

ARCHITECTURE IN STONE

Diploma spring 2017

by Kathrine Atterås Galtung

Supervisors: Thomas McQuillen and Alessandra Kosberg



THE BEDROCK OF NORWAY

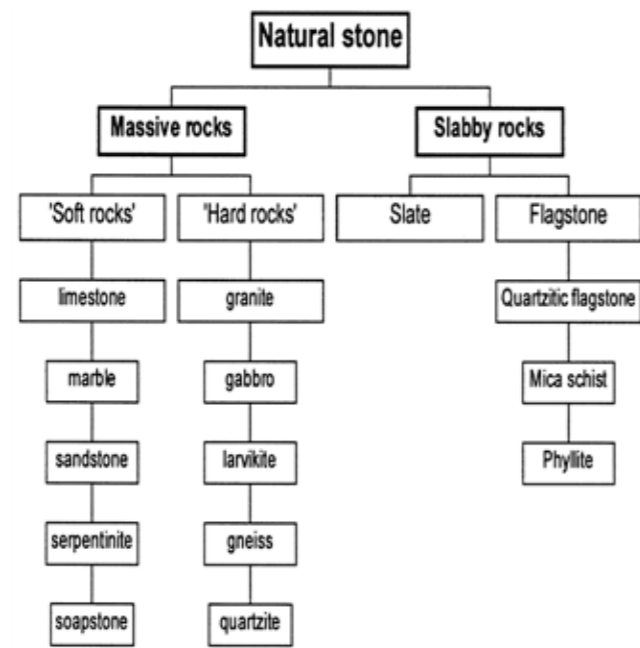
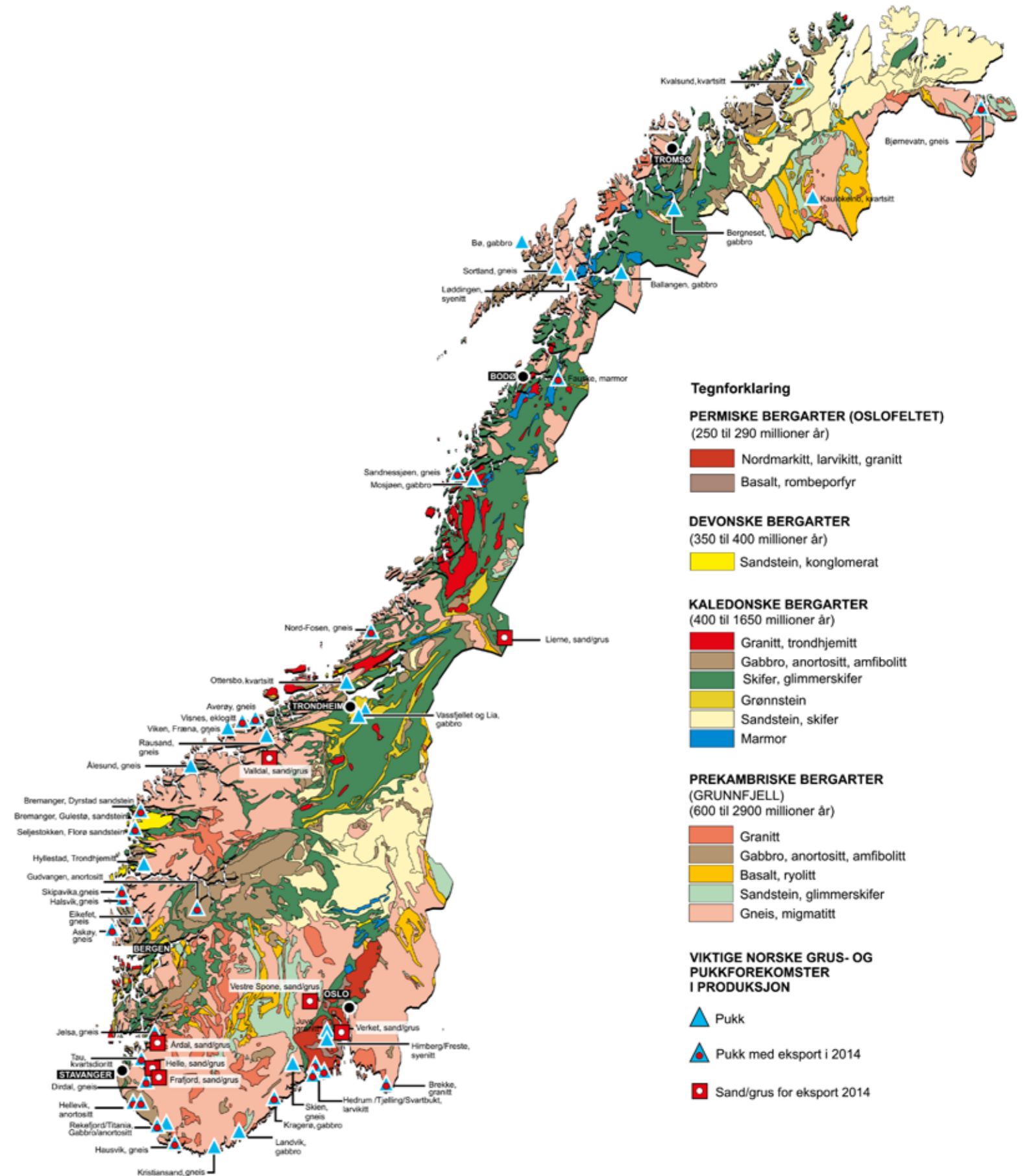
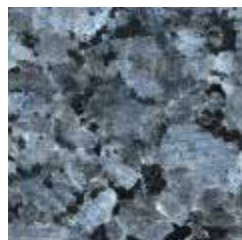


Fig. 1. Industrial classification of natural stone (types found in Norway).







1. Malerød, active.



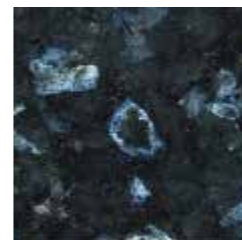
2. Bassebu, inactive.



3. Tvedalen, active.



4. Håkestad, active.



5. Klåstad, active.



6. Kjerringvik, inactive.



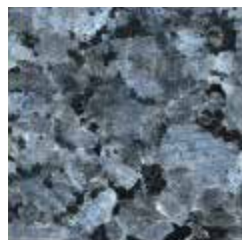
7. Marum, inactive.



8. Bergan, inactive.



9. Nøtterøy, inactive.



1. Malerød, active.



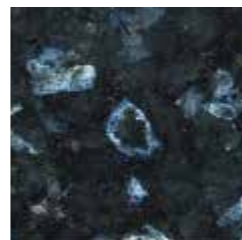
2. Bassebu, inactive.



3. Tvedalen, active.



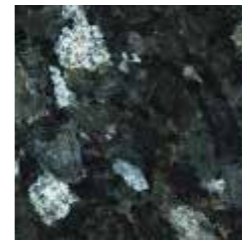
4. Håkestad, active.



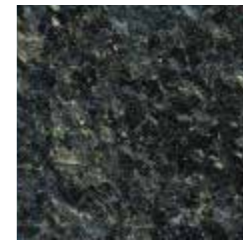
5. Klåstad, active.



6. Kjerringvik, inactive.



7. Marum, inactive.



8. Bergan, inactive.



9. Nøtterøy, inactive.





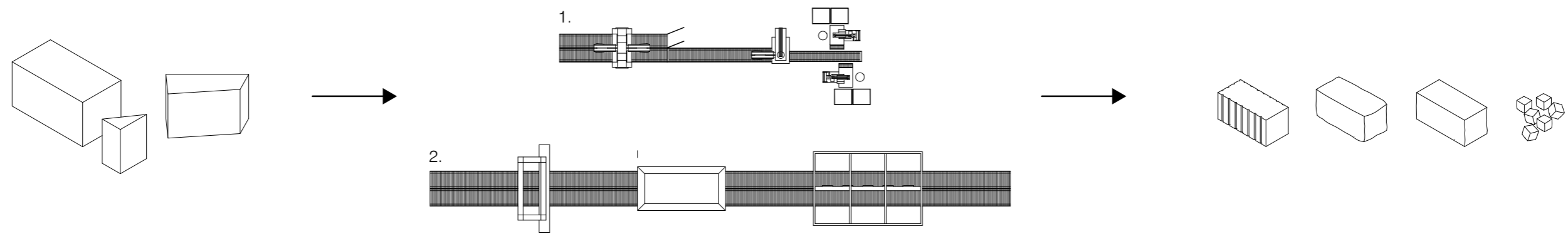
Situation map

1. The proposed stone factory
2. Quarry waste-pile
3. Workshops and storage of "raw-blocks"
4. Gravel production from waste material
5. Garage



from left: Regular stone, diamond sawn surface, and Polished surface

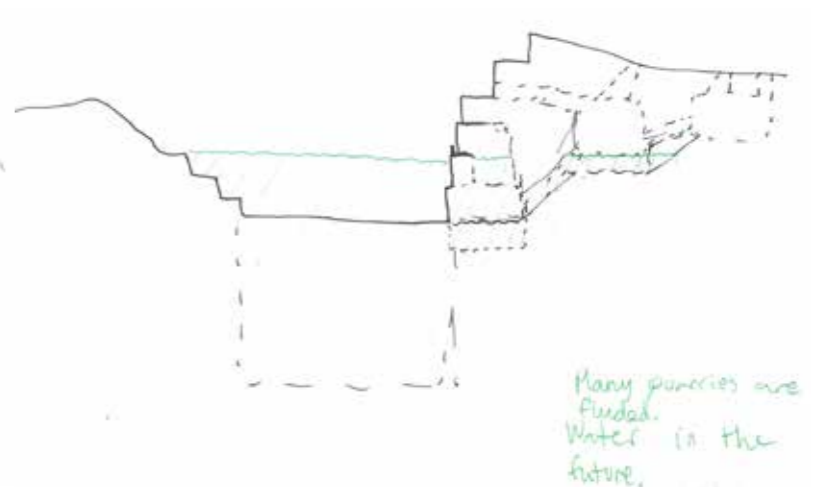
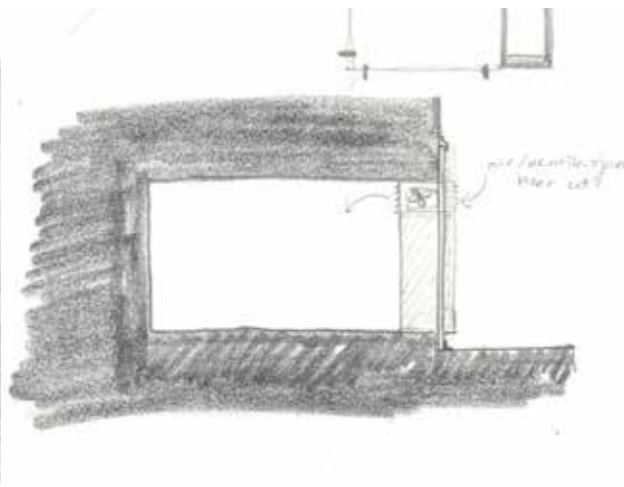
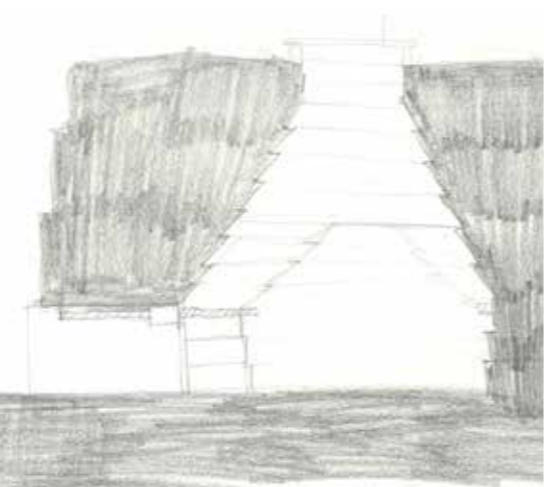
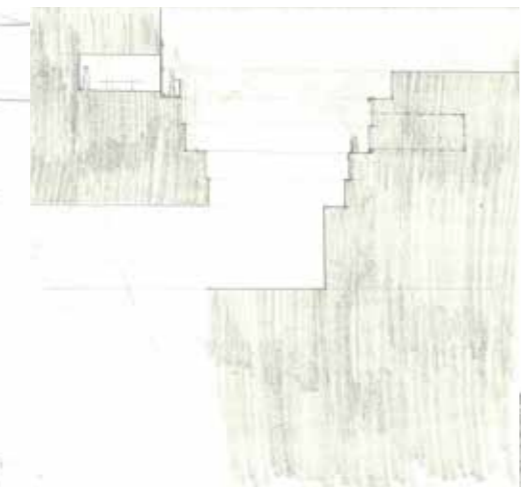
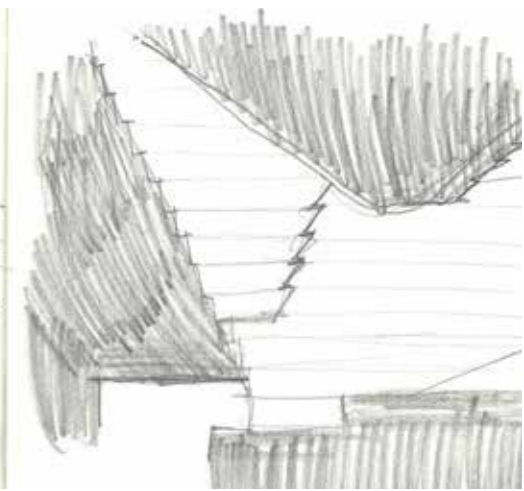
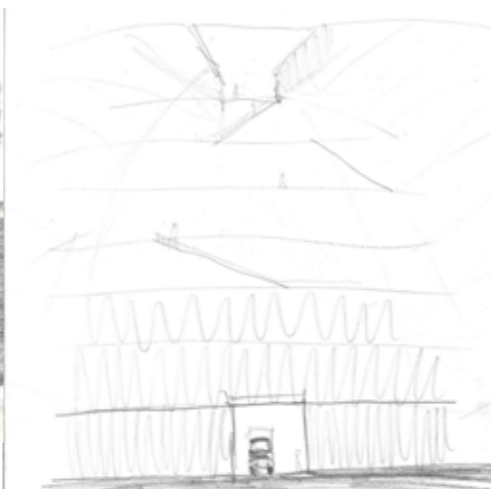
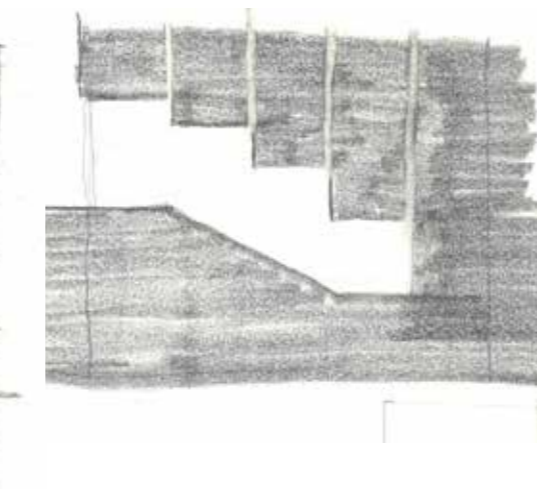
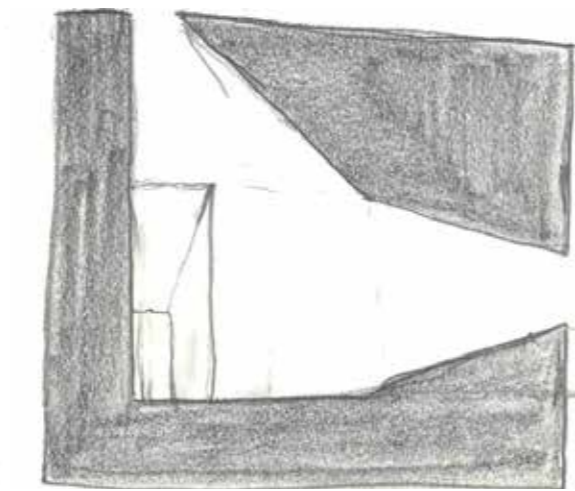
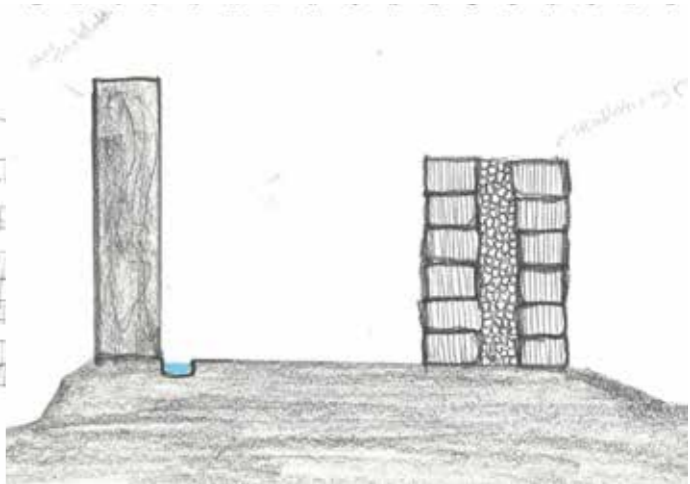
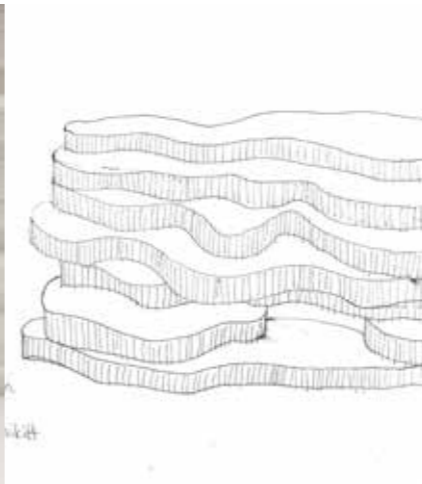
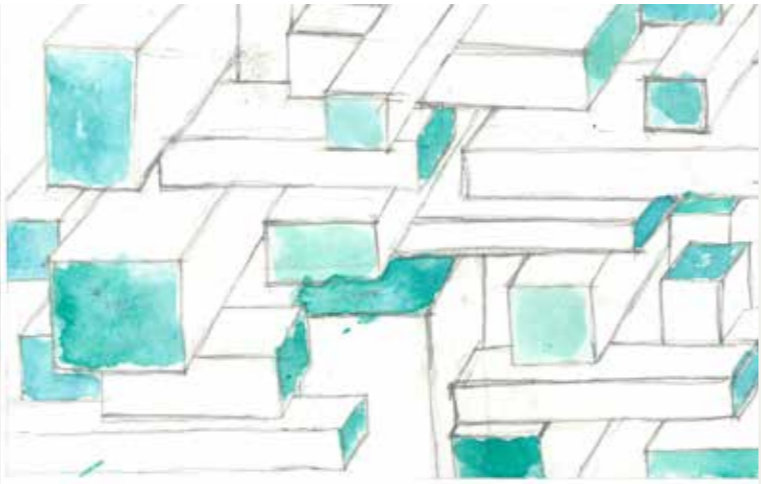
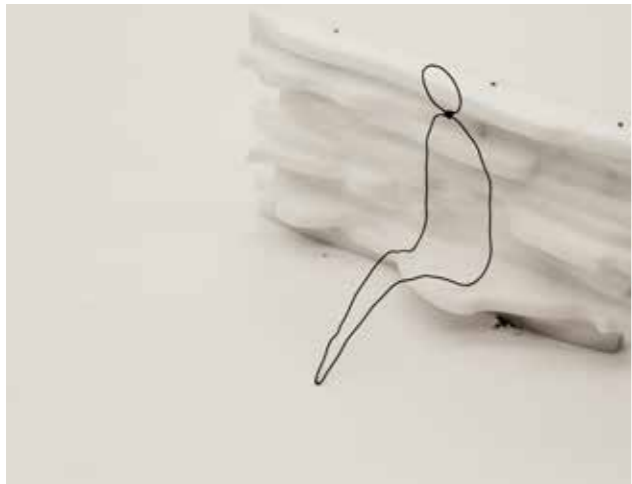
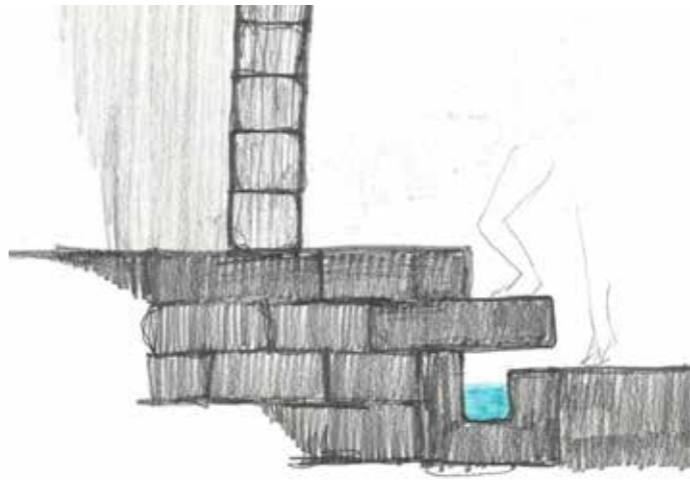
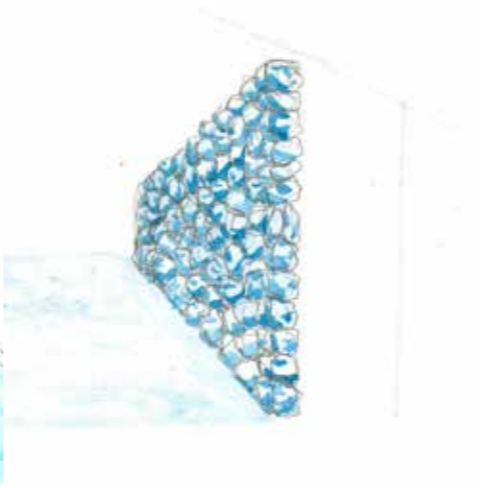
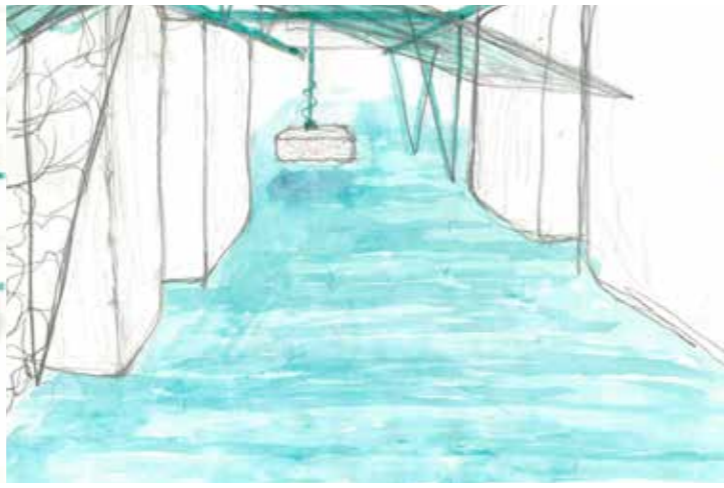
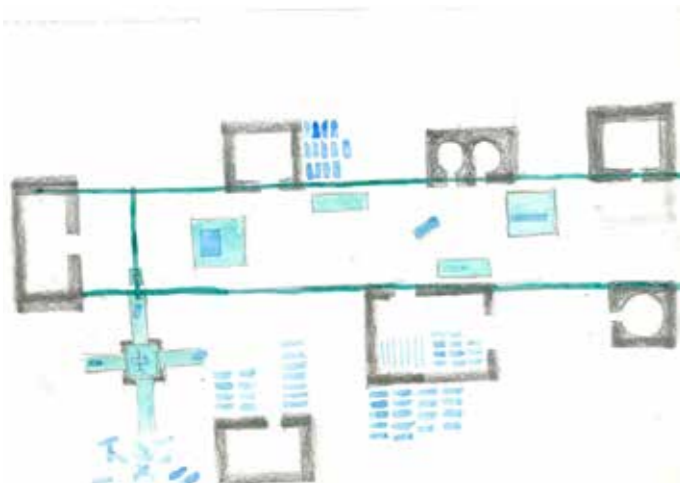
The factory producing building- and paving-stones from waste material:



Stone considered waste

1. Splitting line: large splitting machine; medium splitting machine; two smaller splitting machines
2. Saw line: Large wire saw; Water jet for surface finishing; Multi-blade saw

Finished products in sizes up to 1 x 1 x 2,5 m.





Quarry, Colorado USA.



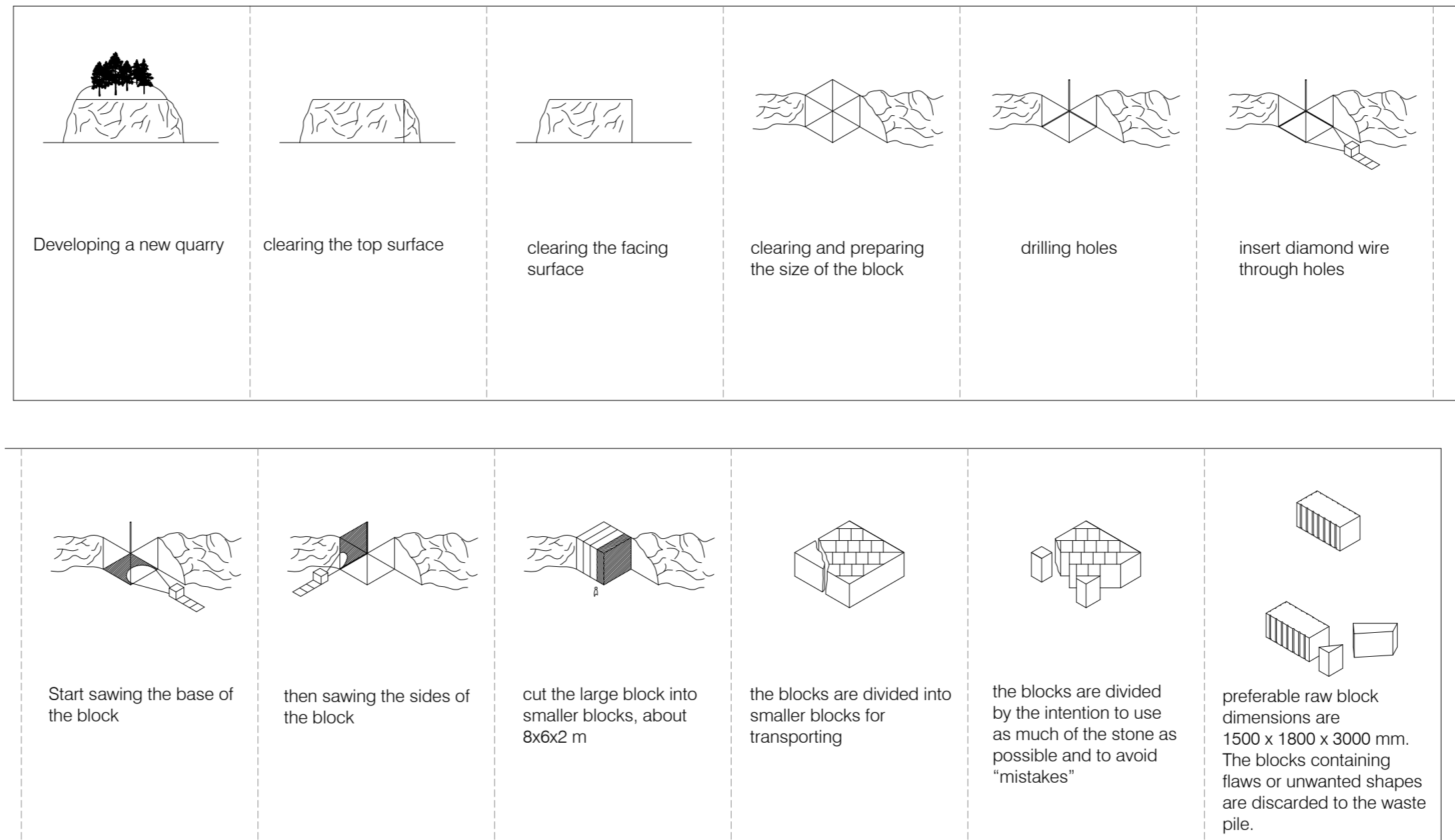
Marble quarry, Carrara Italy.



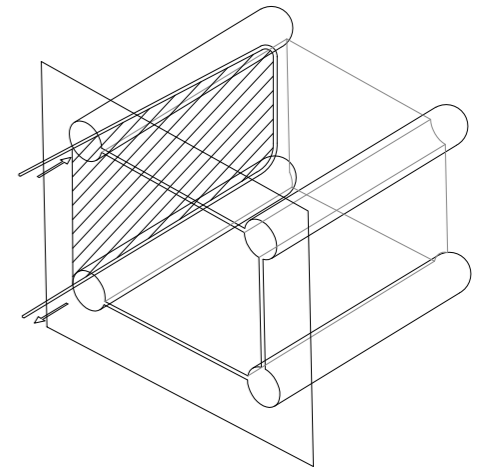
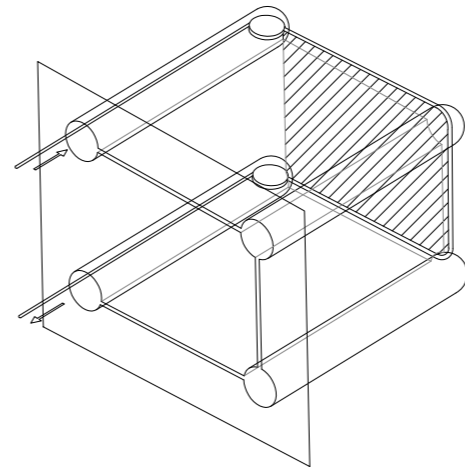
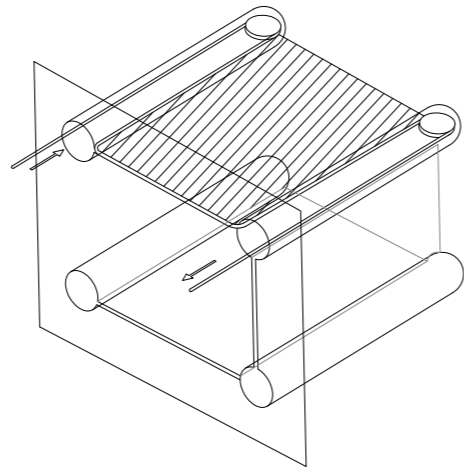
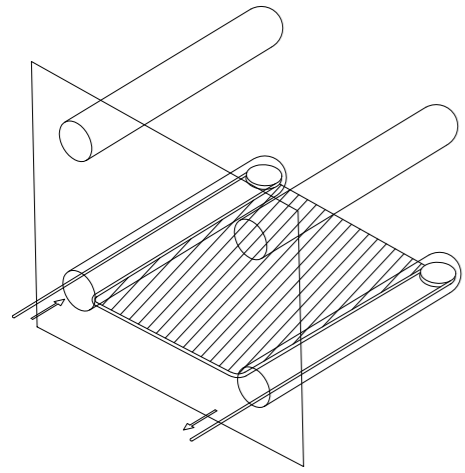
26061

EXAC

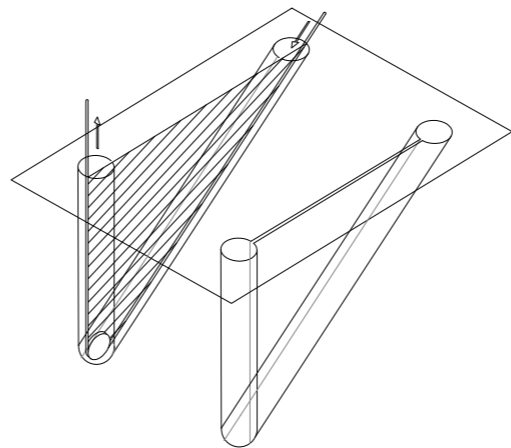
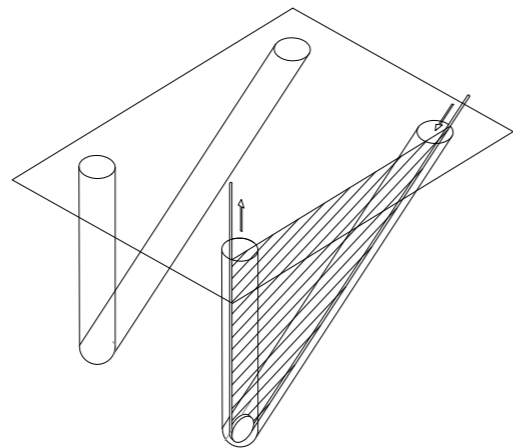
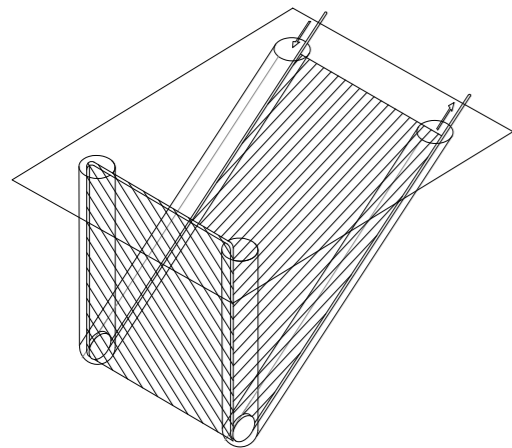
The Quarry extraction process

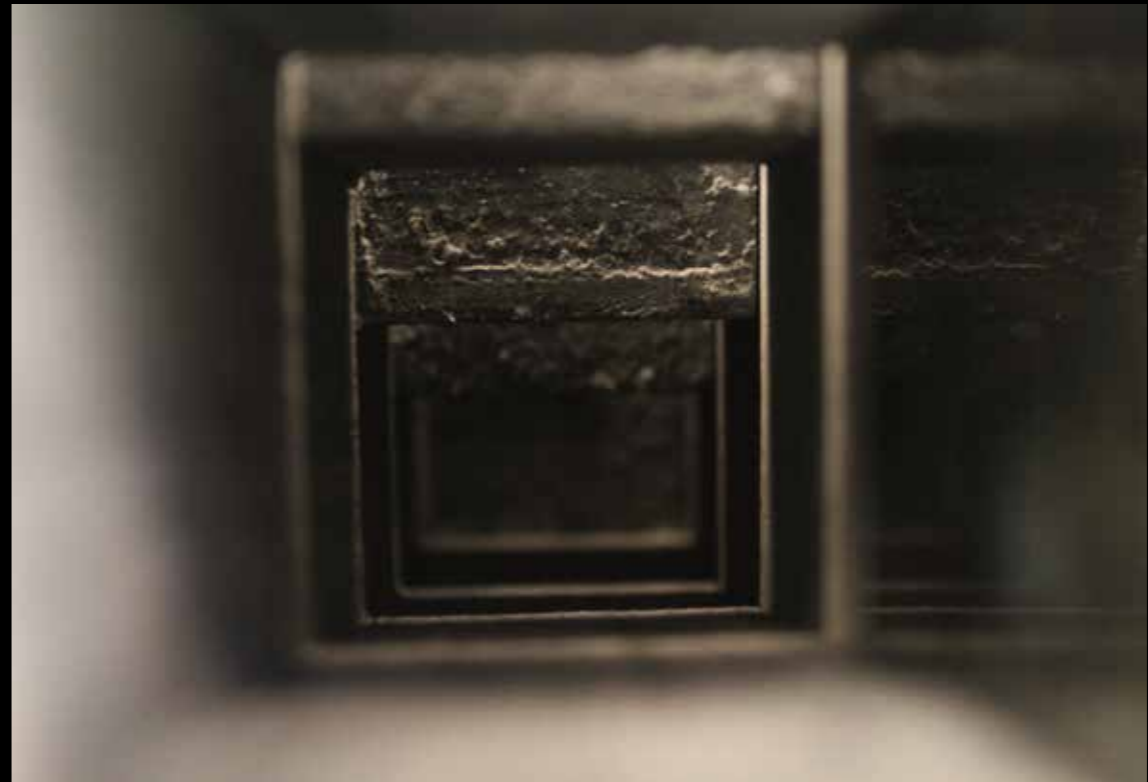
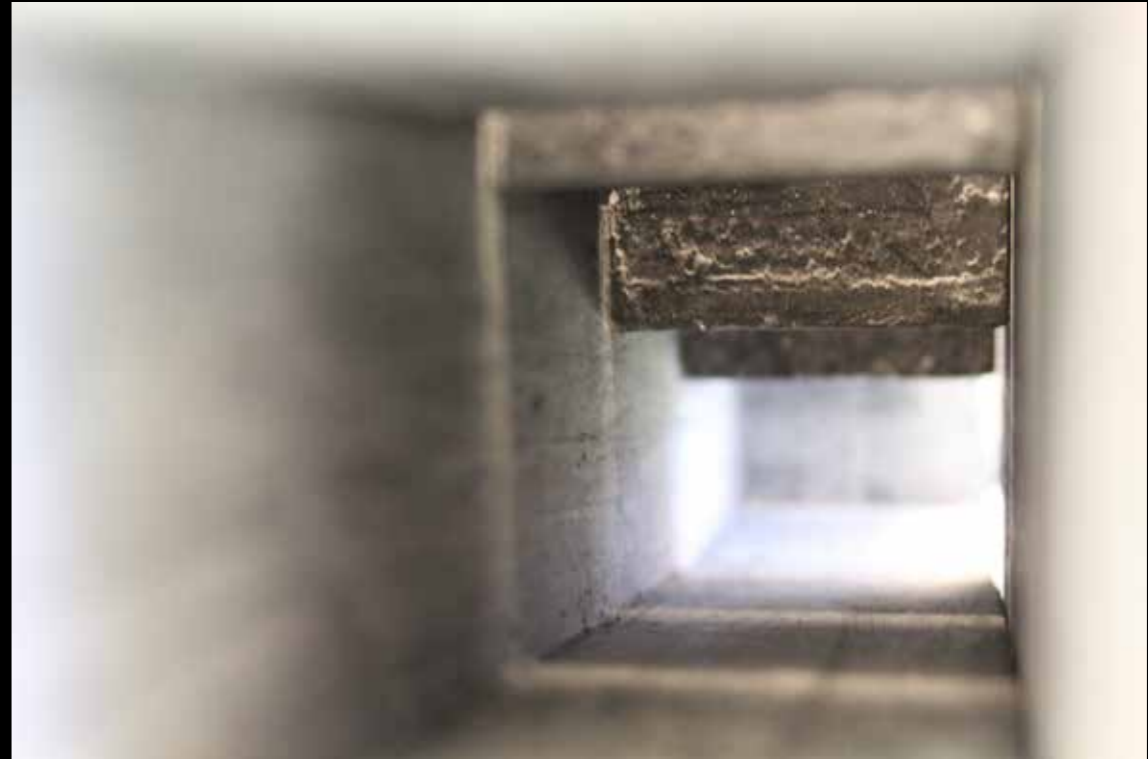


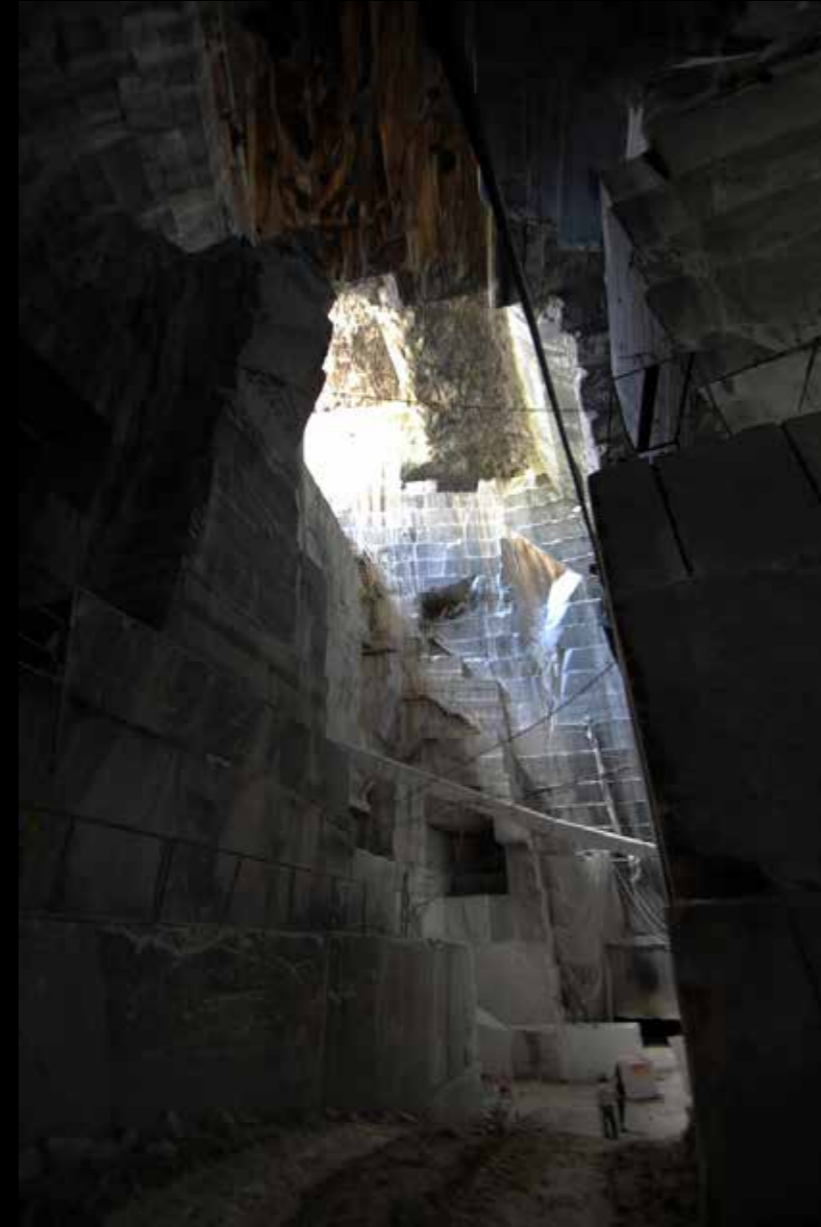
Diamond-wire saw cutting from one side



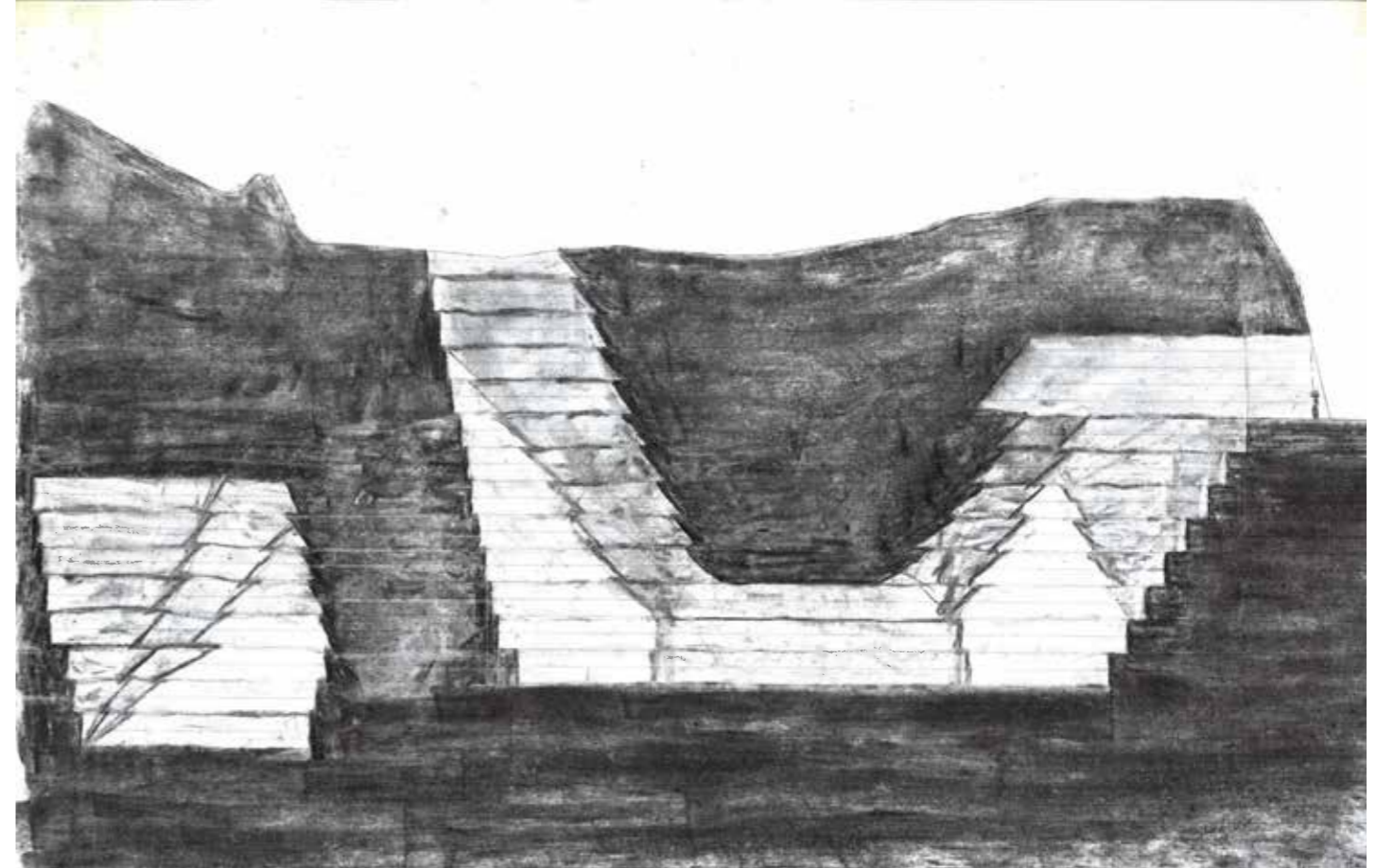
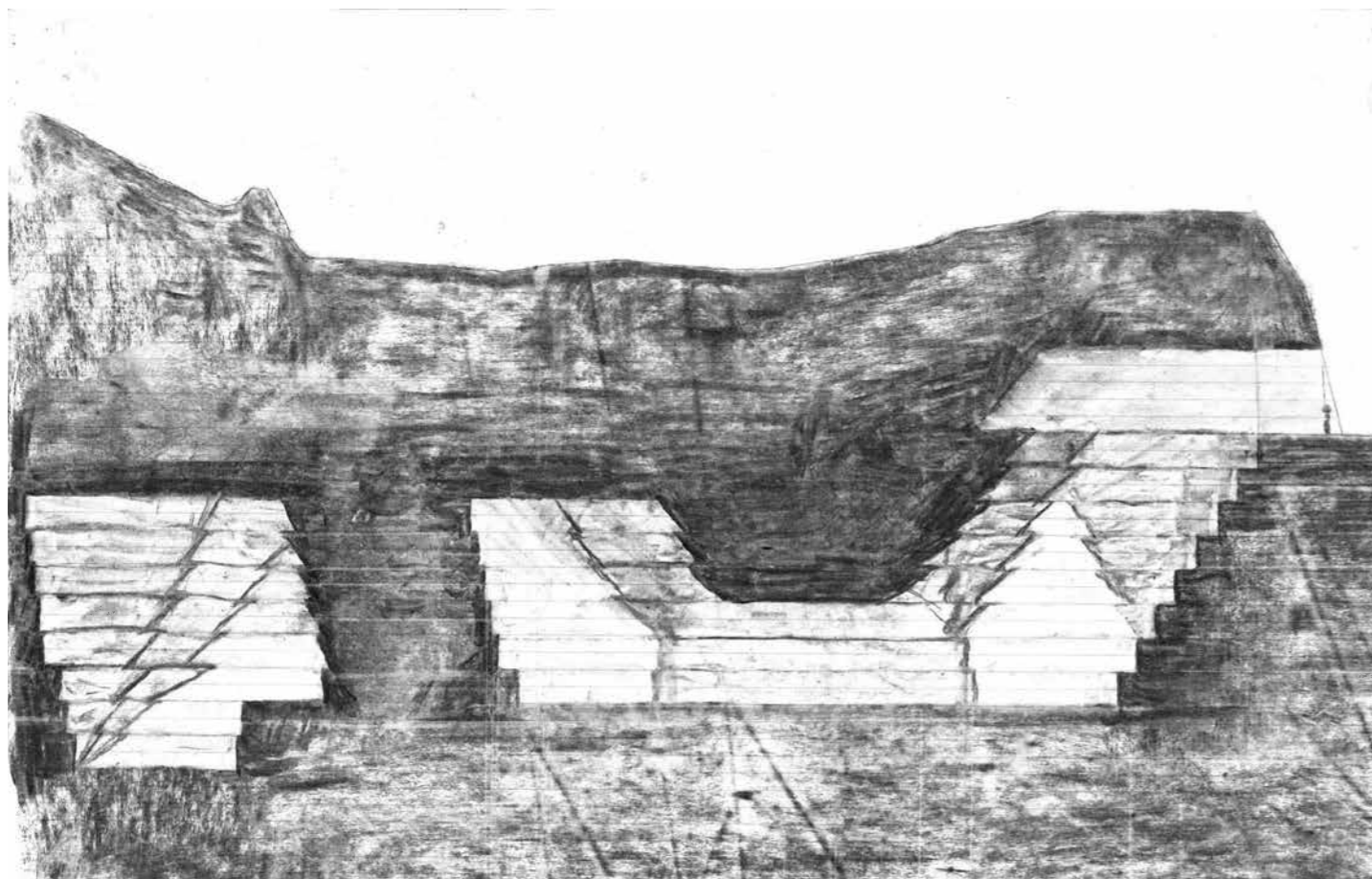
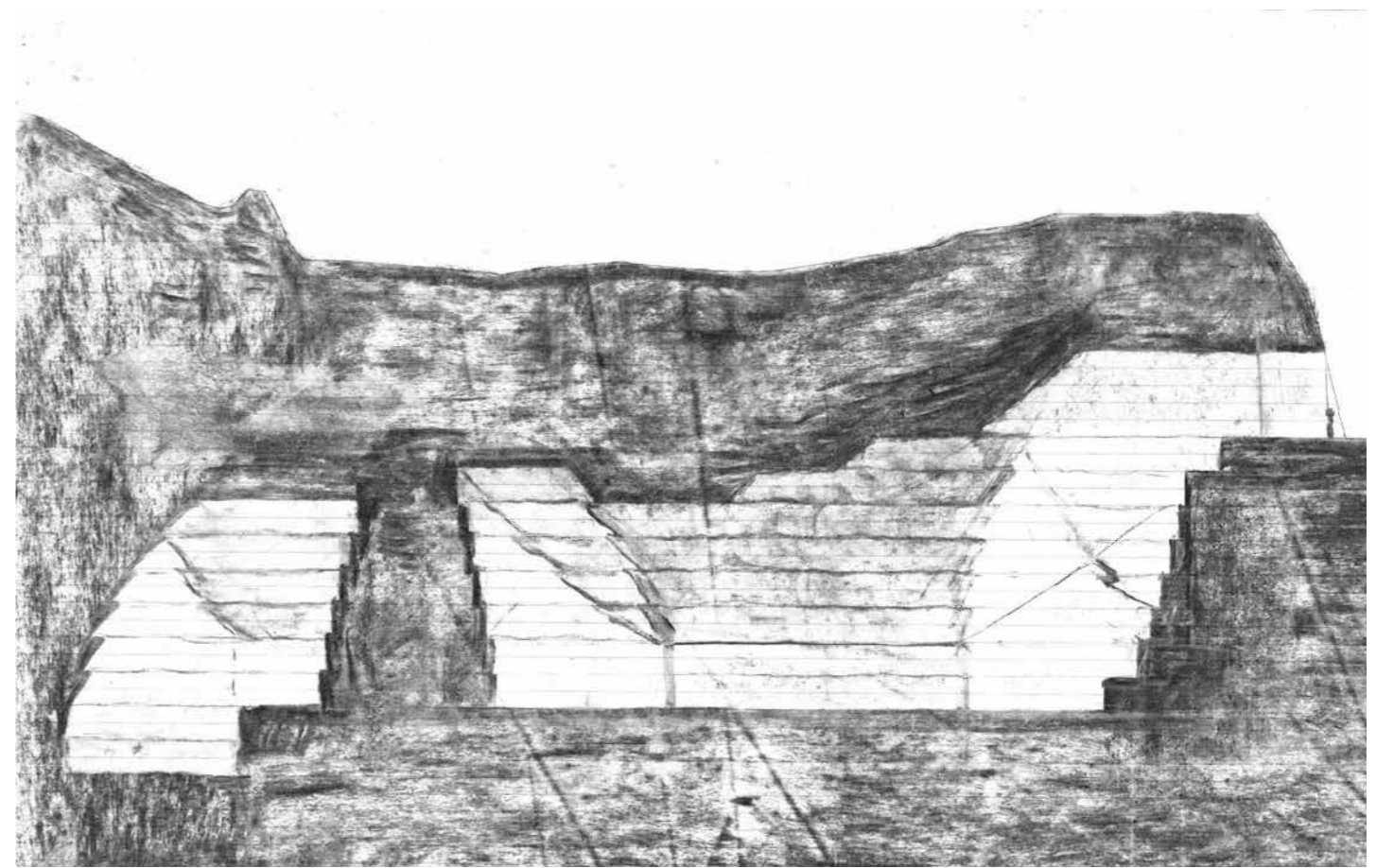
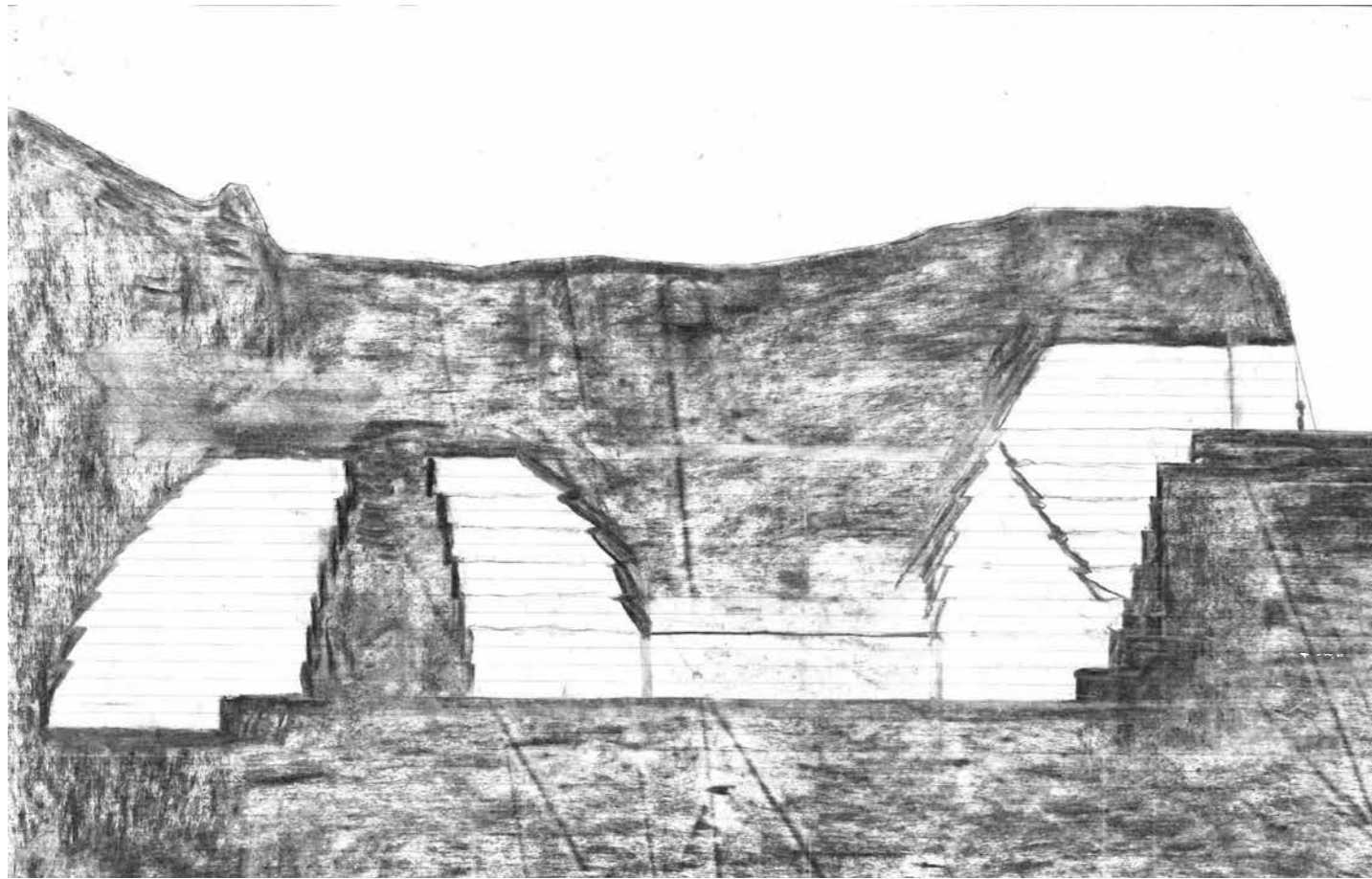
Diamond-wire saw cutting slope



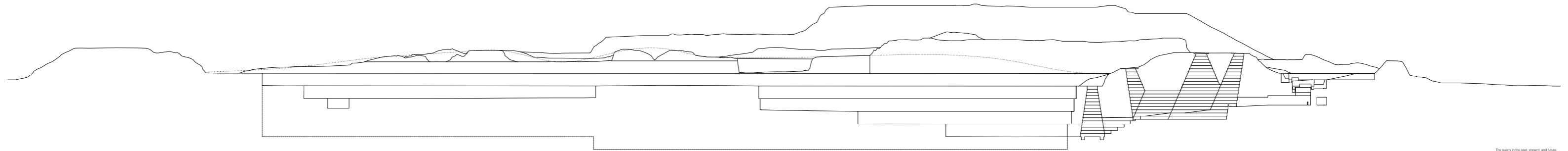










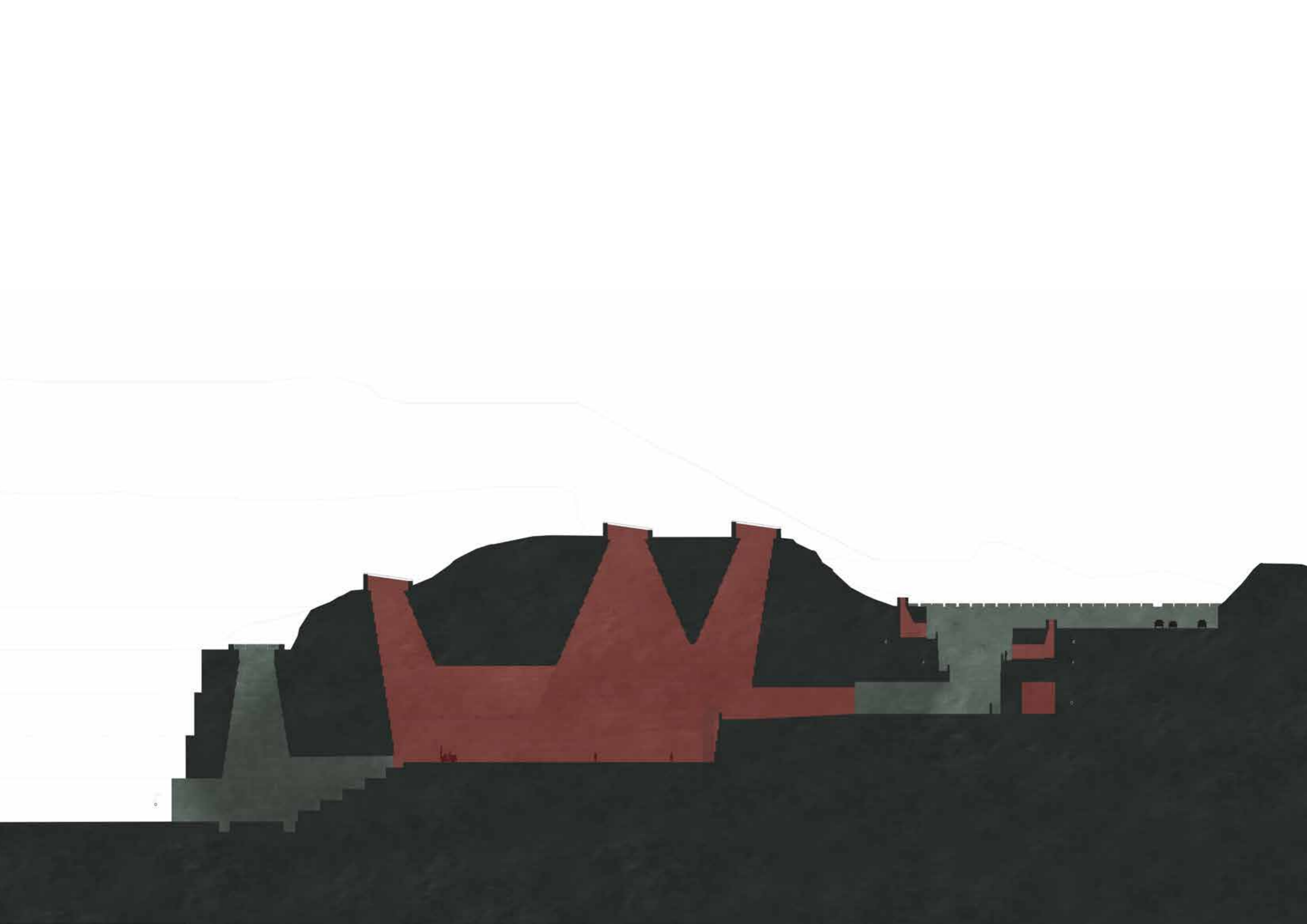


The quarry in the past, present, and future
..... 100 years ago
———— Quarry today
- - - - 100 years in the future

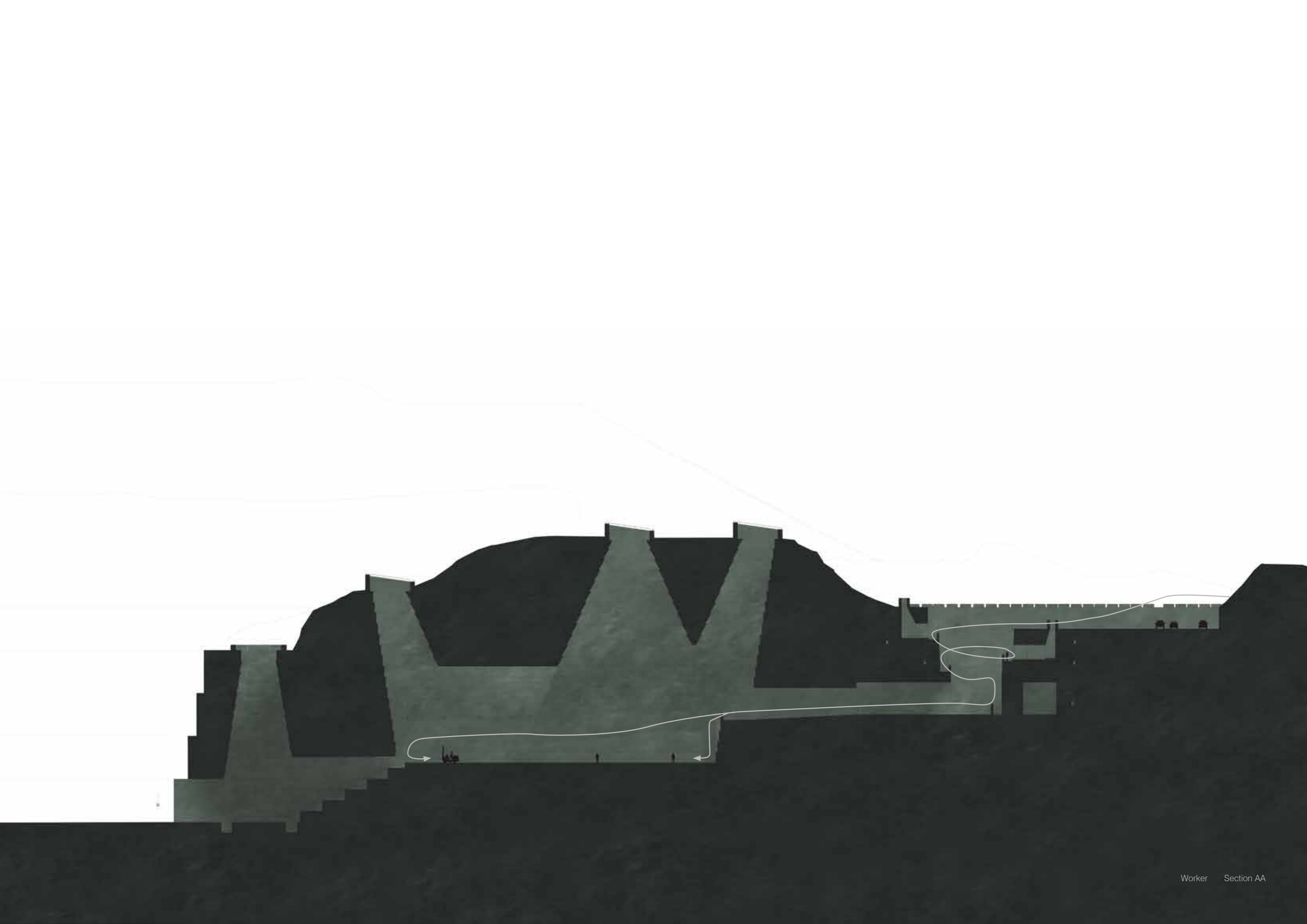


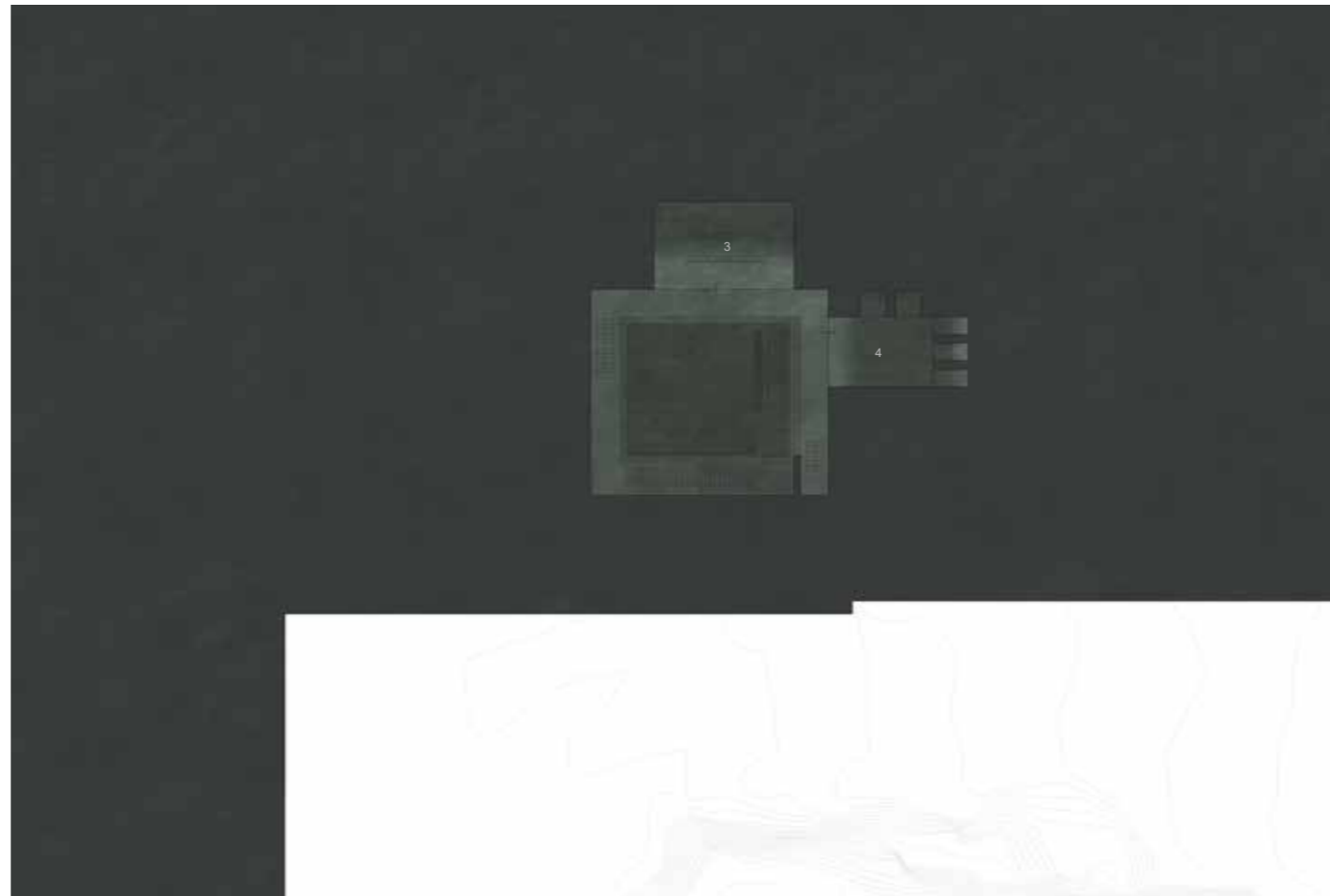
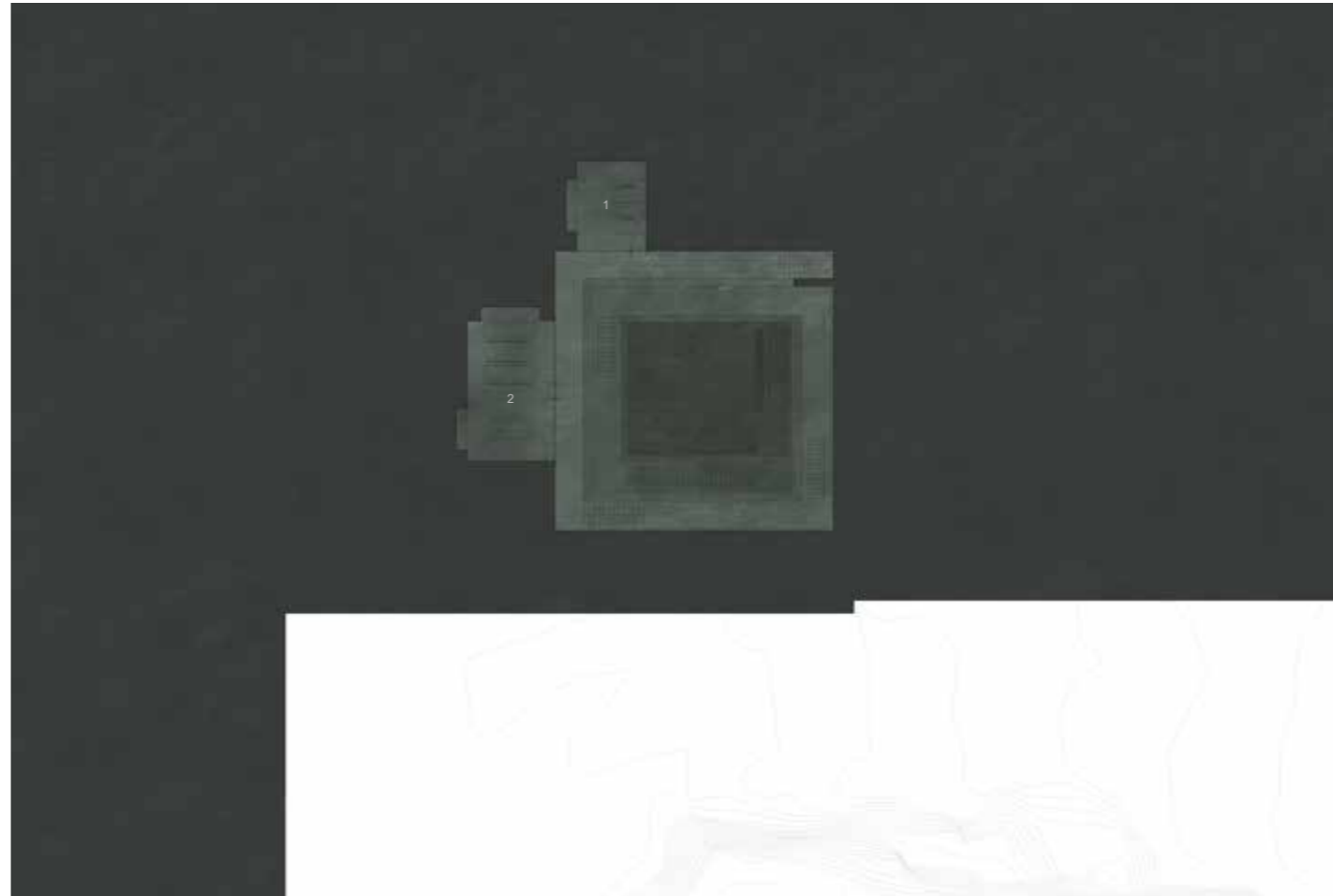










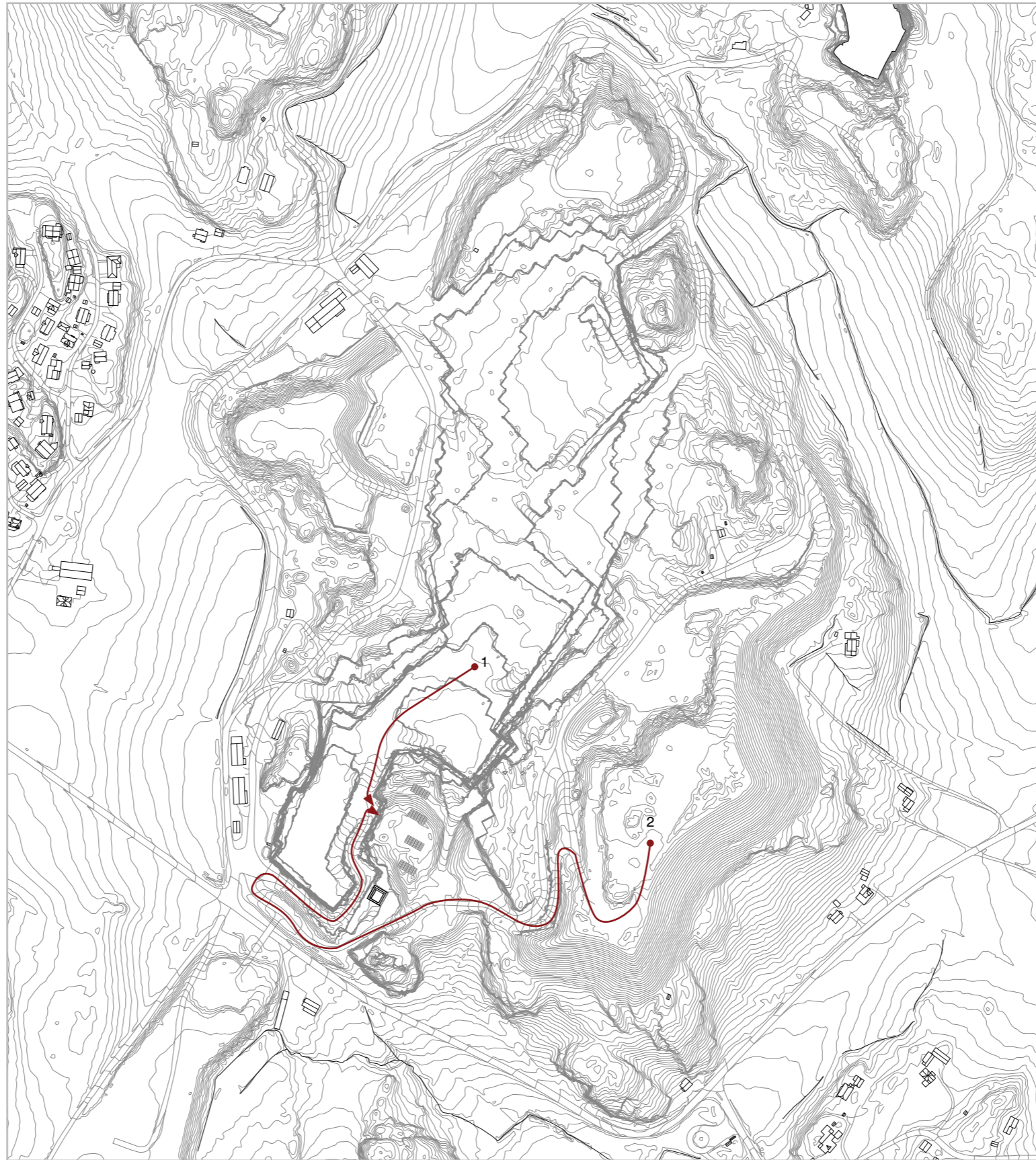


- 1. Office
- 2. Kitchen
- 3. Meetingroom
- 4. Changing rooms and bathrooms

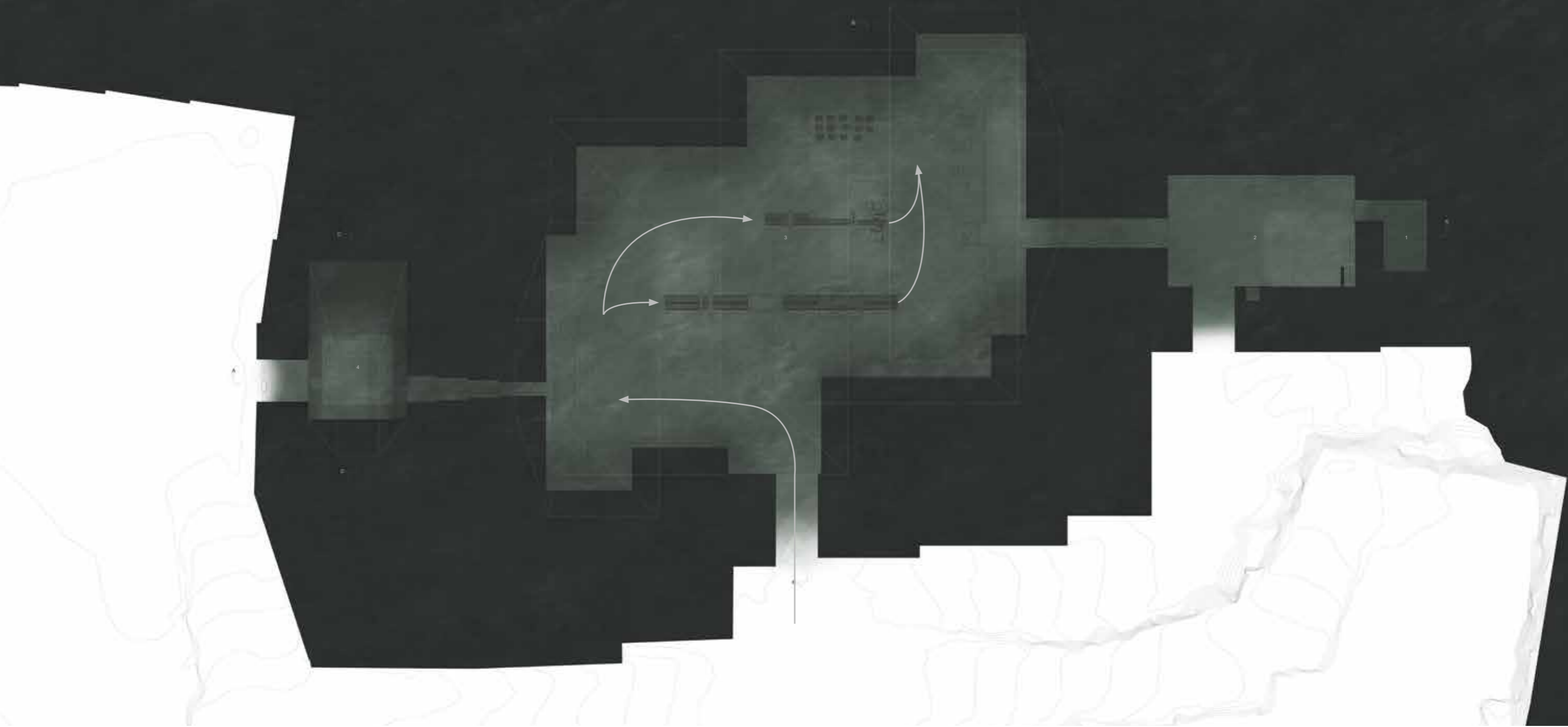
Plans of administration, no scale







Stone transported to the factory:
1. From the quarry
2. From the quarry waste-pile



Stone inside production hall

Plan DD

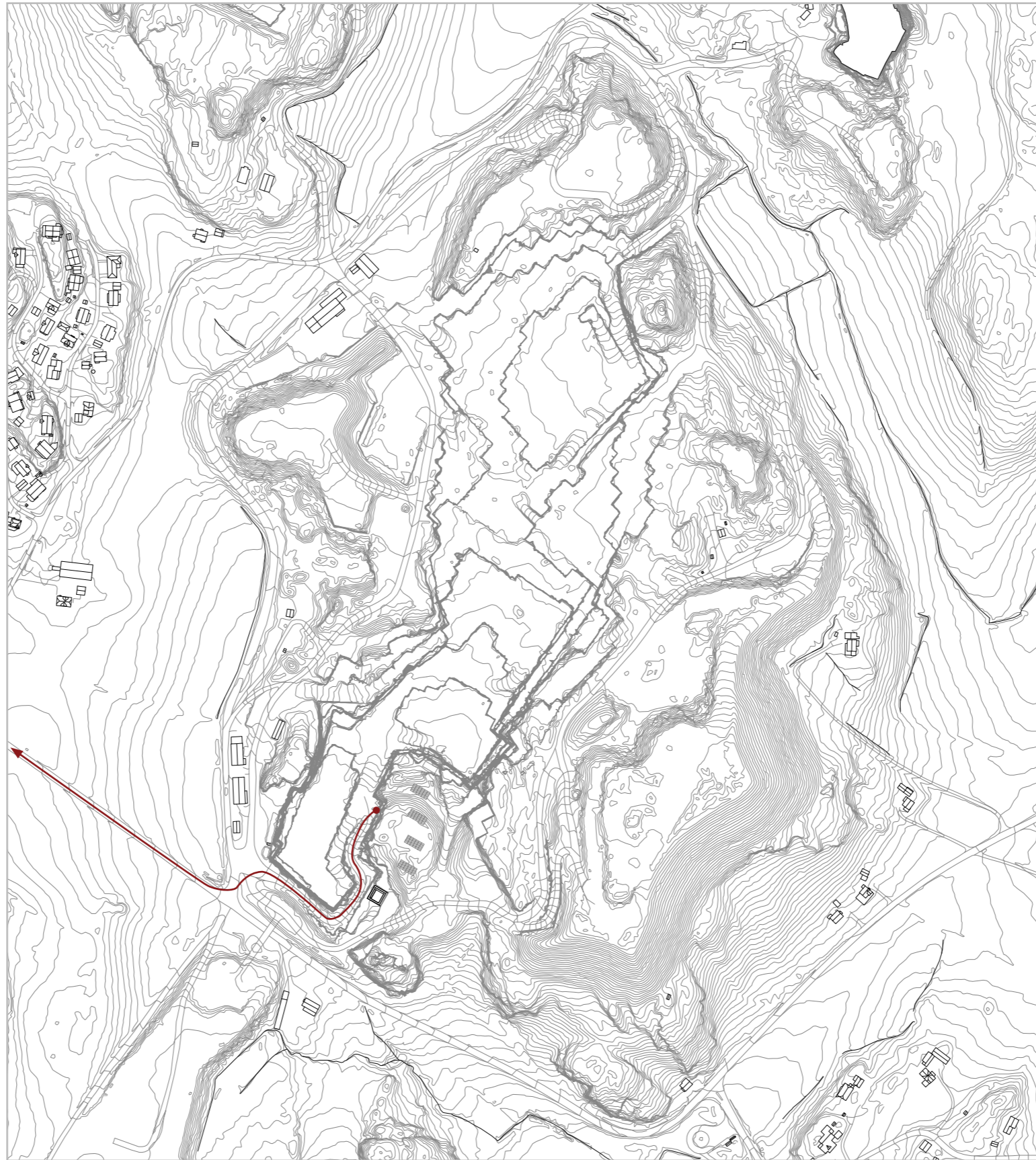




Transporting products to:
Exhibition storage
Outside storage

Plan DD

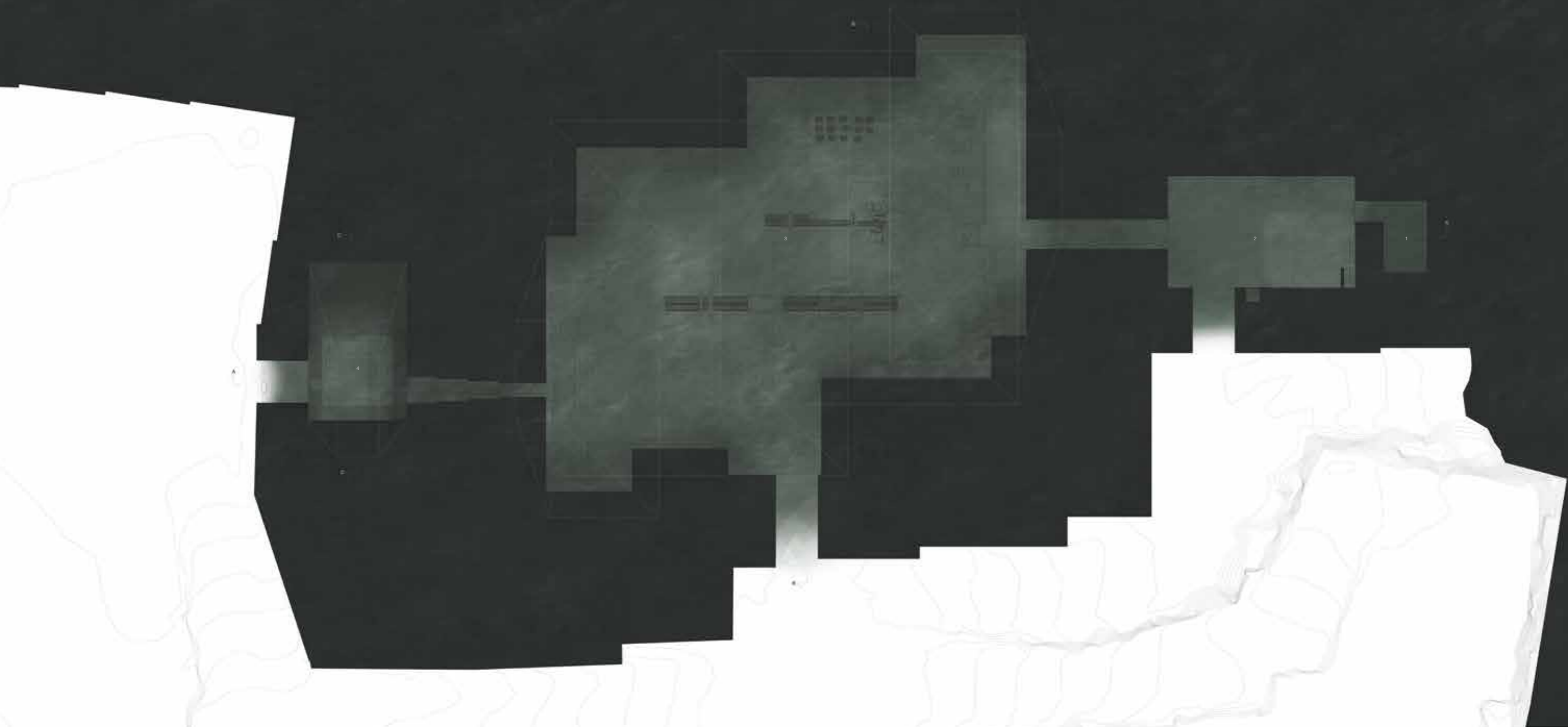




Stone transported from the factory to the buyers

Situation map 1:3000

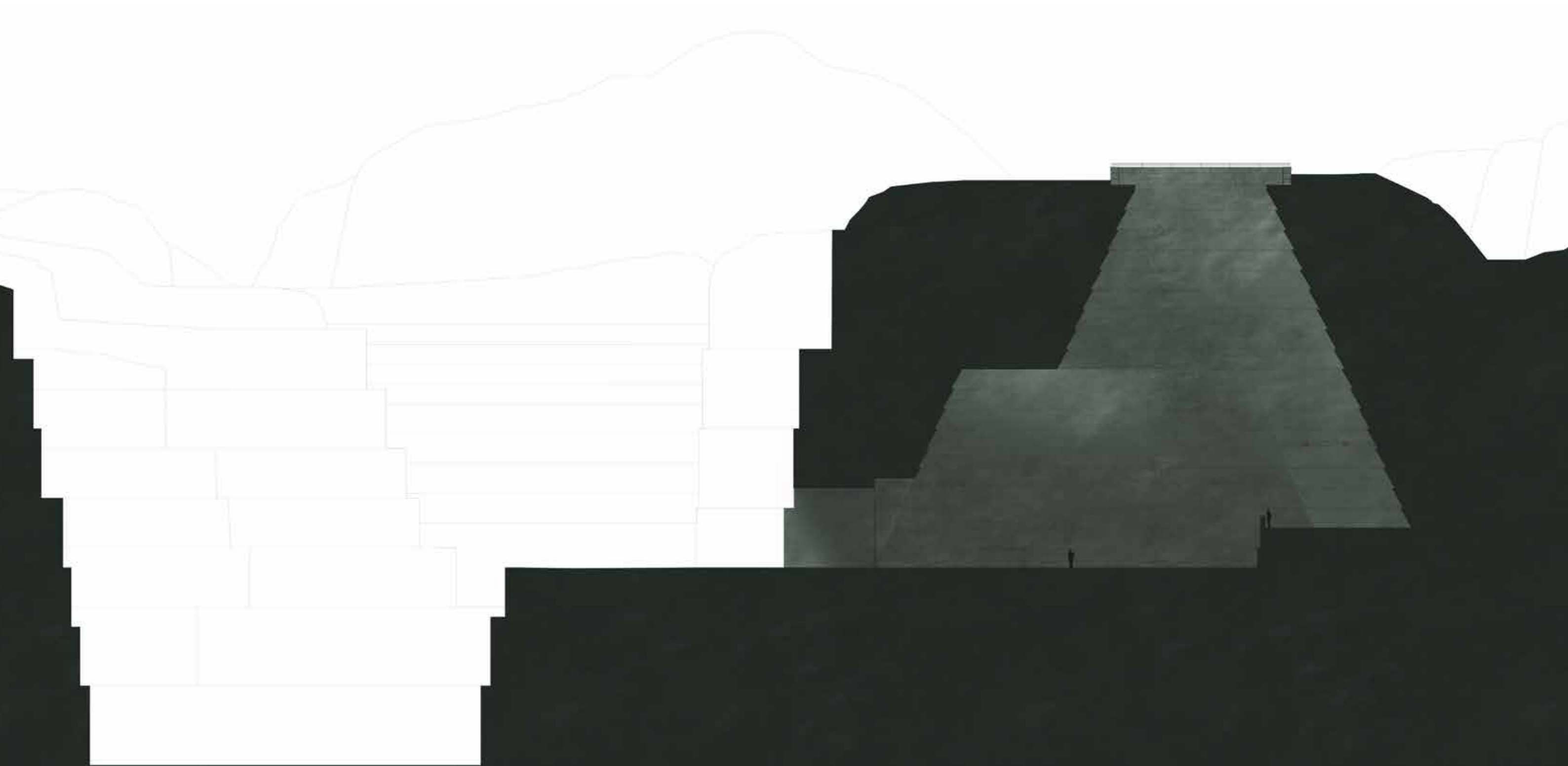


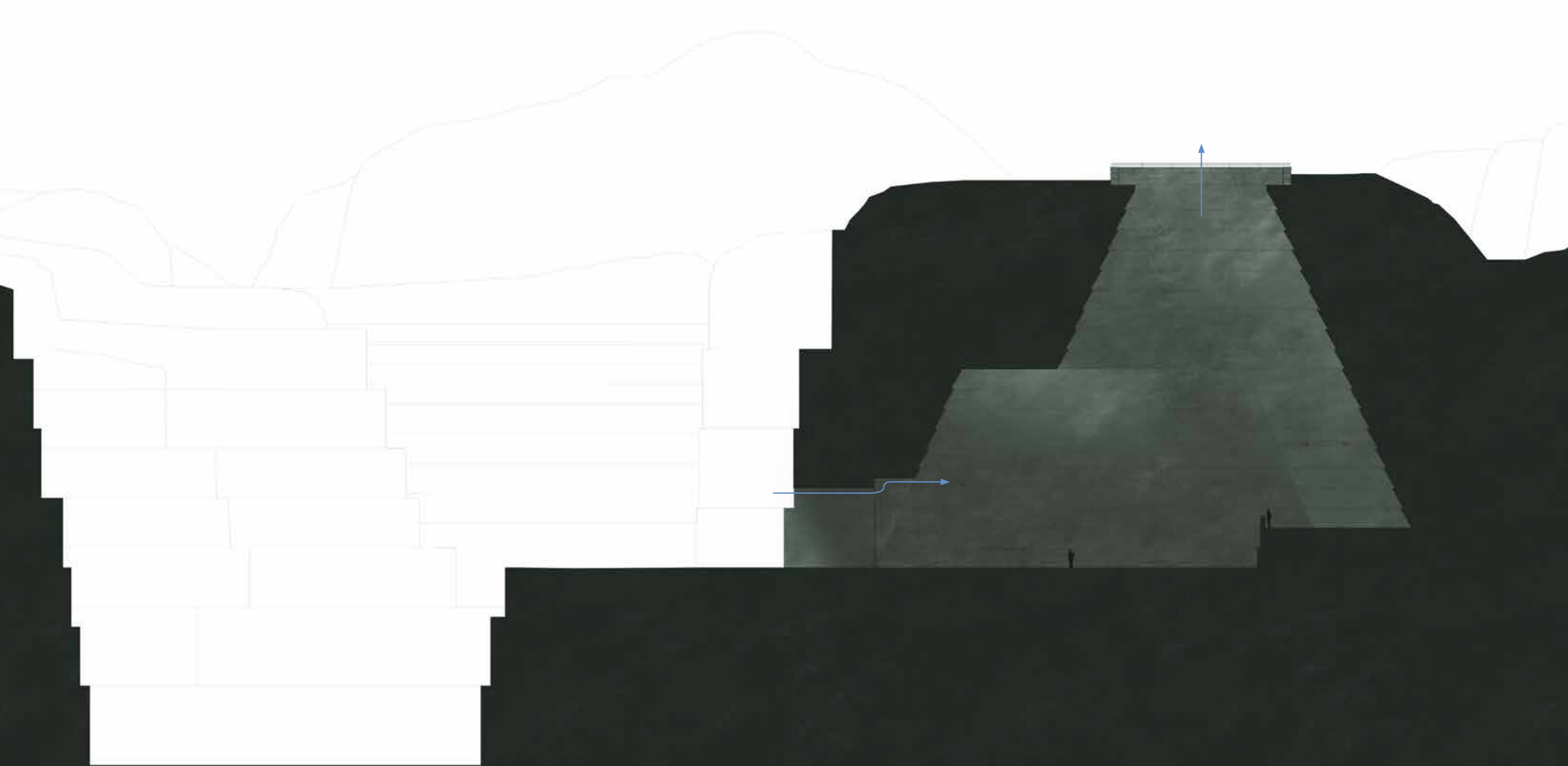


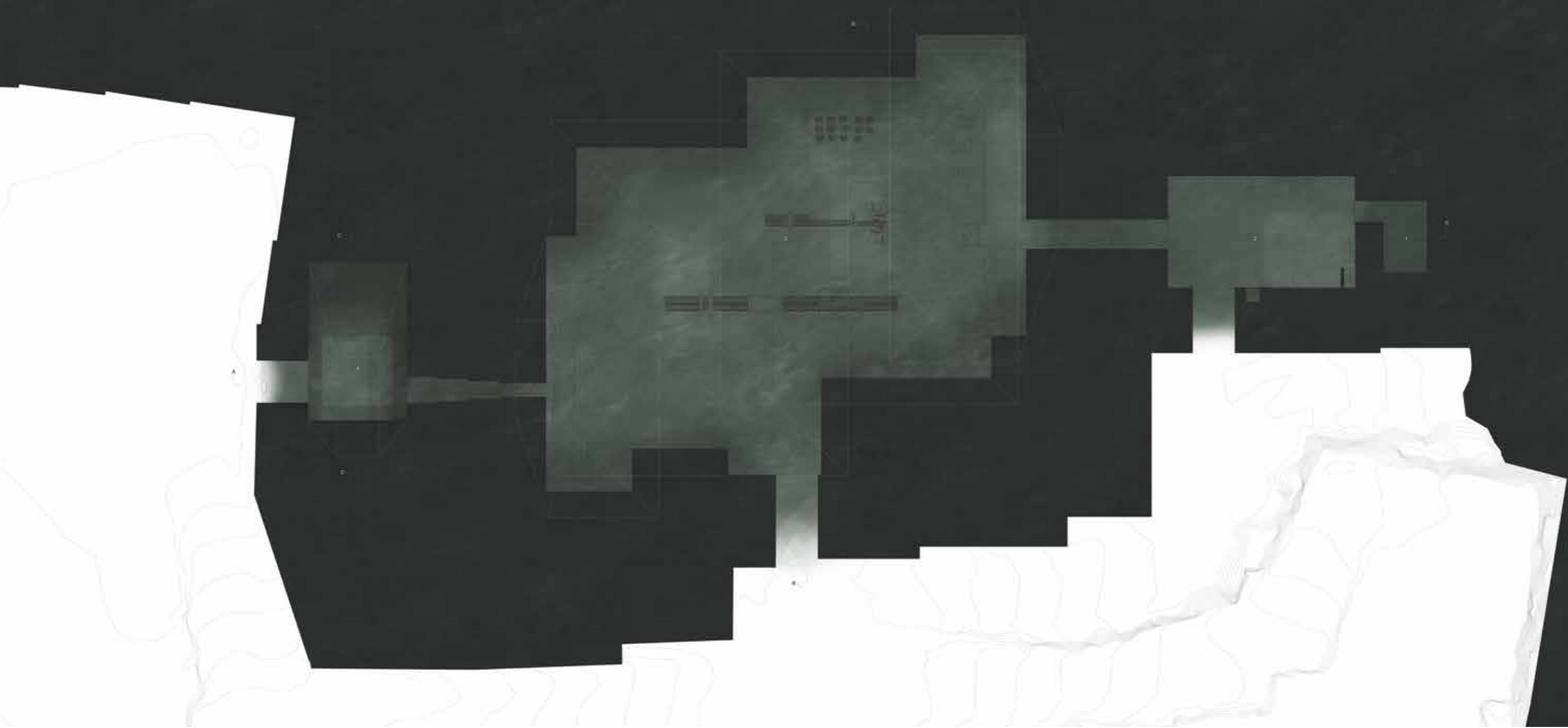
1. Water and septic tanks
2. Storage and exhibition space
3. Production hall
4. Space for draining water

Plan DD, no scale





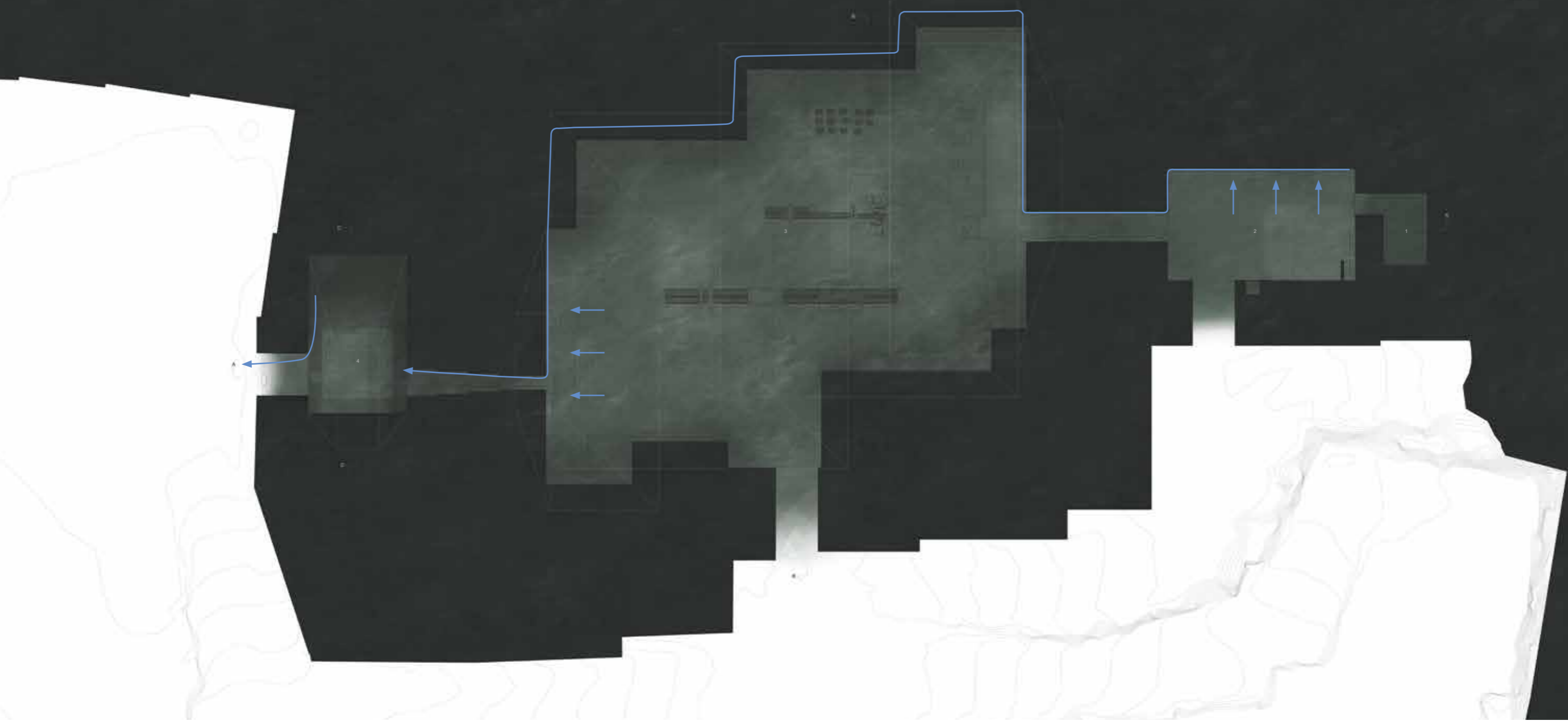




1. Water and septic tanks
2. Storage and exhibition space
3. Production hall
4. Space for draining water

Plan DD, no scale





Water path

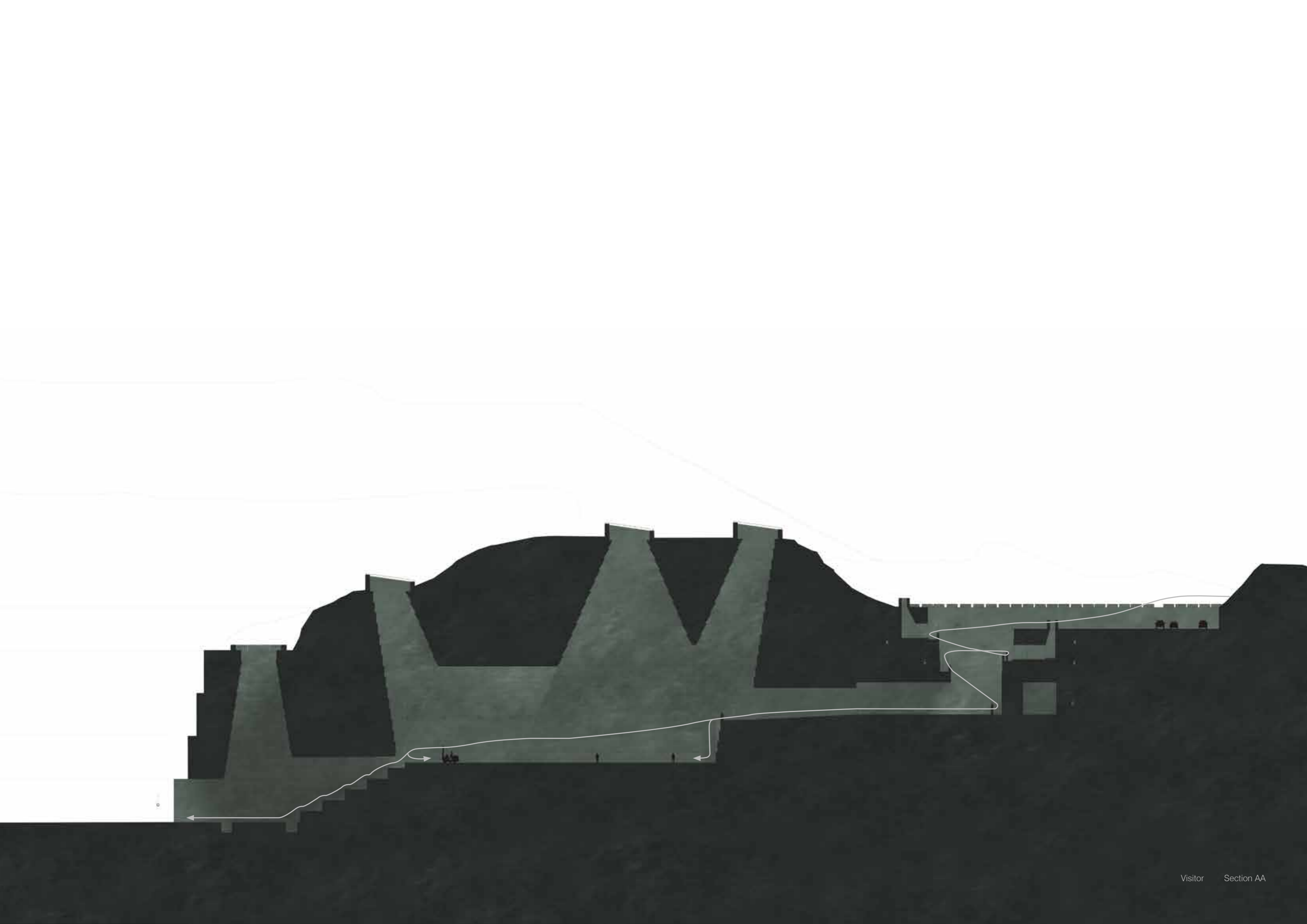
Plan DD





Section CC

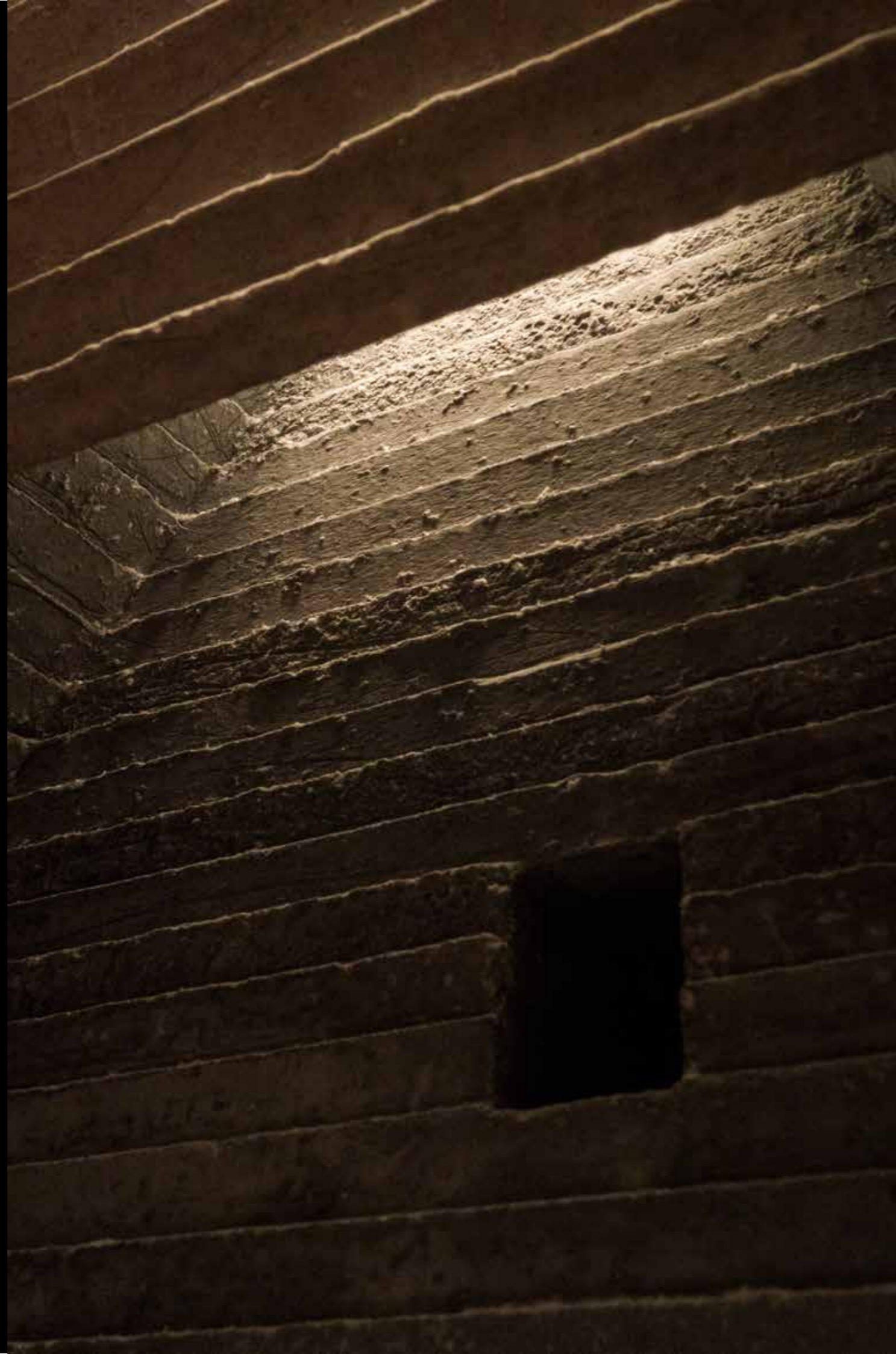




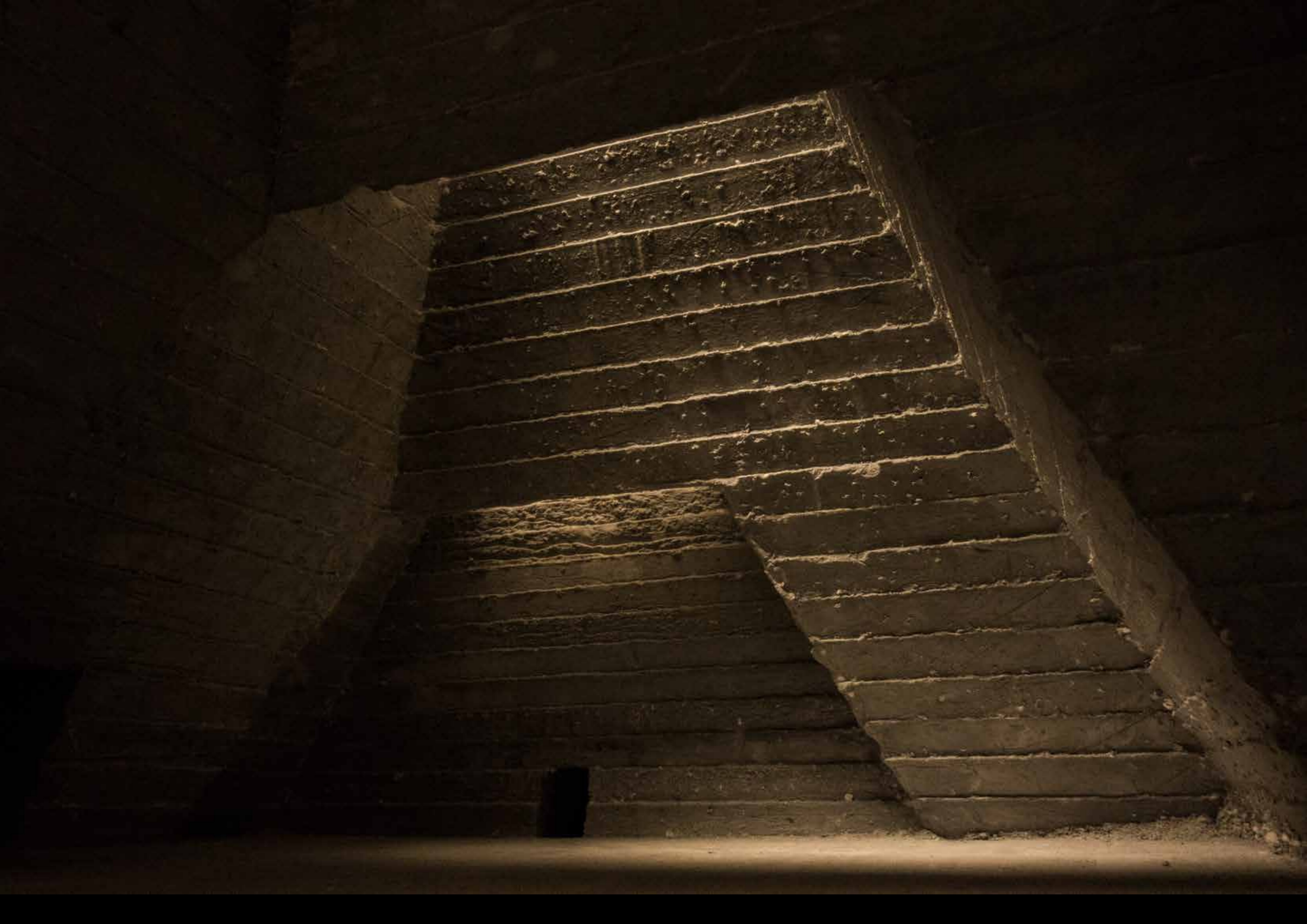


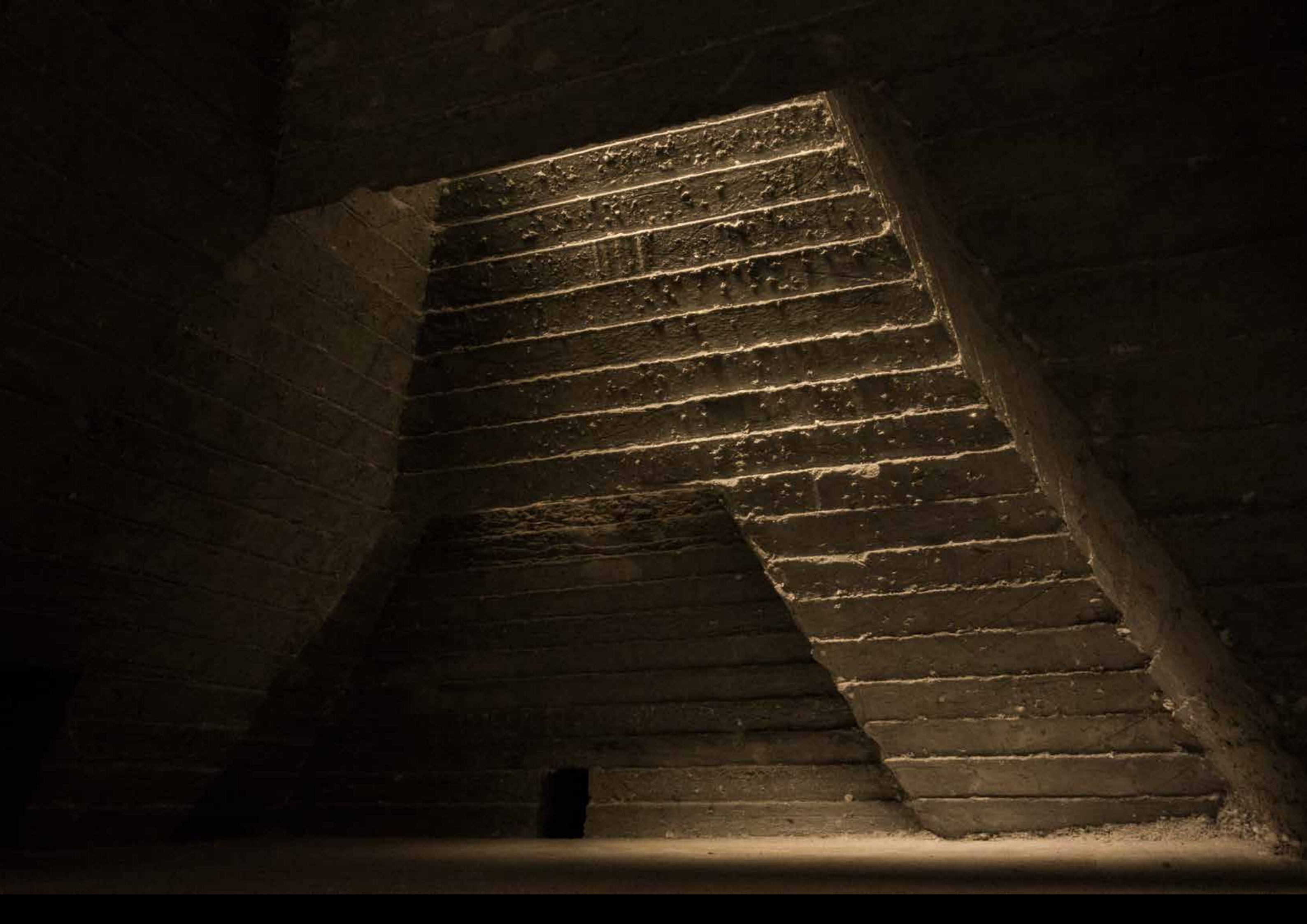


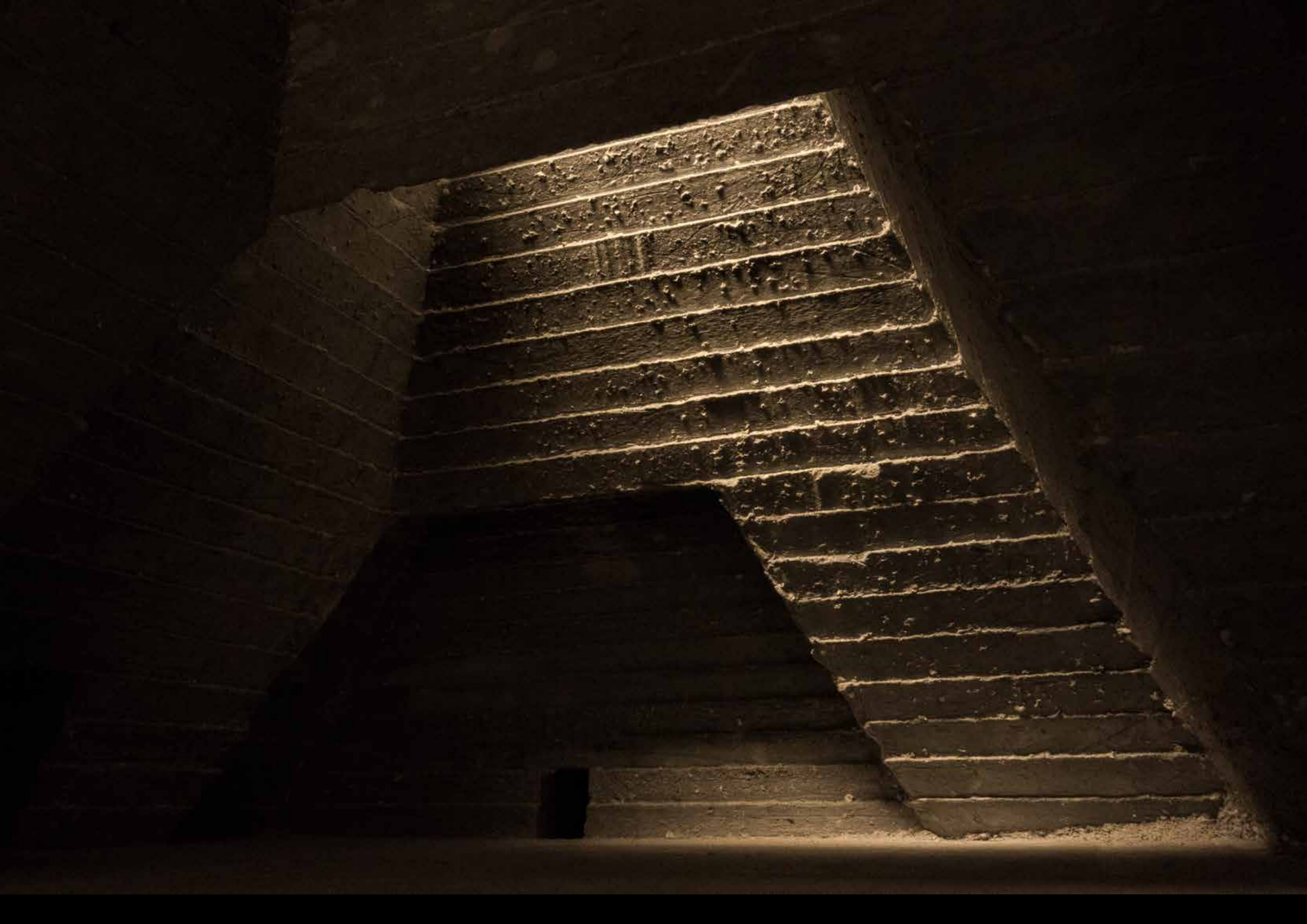






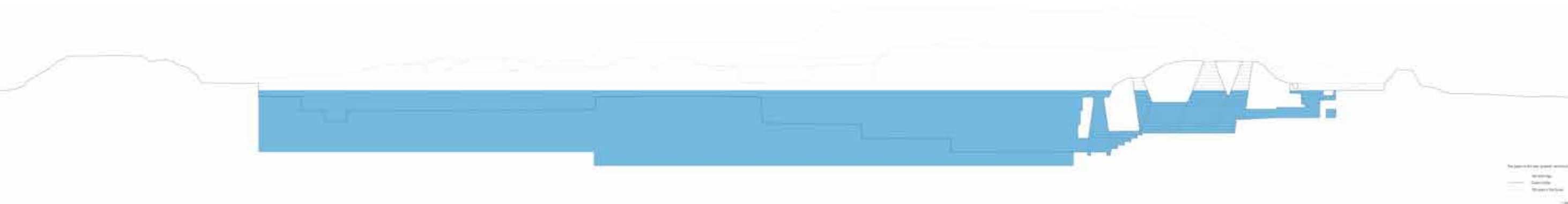




















Quarry, Colorado USA.