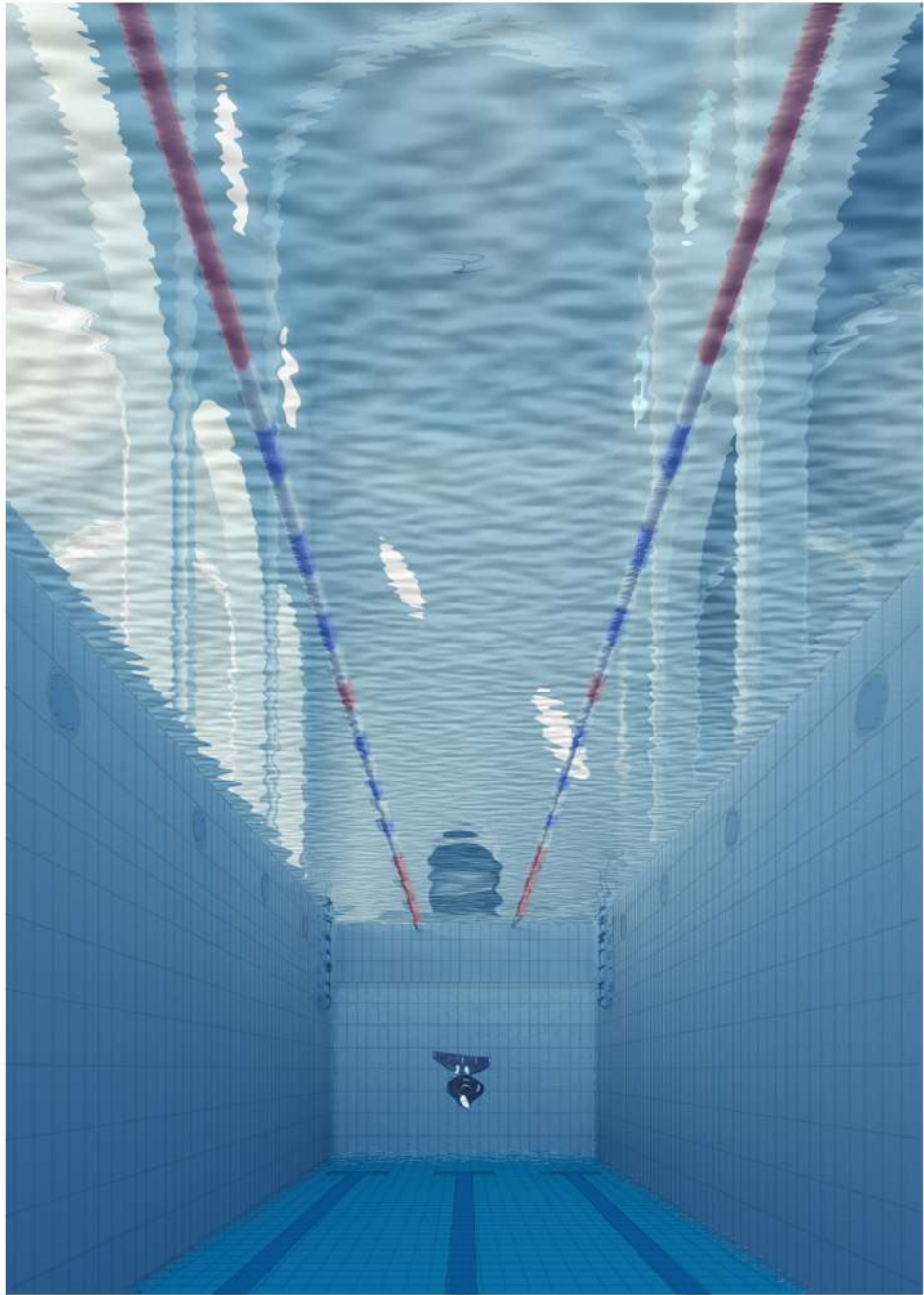
MODEL PHOTOS



Side aisle (open for visitors)



View from the swimming pool



Narthex with the deep dive tube



View from the tower

