

# H A N G A R

I V A N B R O Z I N A



Sveučilište u Zagrebu  
**Arhitektonski fakultet**  
University of Zagreb  
**Faculty of Architecture**

Sveučilište u Zagrebu /  
**projektiranja II\_sport+ /**

Arhitektonski fakultet /  
**mentorice**\_Prof. Helena Paver-Njirić, V.pred. Vjera Bakić /

Diplomski studij /

ak. god. 2016./2017. /  
**student**\_Ivan Brozina /

II. semestar /  
Zagreb\_April, 2018.

**Radionica arhitektonskog**

University of Zagreb /  
**workshop II\_sport+ /**

Faculty of Architecture /  
**mentors**\_Prof. Helena Paver-Njirić, V.pred. Vjera Bakić /

Masters's programme /

academic year 2016./2017. /  
**student**\_Ivan Brozina /

II. semestar /  
Zagreb\_April, 2018.

**Architectural design**



**UVOD**

INTRODUCTION

## U V O D

Kako igraditi arhitekturu 'za grad' u netakutoj prirodi? Gorski kotar nalazi se na pragu morske i kontinentalne hrvatske. Dio je Hrvatske u kojem padne prvi snijeg, dio koji je prekriven prostranim šumama, planinskim vrhovima, rijekama, jezerima i manjim naseljima poznati po svojim spefičnim kosim krovovima. Ali ono što je definitivno promijenilo sliku Gorskog kotra zadnjih desetak godina je novoizgrađena infrastruktura - ceste, mostovi, tuneli, brane. Tako da prolazeći kroz Gorski kotar, za razliku od nekad, danas u prirodu ubrajamo i novonastalu infrastrukturu. Mjesto novoplaniranog bazena nalazi se na rubu Lokvarskog jezera, gdje je cilj istražiti na koji način smjestiti novi arhitektonski konstrukt koji je ovom mjestu primjeren i da li on kao artifičelan element može postati dio prirode.

“Za mene, zgrade mogu nositi u sebi predivnu tišinu koja me asocira na mirnoću, jasnoću, trajnost, postojanost i integritet, ali i istovremeno na toplinu i estetiku; zgrada kao takva, ne predstavljajući ništa više, samo svoje postojanje.”

P. Zumthor

## I N T R O D U C T I O N

How to build an architecture 'for the city' in the untouched nature? Gorski kotar is placed in between Croatian coast and continantal part. It is a part of Croatia where the first snow falls, the part that is covered with broad forests, mountain pitches, rivers, lakes and smaller villages that are well know because of their pitched roofs. But the thing that definetly has change the image of Gorski kotar last ten years is newly built infrastructure as highways, bridges and tunnels. Because of that going through Gorski kotar, unlike in the past, nowadays we can consider all that infrastructure as a part of existing nature. The place of the new swimming pool and rowing club it's gonna be place on the edge of the Lake Lokve. The main goal is to make a research how to place the new architectural element which is suitable to existing environment and if it can as a artificial subject become a part of existing nature.

“To me, buildings can have a beautiful silence that I associate with attributes such as composure, self-evidence, durability, presence, and integrity, and with warmth and sensuousness as well; a building that is being itself, being a building, not representing anything, just being.”

P. Zumthor

**ISTRAŽIVANJE**

RESEARCH

**LJUBLJANA**

**ZAGREB**

**LOKVARSKO  
JEZERO**

**KARLOVAC**

**RIJEKA**

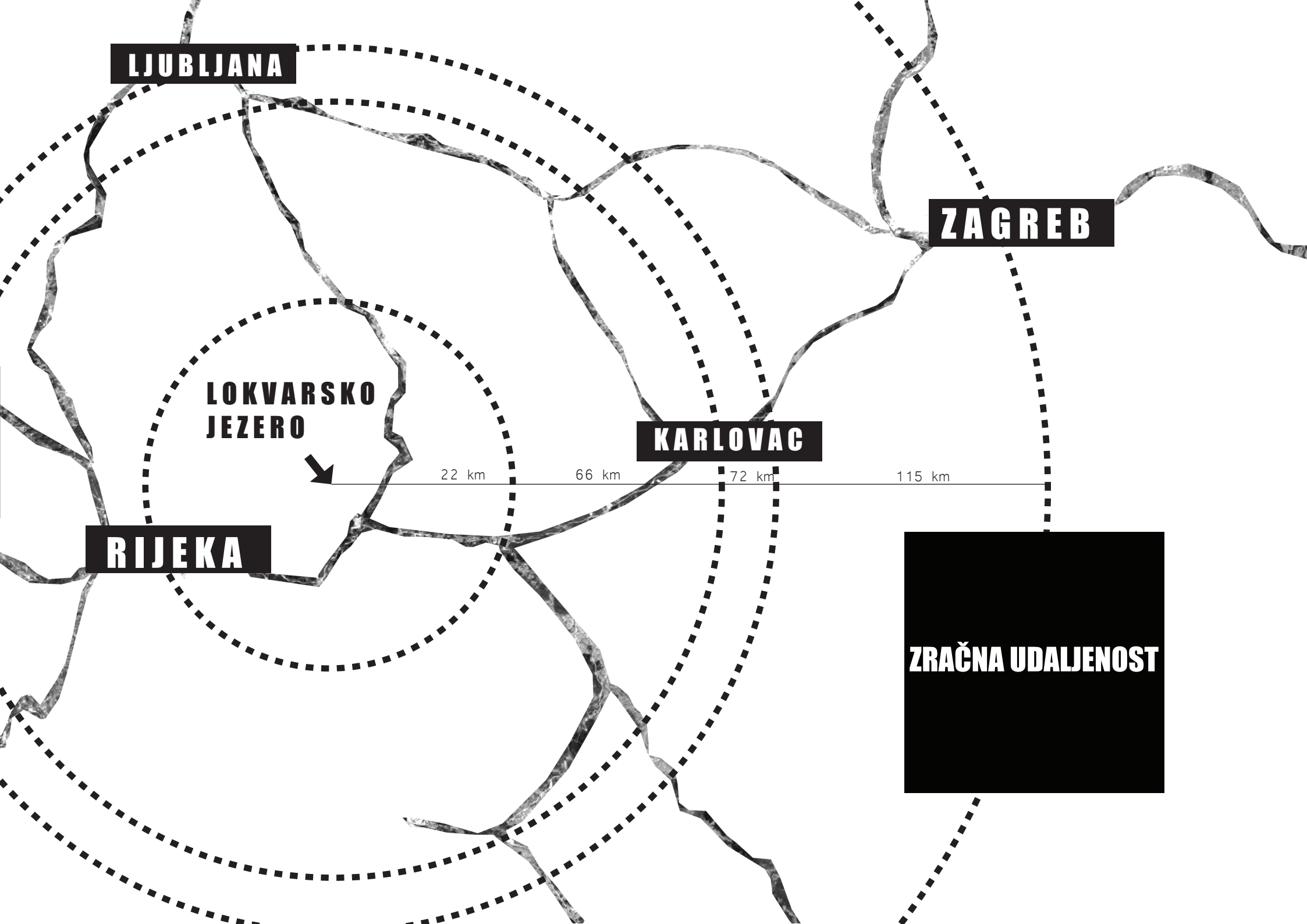
22 km

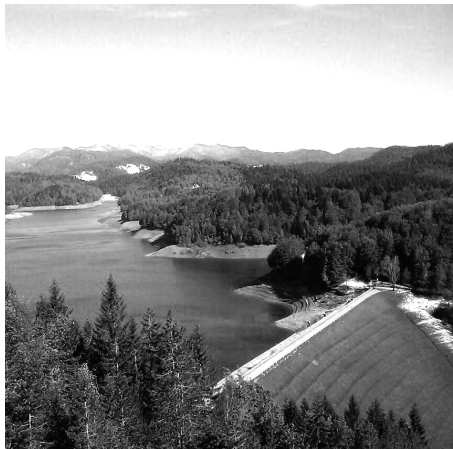
66 km

72 km

115 km

**ZRAČNA UDALJENOST**





**INFRASTRUKTURA**





N P Risnjak



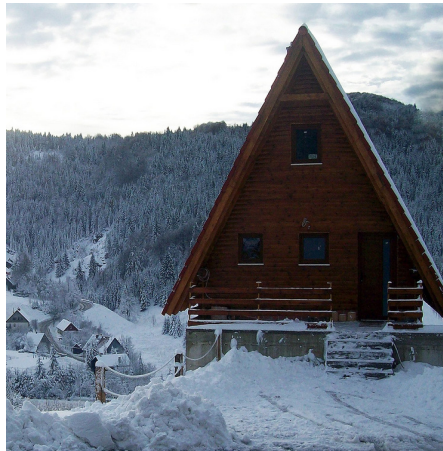
Fužine



Delnice



Bijele i Samarske stijene



Gorski kotar



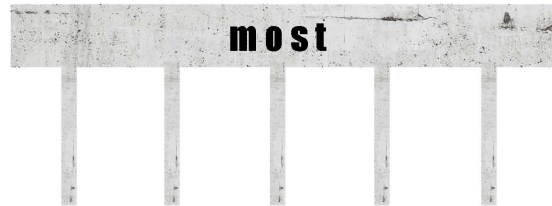
**KONCEPT**

CONCEPT

**PRIRODA**



**brana**

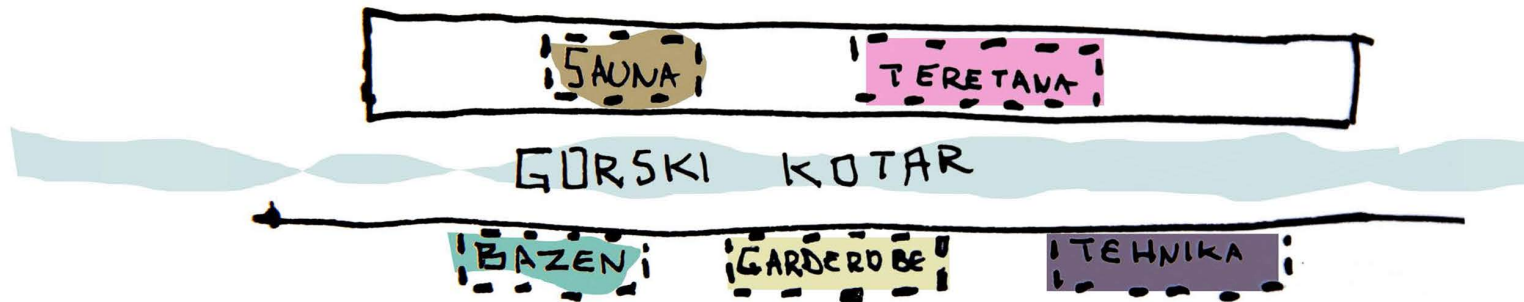
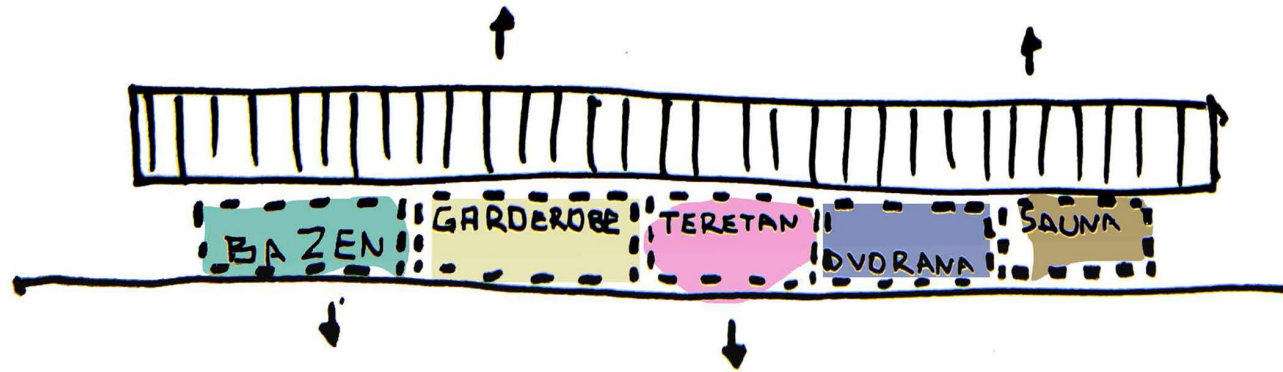


**most**

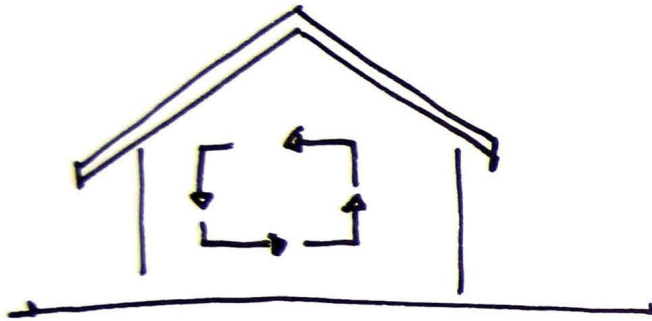
**CENTAR**



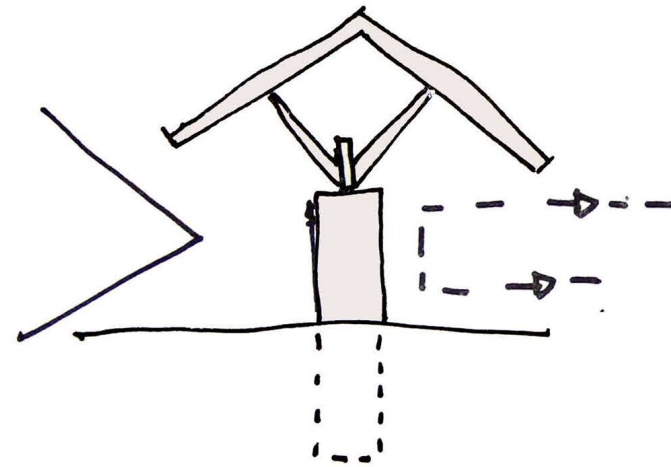
**hangar**

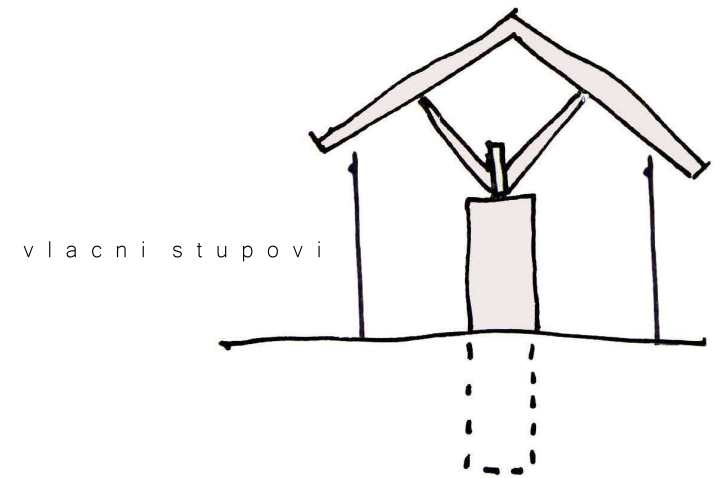
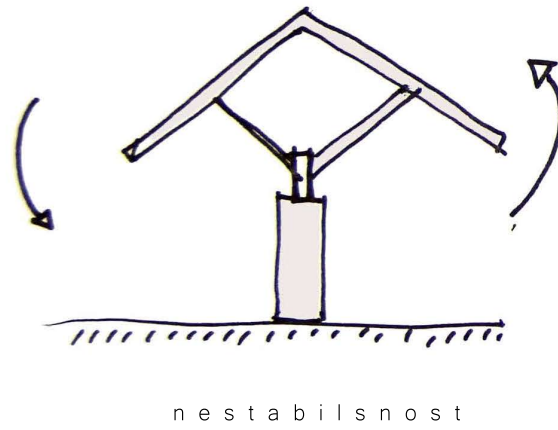
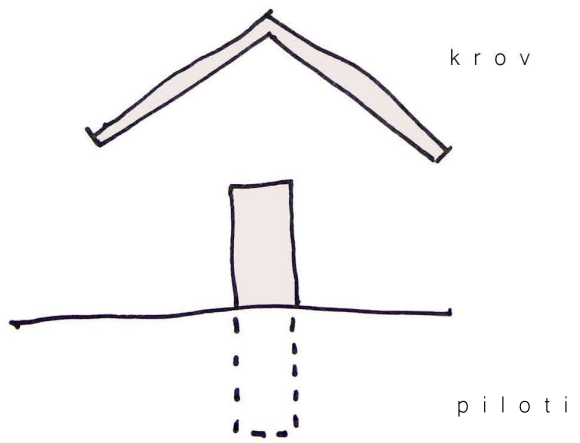


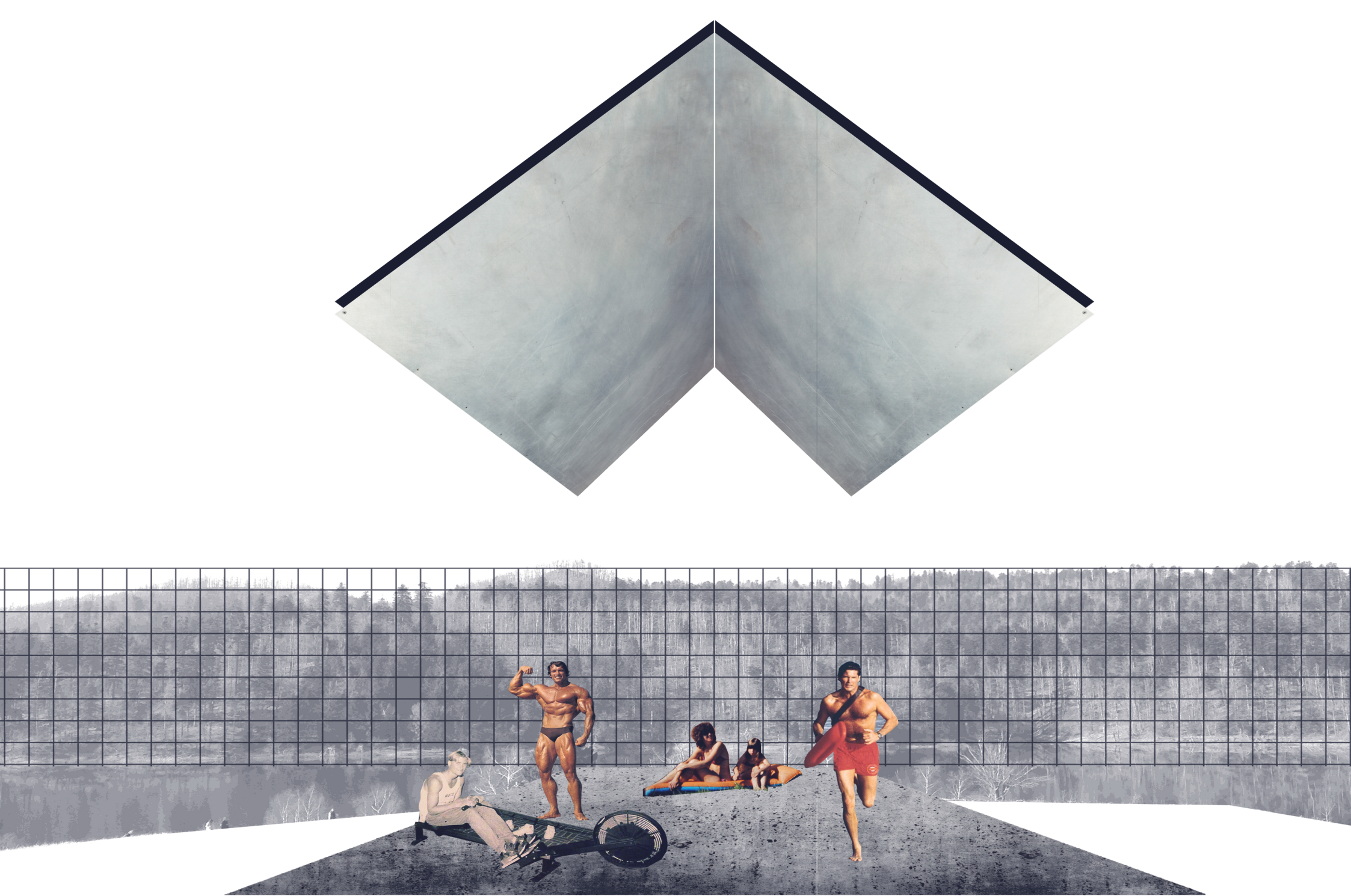
'IN'



'OUT'







( N E ) T A K N U T A P R I R O D A

**ARCHITEKTURA**

ARCHITECTURE

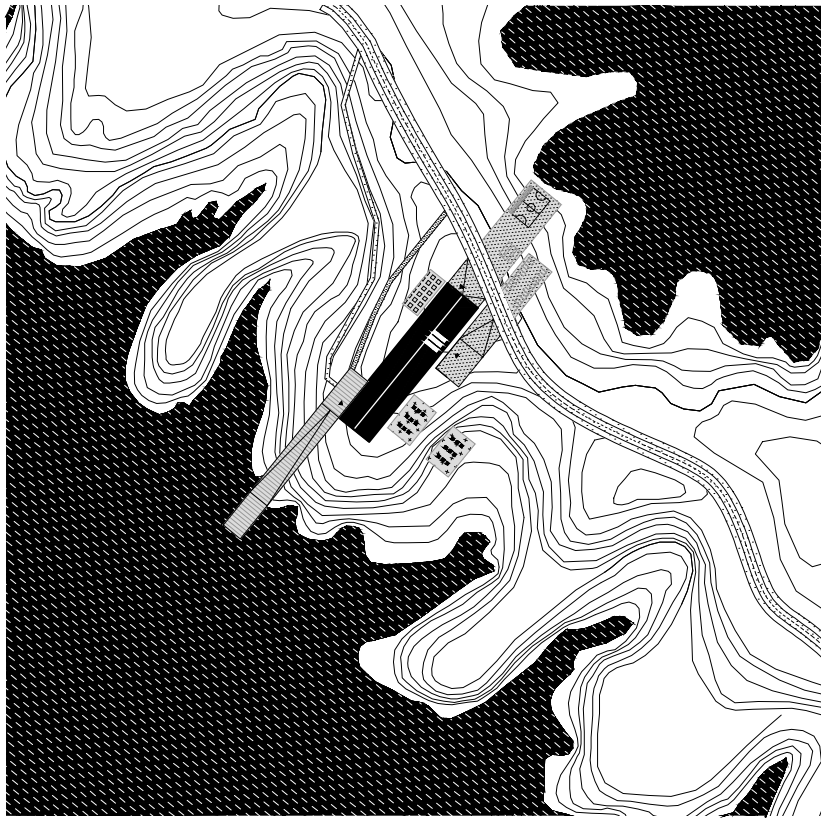


## ARHITEKTURA

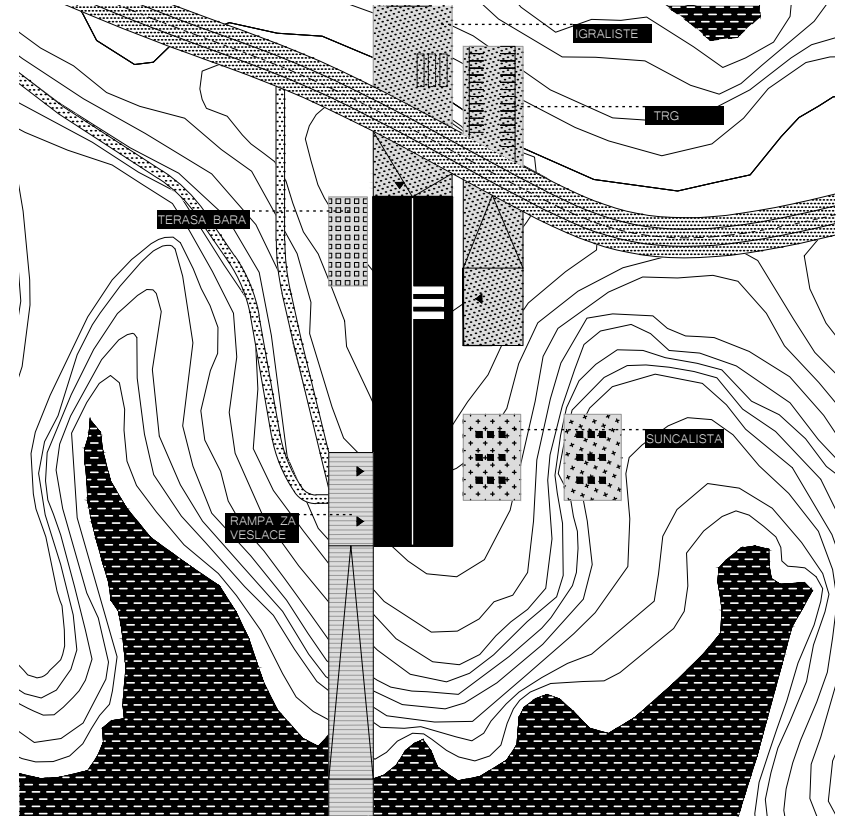
Tko bi pomislio da čovjek može stvoriti takvu prirodu. Lokvarsko jezero je dio prekrasne prirode, ali ono je umjetno jezero. Mjesto i njegova okolina definirana su s infrastrukturom kao što su mostovi, autoceste, tuneli i brane. Postojeća infrastruktura čini dio pejzaža Gorskog kotra i ona ga nije degradirala, već nadogradila, pridodala svoj karakter. Kako se nešto rusilački nastrojeno prema prirodi može uklopiti u nju samu? Autoceste postaju krivulje, tuneli točke, mostovi lebdeća tijela, a brane zaobljene plohe. Oni postaju elementi u prostoru koji stvaraju novu prostornu kompoziciju, očišćeni od svih suvisnih arhitektonskih elemenata. Tako da novi arhitektonski konstrukt, za bazen i veslački klub, činit će jedan arhitektonski element, krov. Pojavnost krova u ovom kontekstu predstavlja lebdeće horizontalno tijelo u prostoru arhetipskog oblika karakterističnog za ovo područje. Kuća 'krov' se oslanja na stupove/ pilote, koji su u osi krova, i čine kuću ekstrovertiranom. Sportska dvorana, sa svim svojim sadržajima, čini prostor pod krovom, koja je od prirode odvojena samo staklenom ovojnicom. U tom prostoru čovjek se ne posvećuje samo pokretu što je tipično za sportske dvorane, već i prirodi i hedonizmu. Čovjek izvana može sagledati kroz čitavu zgradu na jezero i može promatrati preklapanje svih sadržaja koji se dešavaju ispod krova poput kolaža. Kao bi se omogućila sloboda pogleda i afirmirala postojanost krova svi dodatni prostori su podignuti ili ukopani pod zemljom. Nova 'kuća' lebdi u prstoru predstavljajući novu harmoniju između prirode i novog artificijelnog arhetipa.

## ARCHITECTURE

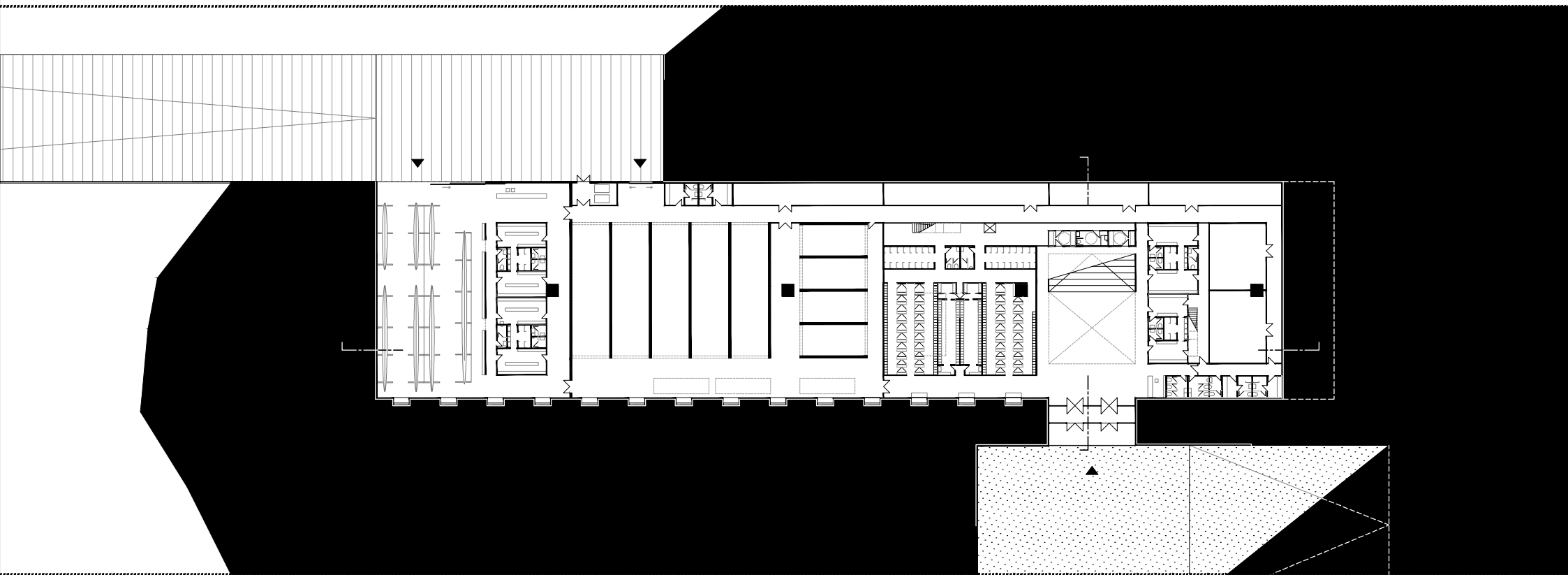
Who would have imagined that man could create such a nature? Lake Lokve is part of a beautiful natural setting, but it is an artificial lake. The place and its surroundings are defined with infrastructure such as bridges, highways, tunnels and dams. The existing infrastructure is encoded into the landscape of Gorski Kotar. However, instead of undermining the landscape, it has upgraded it by adding its character. How can something that is destructive towards nature be able to fit in with it itself? The highways become curves, tunnels seem like points, bridges appear as floating forms, and dams bent surfaces. They become elements in the space that create a new spatial composition, detached from all unnecessary architectural elements. Thus the new architectural project (construction), the pool and the rowing club, are represented by a single architectural element, the roof. The appearance of the roof in this context implies a hovering (lean, floating) horizontal object in the space of an archetypal form that is characteristic for this area. The 'roof' house relies on the pillars / pilots, which are in the axes of the roof, and make the house extroverted. The sports hall, with all its contents, makes space under the roof, that is separated from the nature (landscape) by a thin glass enclosure. In this area, man is not only dedicated to the activity typical for sports halls, but also to the nature and hedonism. The man from the outside can look through the entire building all the way to the lake and can observe overlapping of all the contents that are happening beneath the roof like a collage. In order to allow freedom of view and affirm the durability of the roof, all the additional spaces have been lifted or buried under the ground. The new 'house' floats in the space, representing a new harmony between nature and new artificial archetype.

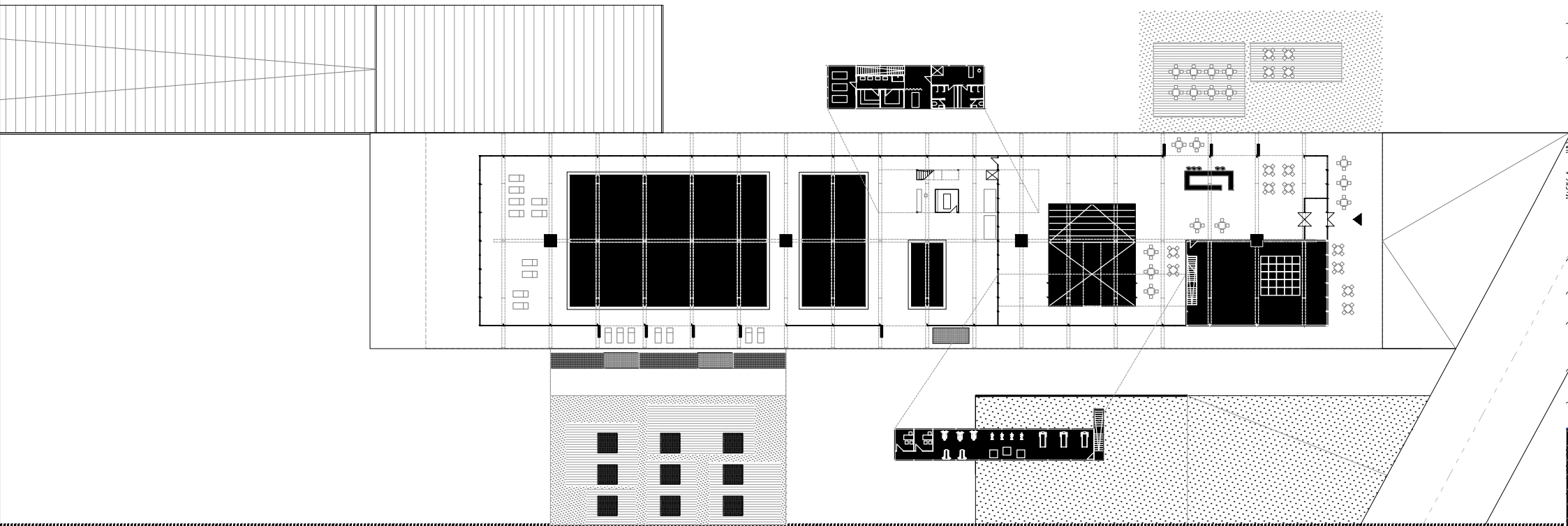


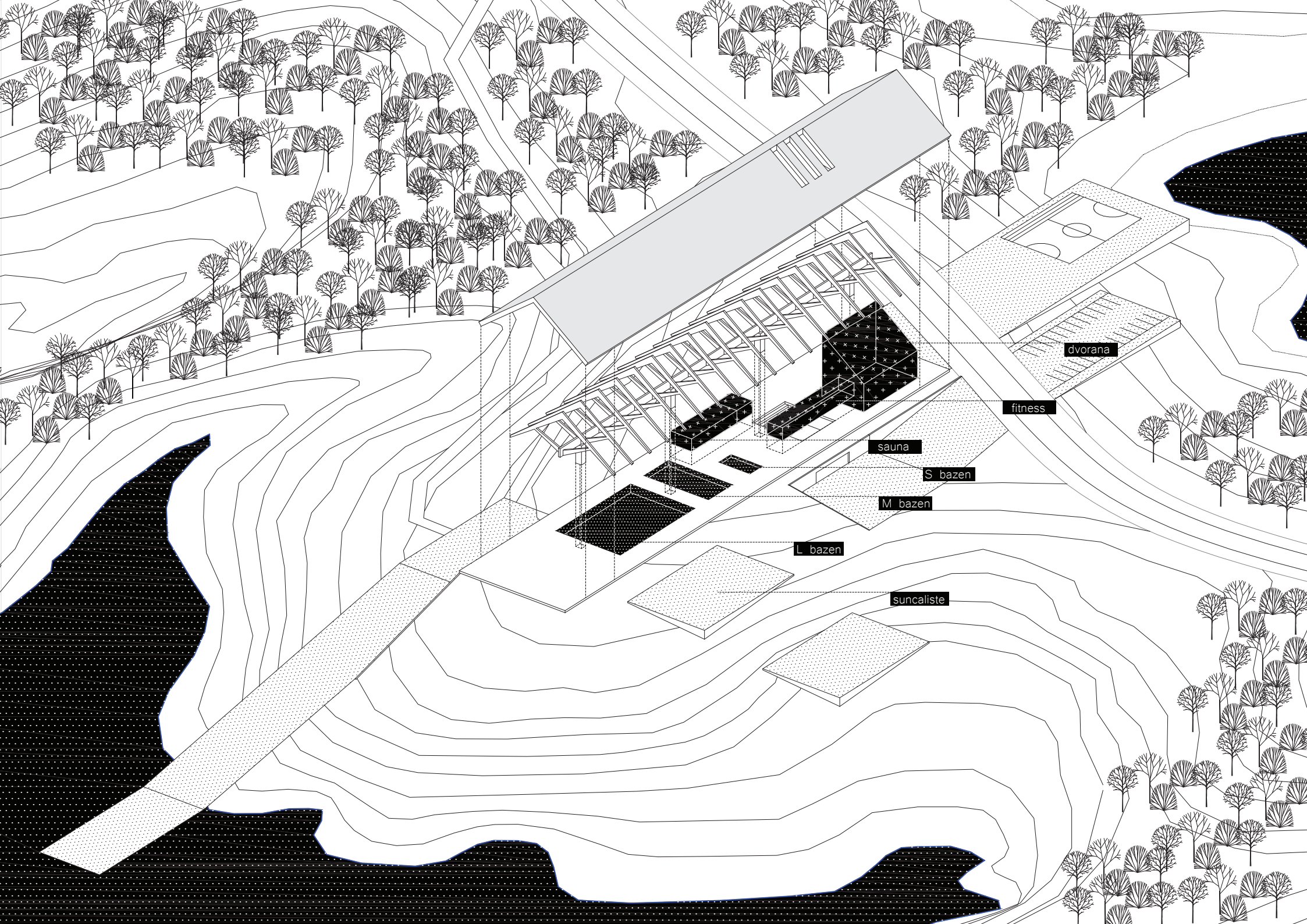
■ s | 0 | 50 | 100



■ s | 0 | 25 | 50







sauna

S bazen

M bazen

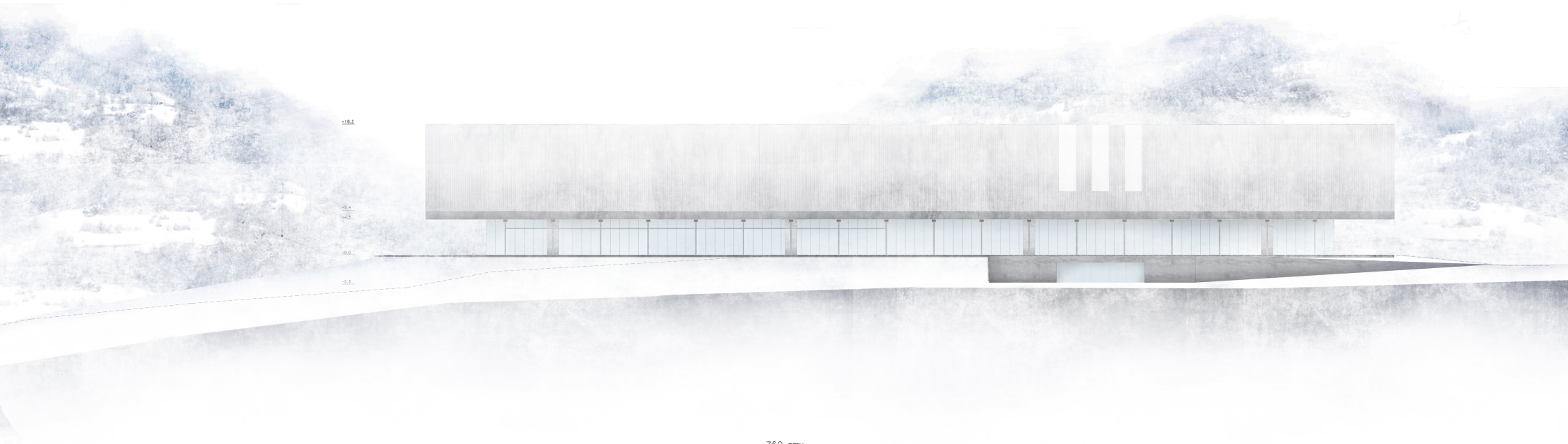
L bazen

suncaliste

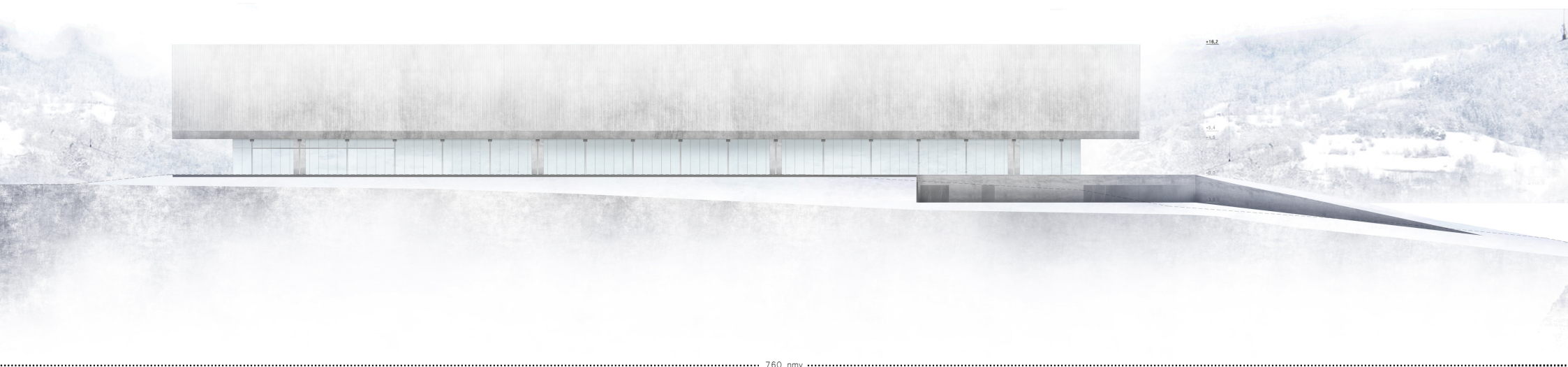
fitness

dvorana

južno pročelje / south facade



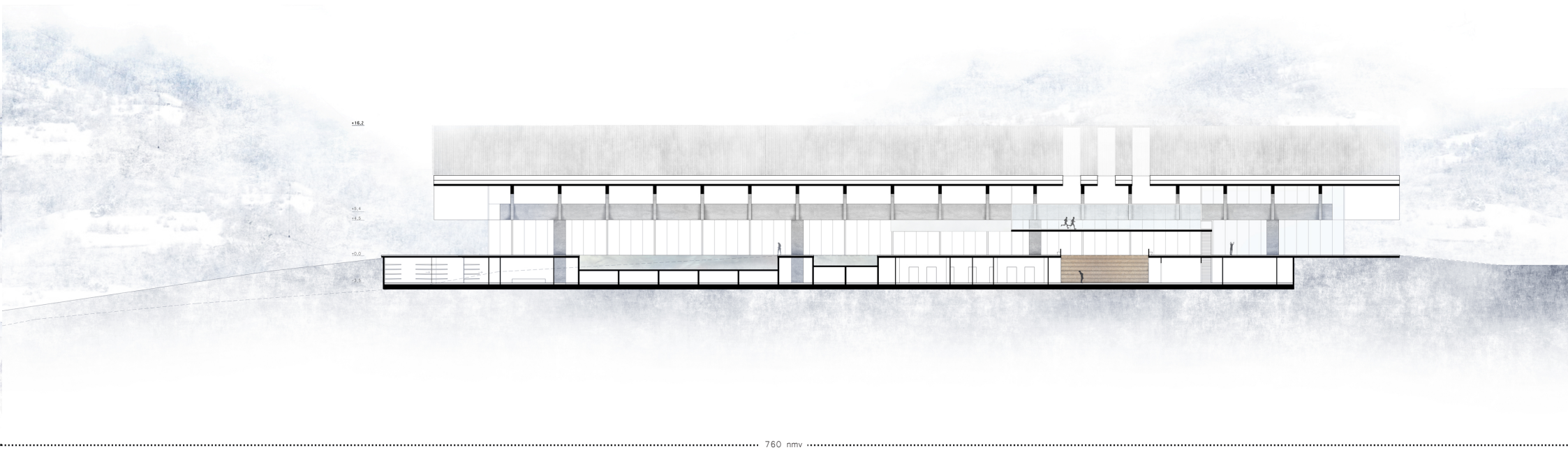
sjeverno pročelje / north facade

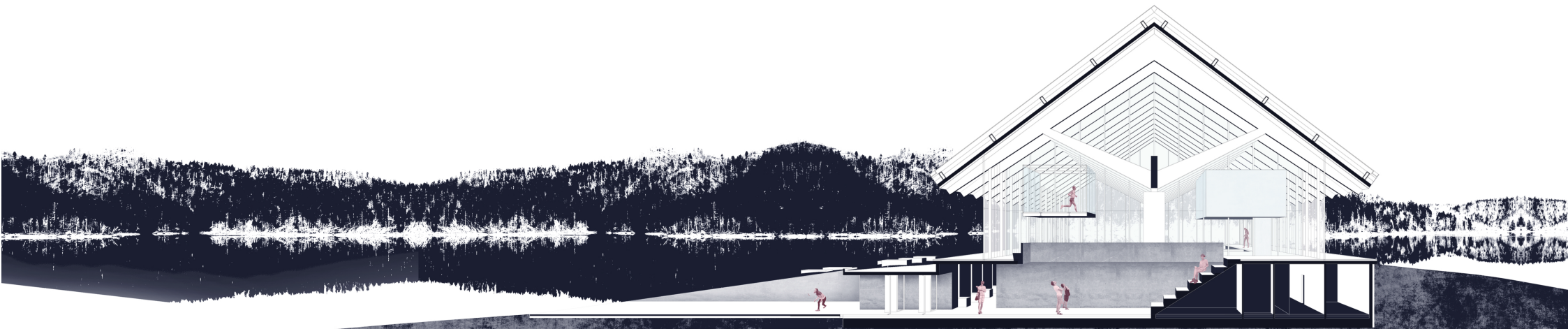


istočno pročelje / east facade  
zapadno pročelje / west facade



uzdužni presjek / longitudinal section



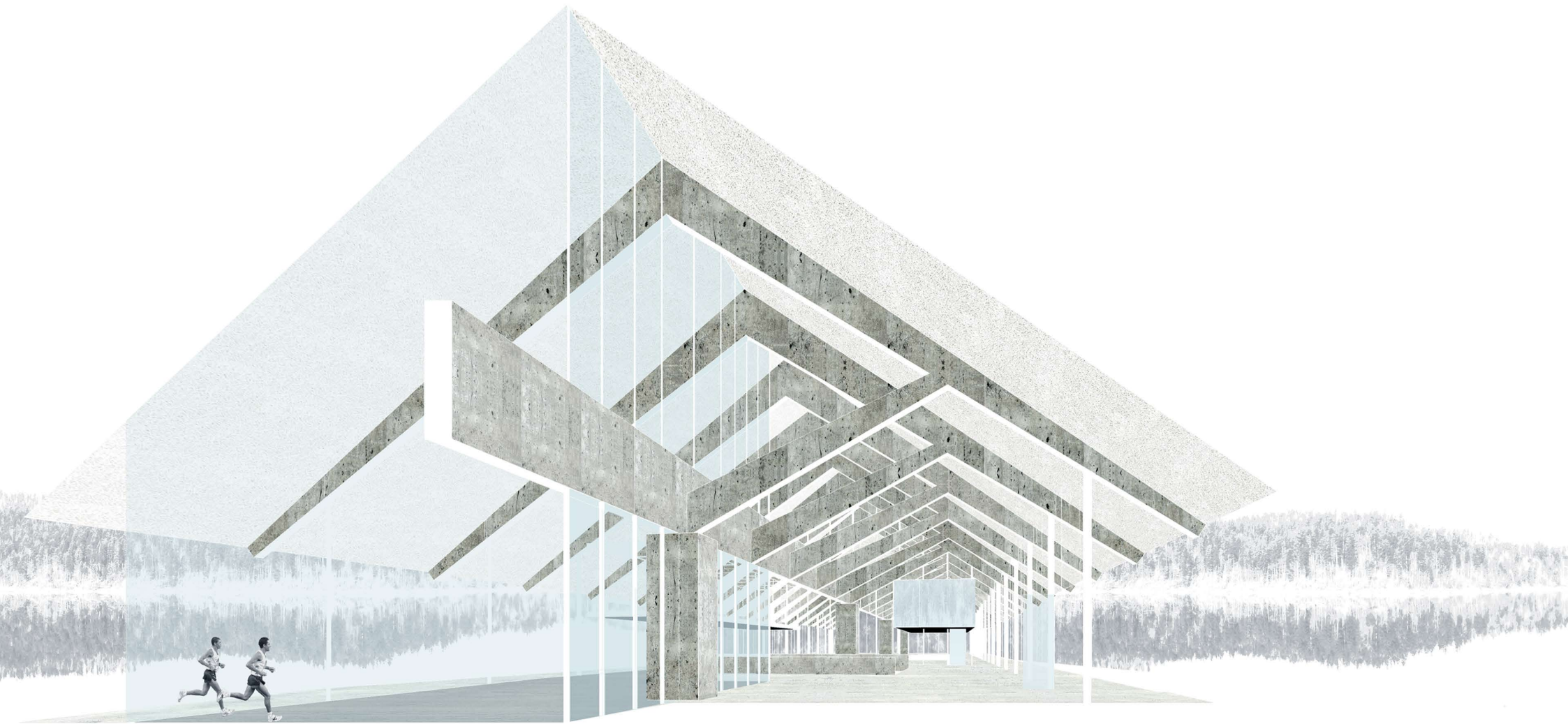




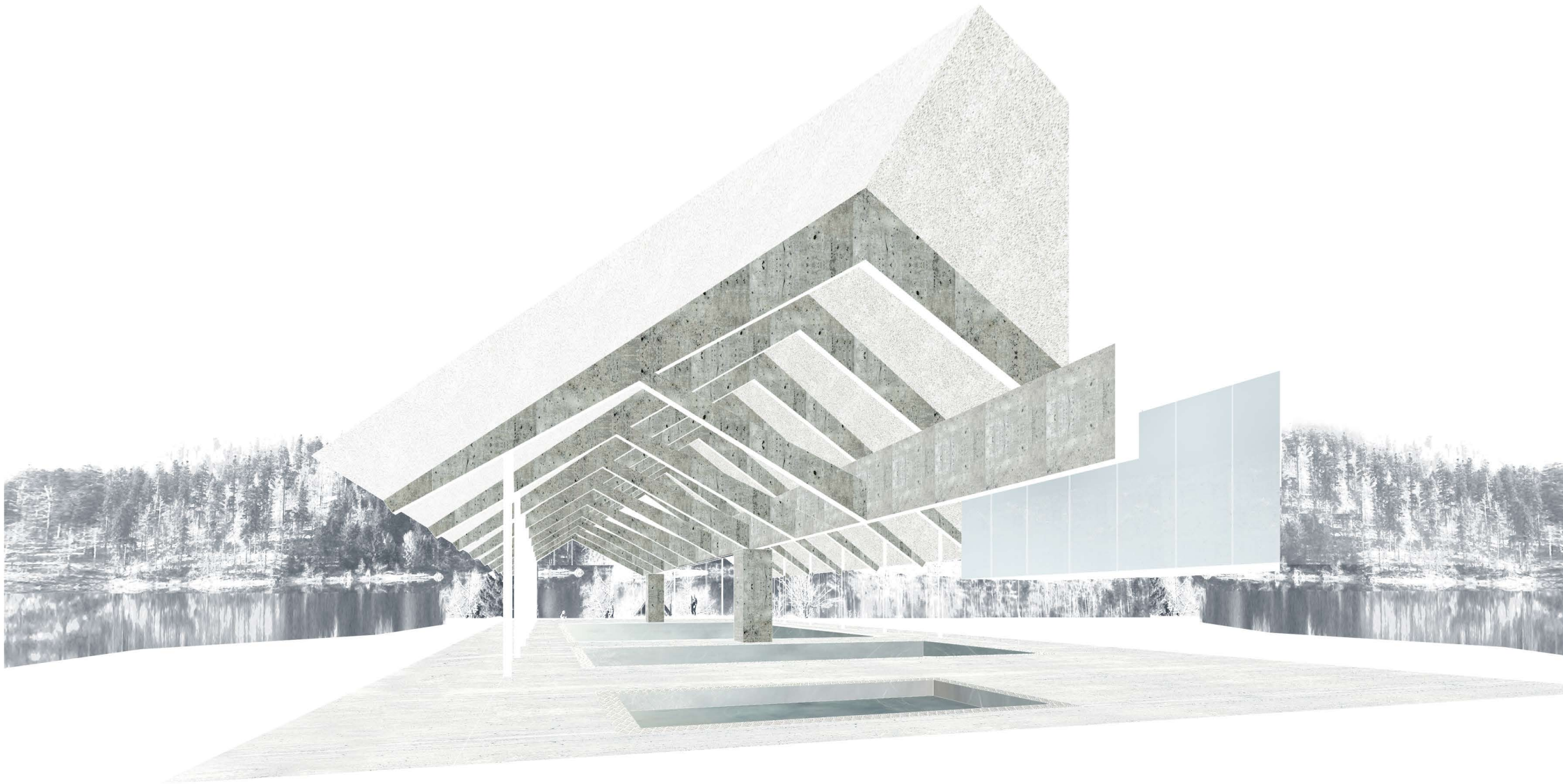
z a p a d n o   p r o č e l j e / w e s t   f a c a d e



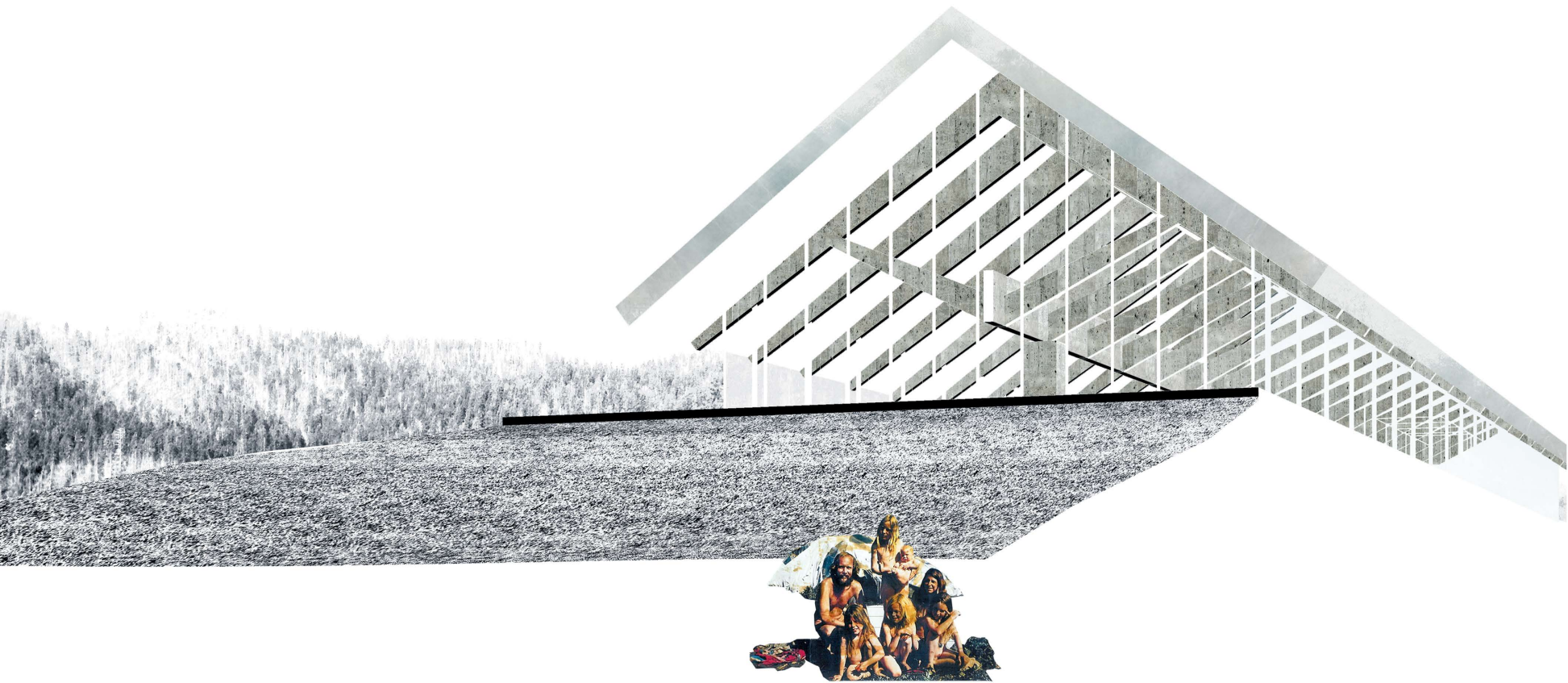
pogled na ulaz / view on the entrance



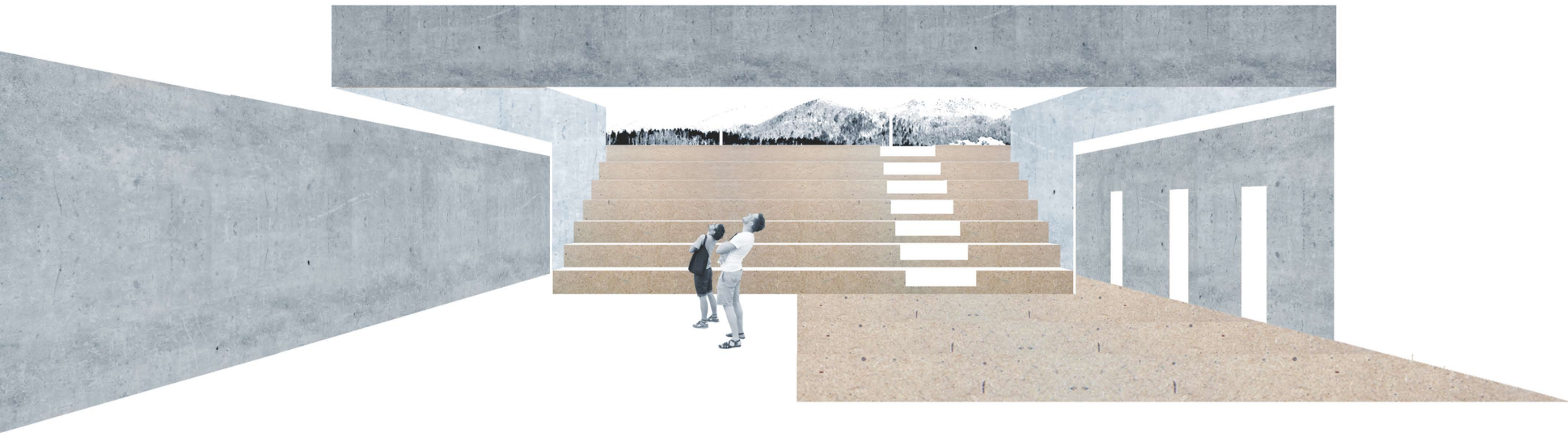
pogled na bazenski prostor / view on swimming area

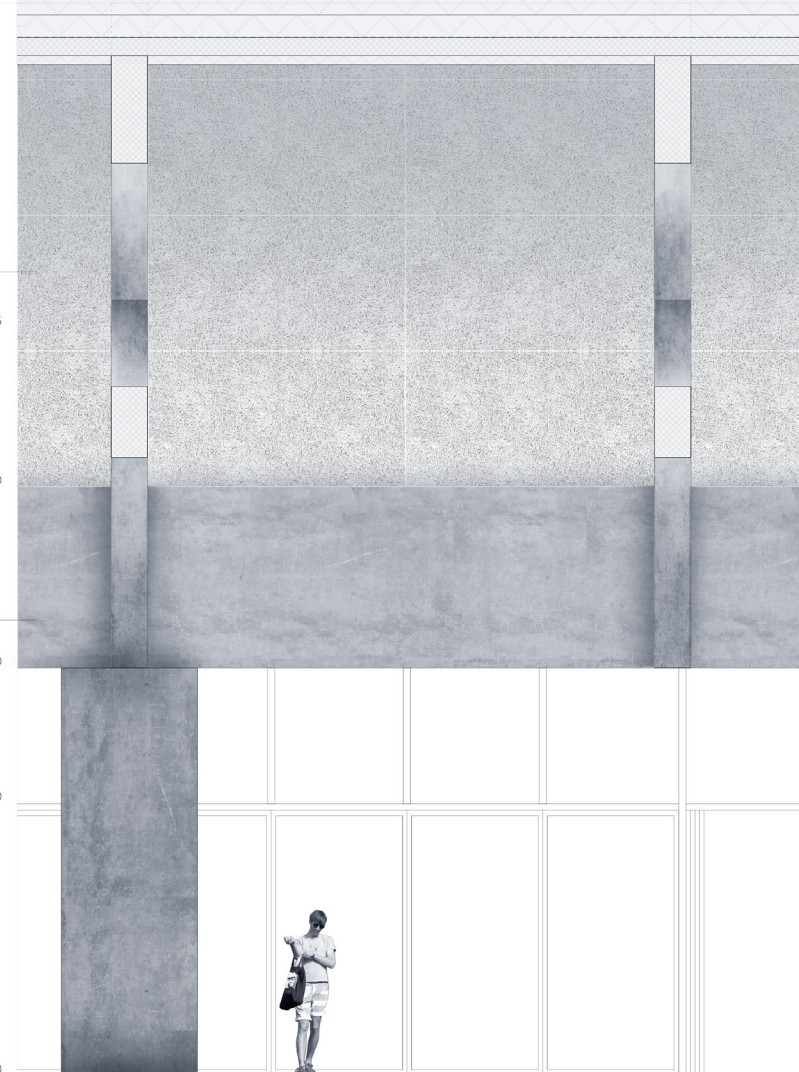
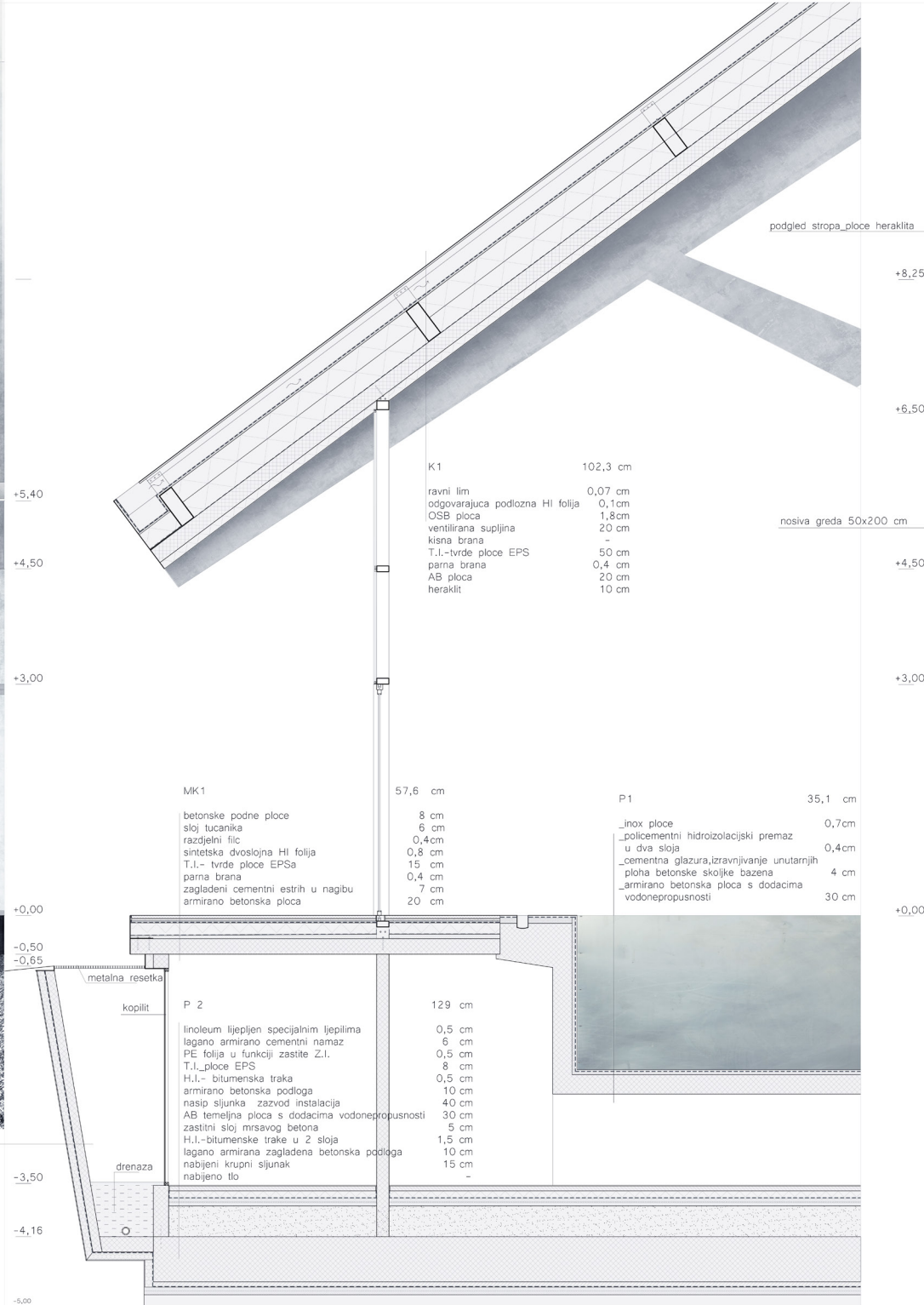


pogled s jezera / view from the lake



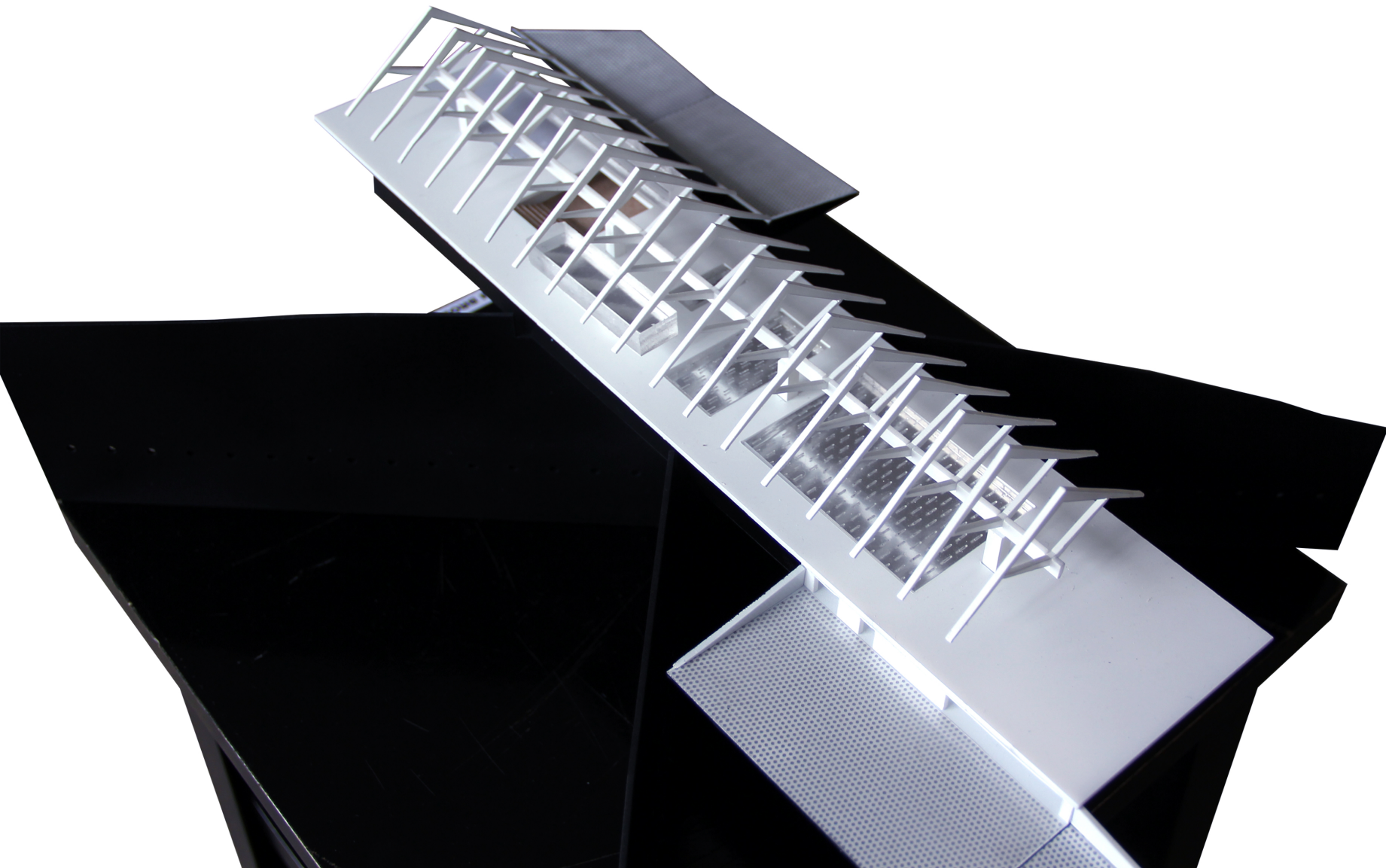
pogled na ulaz za korisnike / view on the entrance for users





POGLED NA SEGMENT UNUTRASNJOSTI





maketa / physical model

