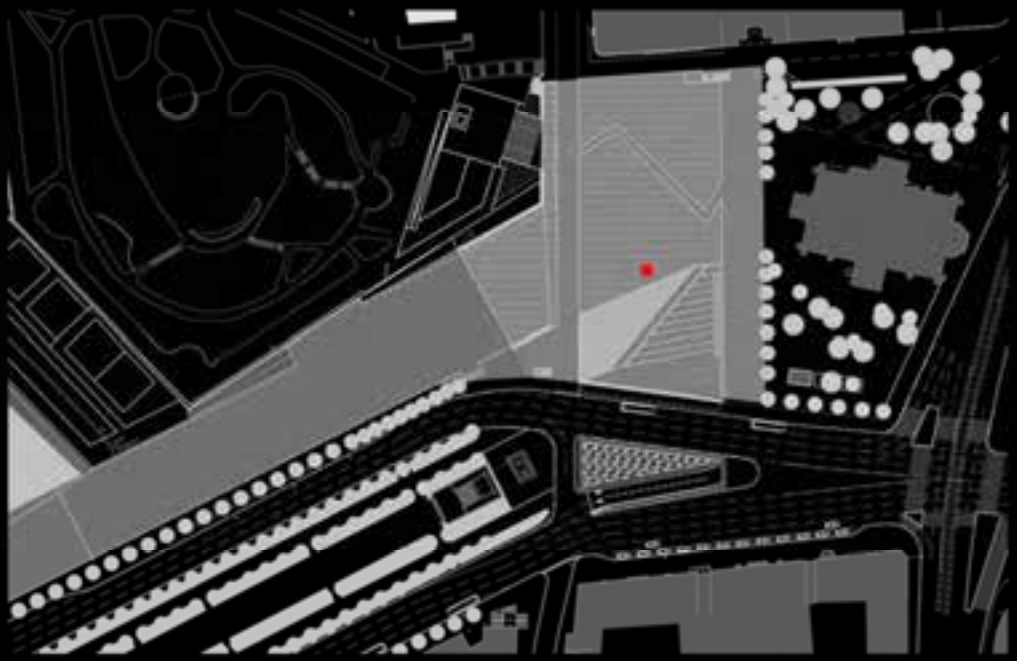
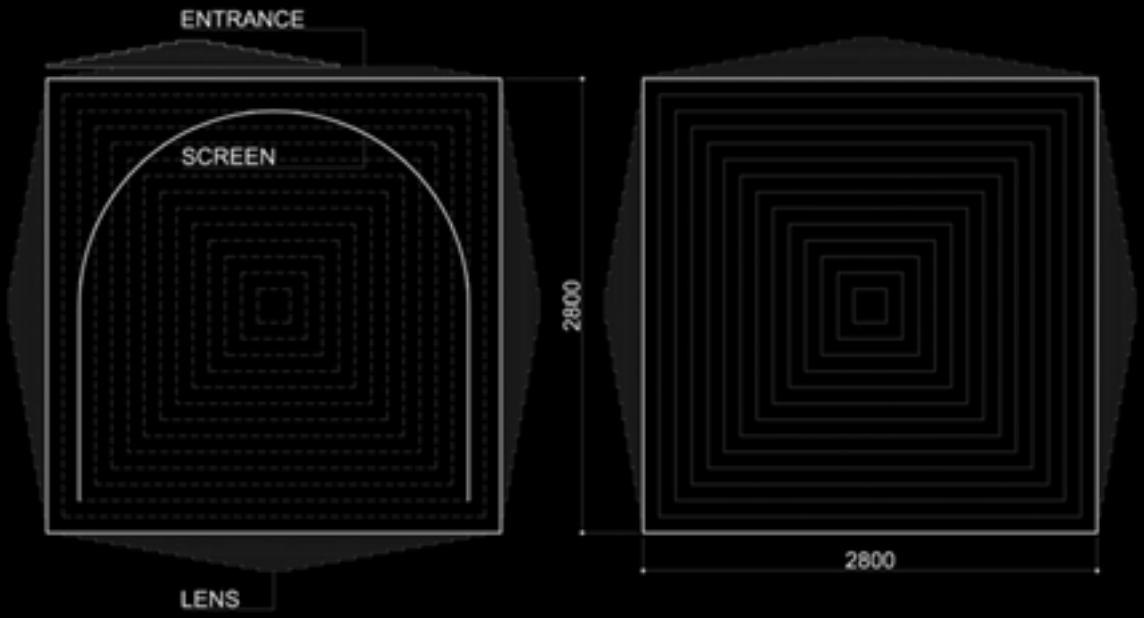
Kadarik, Tüür. Arhitektid.

PUURUUM

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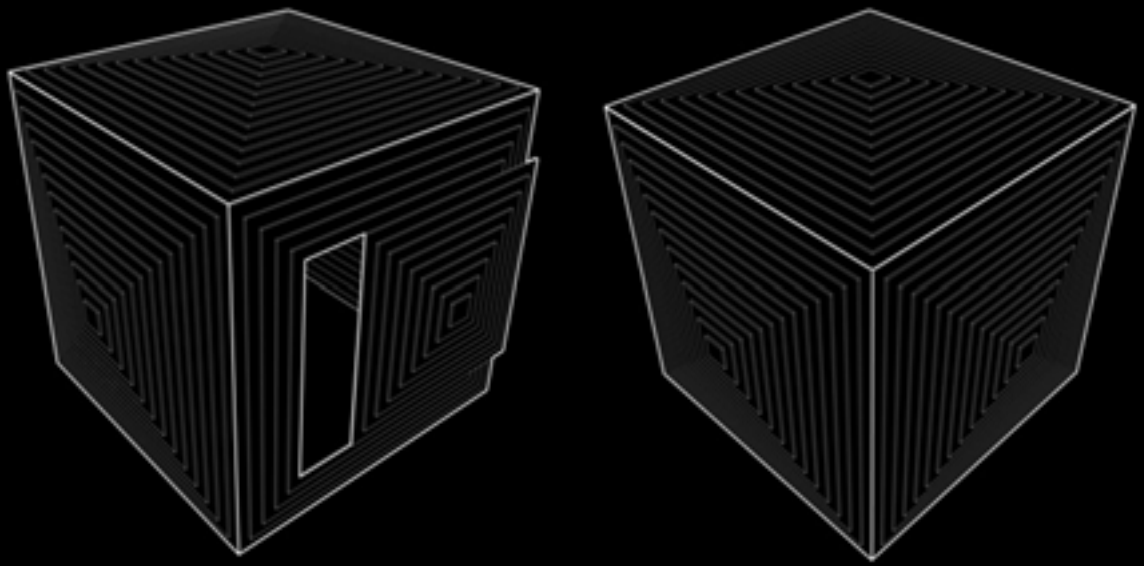



EESTI VABADUSSÕDA


ESTONIAN

3D PUITMAJA PRINTER

AURIK

AURIK

ARHITEKTUURNE KIRJELDUS

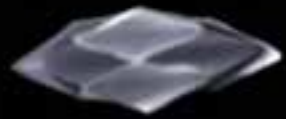
VAADE A

VAADE B

VAADE C

VAADE D

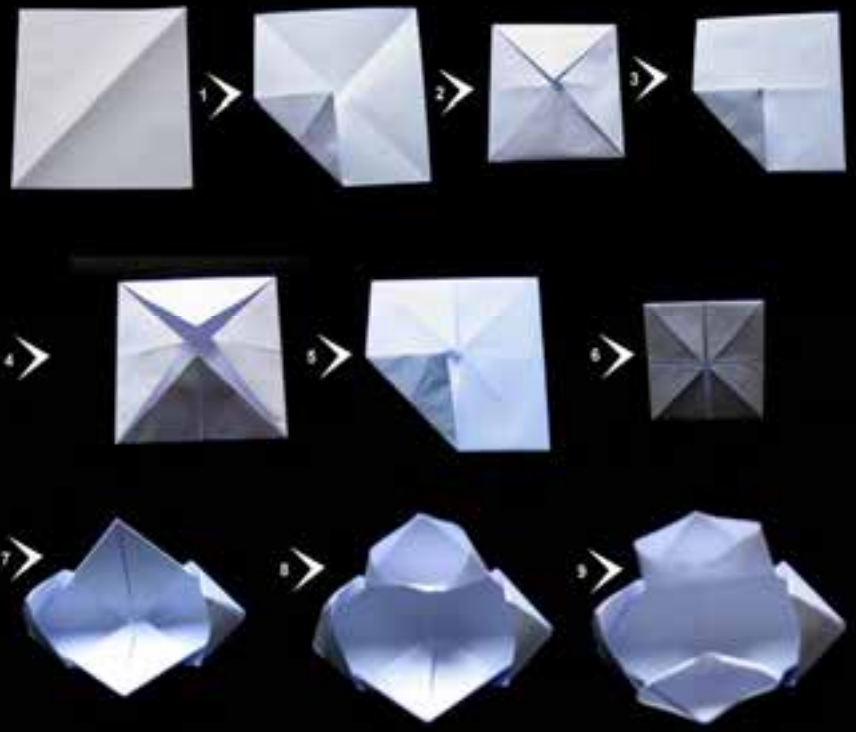
LÕIGE A-A



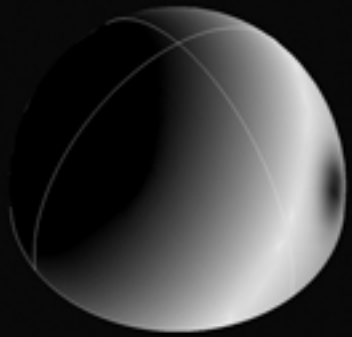
PLAAN

AURIK

EHITUSPROTSESSI KIRJELDUS
ILMA ARHITEKTUURSETE PROJEKTSIOONIDETA



DILETANT KIRJELDAB SUVALISTE VAHENDITEGA, KUIDAS OLEKS SELLIST ASJA LIHTNE VALMISTADA



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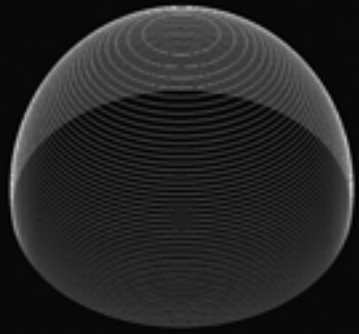
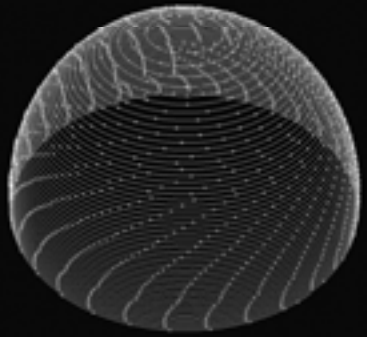
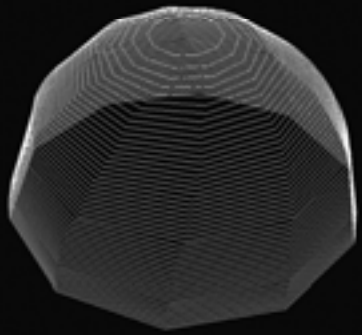


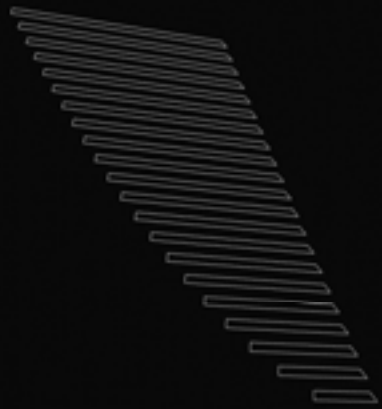
2. SEE JAOTUB KIHTIDEKS



3. IGA KIHT JAGUNEB PUNKTIDEGA

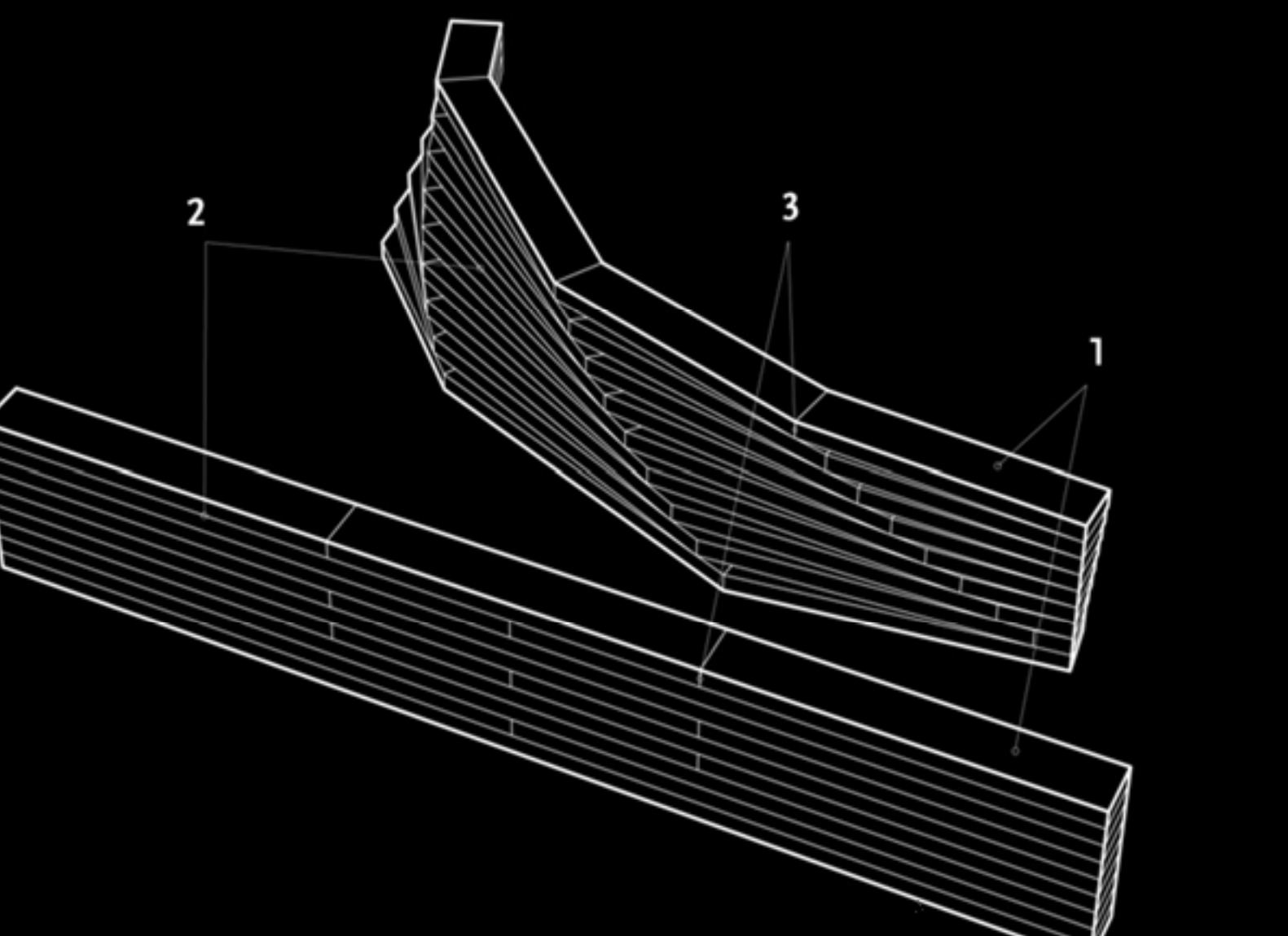


4. PUNKTID ÜHENDATAKSE SIRGETEGA

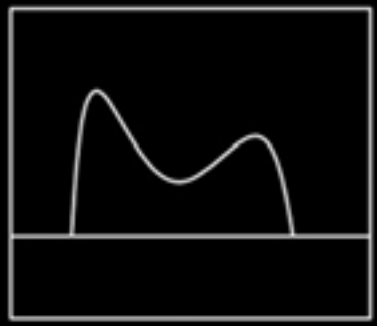


5. SIRGED DEFINEERITAKSE ELEMENTIDEKS PIKKUSE JA OTSA NURGA KAUDU

PARAMEETRILISE PROJEKTEERIMISE VIIS TÖÖOPERATSIOONI, ET TOOTA TÖÖJOONIS

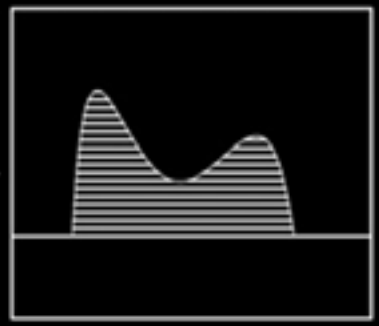

2
3
1

HORISONTAALSETEST
PUITLAMELLIDEST
EHITUSSÜSTEEM



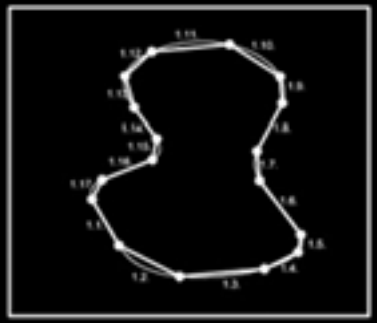
MAHU 3D DIGITAALNE
DEFINITSIOON

1



HOONE HORISONTAALID
MATERJALI PAKSUSE JÄRGI.

2



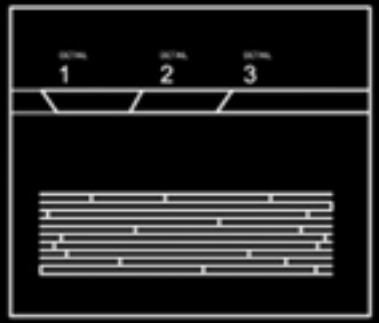
HORISONTAALI JAGUNEMINE
SIRGLÕIKUDEKS

3

KIHT	TÜKI NR.	ELEMENDI PIKKUS	TAPP 1 NURK	TAPP 2 NURK
1.	1.1.	3200	14°	35.45°
1.	1.2.	2945	-35.45°	18.34°
1.	1.3.	3365	-18.34°	58.34°
1.	1.4.	1256	-58.34°	35.45°
1.	1.5.	865	-35.45°	46.45°
1.	1.6.	2657	-46.45°	6.18°
1.	1.7.	1265	-6.18°	28.27°
1.	1.8.	2365	-28.27°	53.12°
1.	1.9.	876	53.12°	6.45°
1.	1.10.	1543	-6.45°	45.45°
1.	1.11.	1.12	-45.45°	18.2°
1.	1.12.	2356	-18.2°	17.98°
1.	1.13.	1345	-17.98°	35.45°

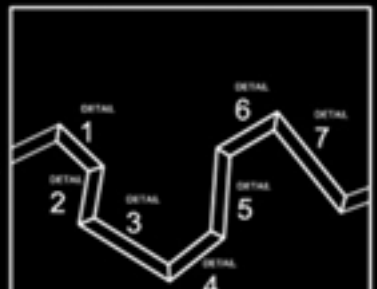
TABEL ELEMENTIDE ANDMETEGA,
MIS EDASTATAKSE OTSE SAE
PROGRAMMI.

4

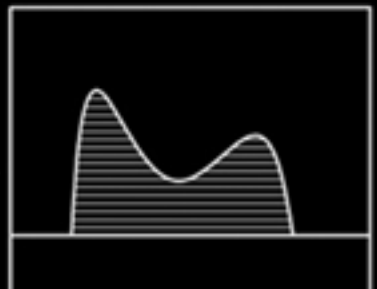


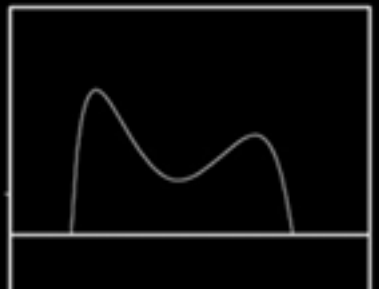
ELEMENTIDE SAAGIMINE,
NUMMERDAMINE JA PAKKIMINE

5

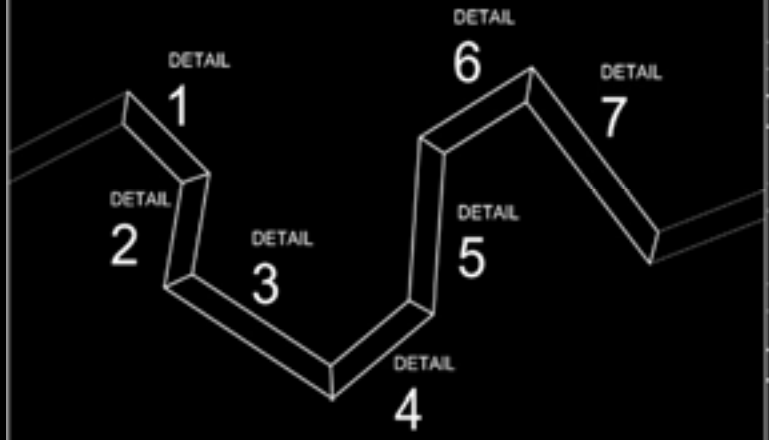


6



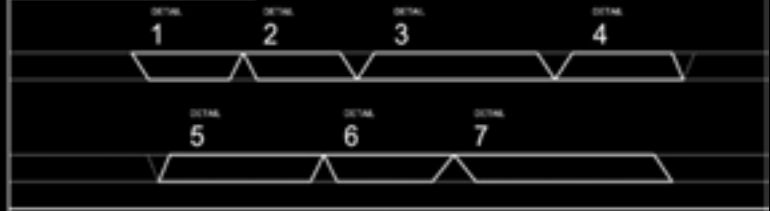


SEINA PLAAN

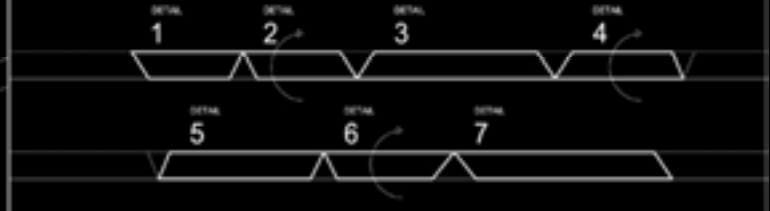


DETAILIDE SAAGIMINE PRUSSIST

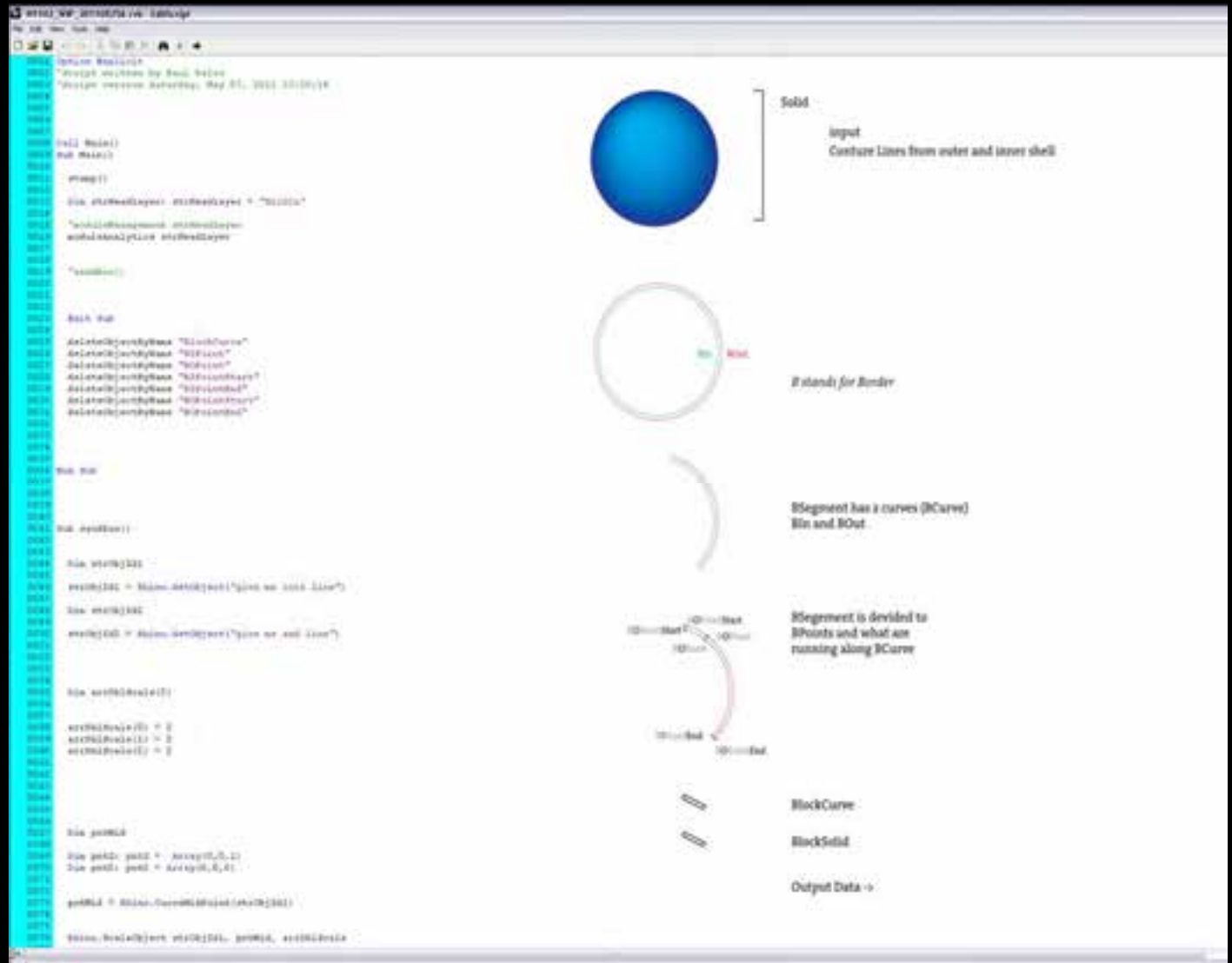
DETAILIDE RIDA SIRGEL JOONEL



IGA TEISE DETAILI PÖÖRAMINE



DETAILIDE RIDA ENNE VÄLJALÖKAMIST



Solid

Input
Conture Lines from outer and inner shell

B stands for Border

BSegment has 2 curves (BCurve)
Bin and BOut

BSegment is devided to
BPoints and what are
running along BCurve

BlockCurve

BlockSolid

Output Data ->


2009 3 25

e form geometry

n is to liberate architects to let their imagination run free. We to unleash innovative projects from the 3D cyber environments nd life without giving heart attacks to the construction supervisors roject managers. With the Cocoon technology you can build any of space without taking toll for original form, neither financially, ologically nor time-wise. After all - the latter is the only really ewable resource we've got.

ewable material

using timber. Just go to one of our construction sites and you'll stand why. As a resource it is light, durable, renewable and above t just feels right. You can renew your forest several in 40 years - ilding will last at least 10 such periods. Not a bad ratio, not even into happy arguments.

rgy efficient

energy efficient building as it gets - taking into consideration all pects from raw materials to the bills of the inhabitant. The double system, allows to calibrate the building exactly to clients needs - up passive house. So the construction comes reasonable for the end - depending on your tax system still.

Description of the system

Cocoon system takes four steps to create a building with all the characteristics described. In the first phase an idea is transformed into a file of parametric software. The second phase takes the data from the program and uses it in our mobile factory to create precise pieces ready for assembly. The building is put together from calibrated timber blocks cut to precision of the project. It is the closest to printing a house you'll ever get.

4 step system

• IDEA • 3D FILE • FACTORY • REAL LIFE OBJECT

Eco-nomical

Usually building systems are layered in the most cases. Old fishermen used to build log houses where one single layer of construction was the bearing, finish and outer finishing. We have realised that it is still the case today. Keeping the building simple is good for everybody - you'll end up with an object you planned, your workers will have clear objectives, your construction supervisor won't leave in the middle of the building process and above all - your creations will be surprisingly positive as well as your clients.

Eco

We believe that green thinking is vital, but it has to be reasonable. It is sustainable only if clients don't suffer from inconveniences. That's what we do - bringing together the expectations of the modern consumer with the ecological thinking. You don't have to overpay, the architect doesn't have to lower over ambitions and you don't have to be embarrassed in the presence of your ecologically conscious friends. Trust us - there's gonna be more and more of them and they have a valid point.

Logical

Cocoon builds logically - in every aspect. We like to think that our building system is as 'logical' - it's change the way you think about construction. Get the 3D model from your architect and we'll make it in full scale - it is the closest thing to printing a house you'll get. We're still puzzled why anyone else hasn't done it already.

Breathable

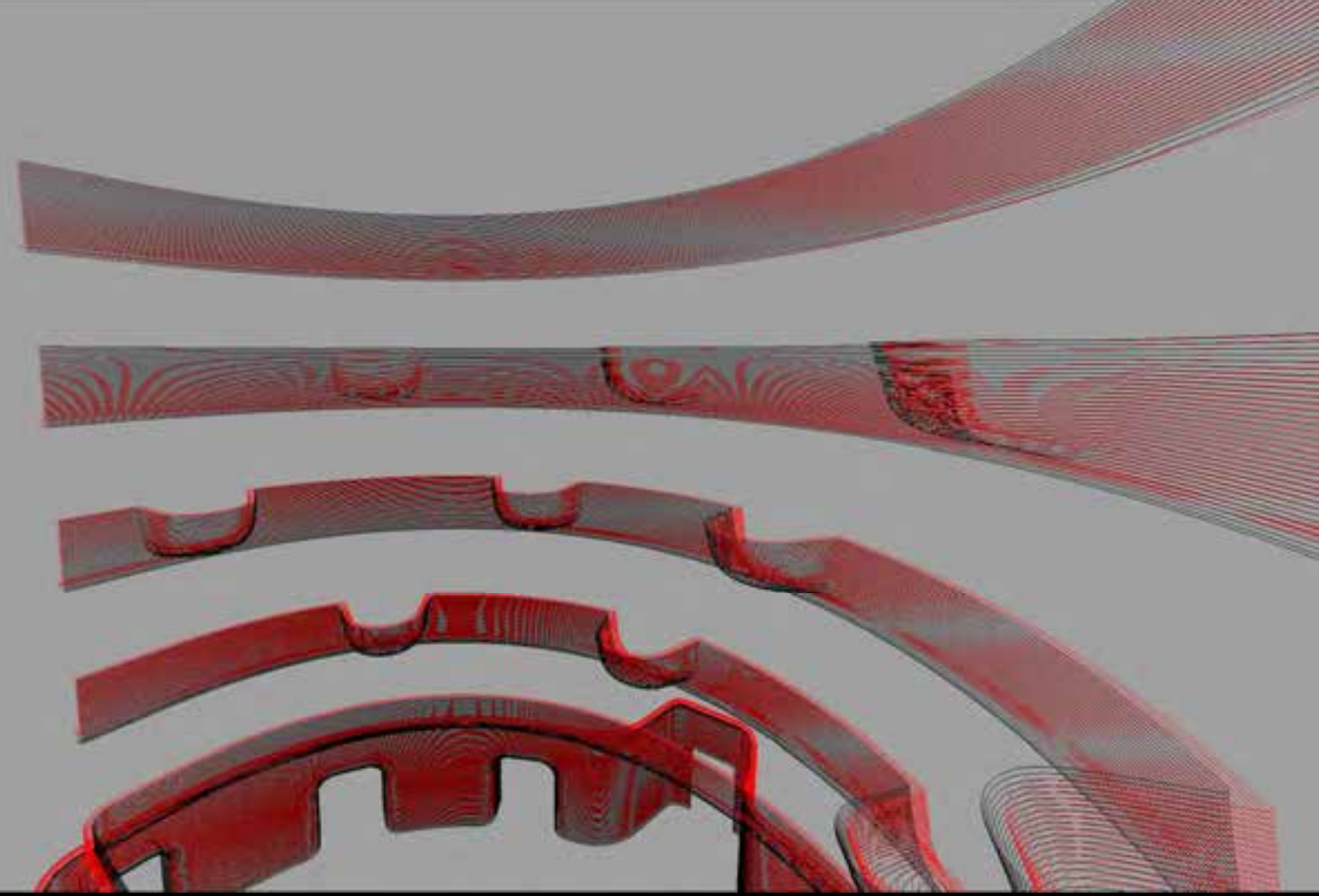
With Cocoon technology you'll end up with fully breathable building. We have designed the system to preserve all positive characteristics of timber and to eliminate the undesirable ones. The system preserves the breathability of the material - it is the most natural ventilation system you'll come across. After all - it has been working for centuries without a glitch.

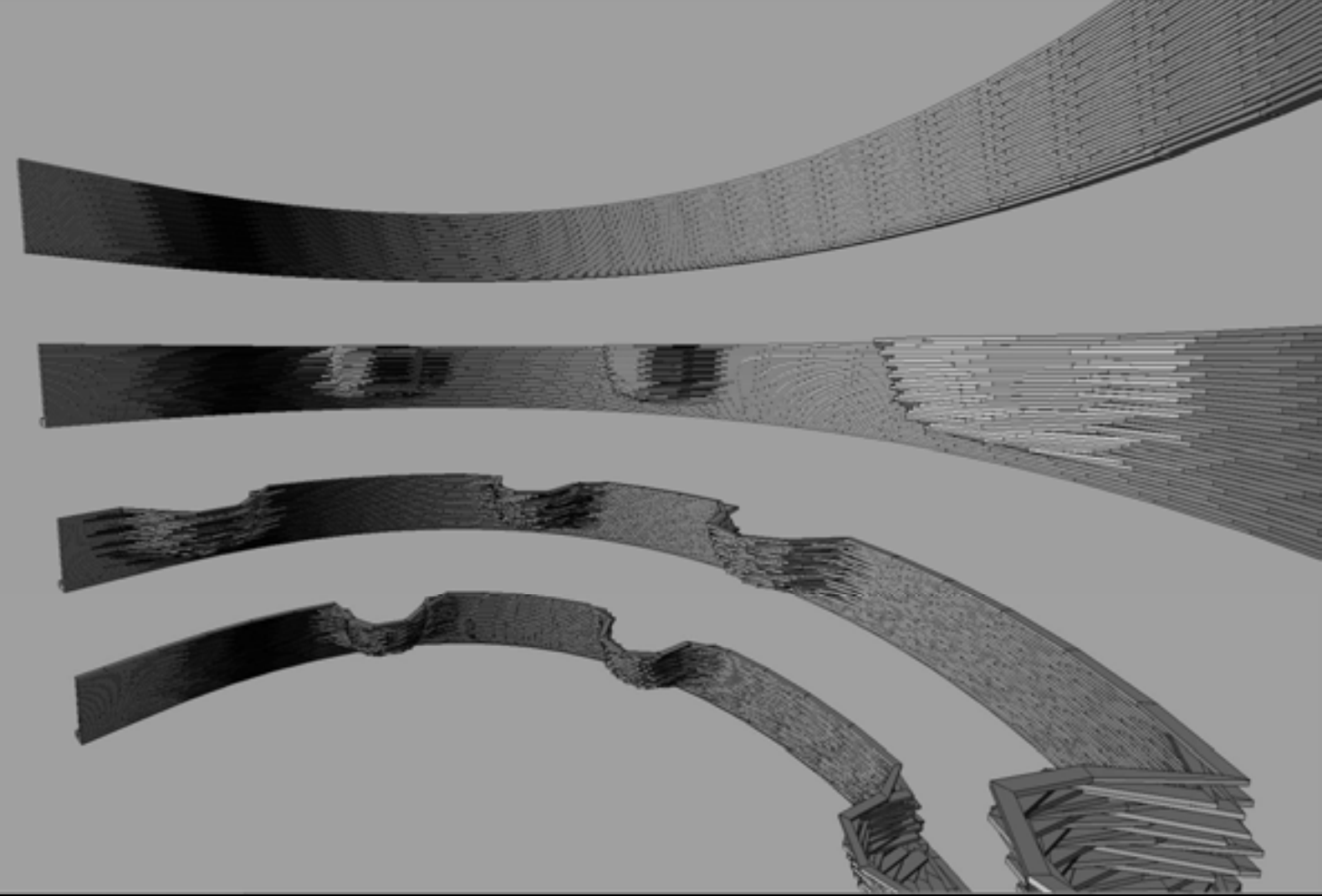
Allergy free

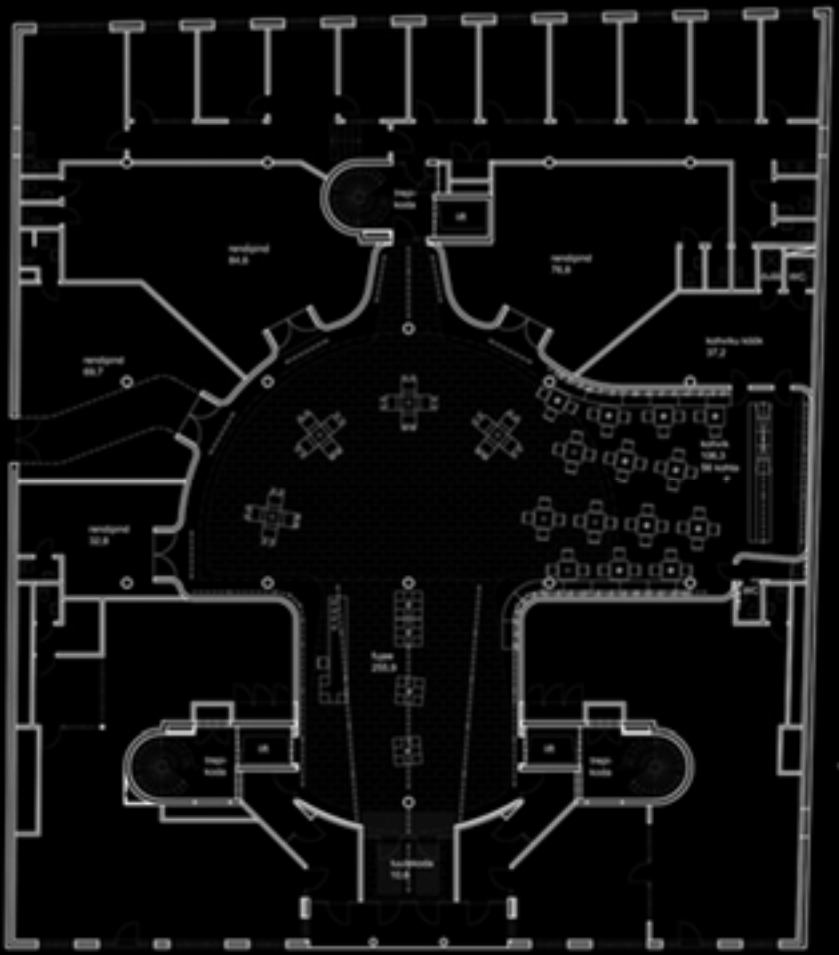
Timber in itself is such a good material you just have to not ruin it with chemicals. That's what we bear in mind - keep the living environment allergy free and you'll have a growing pool of clients.

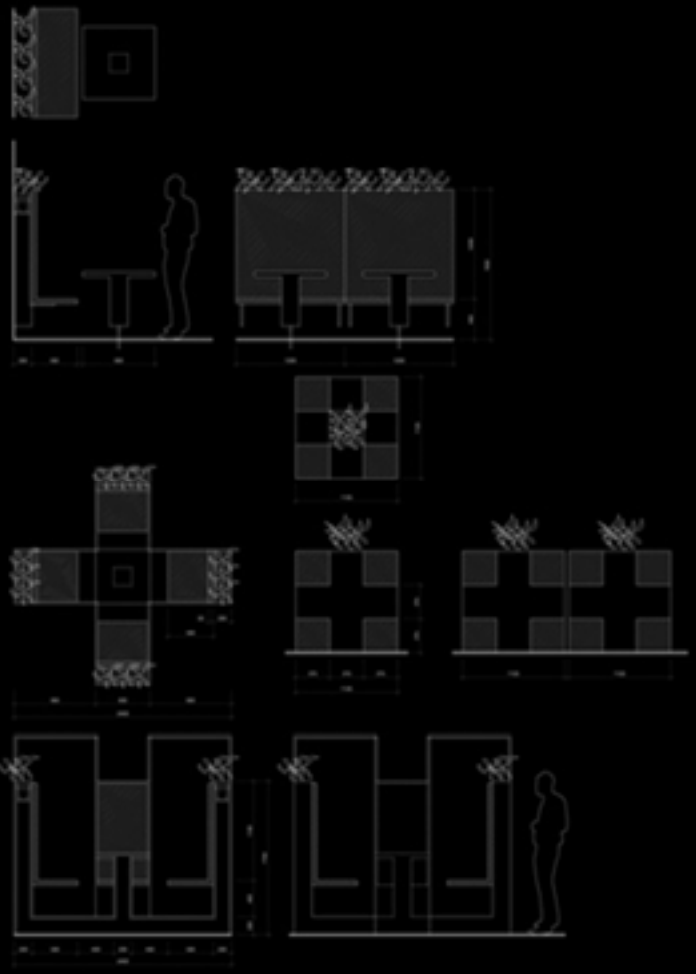
Uncollapsible

It is a basic statement - we know. But you know the reason why you have to stand in a doorway during an earthquake? Rigging is one of our constructions is as safe. That is the passive part of the construction system - the whole construction is a bearing structure. It is a tough nut to crack for demolition experts, but we like to put up a challenge.

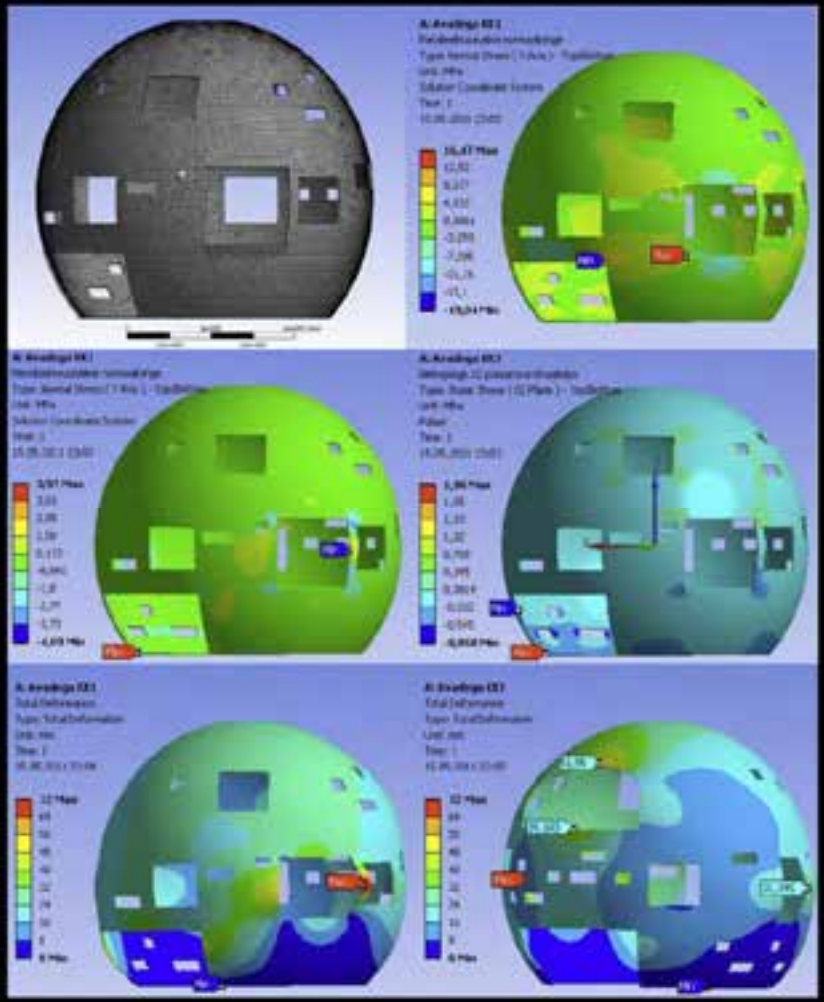




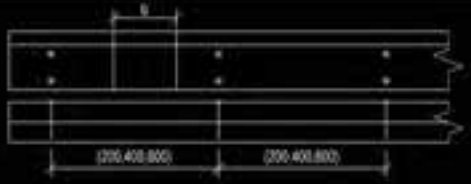




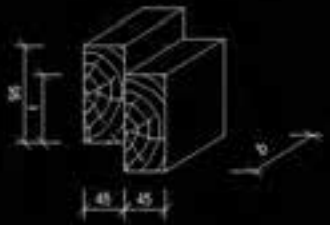
Skeemi autor : Mart Kallaste - TTÜ



Pinged ja deformatsioonid avadega konstruktsioonis I



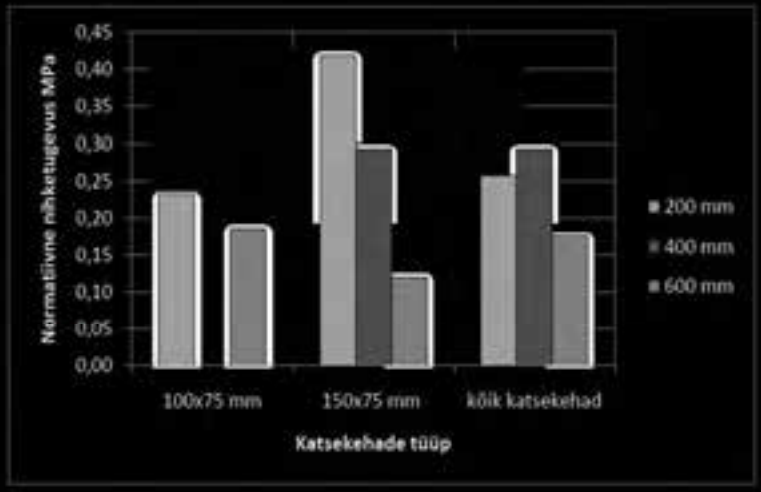
Joonis 8 Liimitud prussid



Katsekeha

Katsemeetod ja -skeem

Katse viidi läbi pressi all, kus üks klotsi osa oli toetatud rõhtsale pinnale, ning teisele osale rakendati (metallist nurkprofiiliga) pinnale jaotatud vertikaalset jõudu F. Nihkepurunemise kindlustamiseks oli toetatud klotsiosa pealispinnale puuritud auk, millesse asetati horisontaalseid siirdeid takistav metallist side. Katsetamise skeem on näidatud joonisel 10.

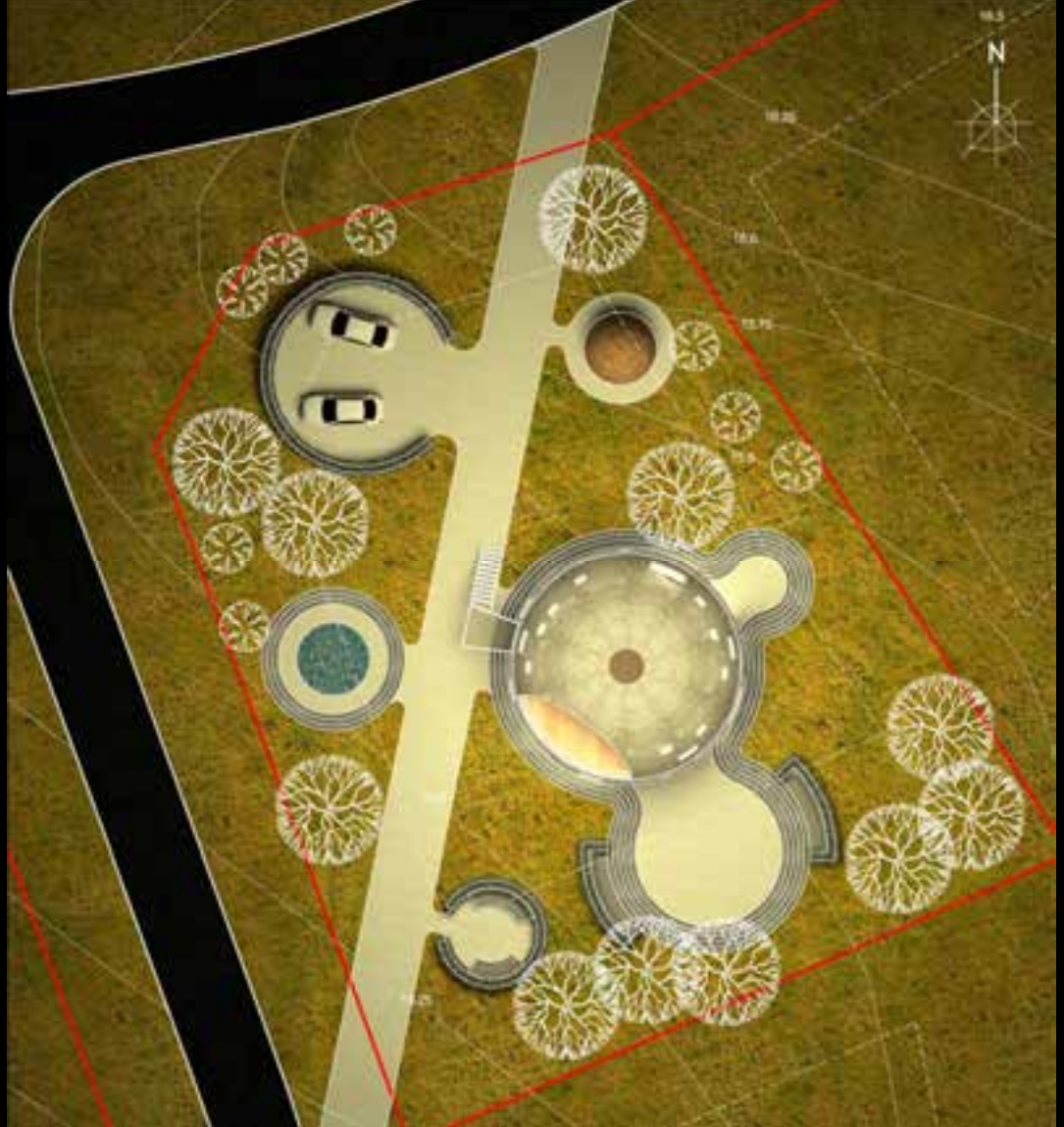


Normatiivsed nihketugevused erineva naelte sammu ja erinevate katsekehade korral

Järeldused katsetustest

Nagu jooniselt 11 näha, siis kuigi 100x75 mm katsekehade puhul 200 ja 600 mm naelte sammu korral saavutati lähedased tulemused, olid täpsemaid tulemusi andvate suuremate katsekehade korral tugevused selgelt sõltuvuses naelte sammust. Kui võrrelda 200 ja 400 mm sammuga katsekehi, siis suurema nihkepinna korral võib näha, et sammu suurendamine võimaldab saada tunduvalt suurema tulemuse, samas kõiki katsekehi arvesse võttes on 200 mm sammuga saadud tulemus väiksem.

Kuna normatiivset puidu tugevust ei saavutatud ühegi sammu juures, siis on oluline muuta liimimise metoodikat või teha tugevusarvutused vastavalt katselistele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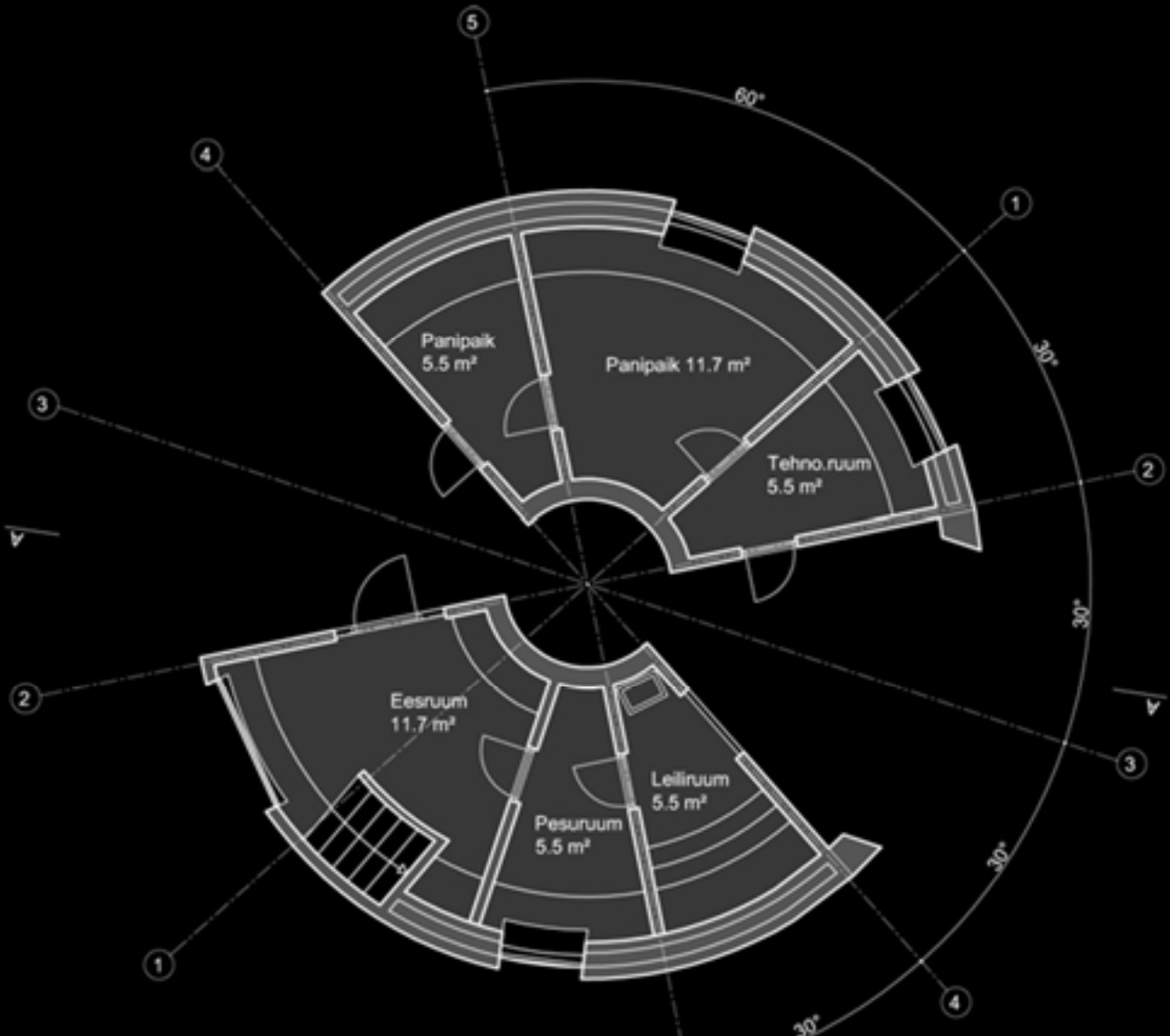
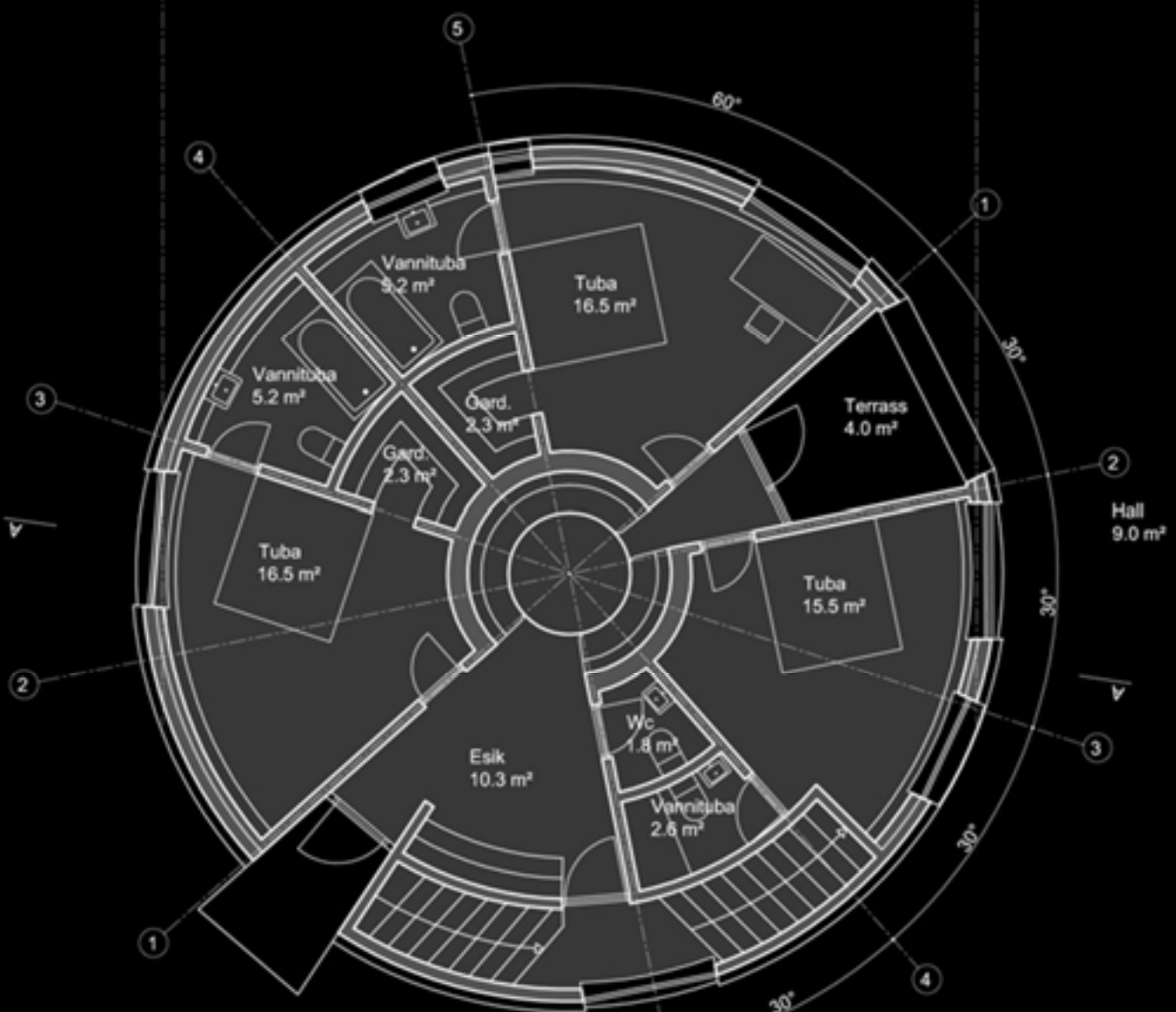
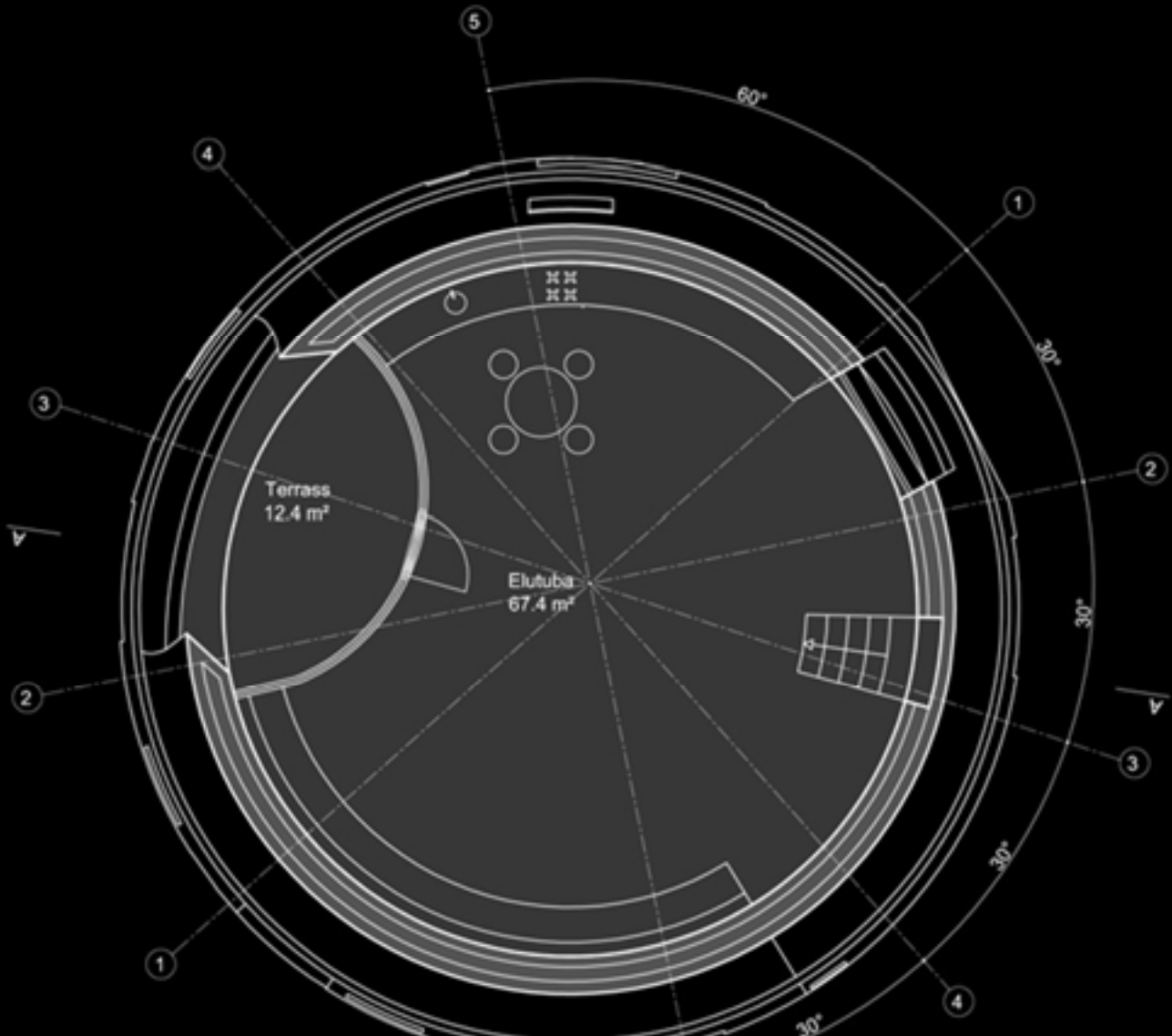
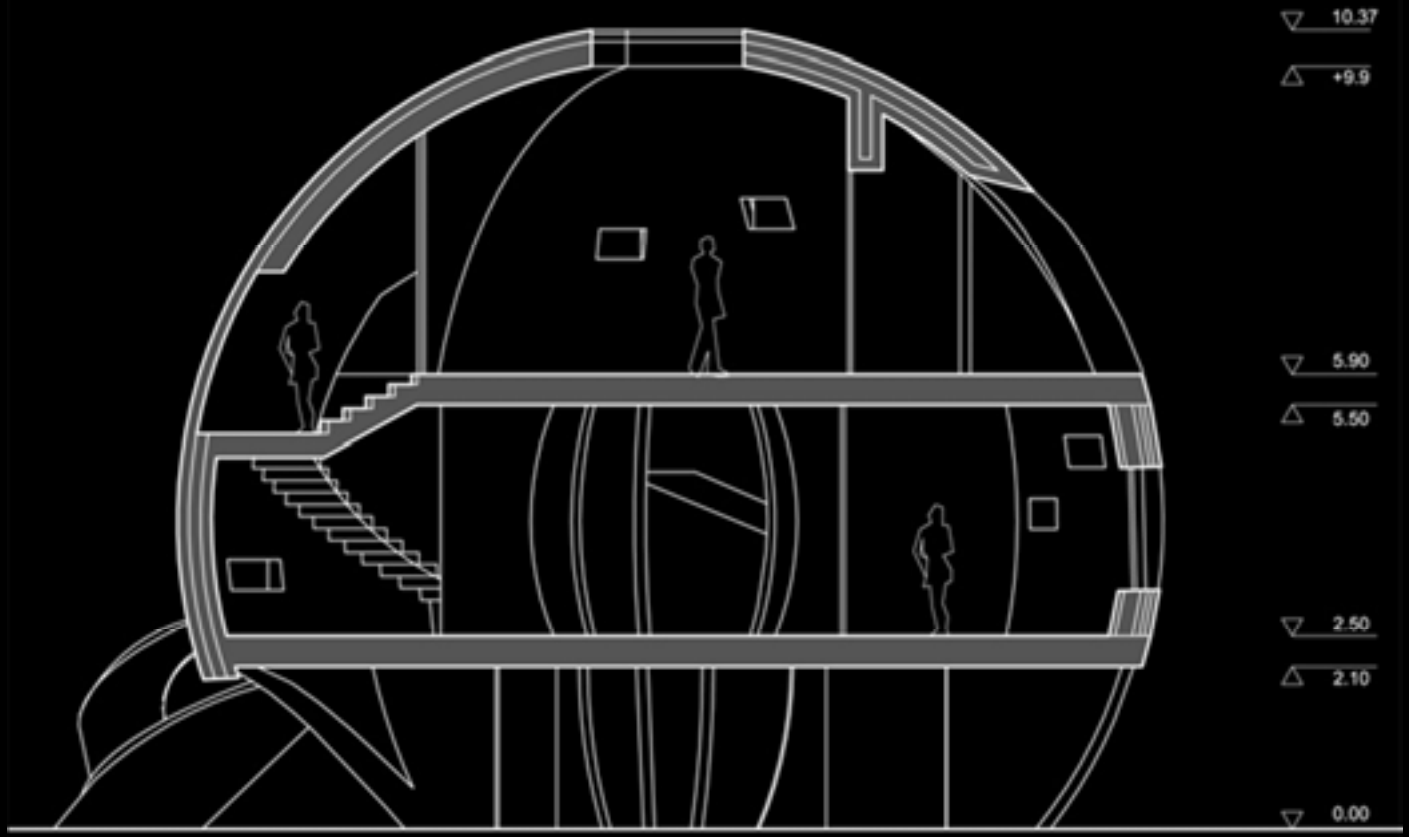
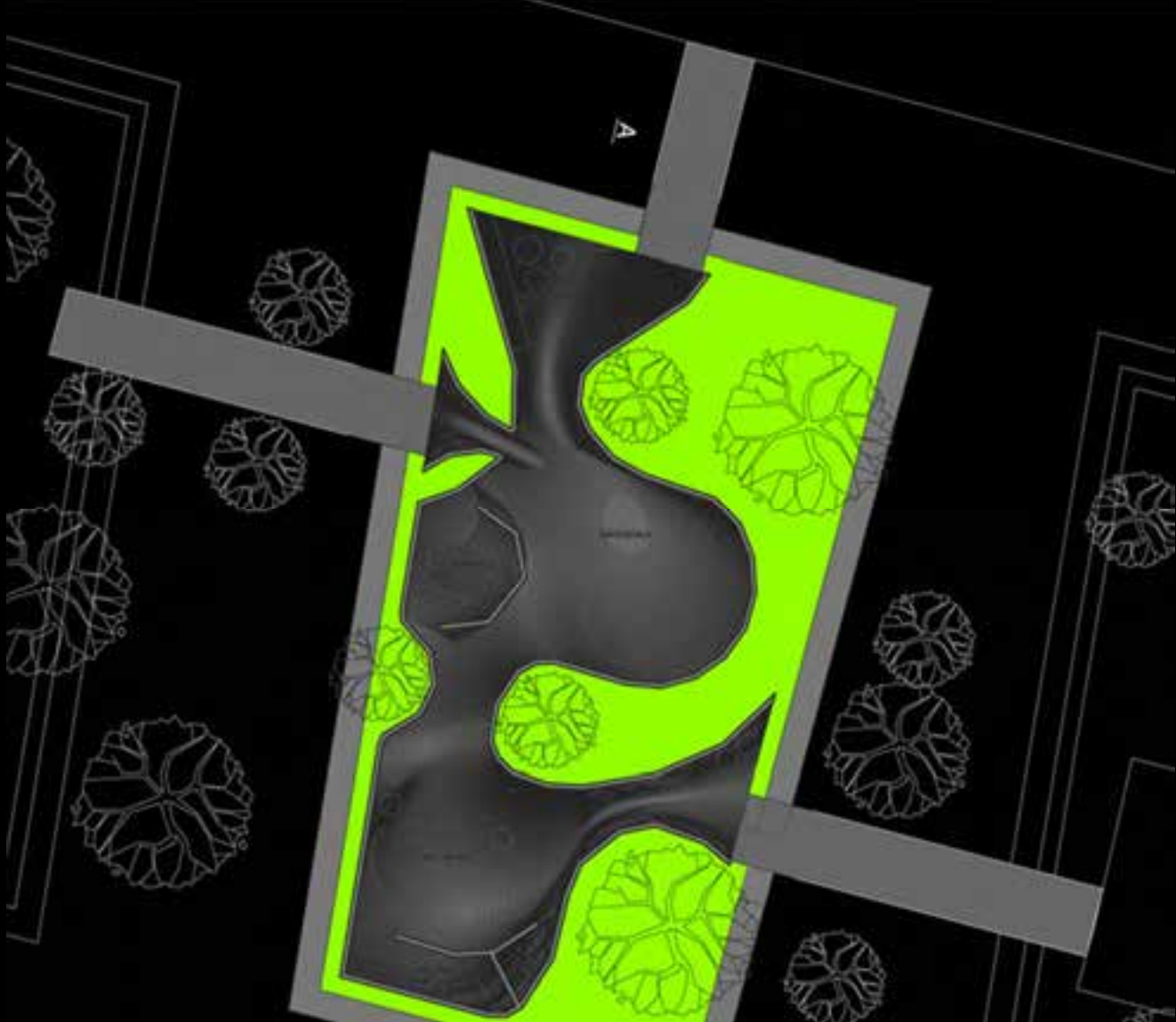
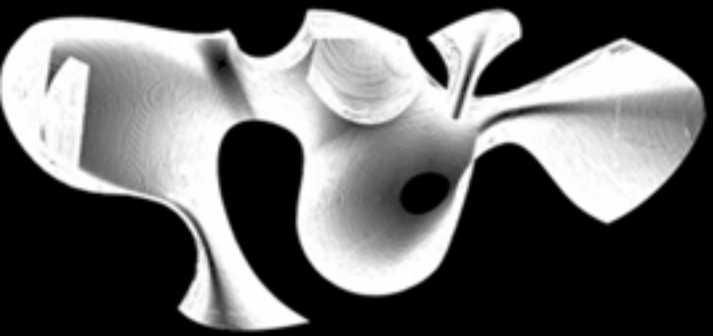

60°
30°
30°
30°
30°
Panipaik
5.5 m²
Panipaik 11.7 m²
Tehno.ruum
5.5 m²
Eesruum
11.7 m²
Pesuruum
5.5 m²
Leiliruum
5.5 m²
A
A
1
2
3
4
5

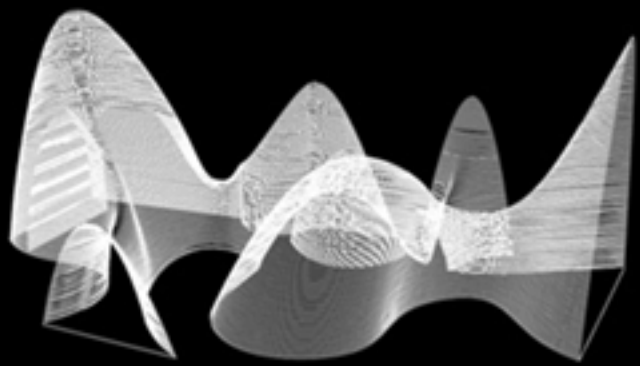

60°
30°
30°
30°
30°
Vannituba
9.2 m²
Tuba
16.5 m²
Vannituba
5.2 m²
Gard.
2.3 m²
Gard.
2.3 m²
Terrass
4.0 m²
Hall
9.0 m²
Tuba
16.5 m²
Tuba
15.5 m²
Wc
1.8 m²
Esik
10.3 m²
Vannituba
2.6 m²
A
A
1
2
3
4
5

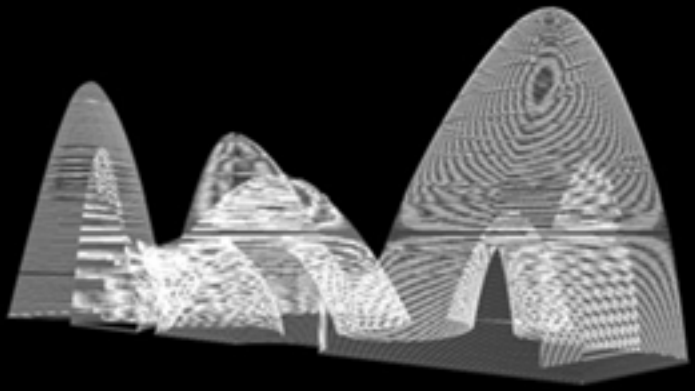

60°
30°
30°
30°
30°
Terrass
12.4 m²
Elutuba
67.4 m²
A
A
1
2
3
4
5

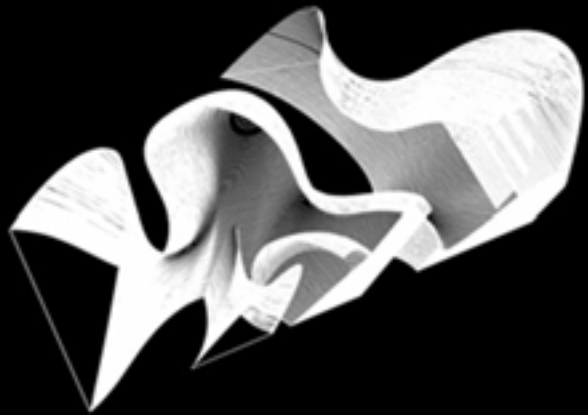

10.37
+9.9
5.90
5.50
2.50
2.10
0.00

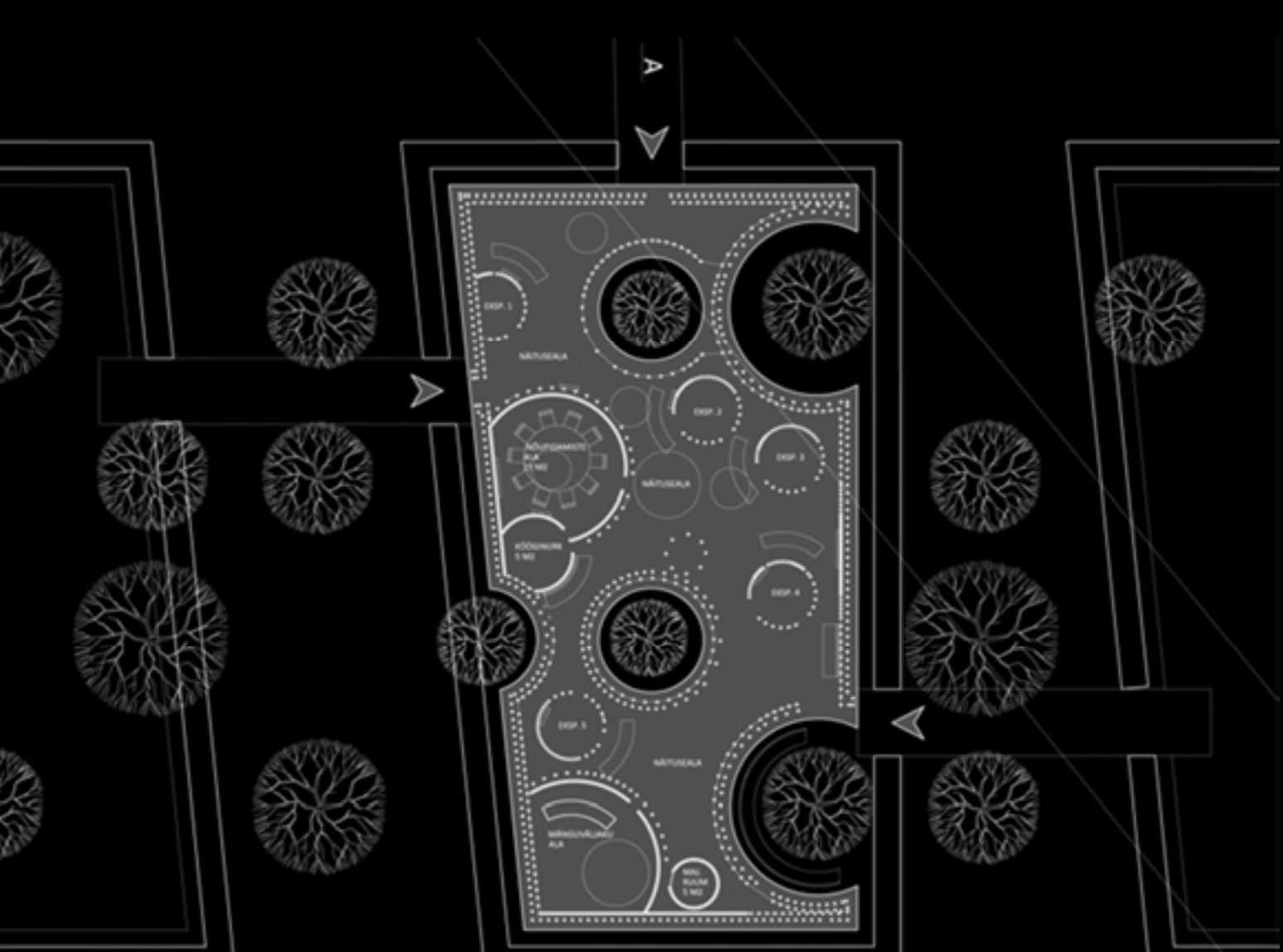


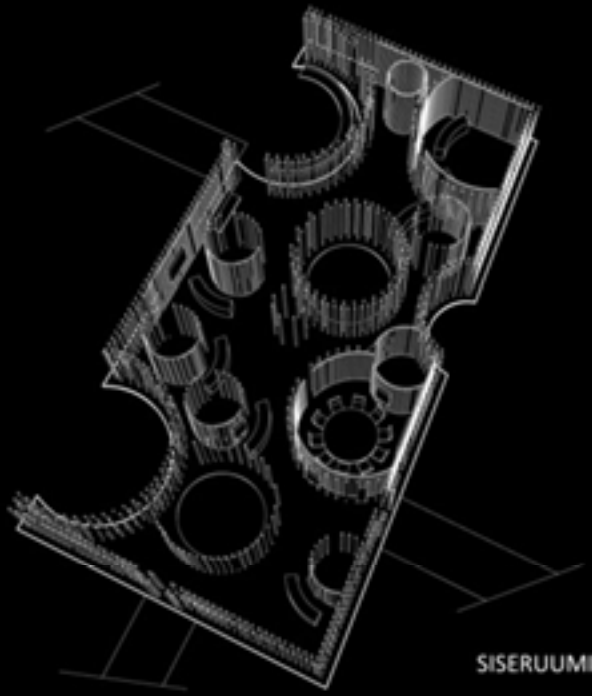


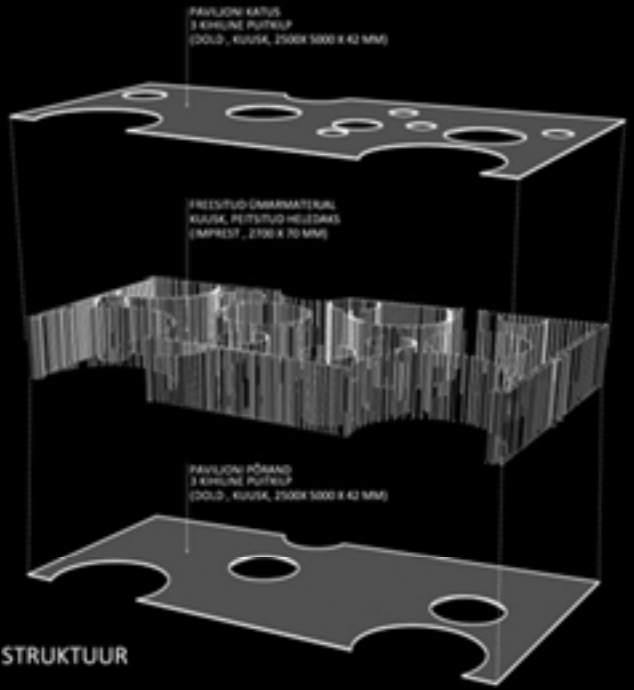




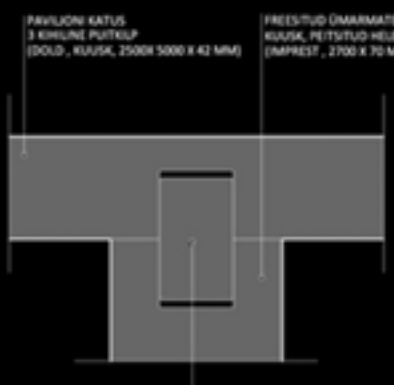


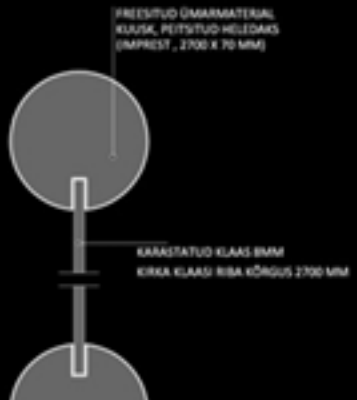

A
EKSP. 1
NÄITUSEALA
EKSP. 2
EKSP. 3
NÄITUSEALA
KÜÜGINURK
5 MÖ
EKSP. 4
EKSP. 5
NÄITUSEALA
MÄNGUVÄLJAKU ALA
MÄNG. KUJUM 5 MÖ

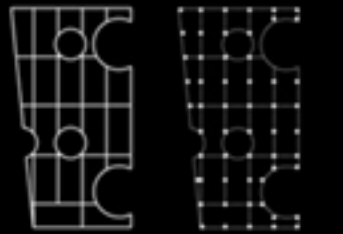


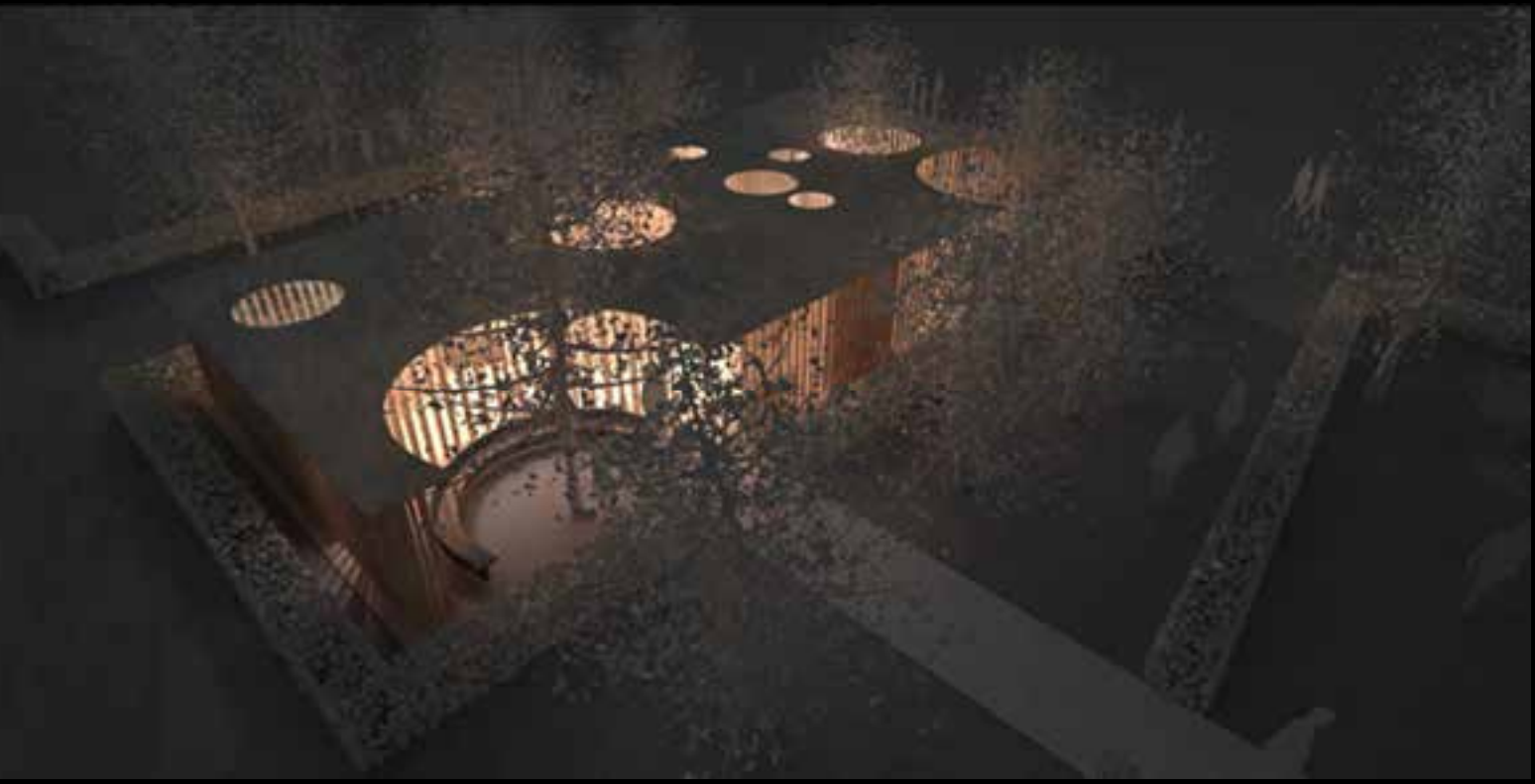


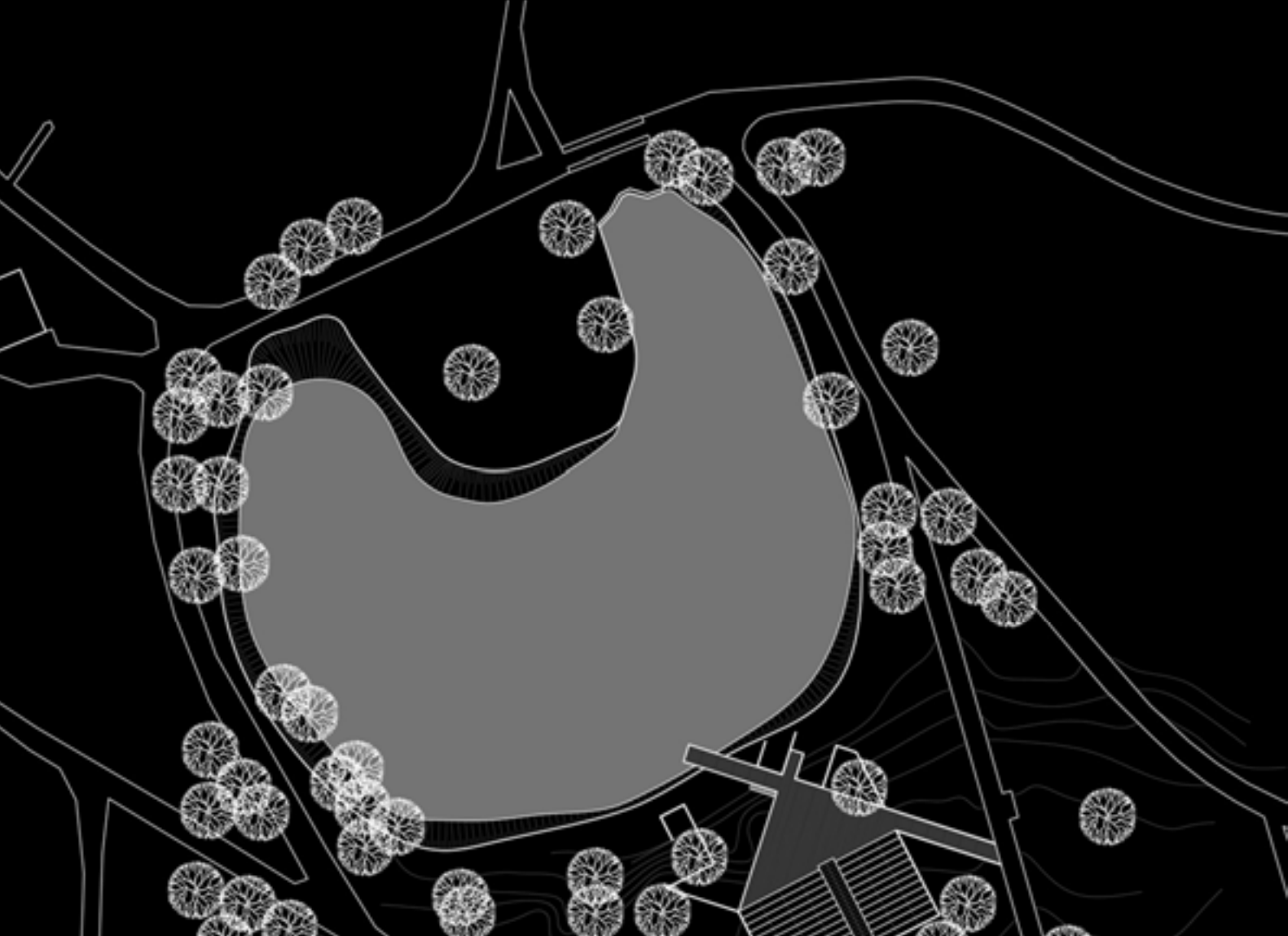
SISERUUMIDE STRUKTUUR

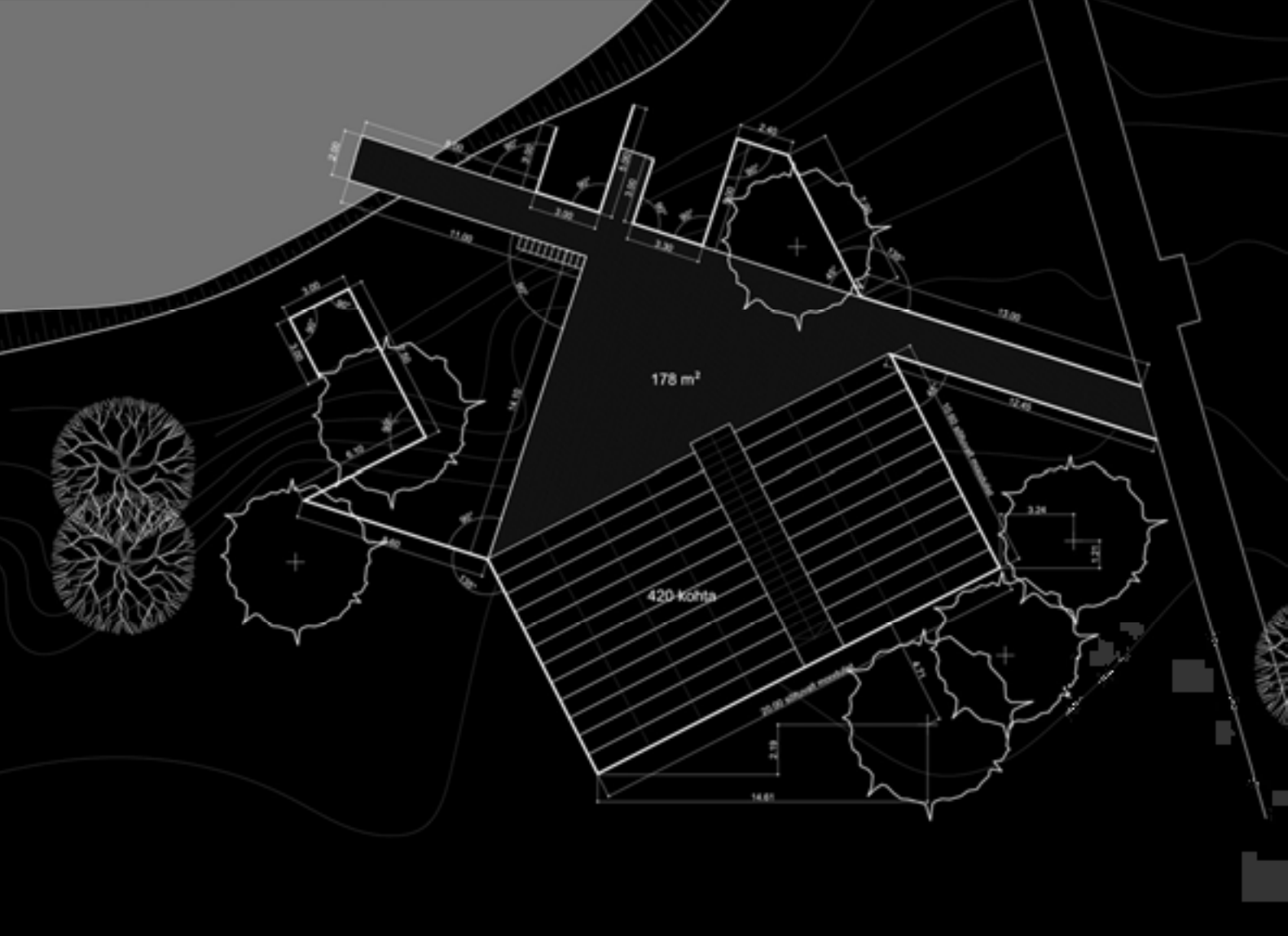


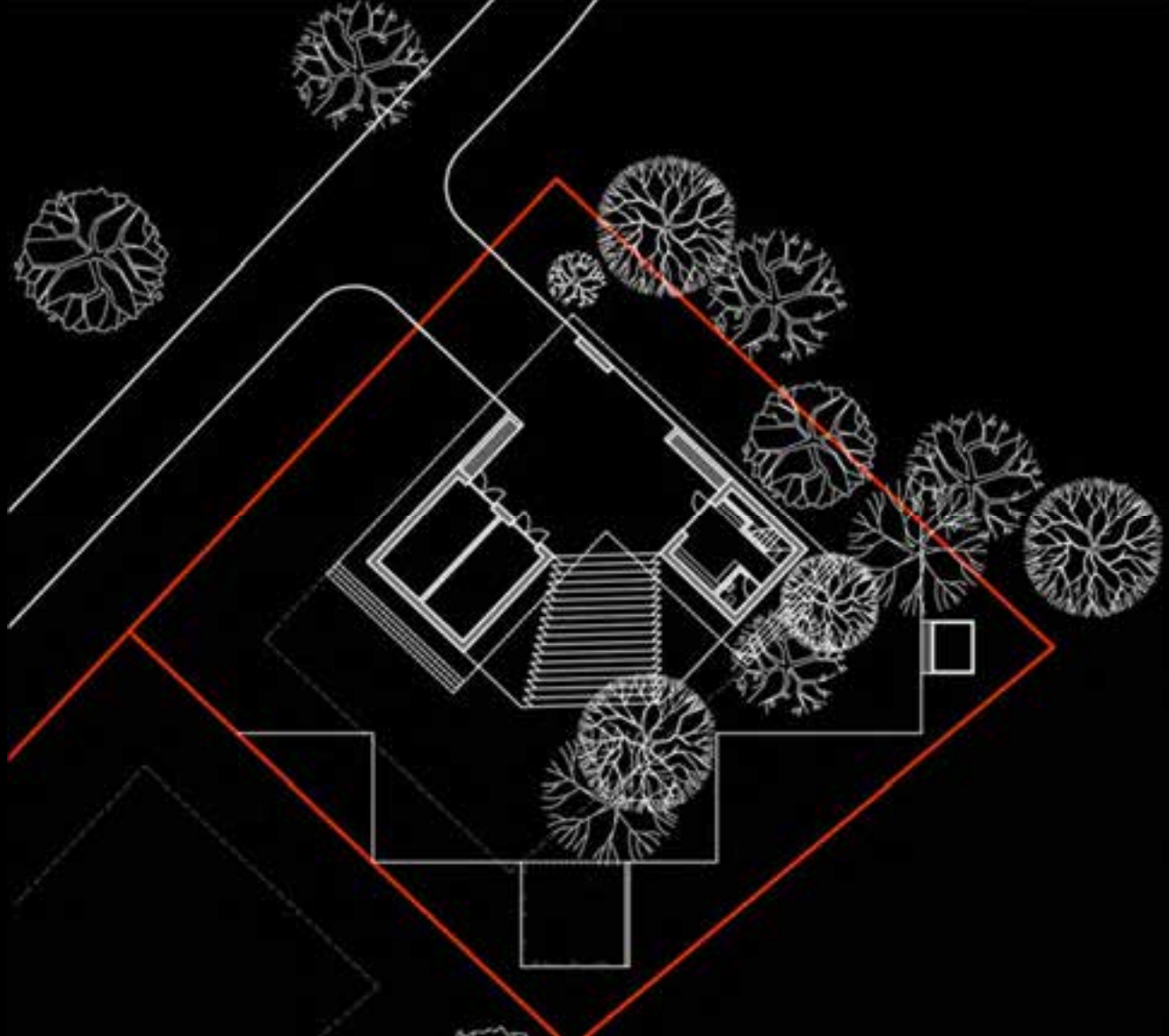


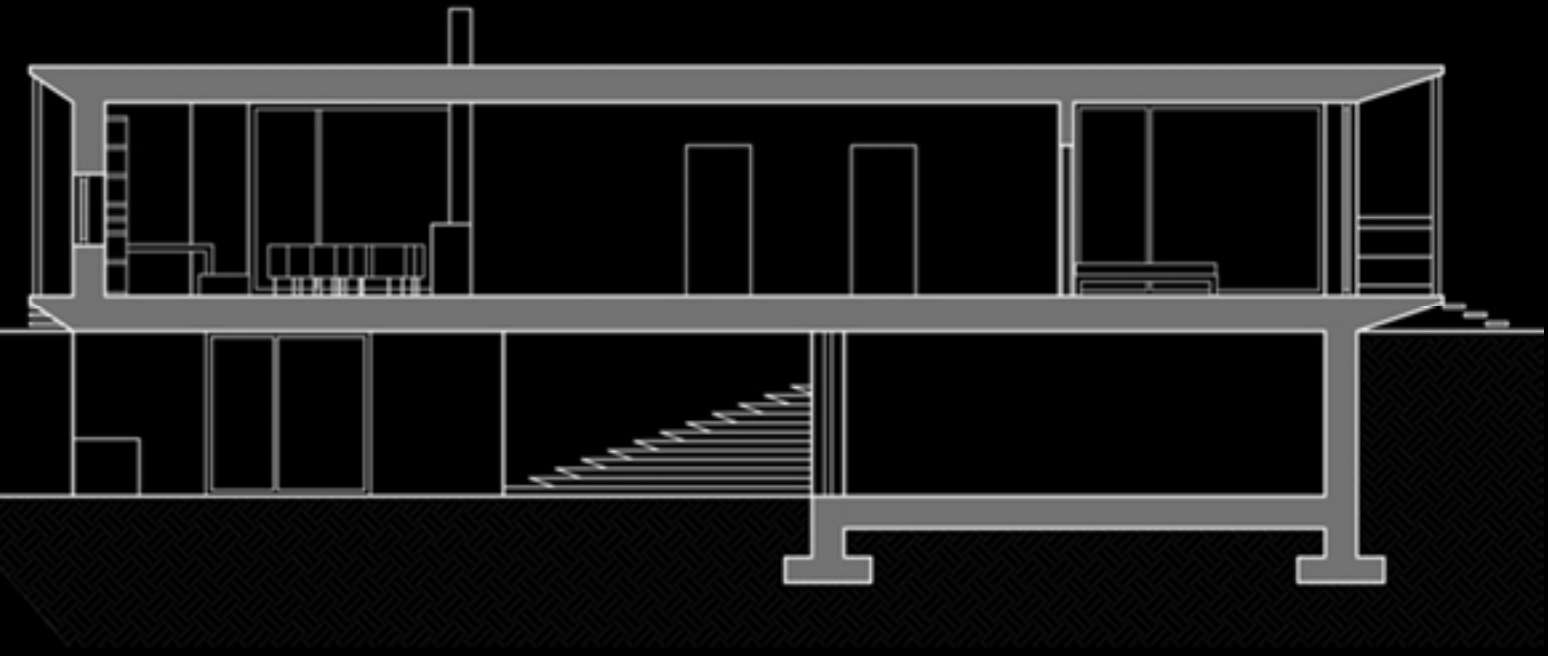


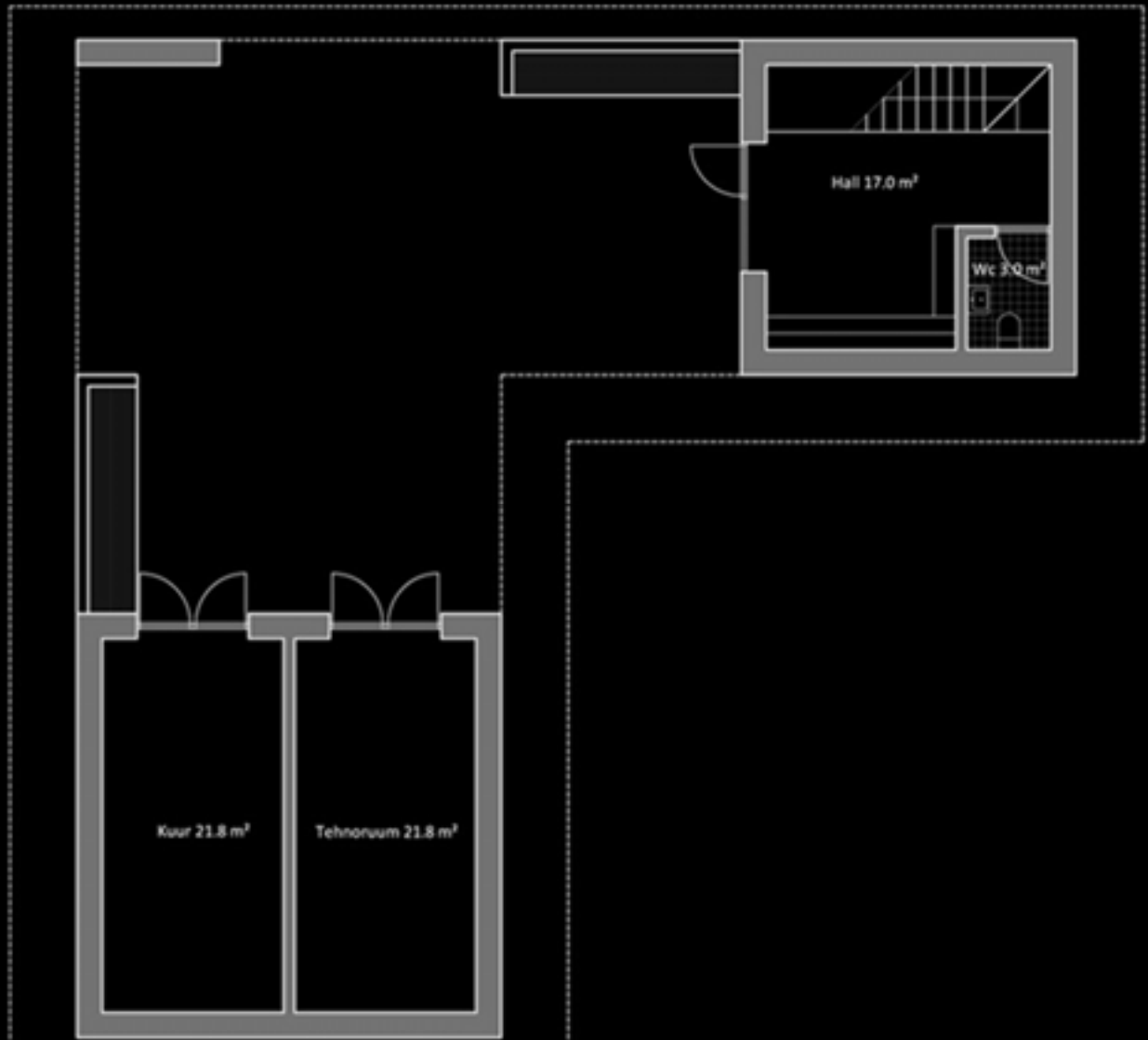




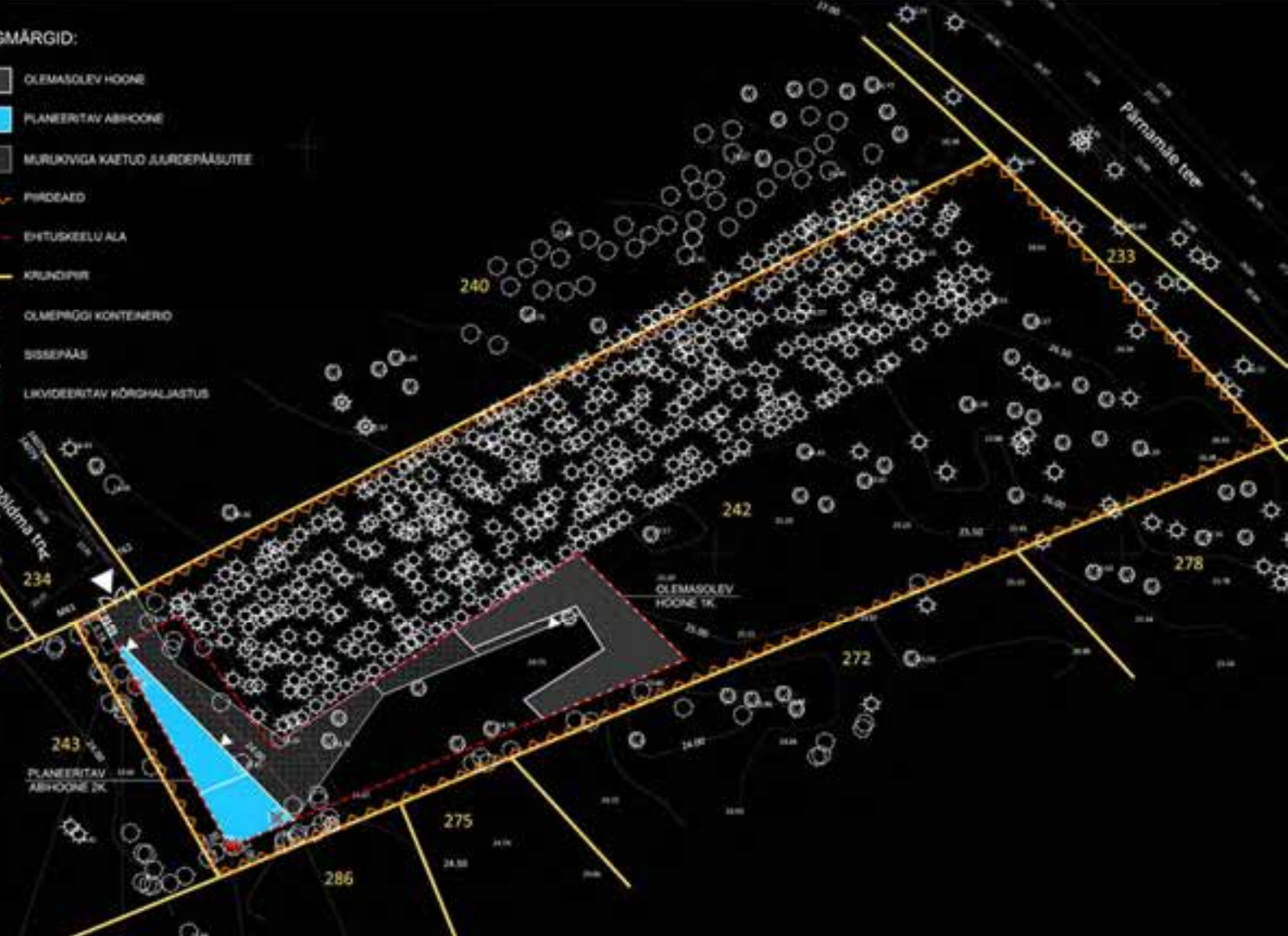

178 m²
420-kohta

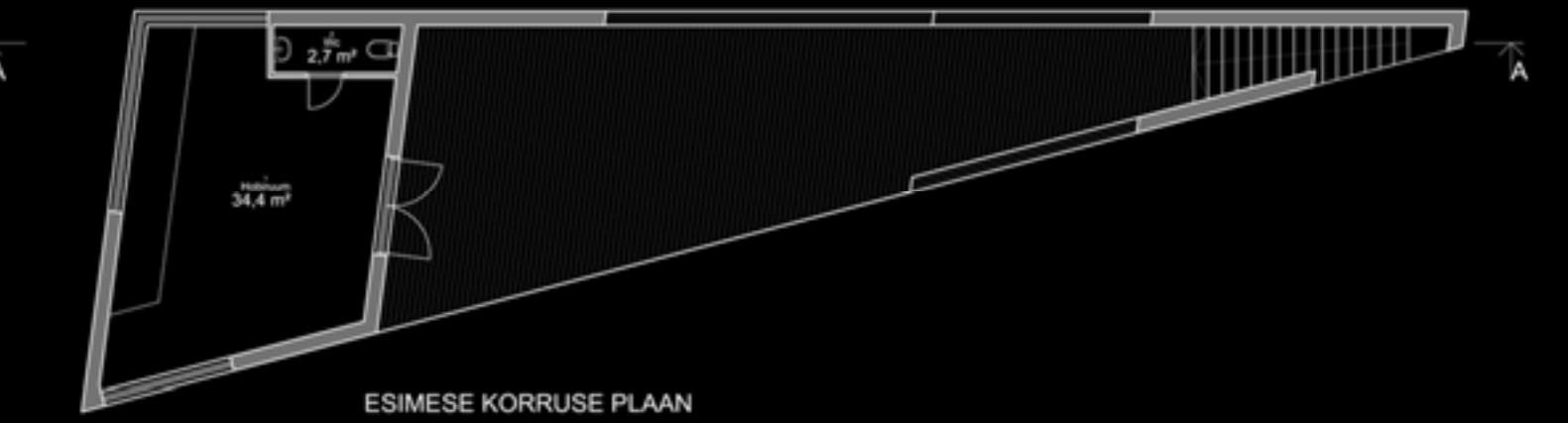




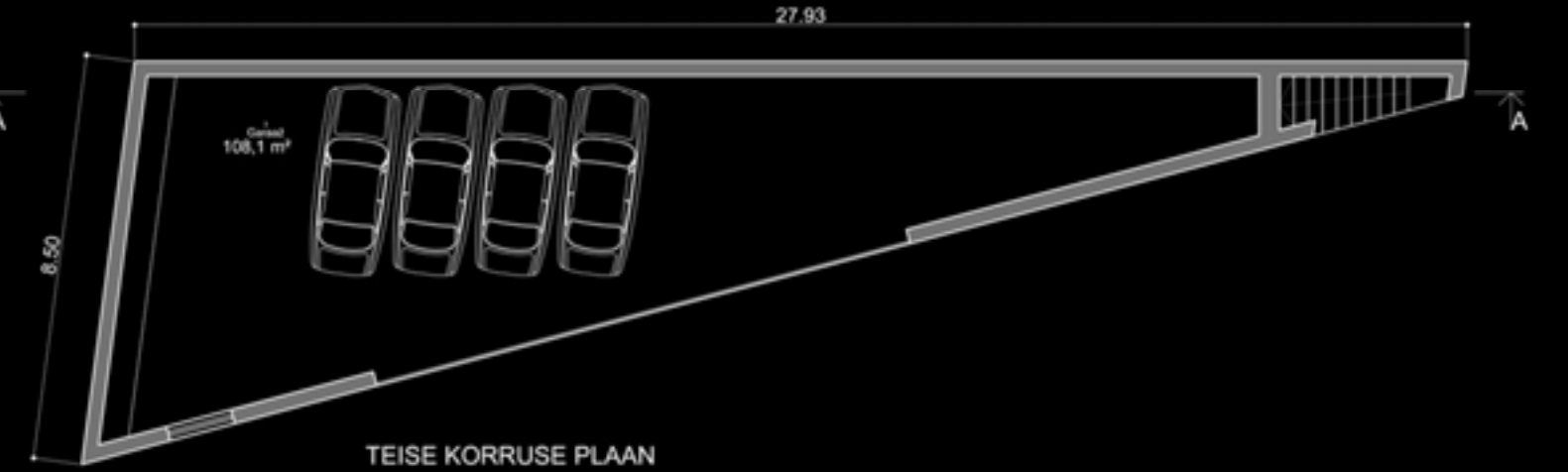

Hall 17.0 m²
Wc 3.0 m²
Kuur 21.8 m²
Tehnoruum 21.8 m²


Abi
3.4 m²
Köök 16.5 m²
Terrass
13.5 m²
Tuba 48.1 m²
Pesu 4.7 m²
Pesu 4.2 m²
Esik
9.8 m²
Tuba 12.2 m²
Leil 4.2 m²
Tuba 10.5 m²
Wc 2.8 m²
Tuba 24.3 m²

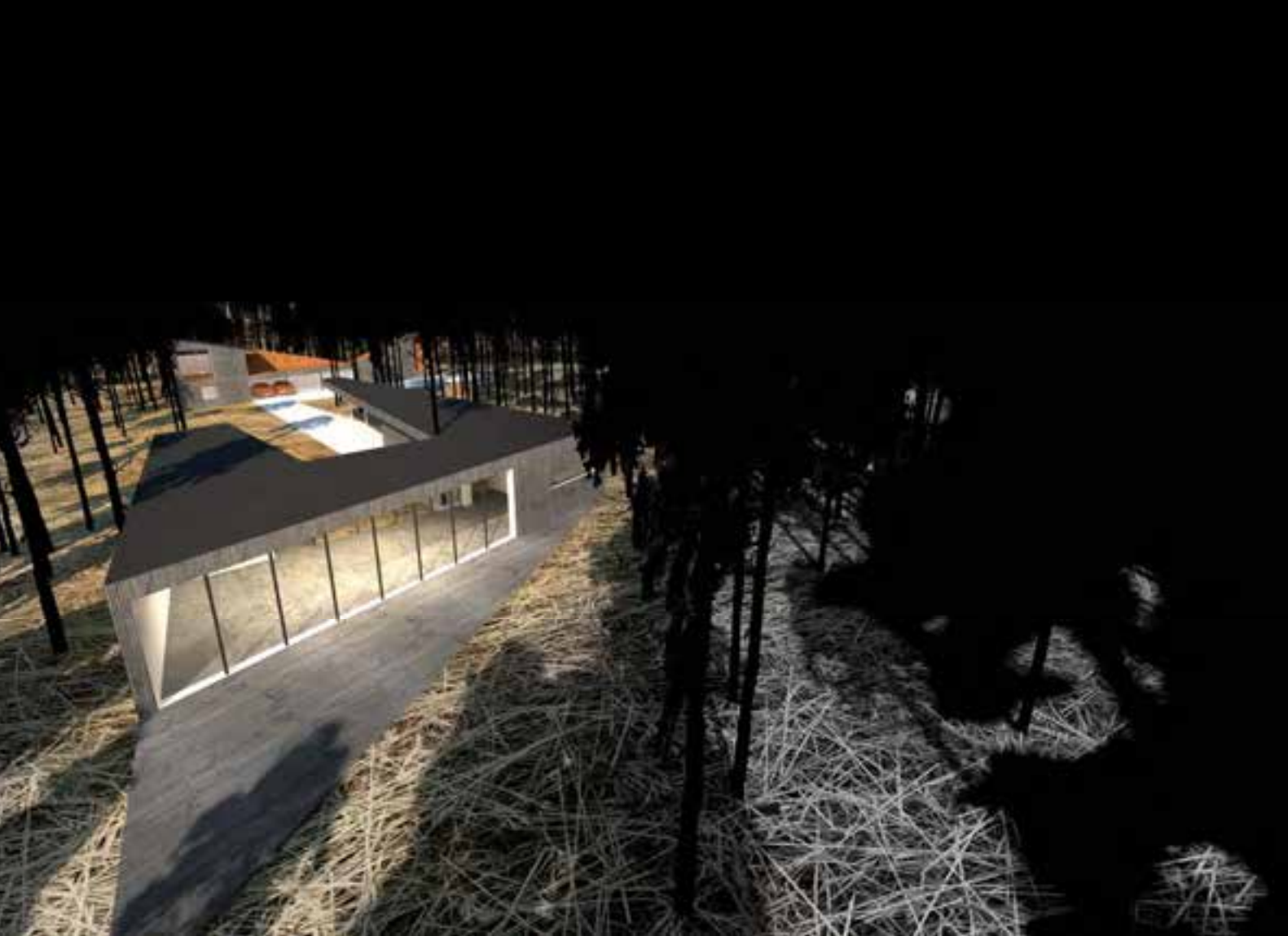

GMÄRGID:
OLEMASOLEV HOONE
PLANEERITAV ABIHOONE
MURUKIVIGA KAETUD JUURDEPÄÄSUTEE
PIIRDEAED
EHITUSKEELU ALA
KRUNDIPIIR
OLMEPRÜGI KONTEINERID
SISSEPÄÄS
LIKVIDEERITAV KÕRGHALJASTUS
Pärnamäe tee
240
233
242
278
234
OLEMASOLEV HOONE 1K
272
243
PLANEERITAV ABIHOONE 2K
275
286

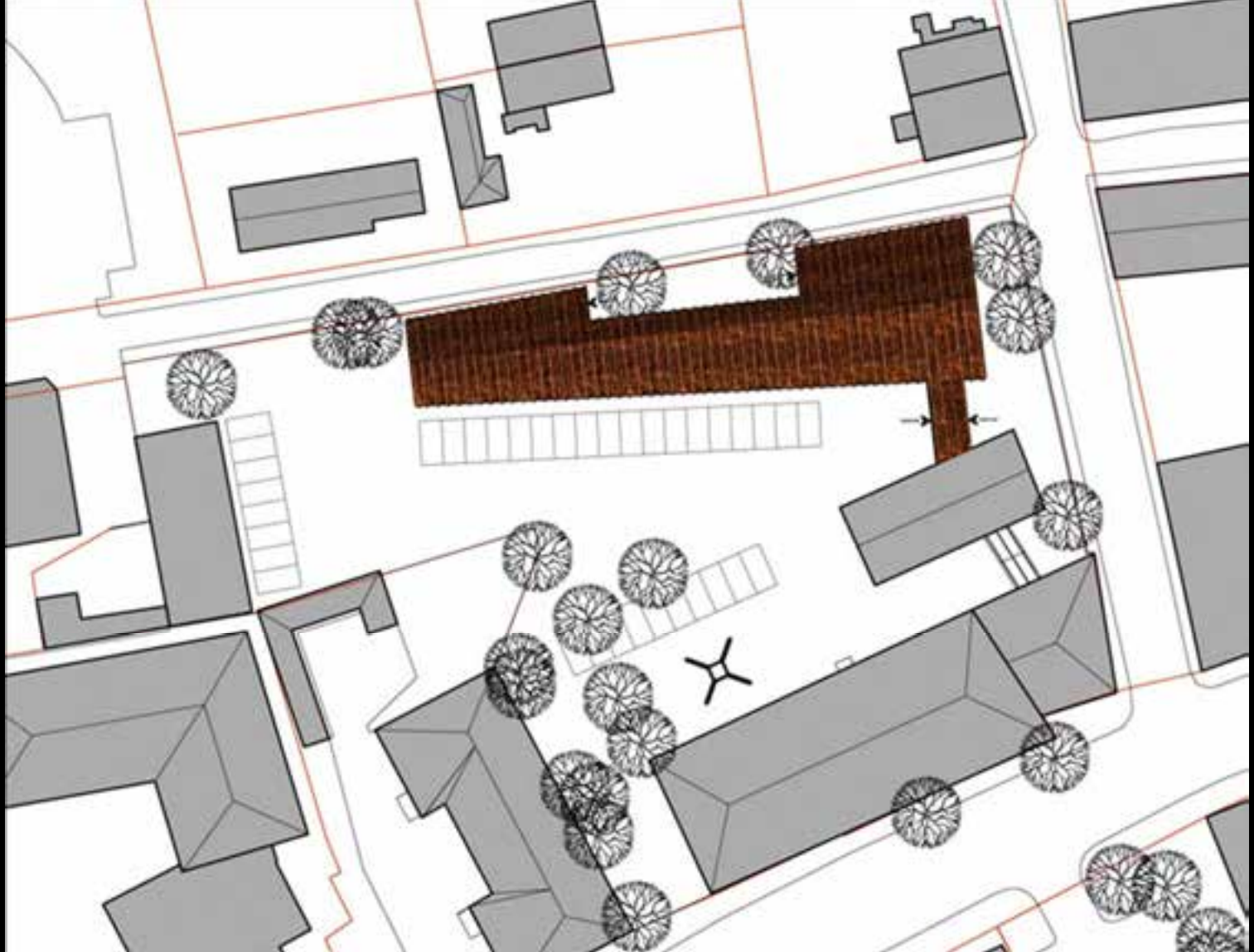


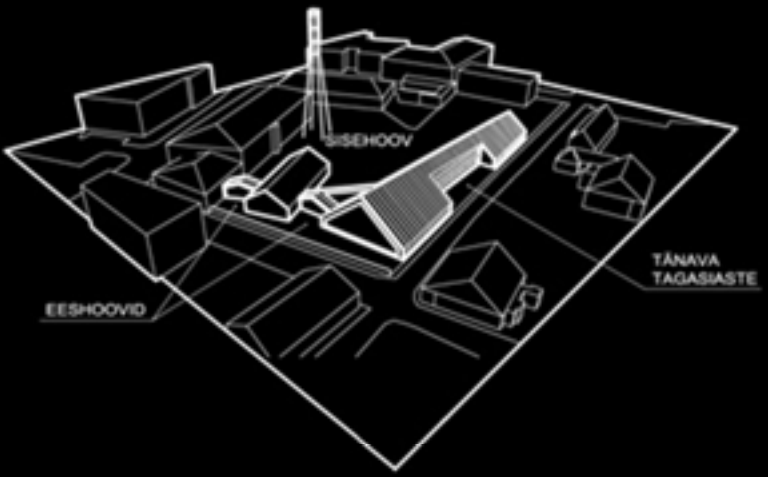
ESIMESE KORRUSE PLAAN

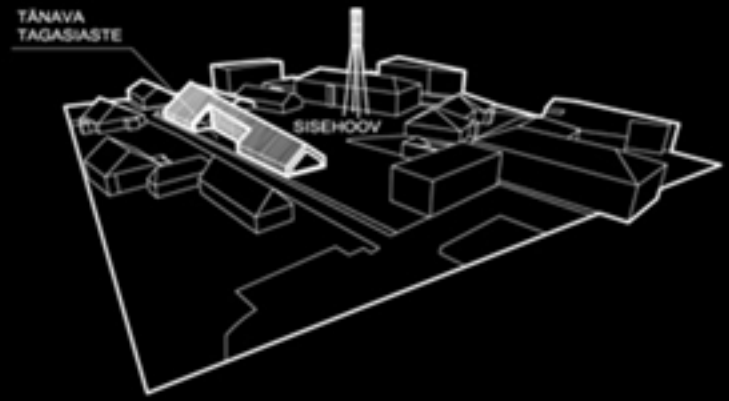


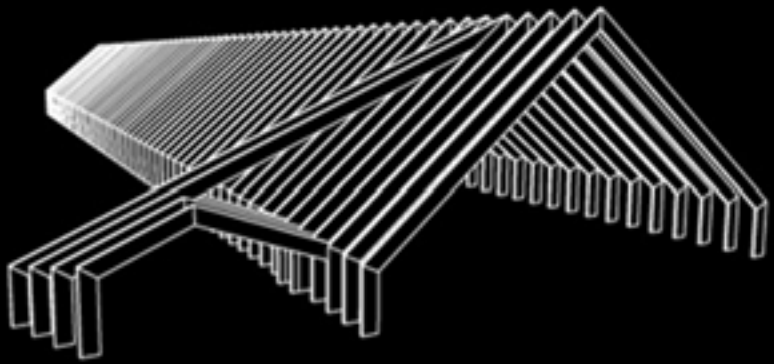
TEISE KORRUSE PLAAN

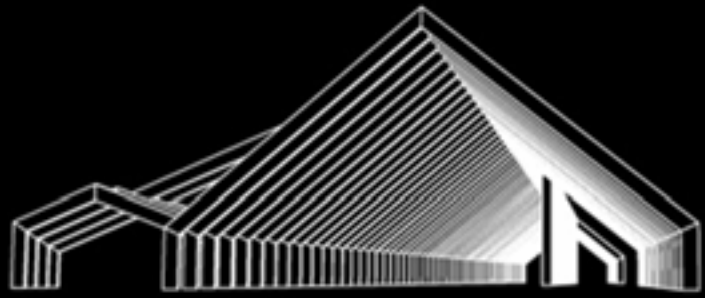




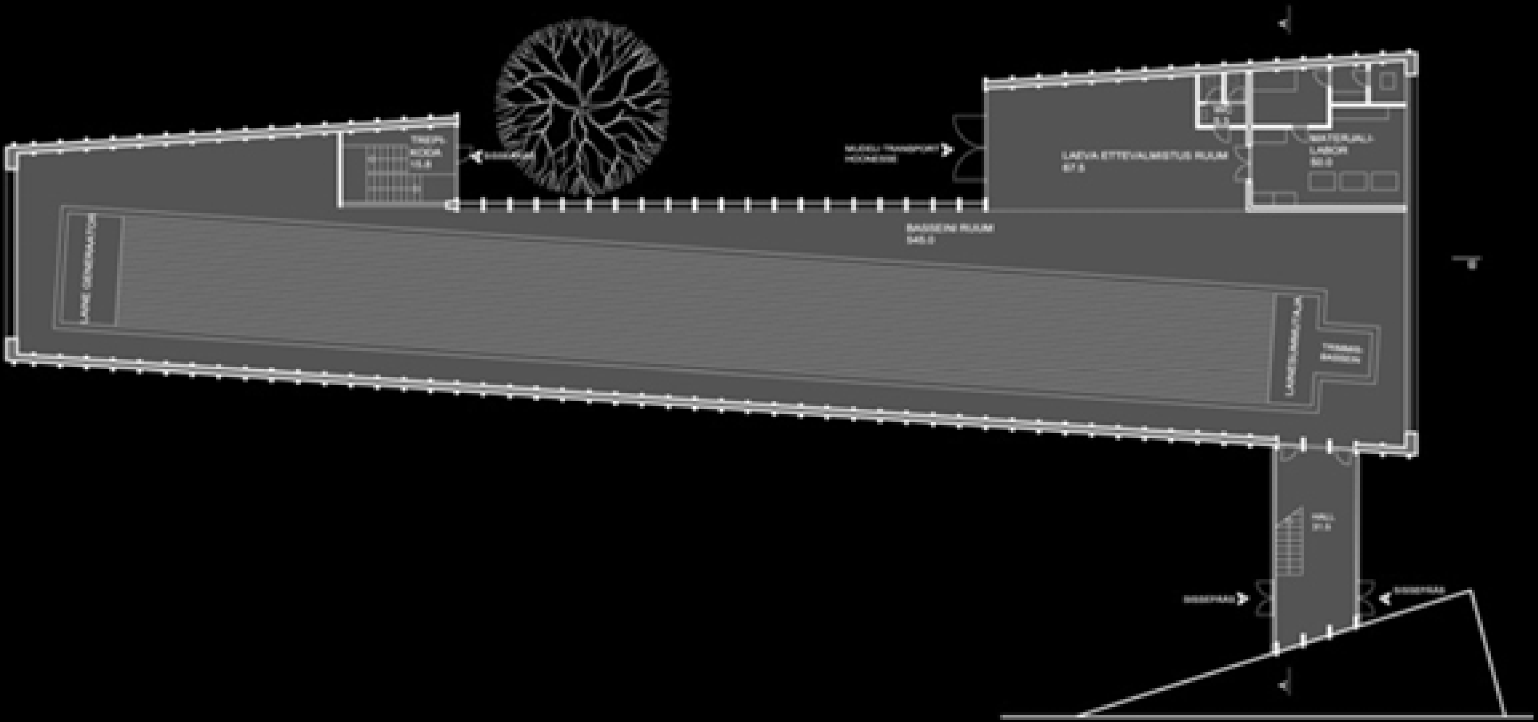


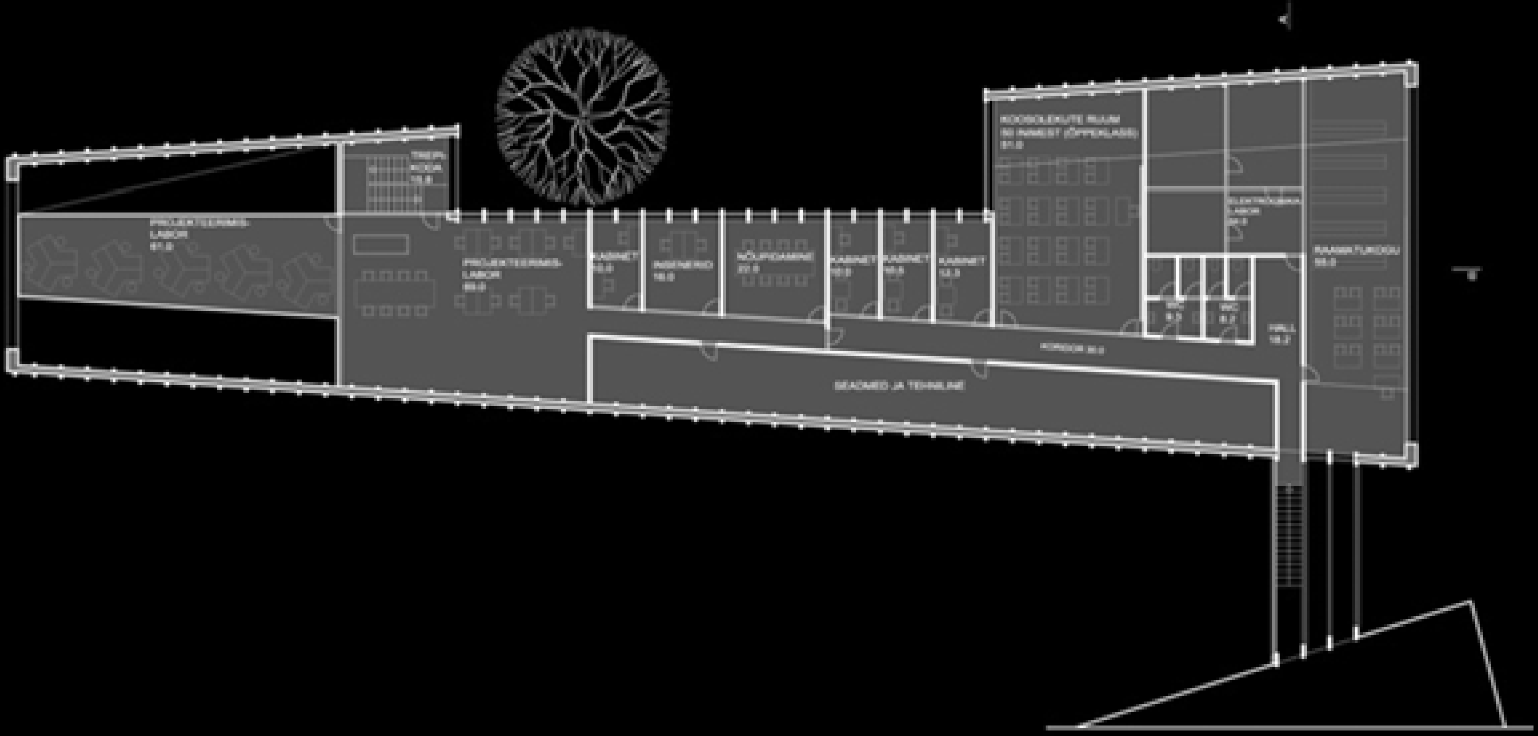






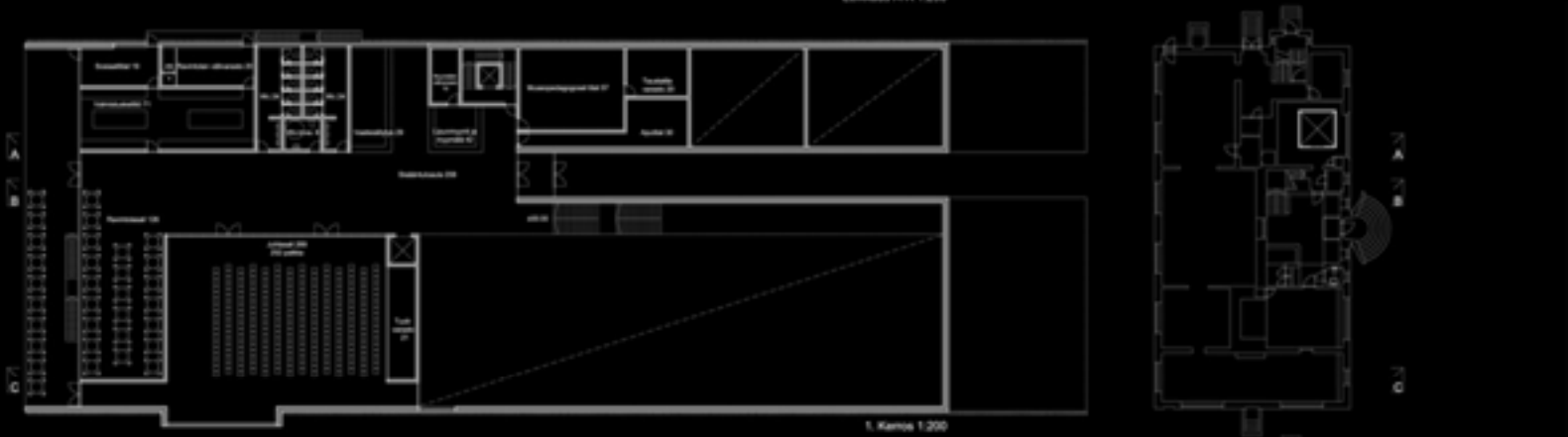
HOONE KARKASS


LAINE GENERAATOR
BASSEINI RUUM
LAEVA ETTEVALMISTUS RUUM
MATERJALI-
LABOR

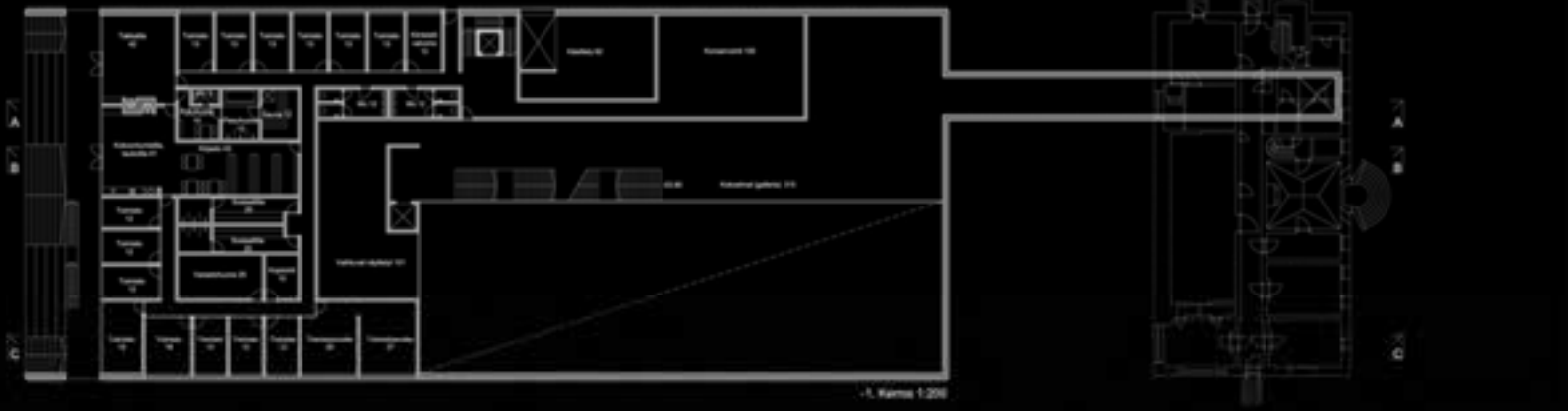


PROJEKTEERIMIS-
LABOR
PROJEKTEERIMIS-
LABOR
KABINET
INSENERID
NÕUPIDAMINE
KABINET
KABINET
KABINET
KOOSOLEKUTE RUUM
WC
WC
HALL
RAAMATUKOGU
SEADMED JA TEHNILINE

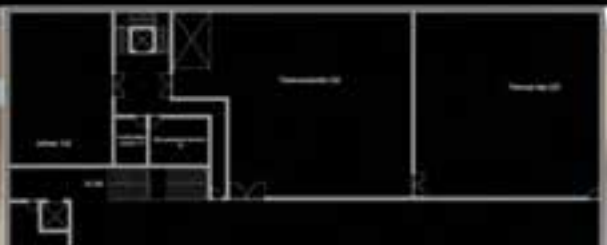

1-5

1. Kerros 1:200



1. Kerros 1:200



Julkisivut 1:200

...kaasinen vertikaalinen puusäleikkö. Ikkunoiden kohdalla rei'itetty puun värinen metalli samoin dimensioin
...kana betoni, jonka sekaan on jauhettu luonnonkiveä
...atto: betoni, massiivipuu, metallisäleikkö valoaukkojen kohdalla
...esi

B a Rock

2m 10m
1m 5m

Leikkaus C-C 1:200

Leikkaus B-B 1:200

Leikkaus A-A 1:200