

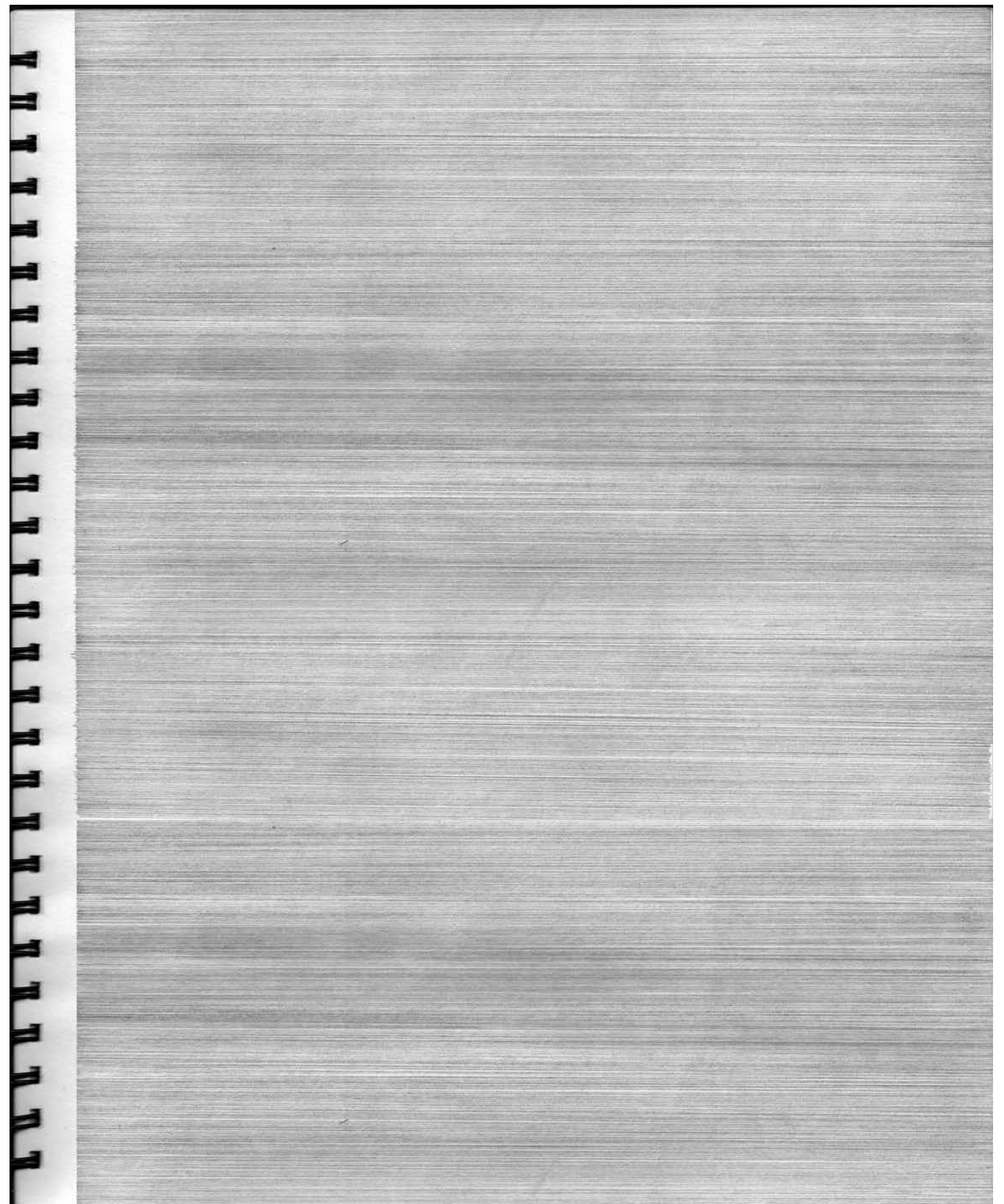
# SCHOOL OF ARCHITECTURE AS A RESPONSIVE MACHINE

An Experimental Process of Transduction to Individuate New ways of Learning through Teaching

EXPLORE LAB

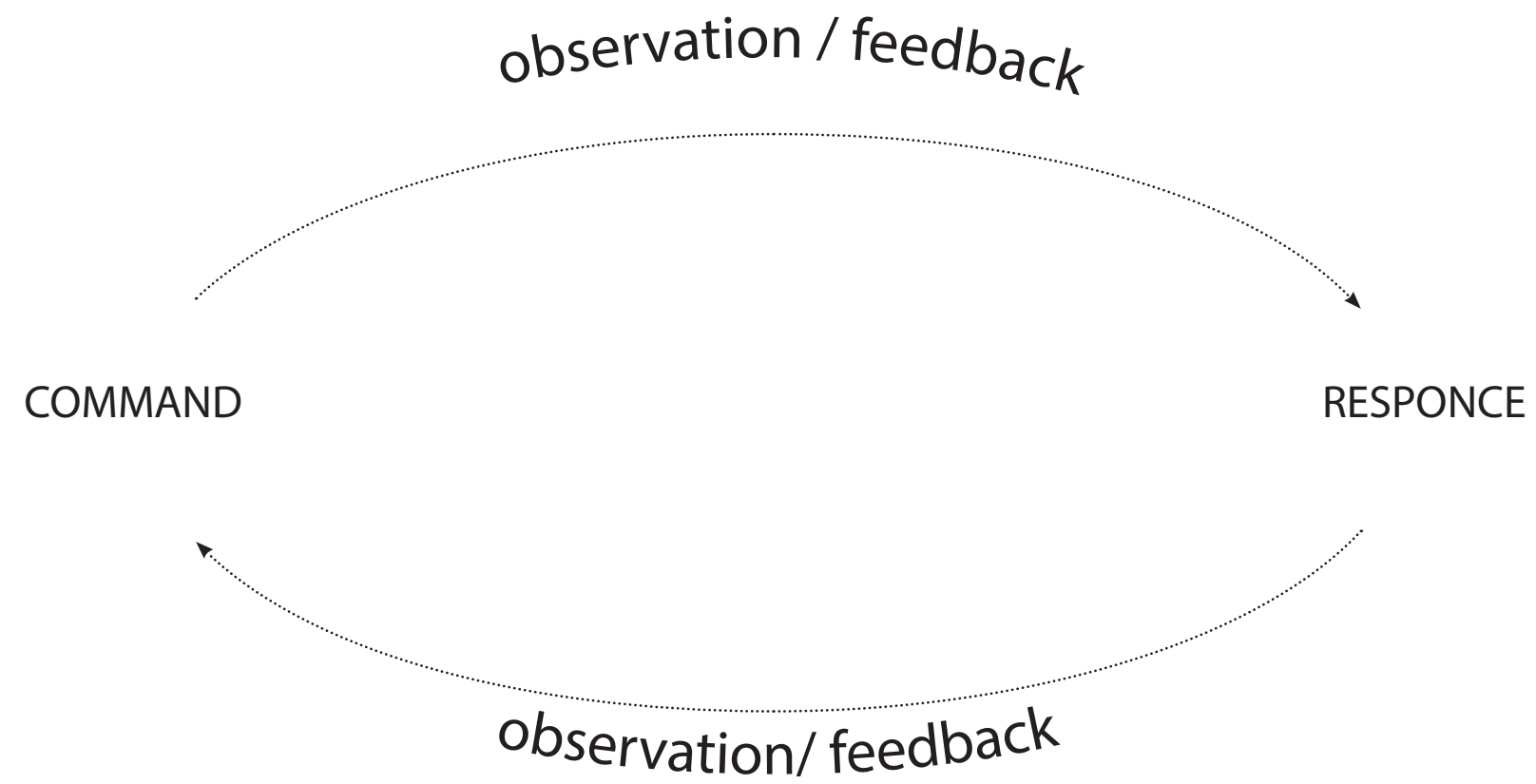
Katerina Demetriou  
4940822





ONE ACTION (FEEDBACK) THE FOLLOWING ACTION = PATTERNED DESIGN OUTCOME

SPECIFIC TARGET



CYBERNETICS  
or  
"Observing Systems"  
or  
CIRCULAR FEEDBACK OF CAUSALITY



ONE'S INTENTION TO BUILD ITSELF BY ACTING IN A CERTAIN WAY

TARGET

external observer / feedback

observation / feedback

COMMAND

RESPONCE

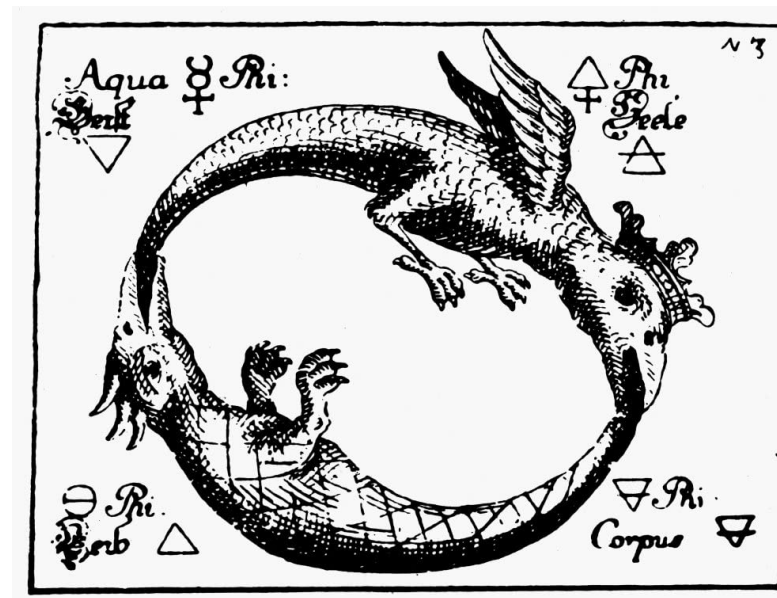
observation/ feedback

external observer / feedback

cybernetics of cybernetics

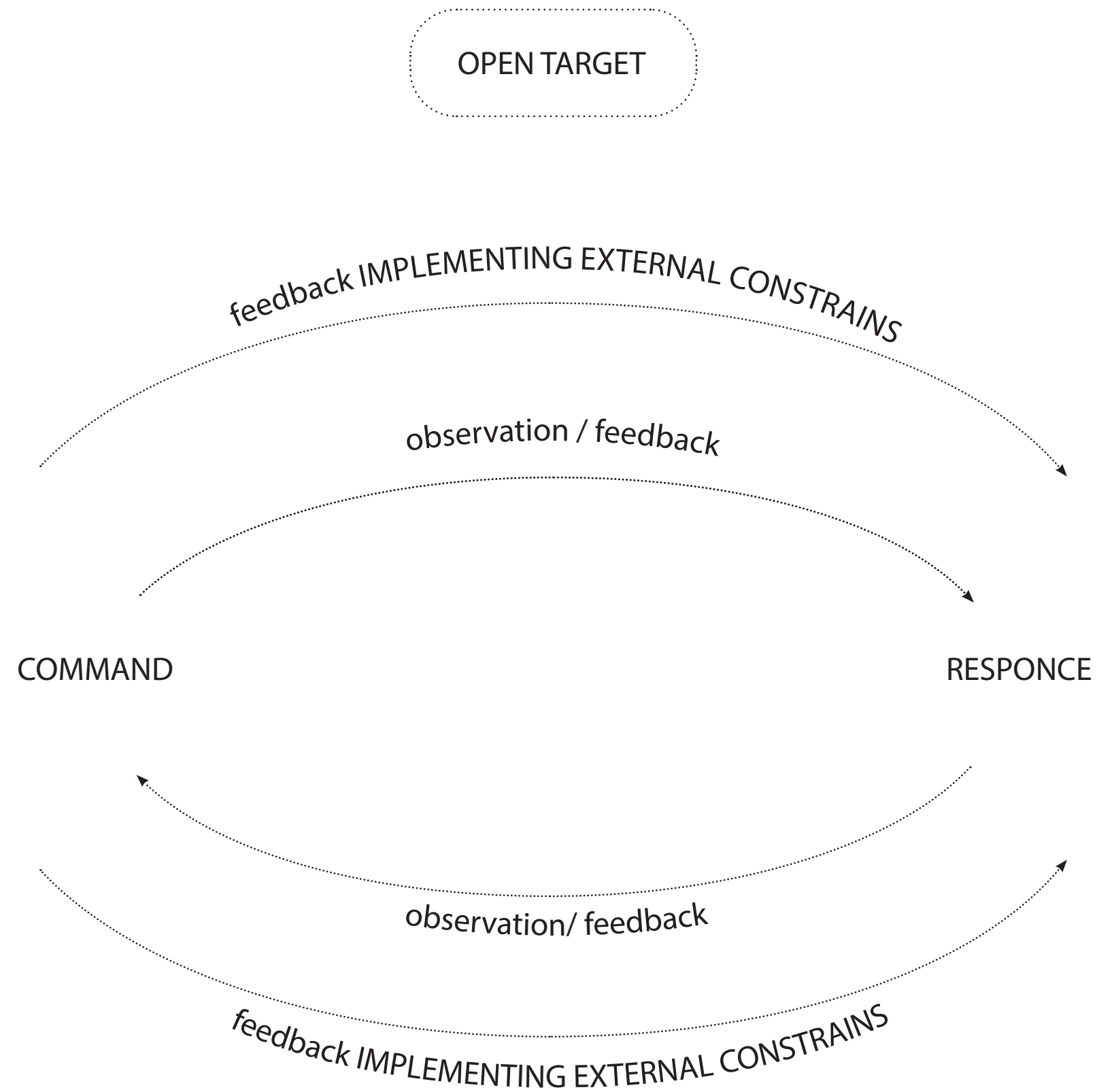
or

"observing systems" of "observing systems"



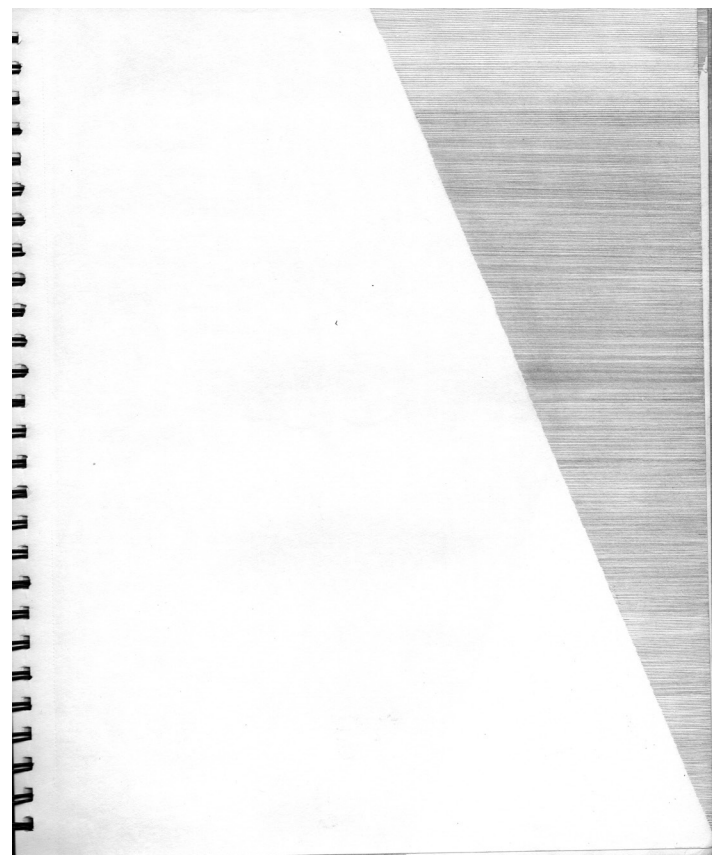
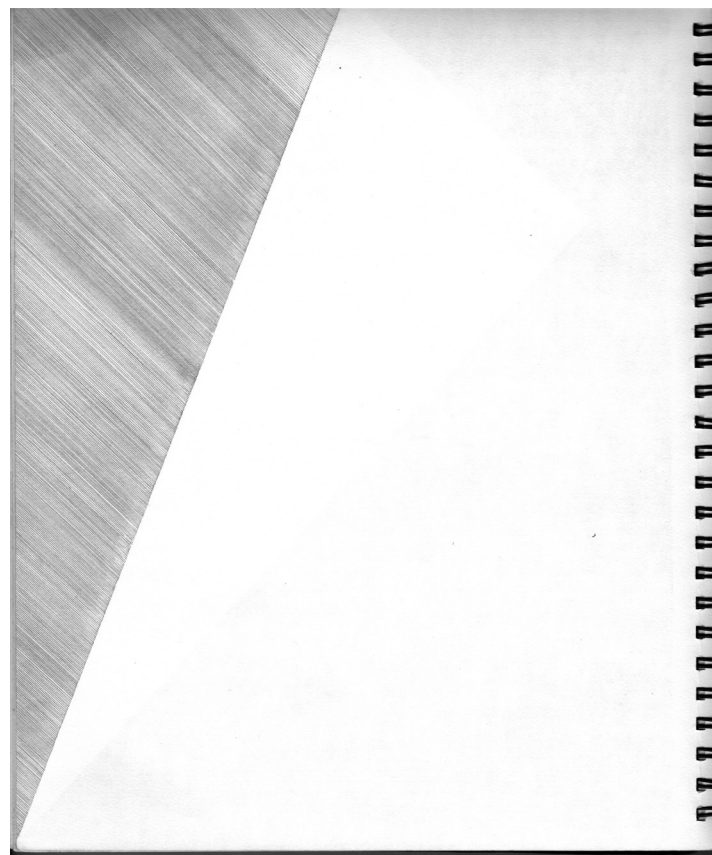
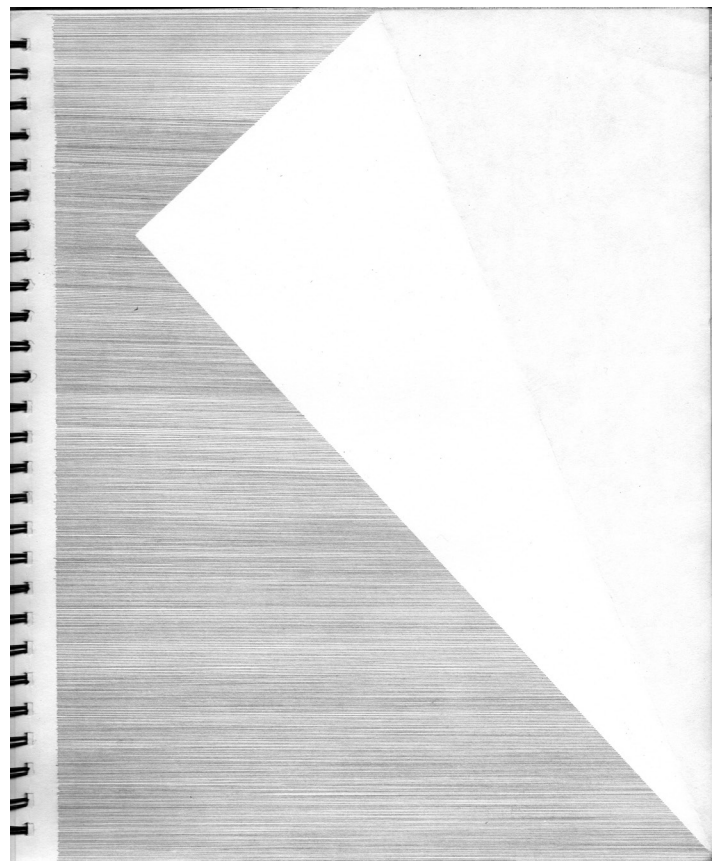
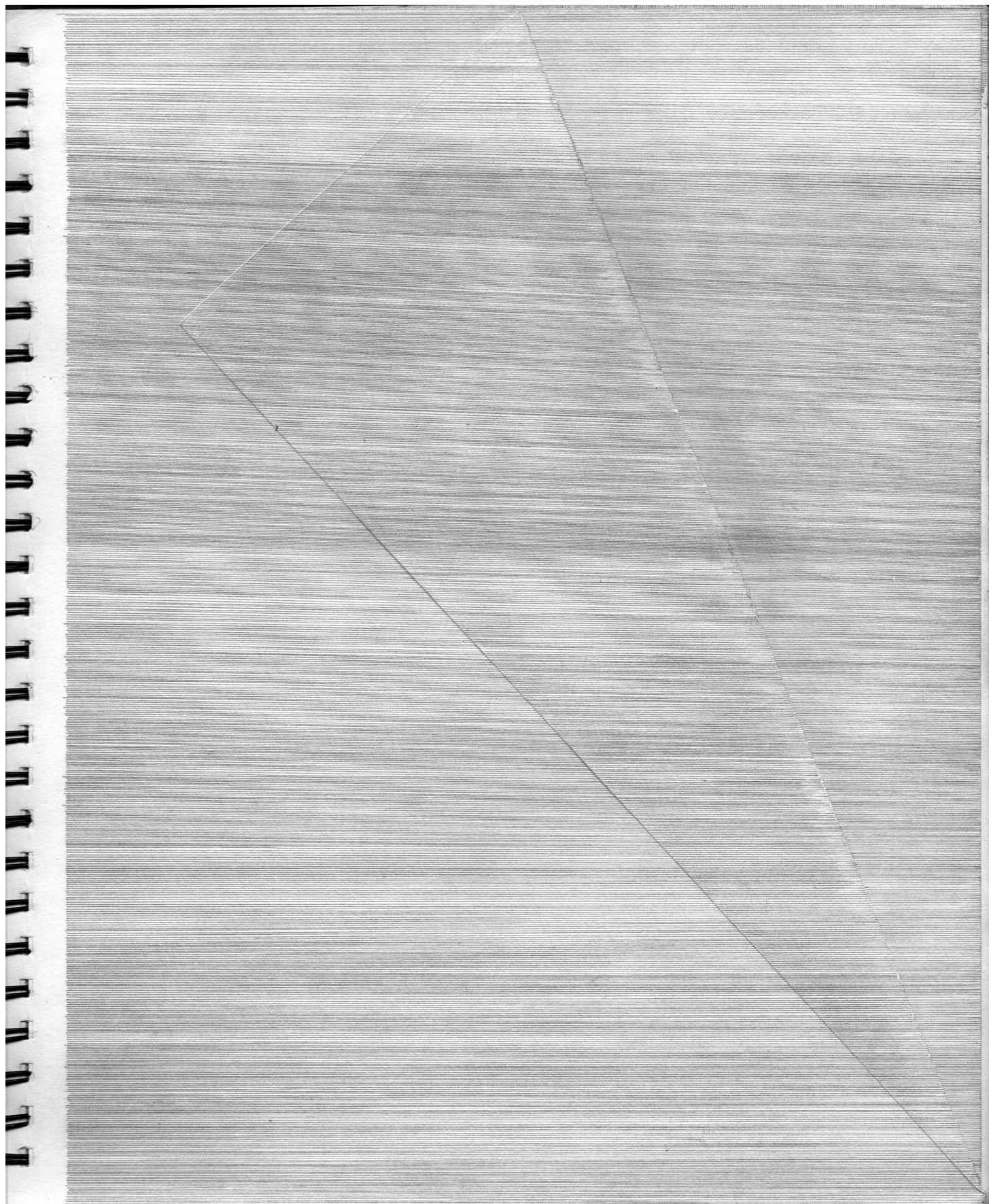
INTER-ACTION = NEW IDEAS = KNOWLADGE DEVELOPENT

Symmetrical and circular dependency that requires no reference to anything outside it: mutual self- reference,  
(two-way) communication, observational closure

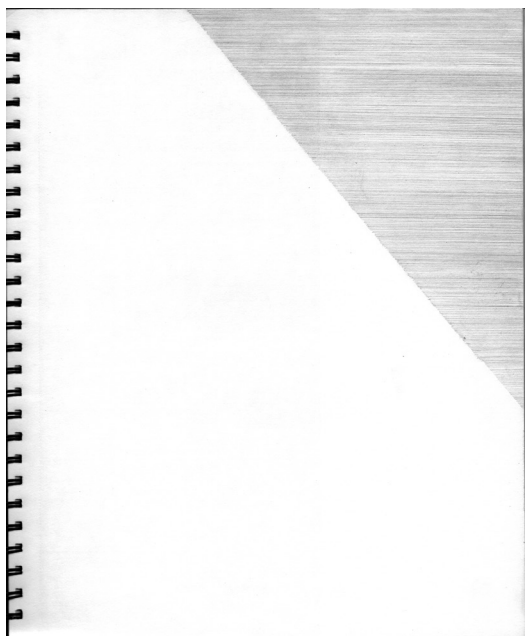
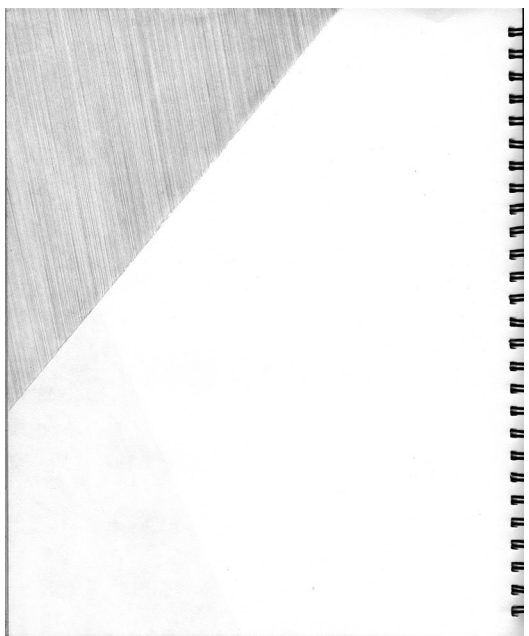
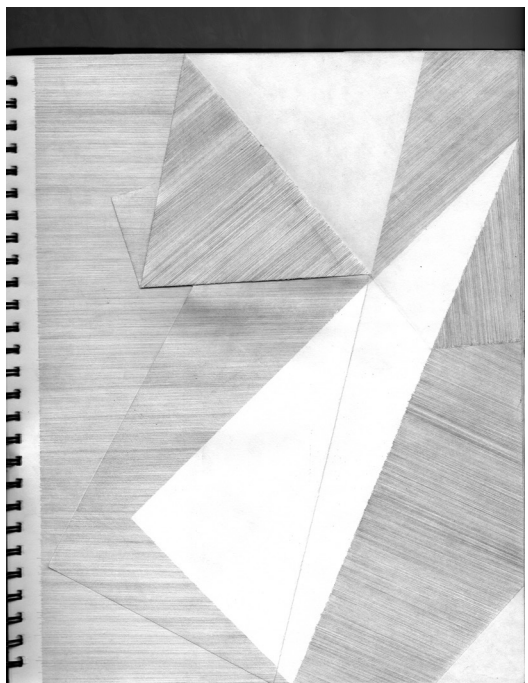
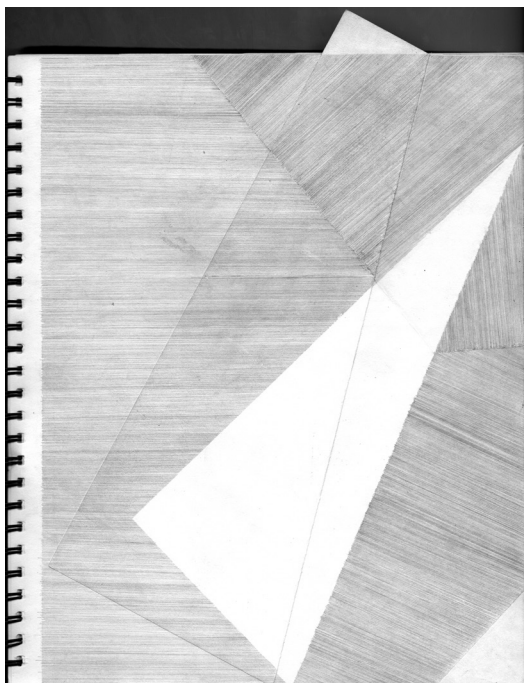
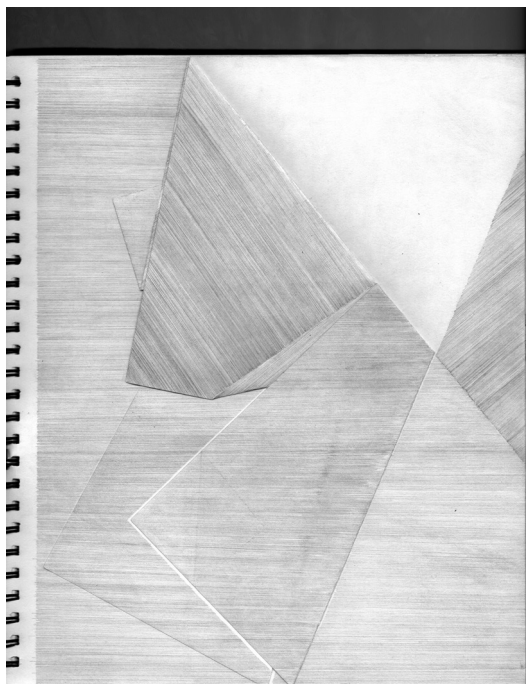
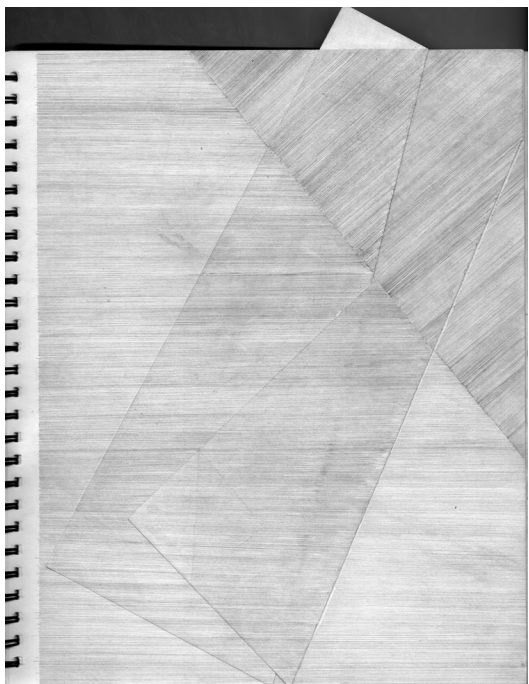
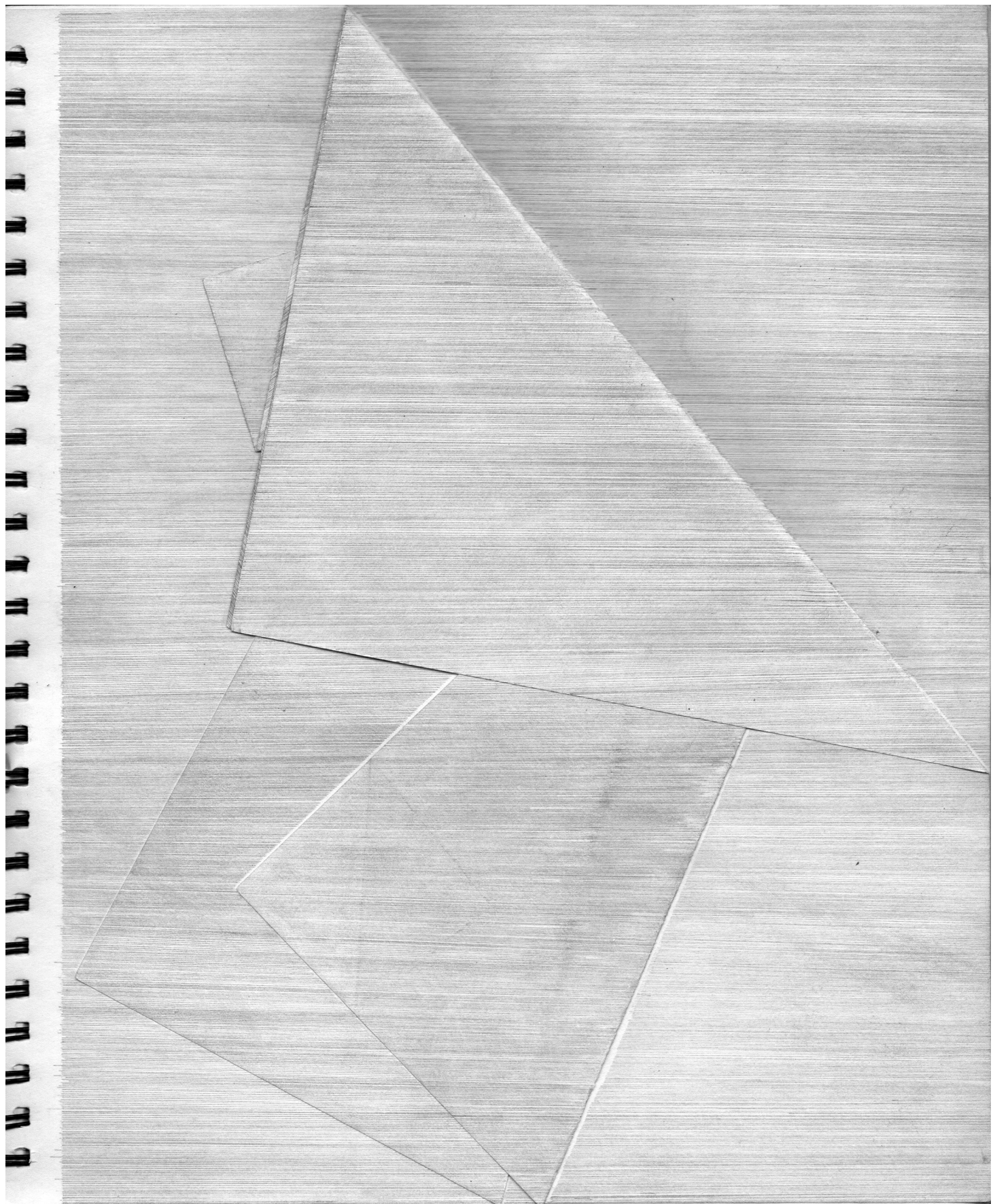


social face of second order cybernetics  
or  
"observing systems" of "observing systems" accepting errors

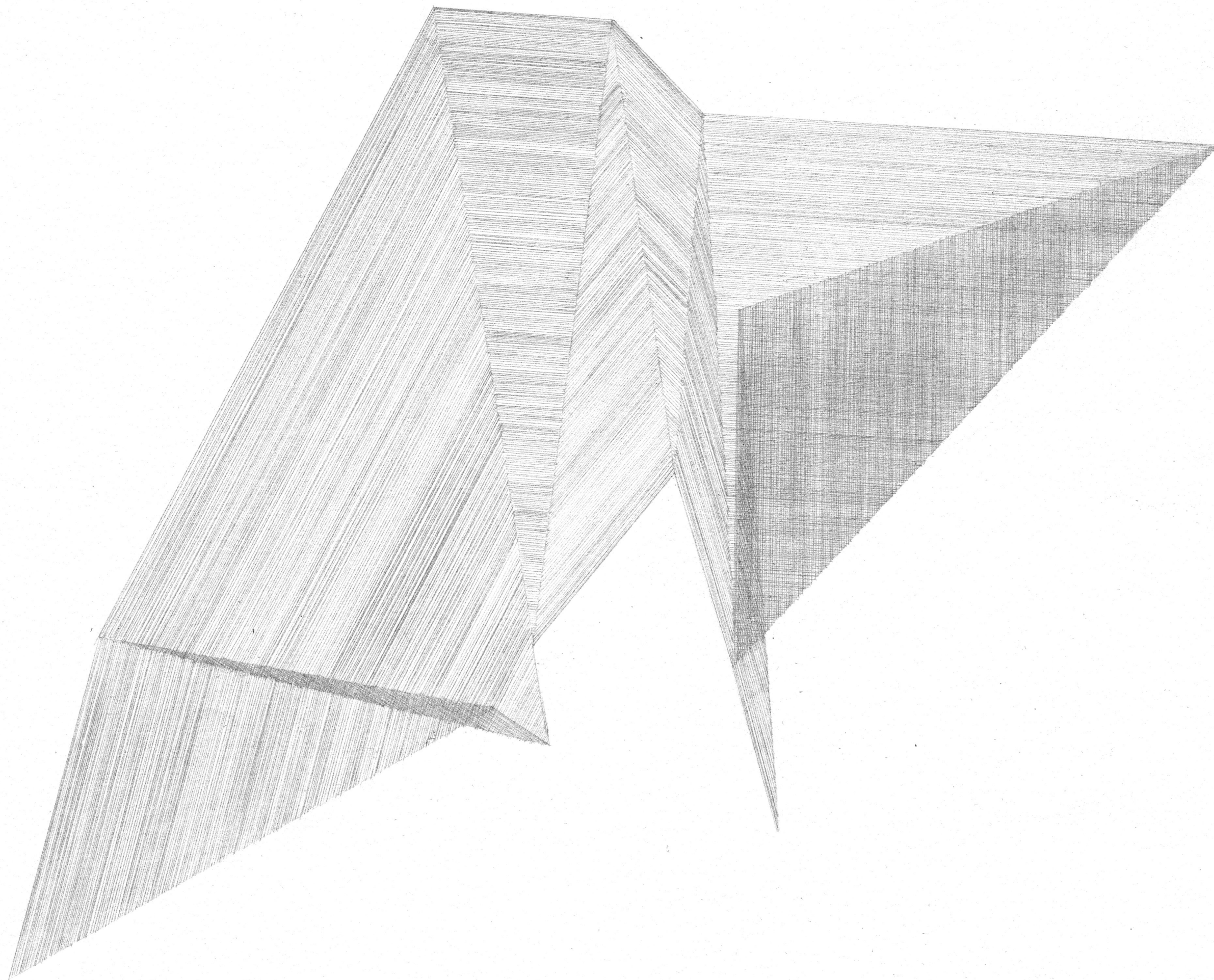




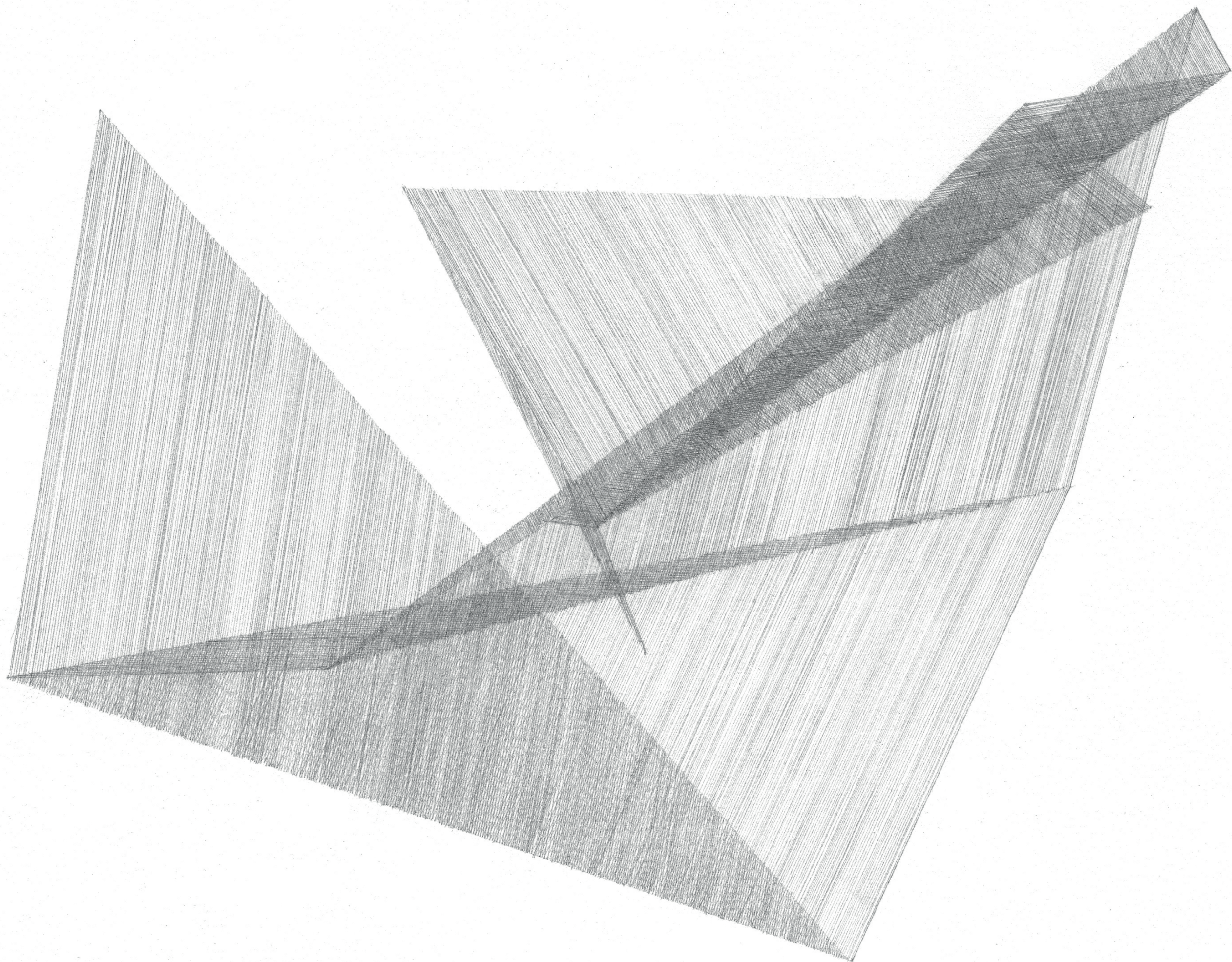




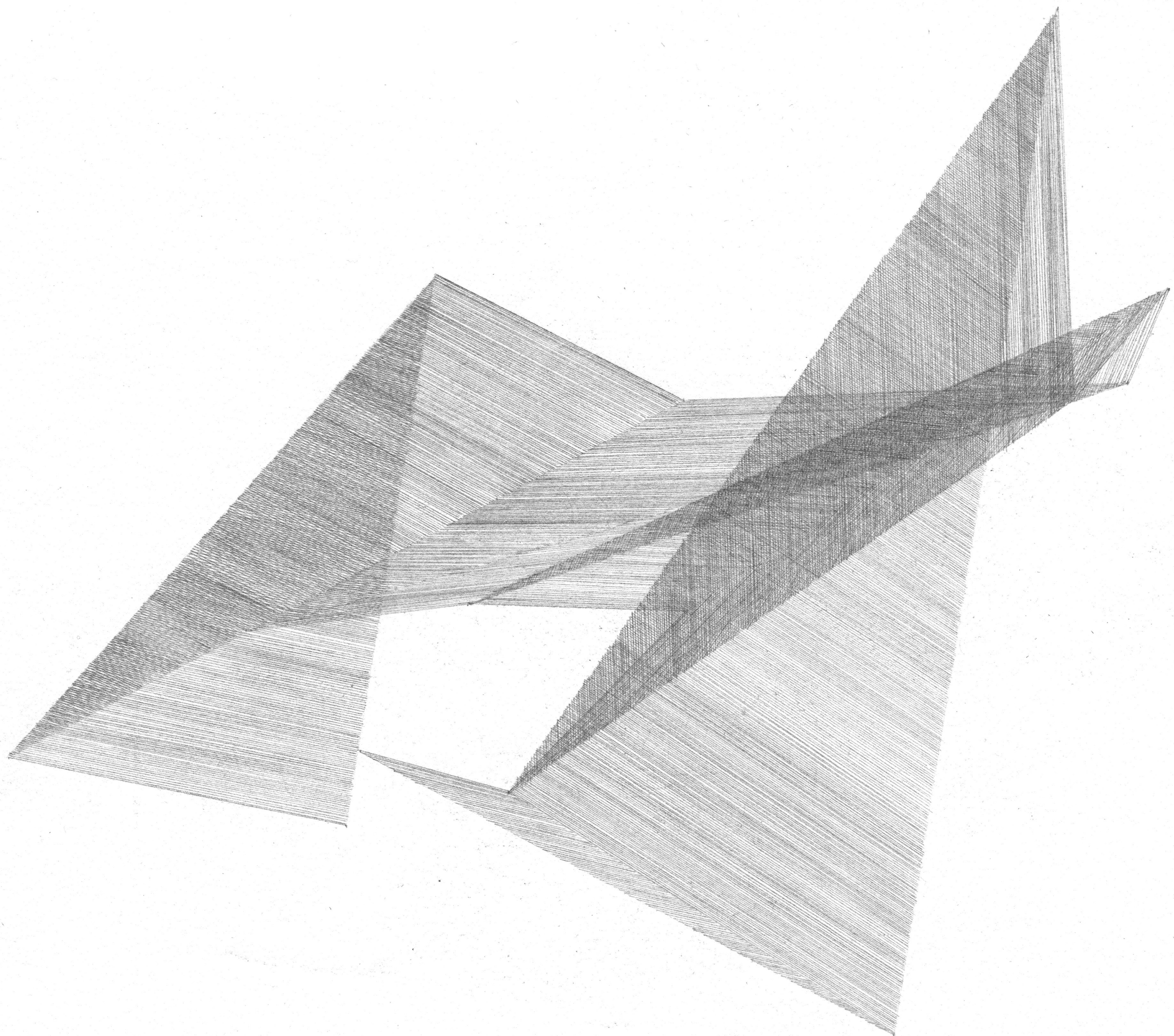




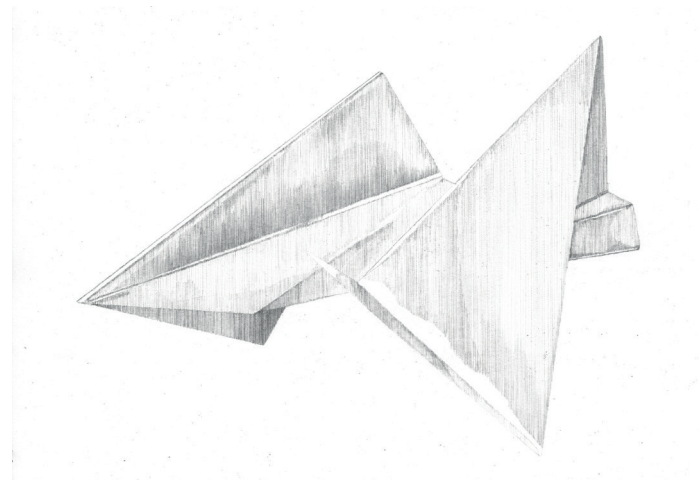
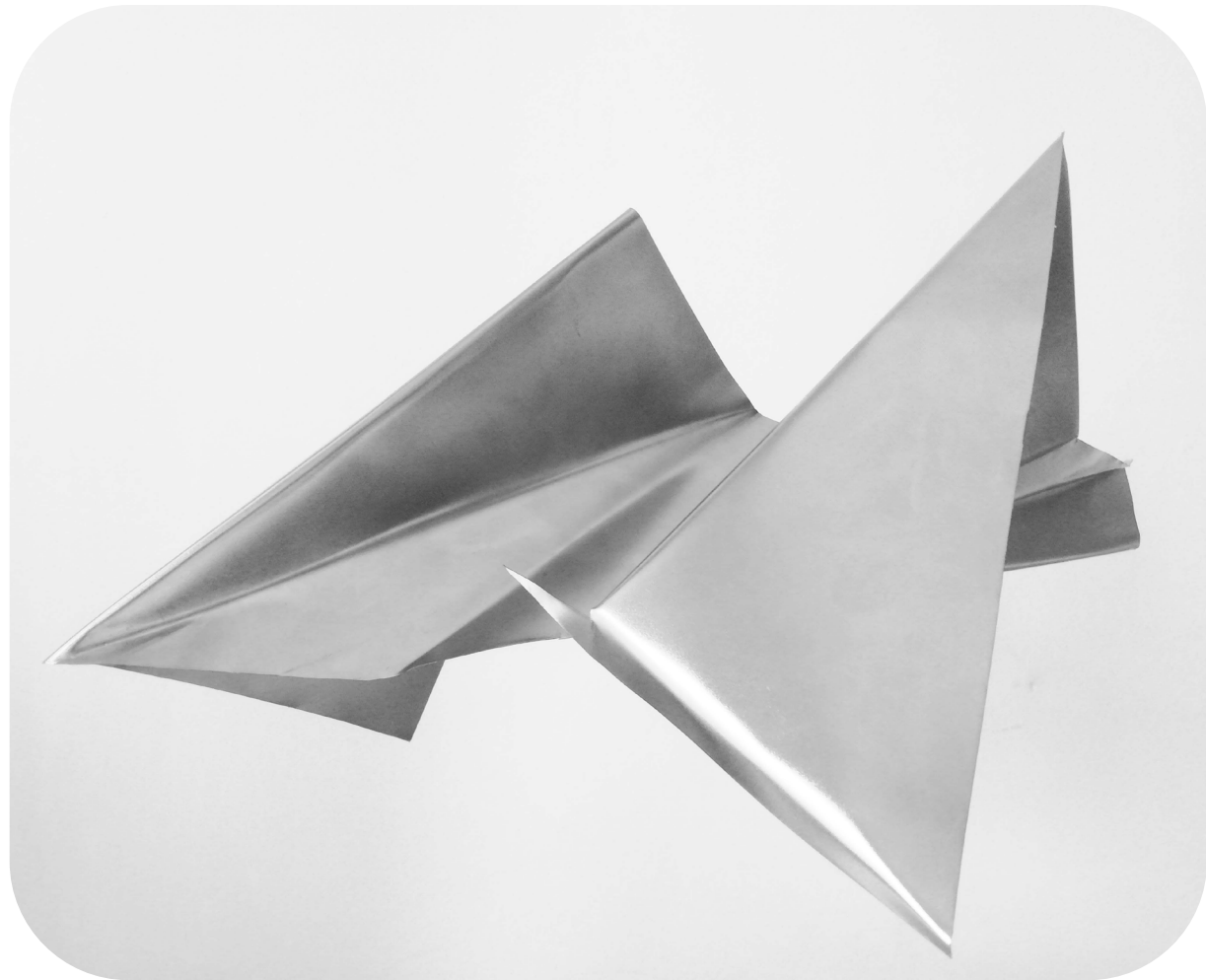




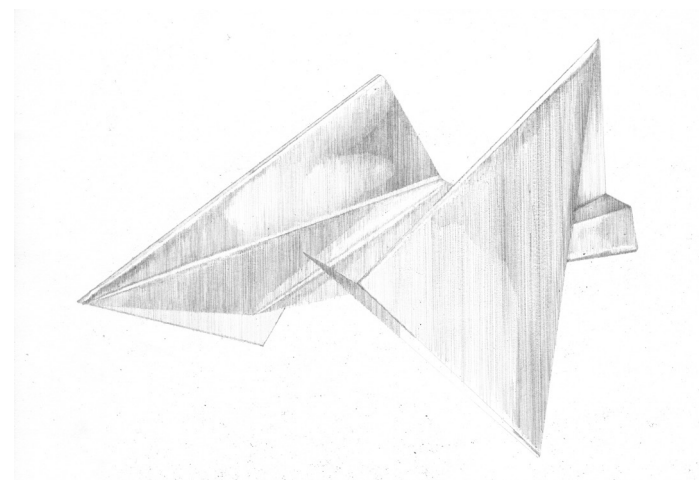
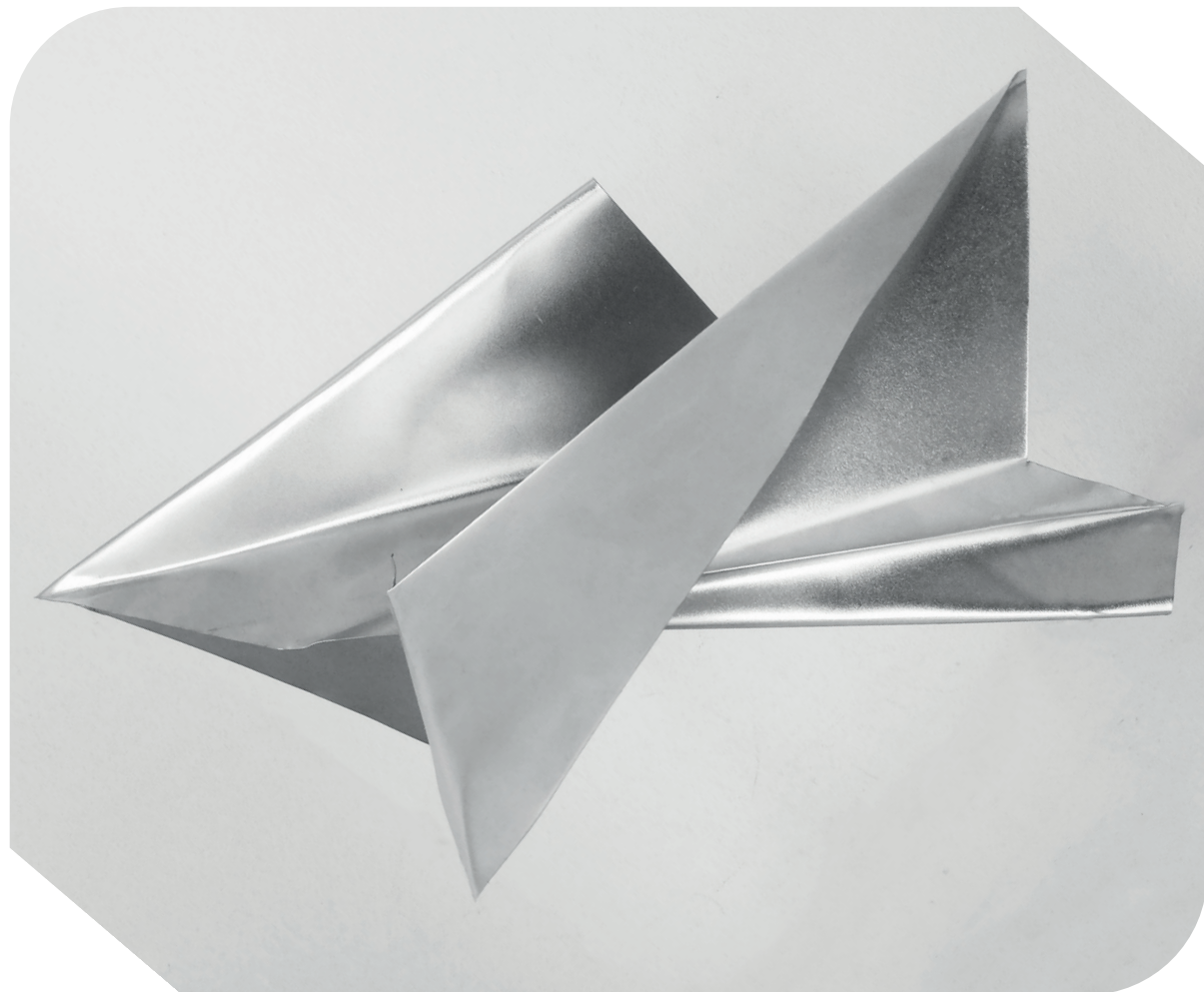






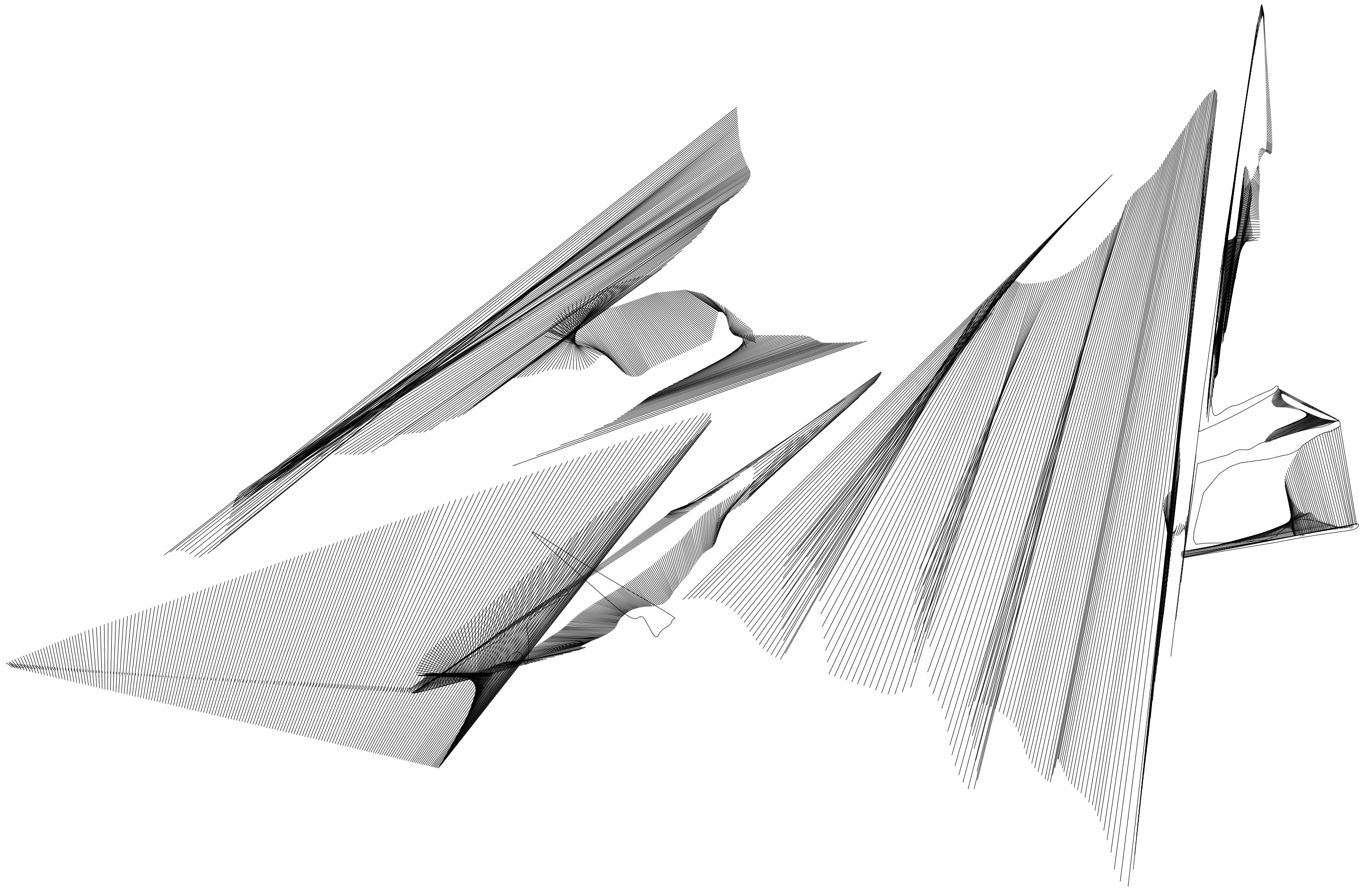


Morning reflections



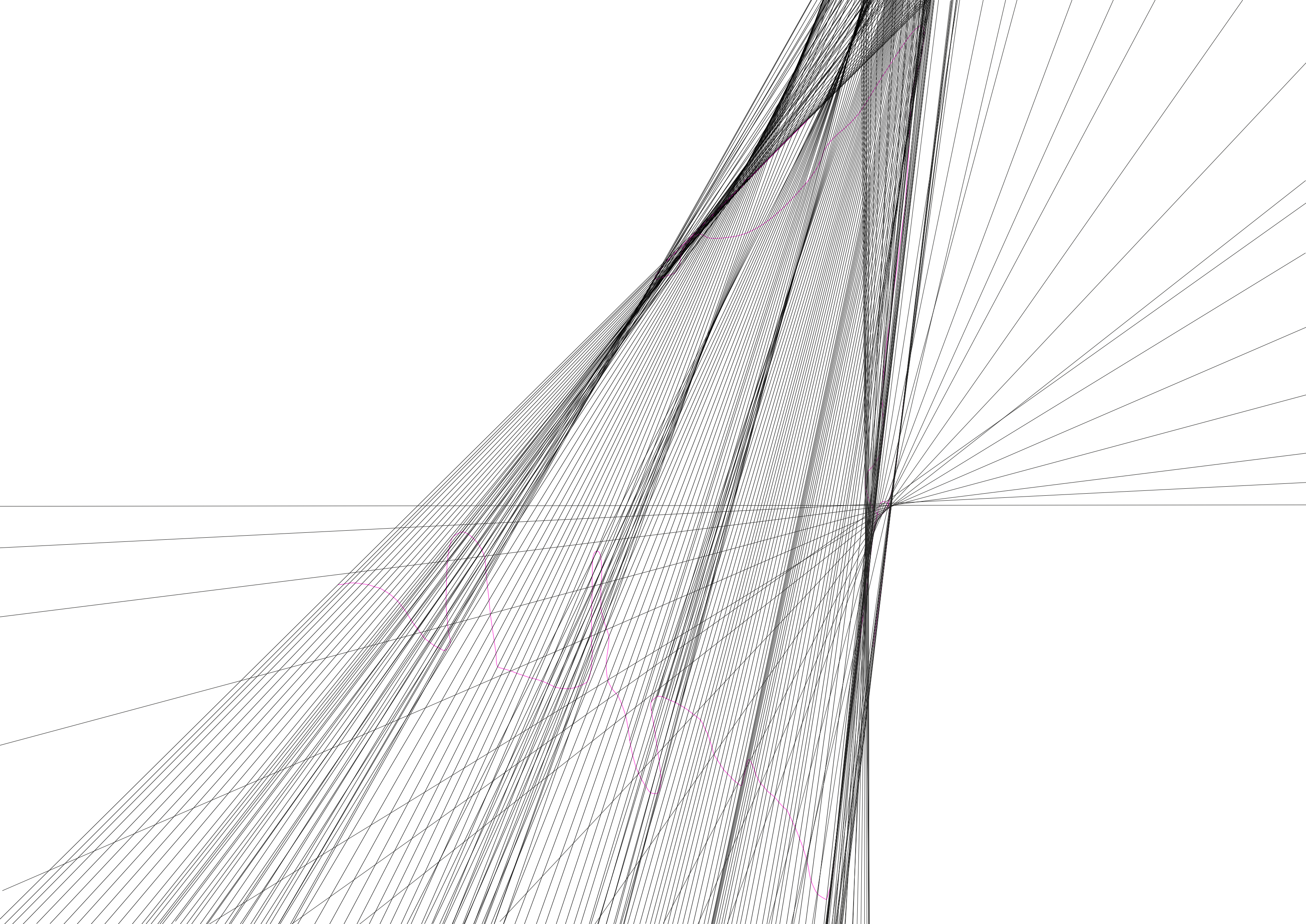
Evening reflections



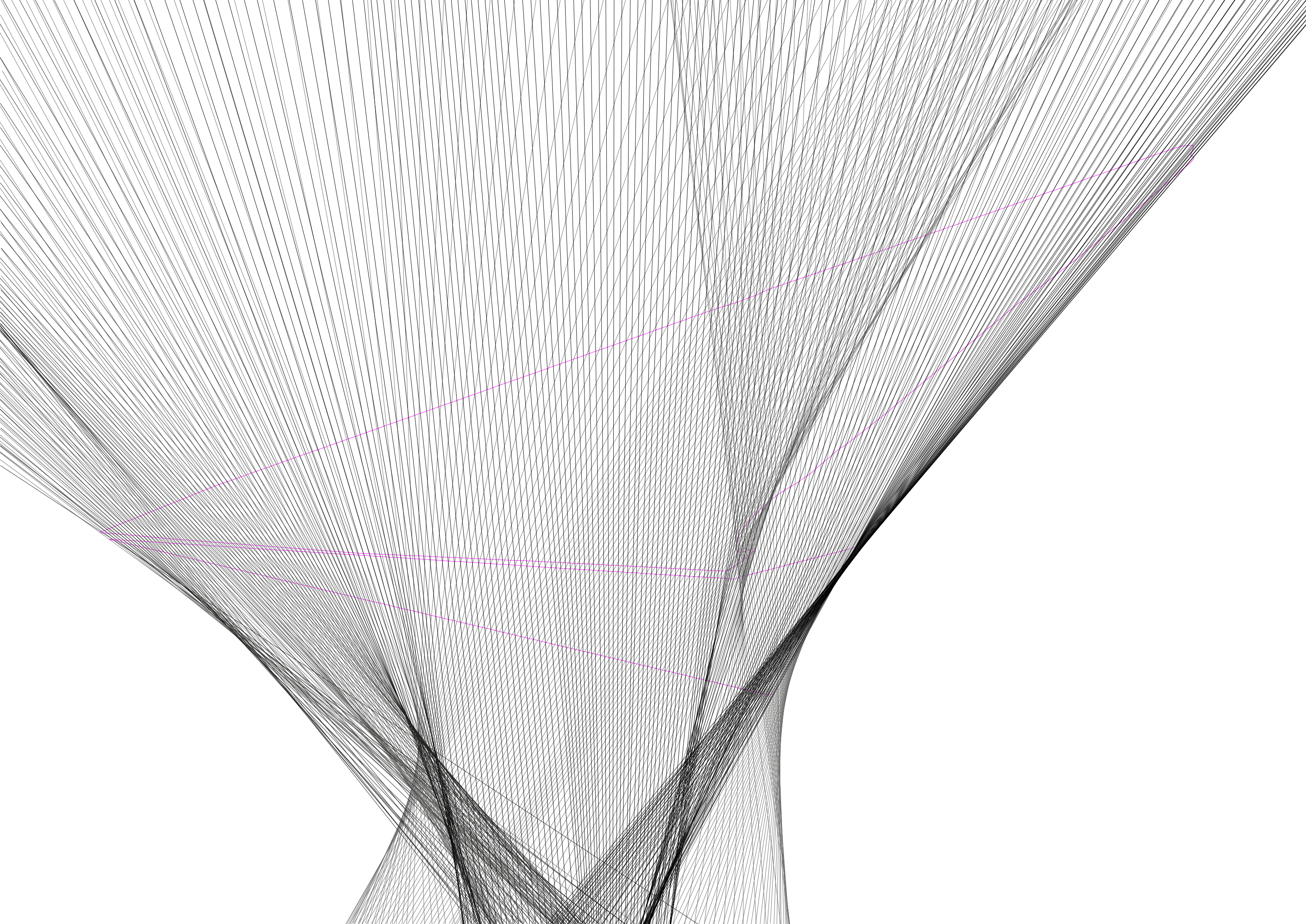


Output: Material's experiance with ligh

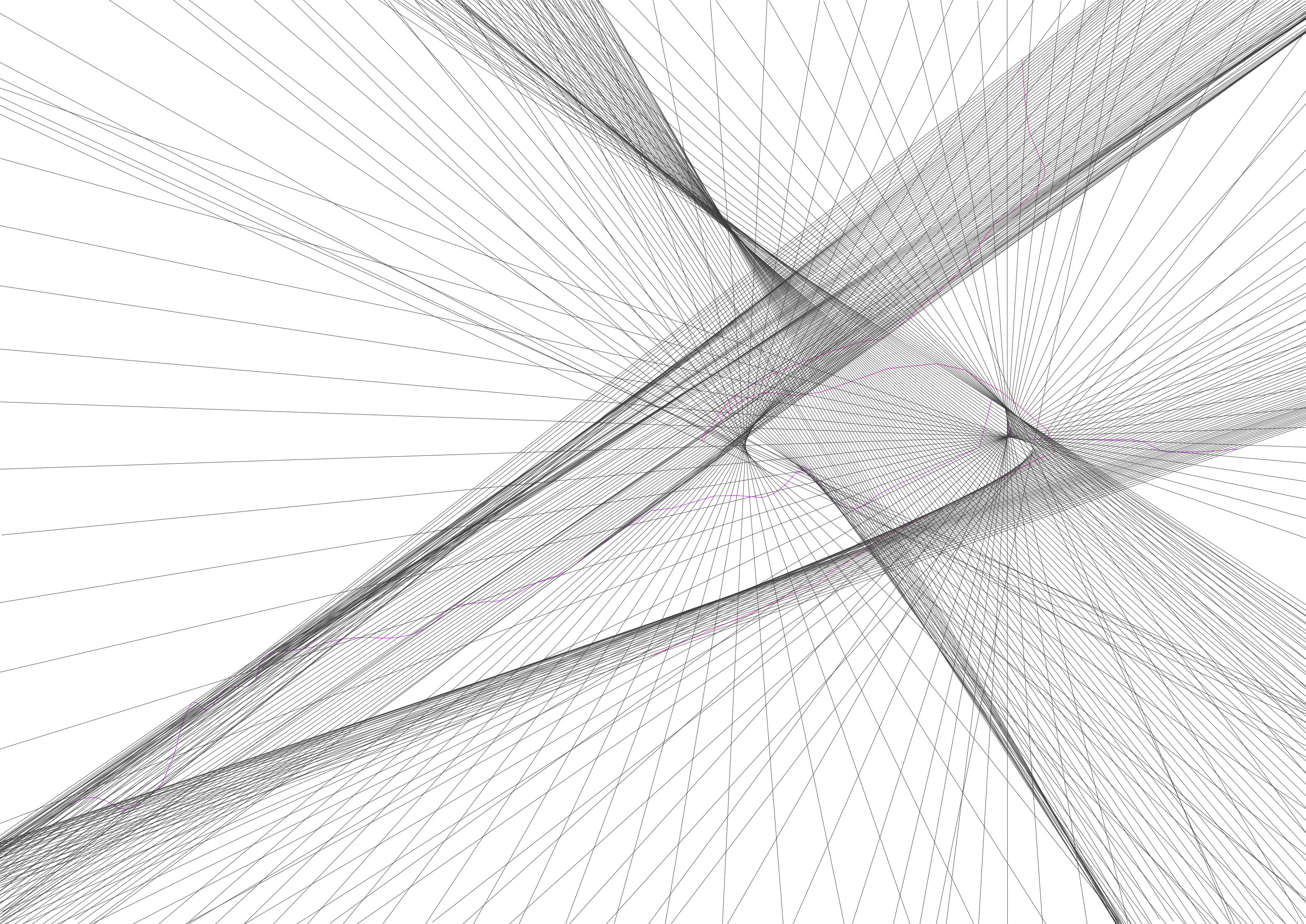




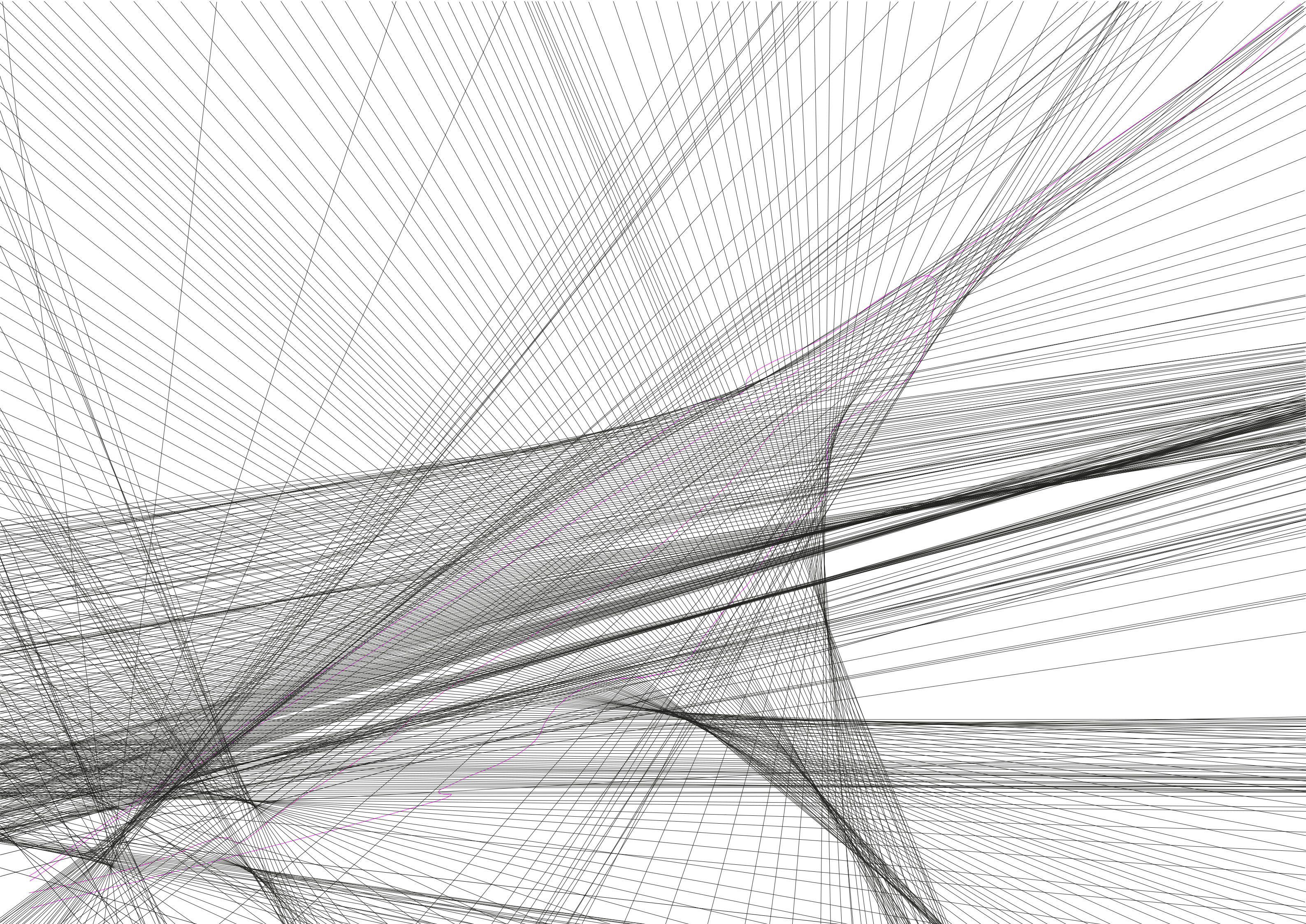




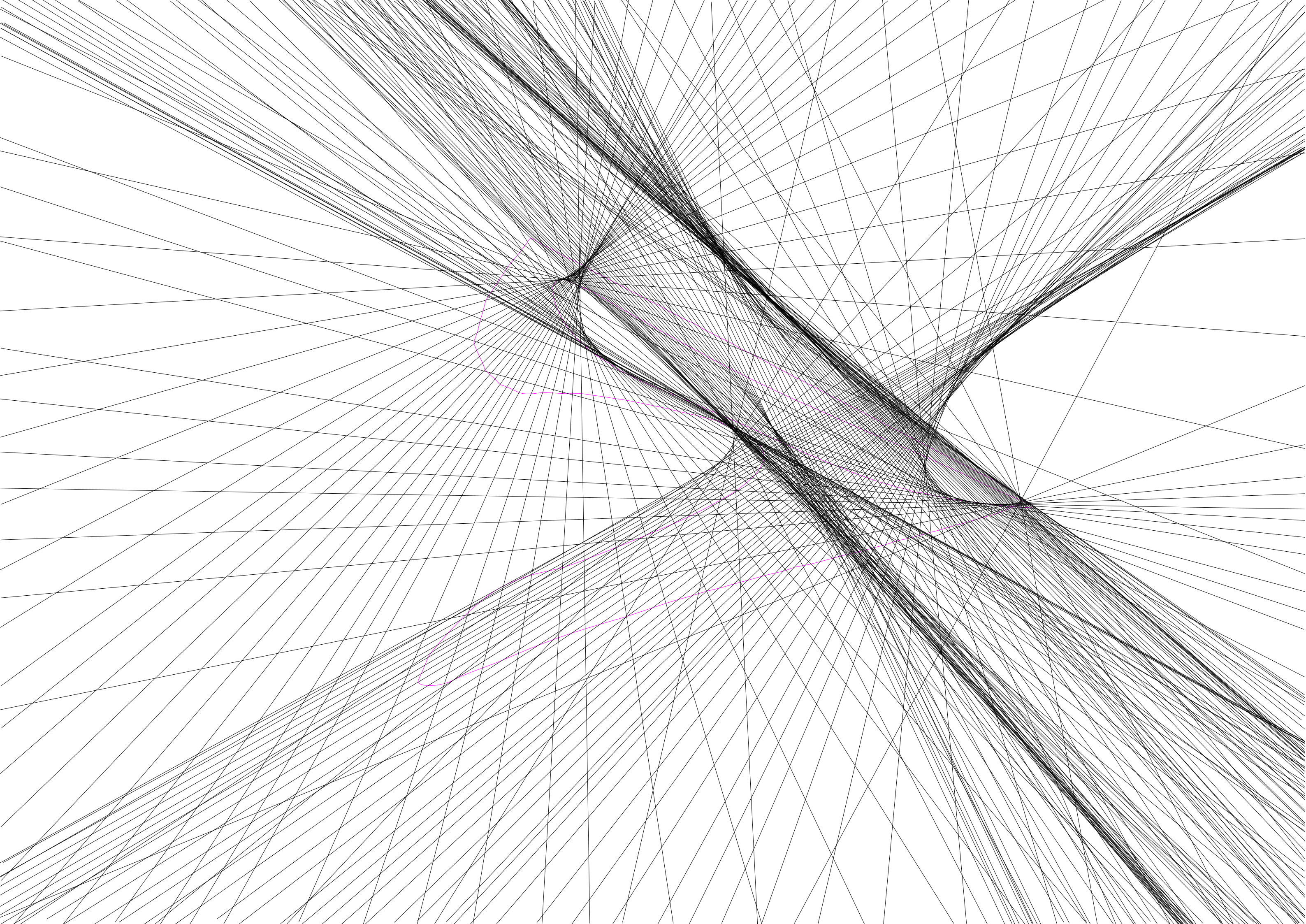




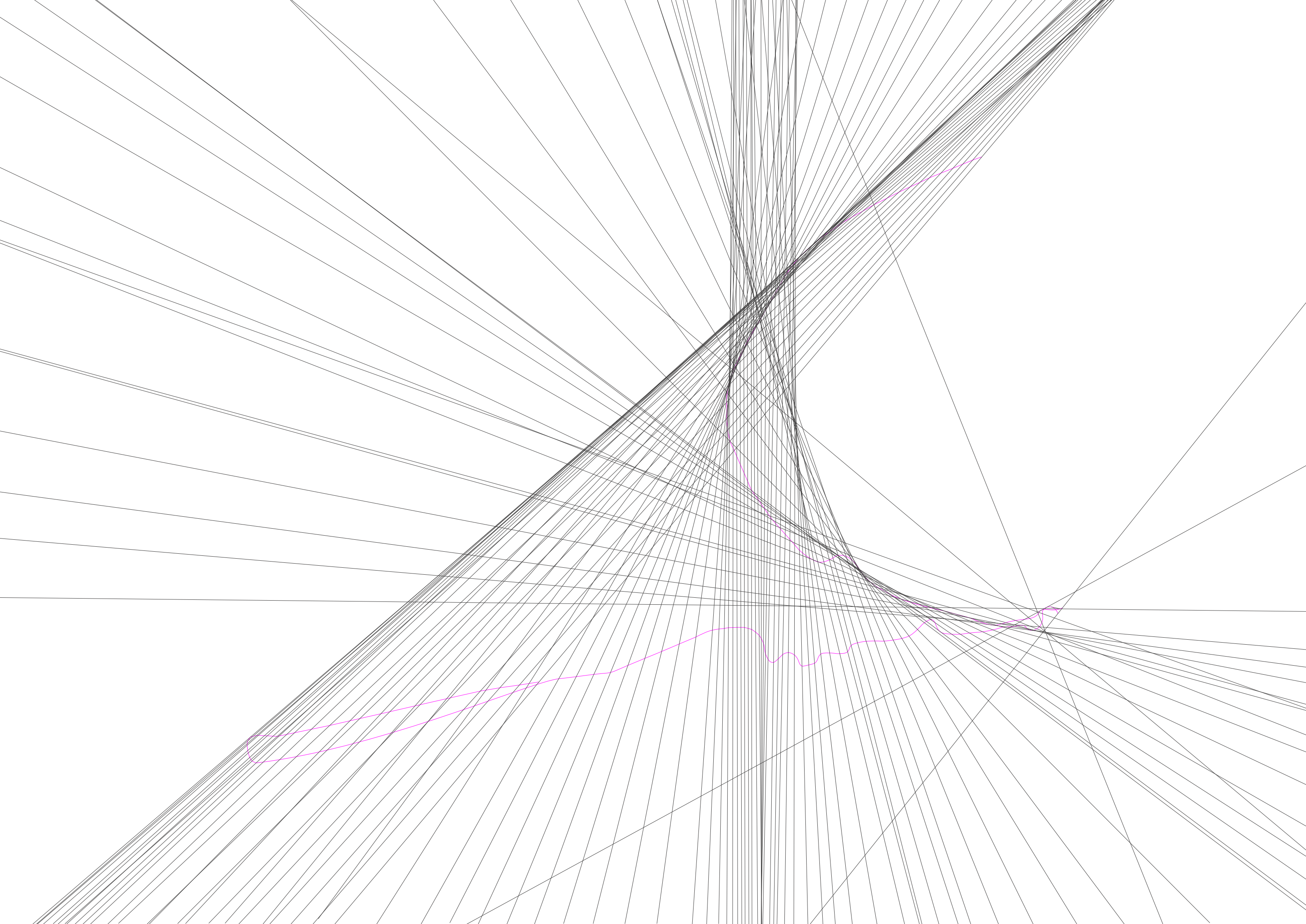










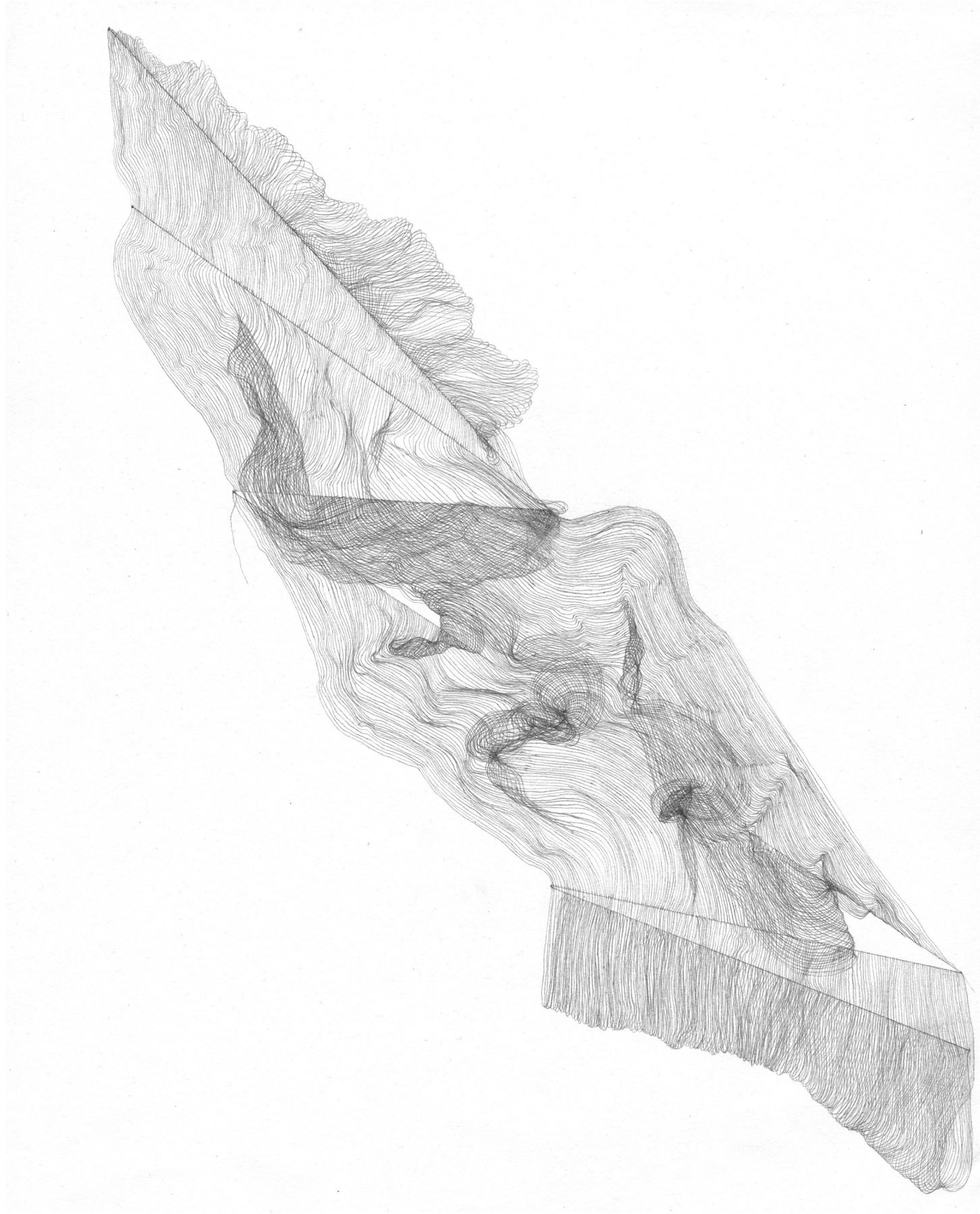






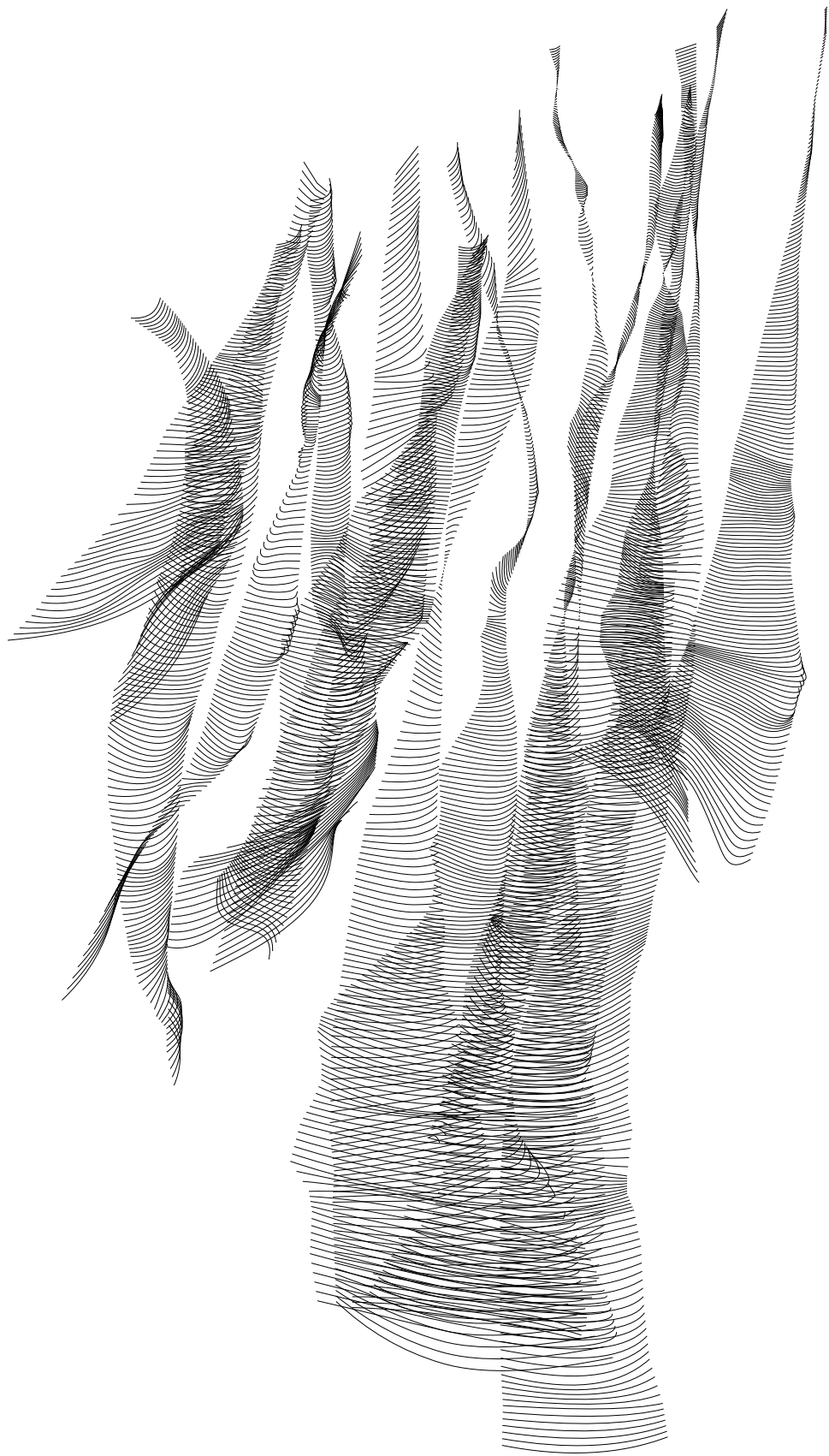
TESTING WIND RESPONSES TOWARDS FABRIC MODEL



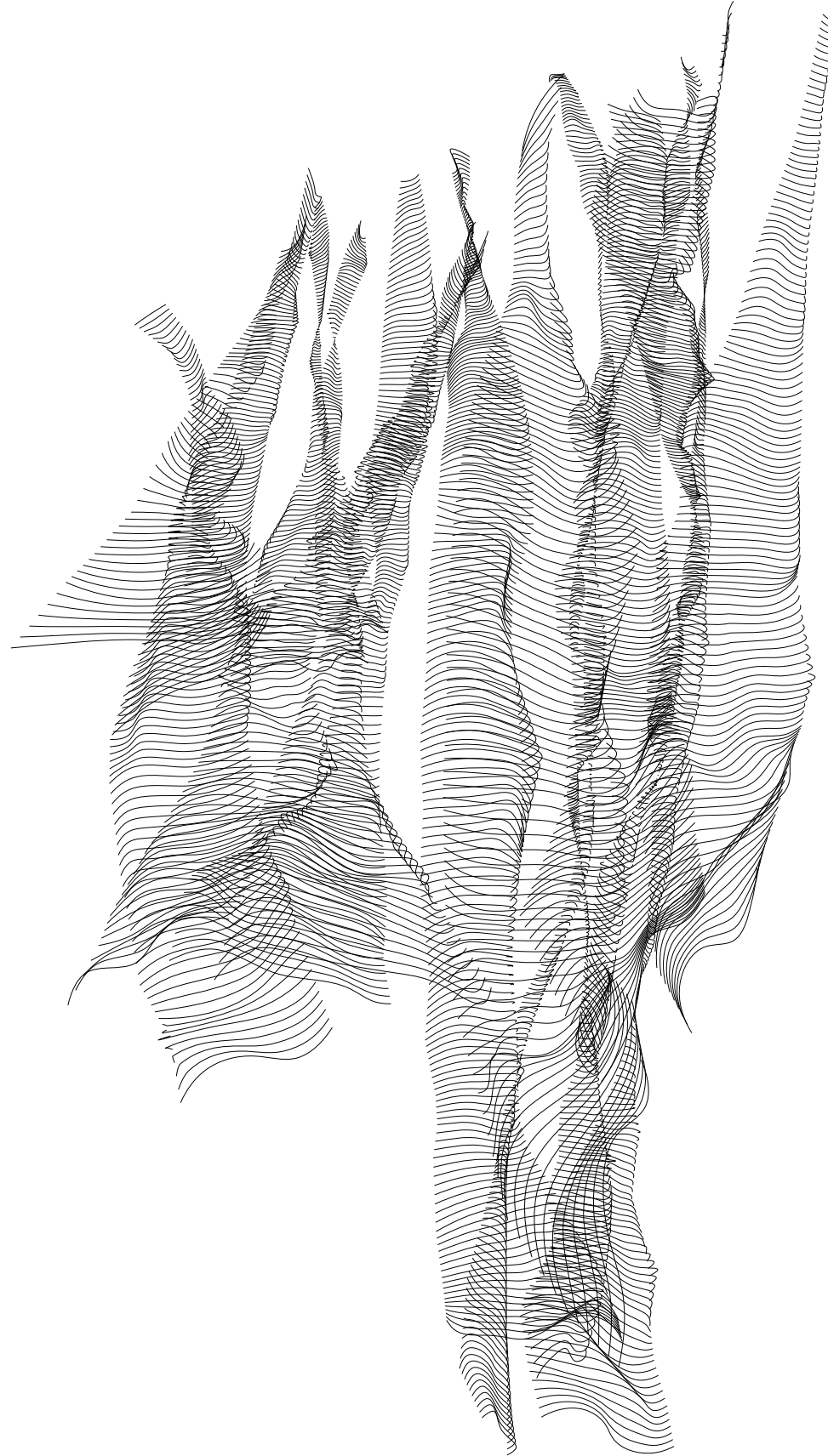


FABRIC'S FEEDBACK FROM WIND'S FORCES: PLAN, HAND DRAWING

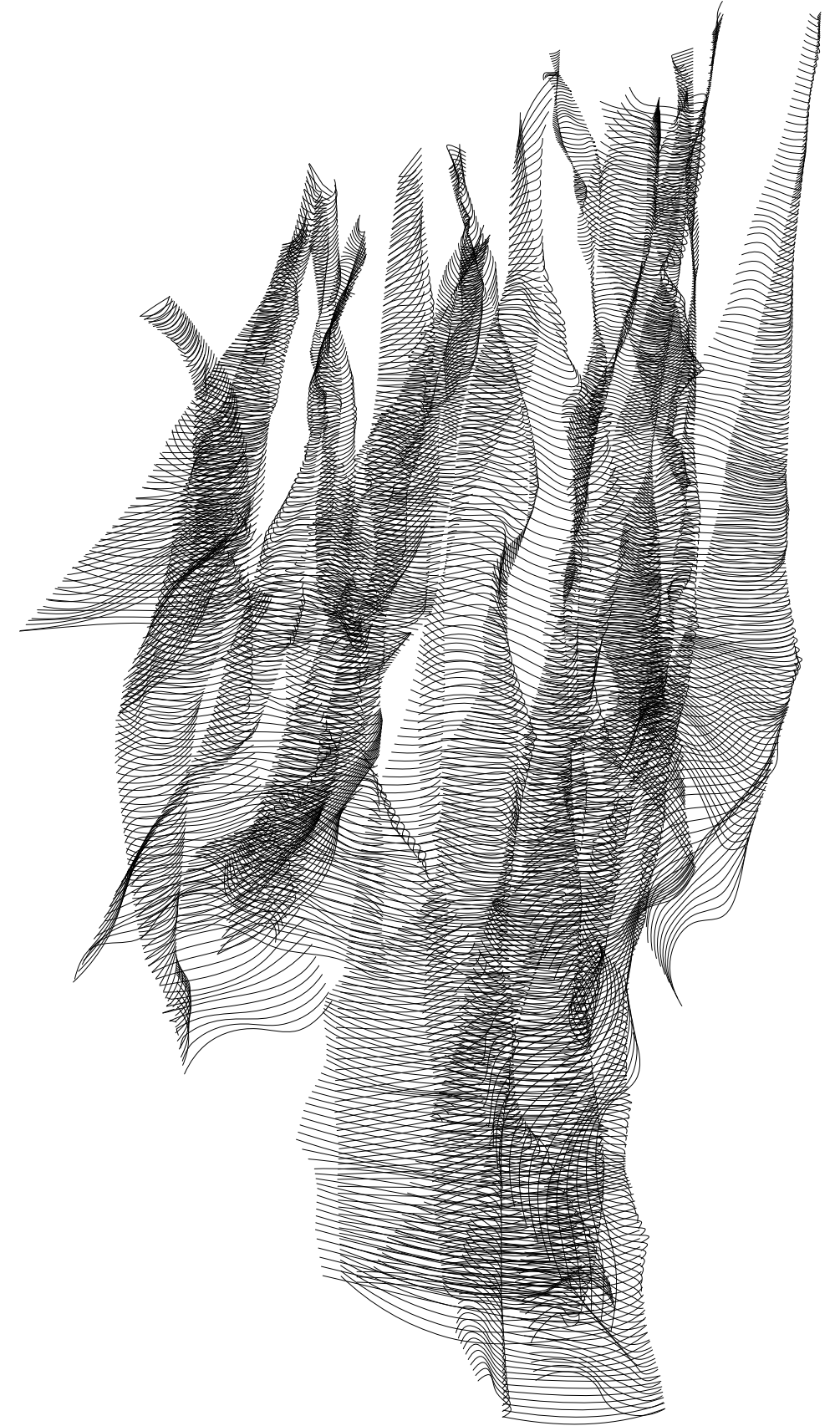




The space in Between from stage 1 to stage 2



The space in Between from stage 2 to stage 3



The space in Between from stage 1 to stage 2 to satge 3



EDUCATION = LEAD OUT



‘The word “education” comes from the root e from ex, out, and duco, I lead. It means a leading out. To me education is a leading out of what is already there in the pupil’s soul.’

Claire Colebrook: Nomadic Education: Variations on a Theme by Deleuze and Guattari, 35–42



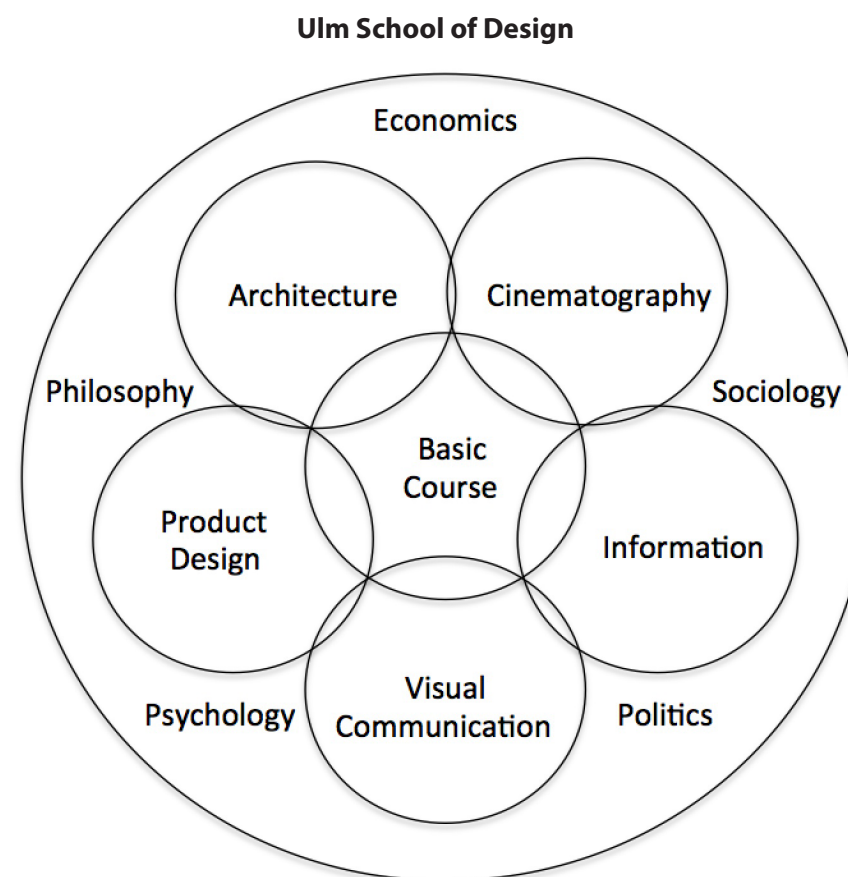
“I think of playgrounds as a  
primer of shapes and functions;  
simple, mysterious, and evocative; thus educational.”

-Isamu Noguchi

### Experiments in Environment (The Halprin Workshops)



Driftwood Village. Courtesy Lawrence Halprin Collection



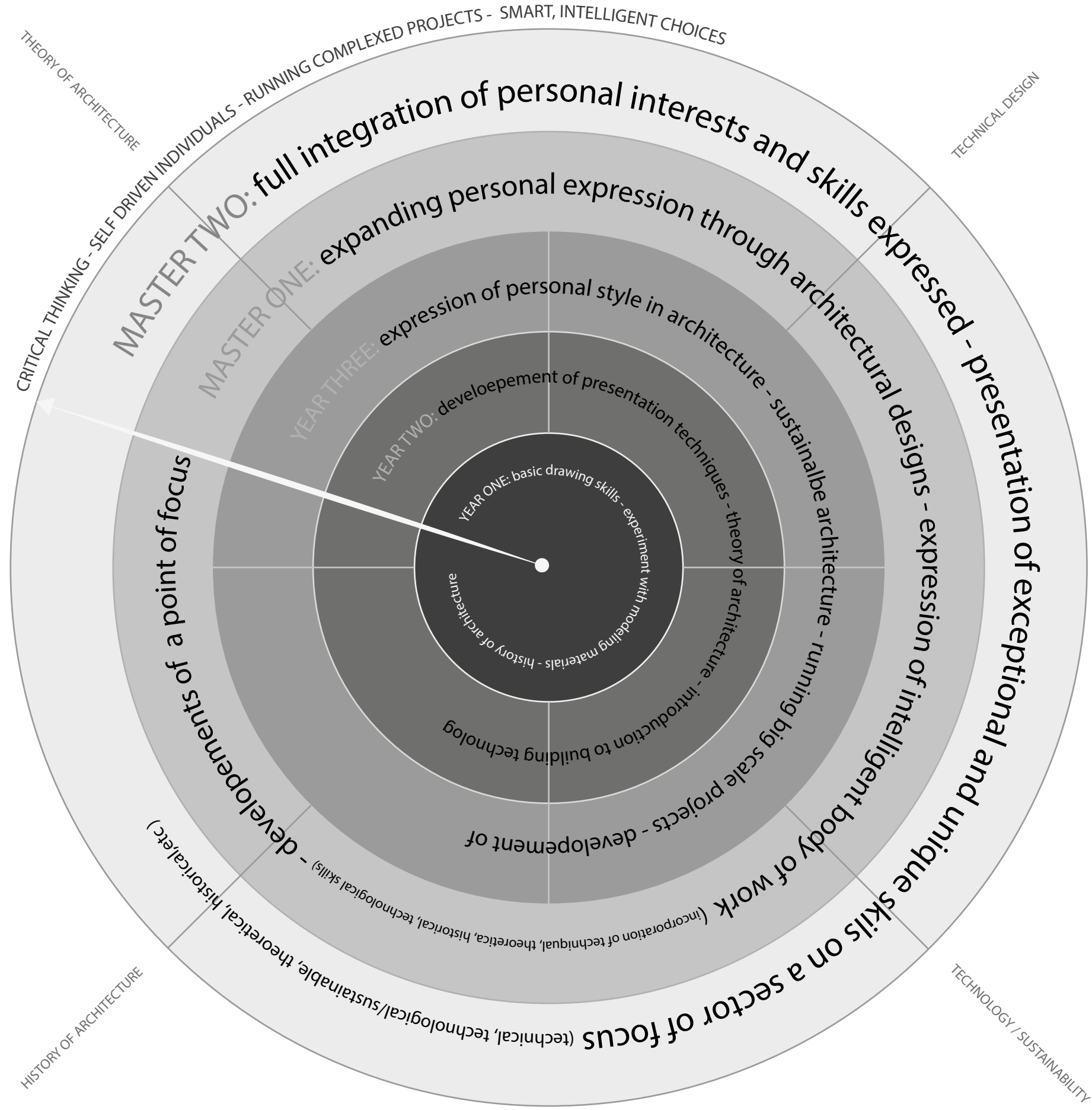
Computational approaches in architecture emerging analogical ways of computational design thinking

### Black Mountain Collage

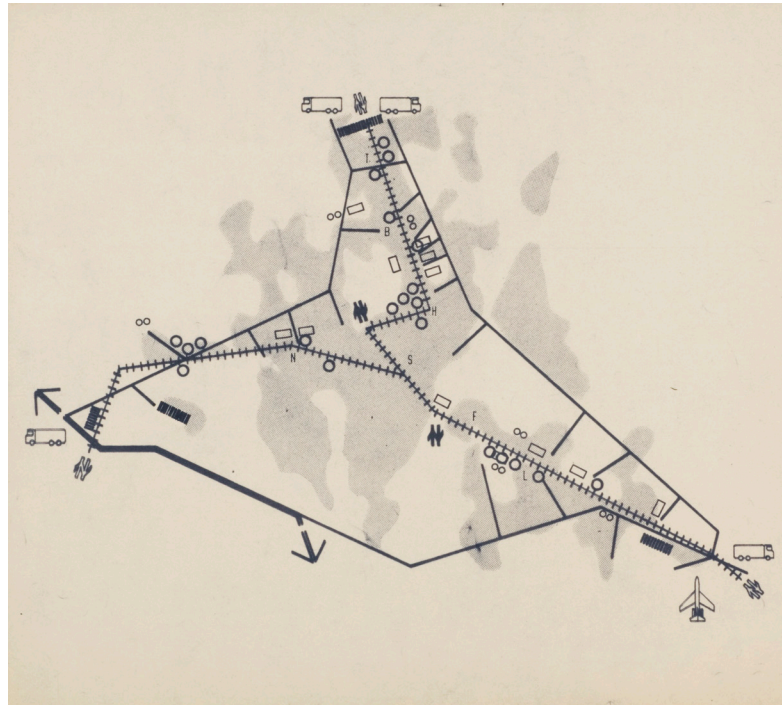


Kenneth Snelson, Buckminster Fuller (center) and students hanging from a geodesic dome

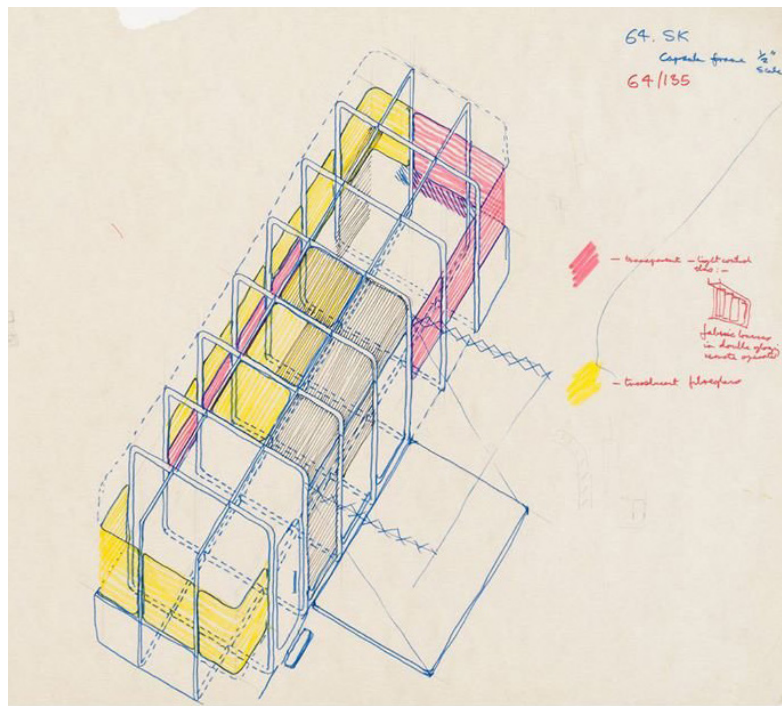








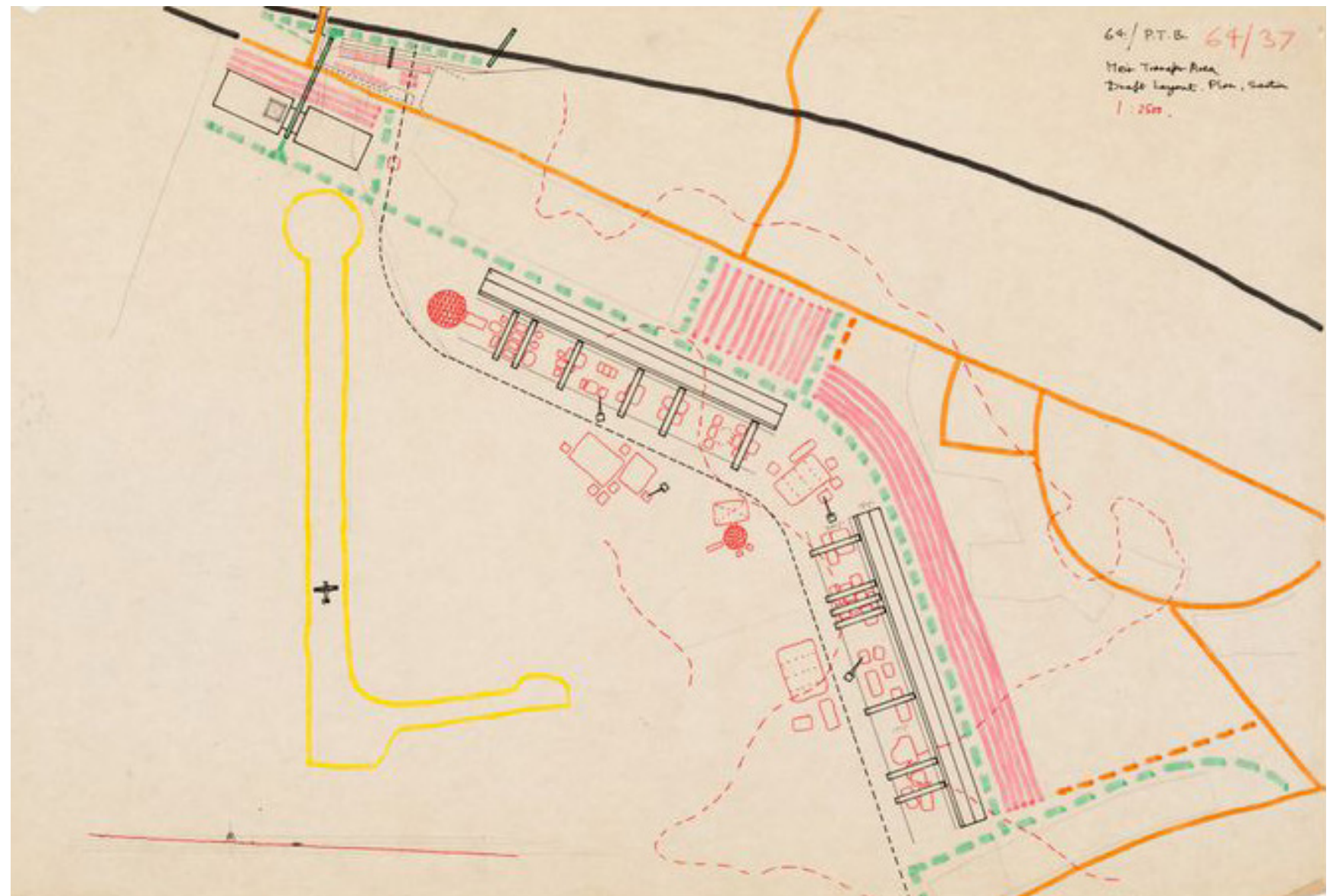
Relationship between University and the region  
The roles and responsibilities of universities within their wider social settings



Running railbuses

'While students are at present, one of the most mobile social groups of technologically advanced societies, the nature of their own particular production plants – schools, colleges and universities, is static, intro-spective, parochial, inflexible and not very useful'

Cendric Price 1970  
Quotation from 'The Cedric Price Column', a contribution to Archigram, Issue 9.

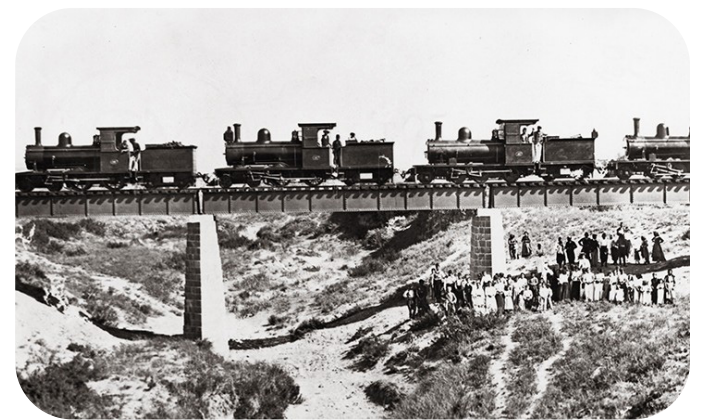
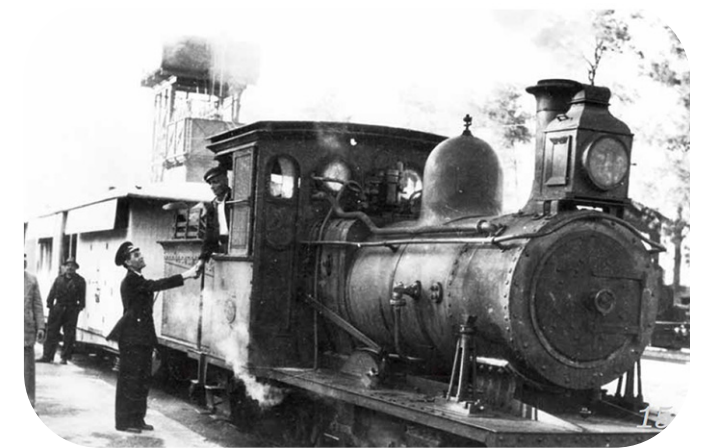
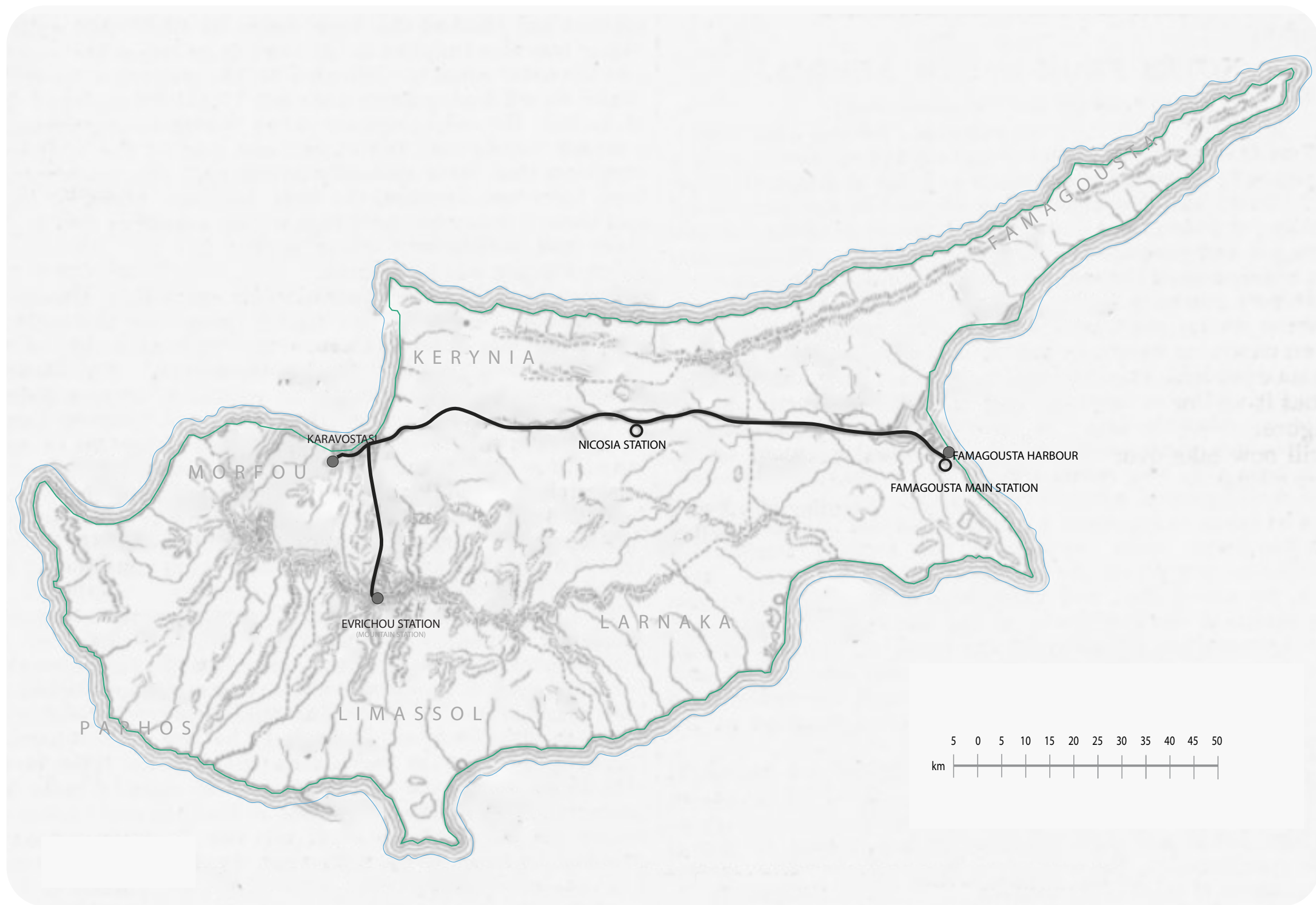


Station and railbuses collection



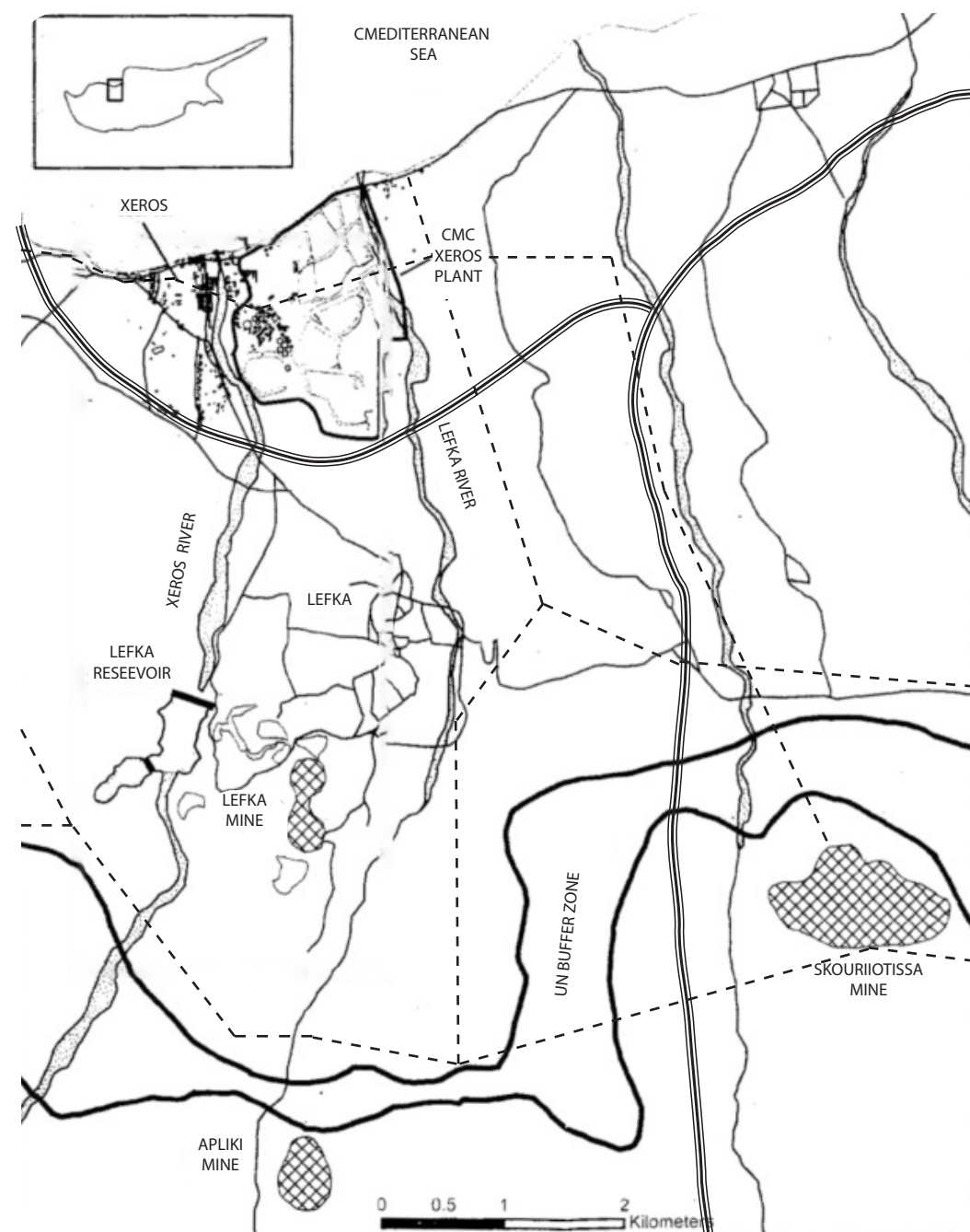
## PLACEMENT AND DESIGN



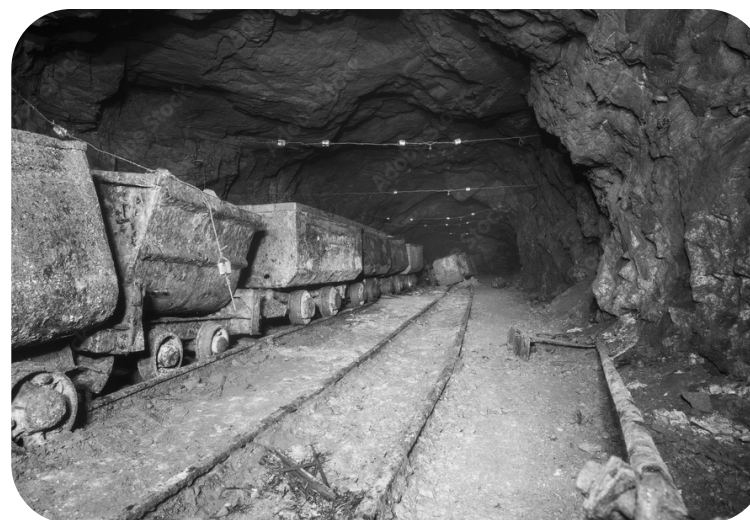


OLD CYPRUS RAILWAY MAP





=== RAILWAY  
 --- UNDERGROUND MINING RAILS  
 [Hatched] MINES

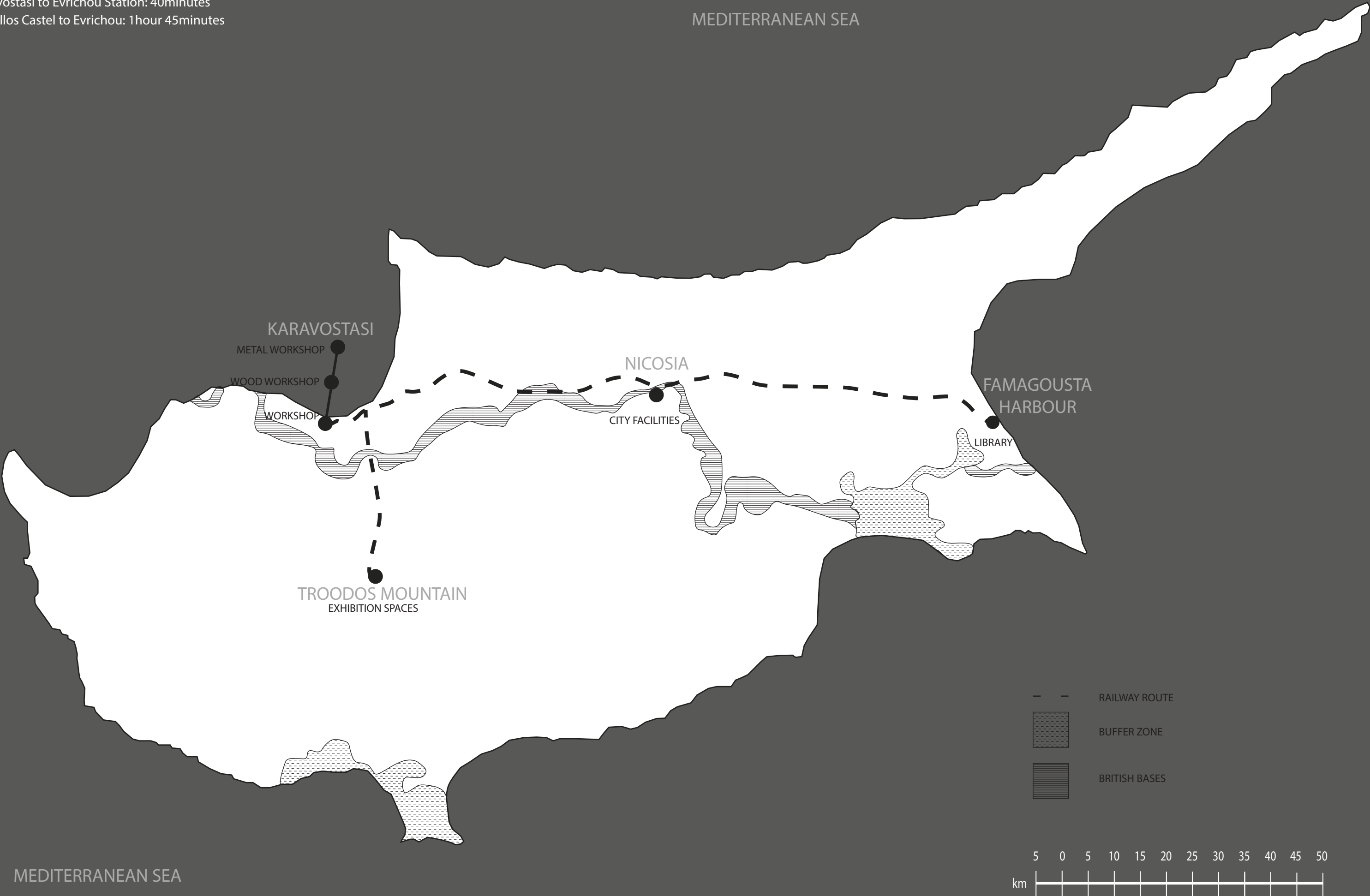


RAILWAY FROM MINES TO HARBOURS

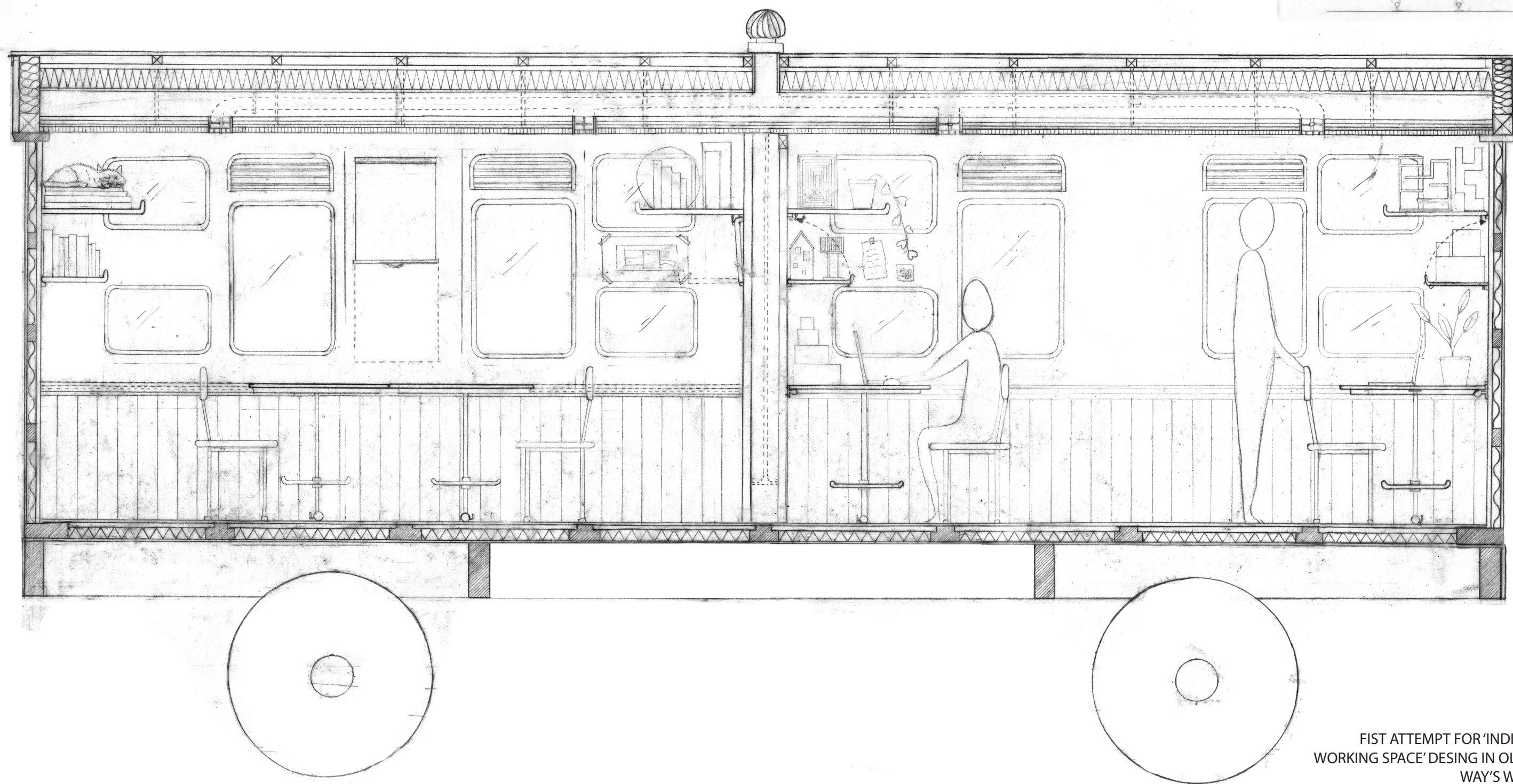


TIME NEEDED FOR TRAVELLING BETWEEN STATIONS  
Othellos Castle to Karavostasi: 2 hours  
Karavostasi to Evrichou Station: 40minutes  
Othellos Castel to Evrichou: 1hour 45minutes

MEDITERRANEAN SEA







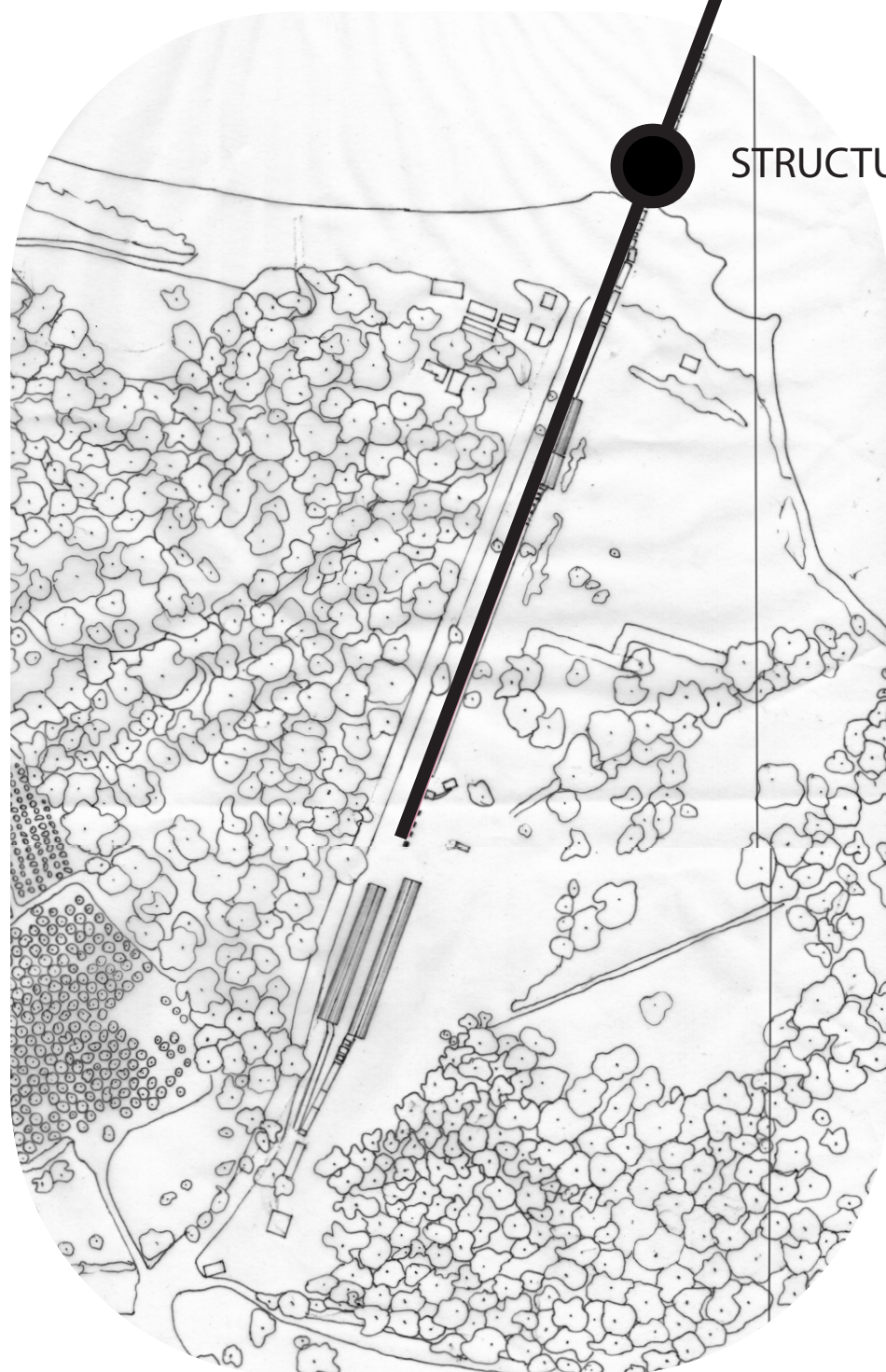
FIST ATTEMPT FOR 'INDIVIDUAL  
WORKING SPACE' DESING IN OLD RAIL-  
WAY'S WAGONS  
SECTION  
scale 1:50





KARAVOSTASI SITE MAP





STRUCTURE 2

STRUCTURE 1

STRUCTURE 3

## STRUCTURES' PROGRAM

### 1: GENERAL WORKSHOP

3D PRINTING  
MODELING SPACE  
PHOTOROOM

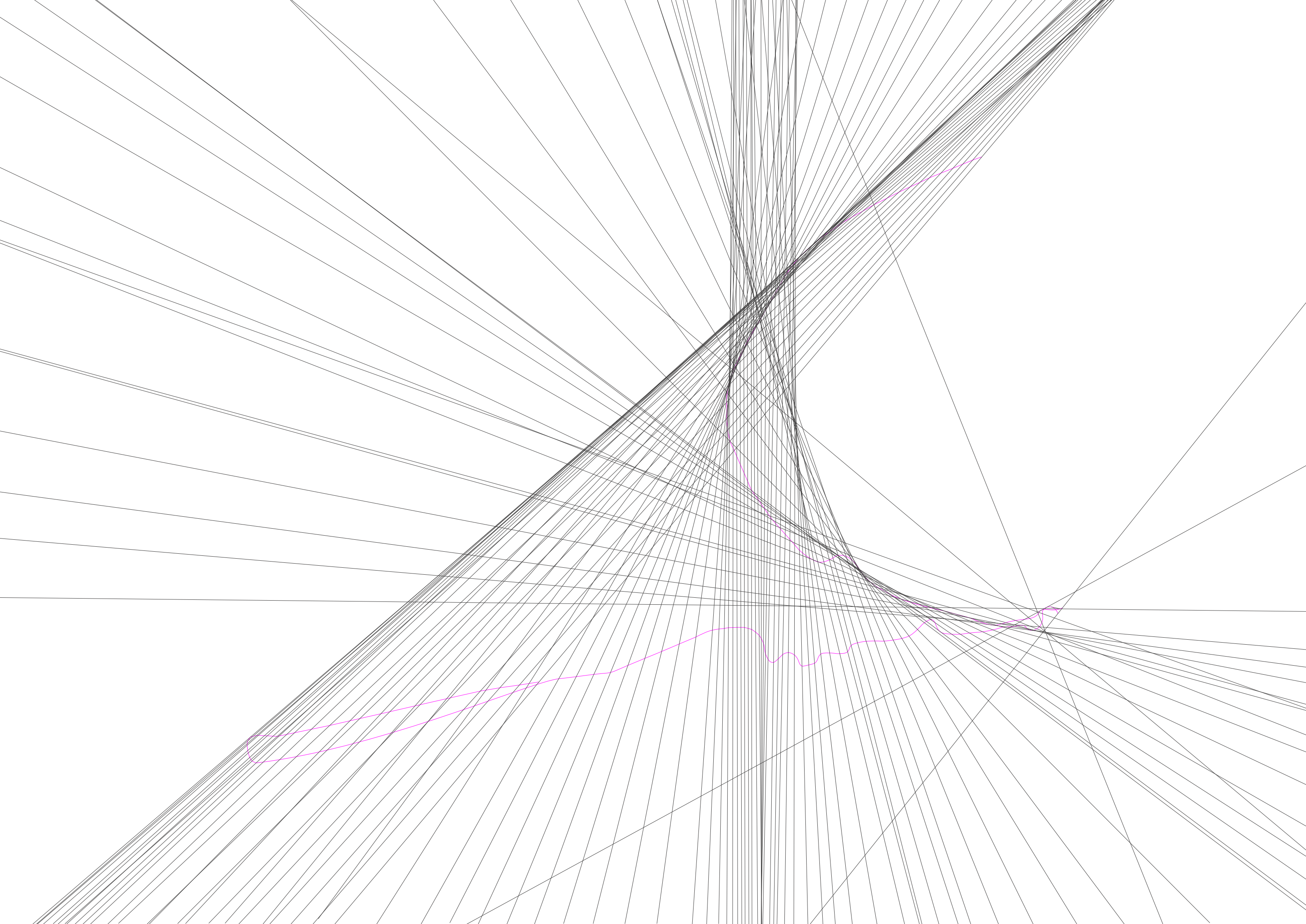
### 2: WOOD WORKSHOP

LIFT  
BIG SPACE

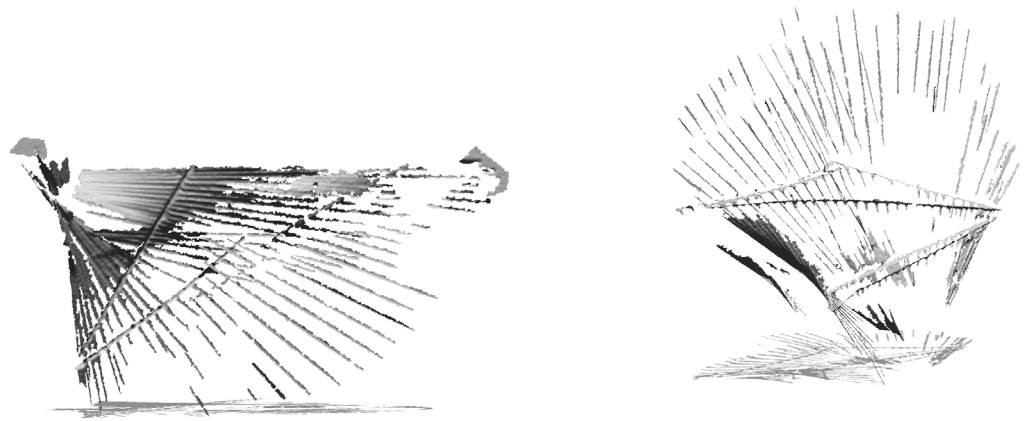
### 3: METAL WORKSHOP

METAL RECYCLING  
LOADING LIFT (CRANE)

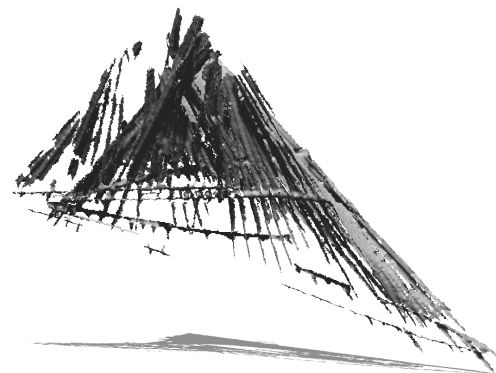
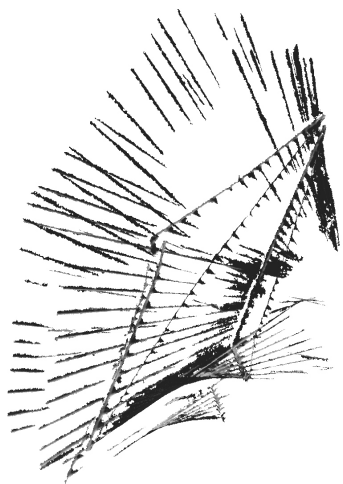




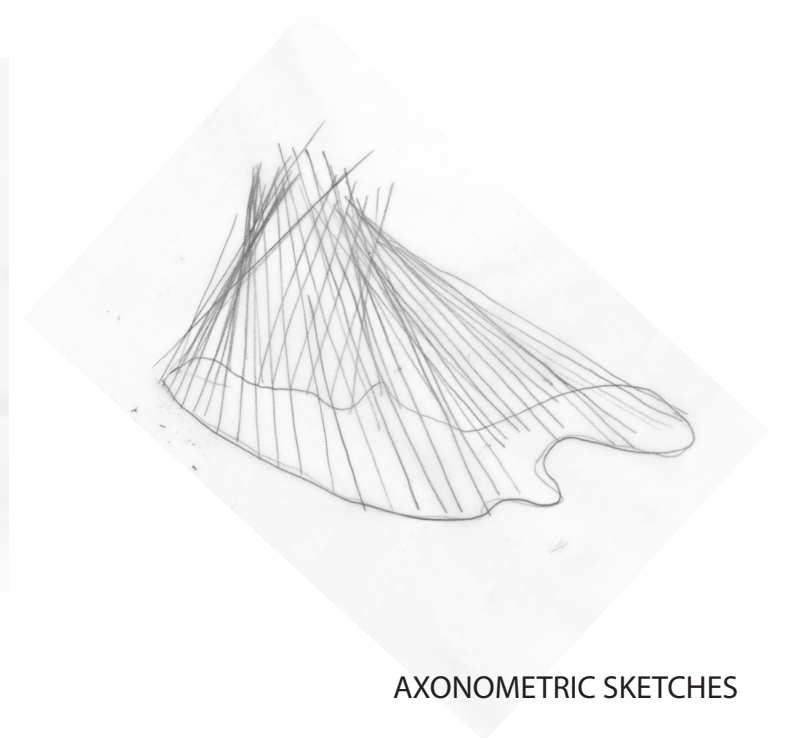
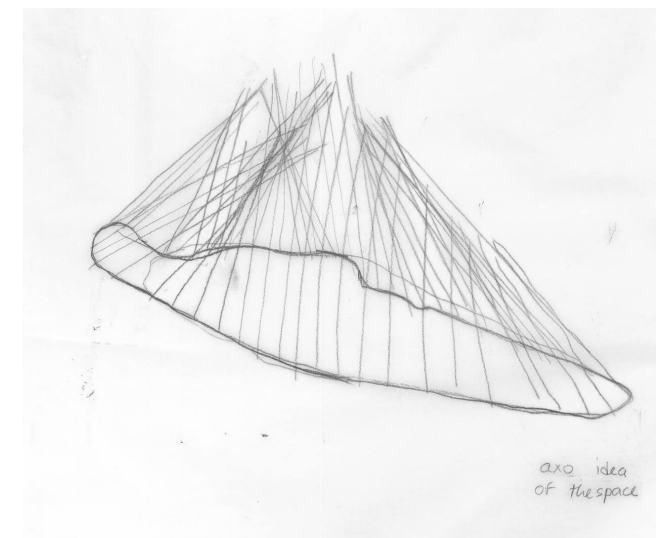




SUN REFLECTION MODELS

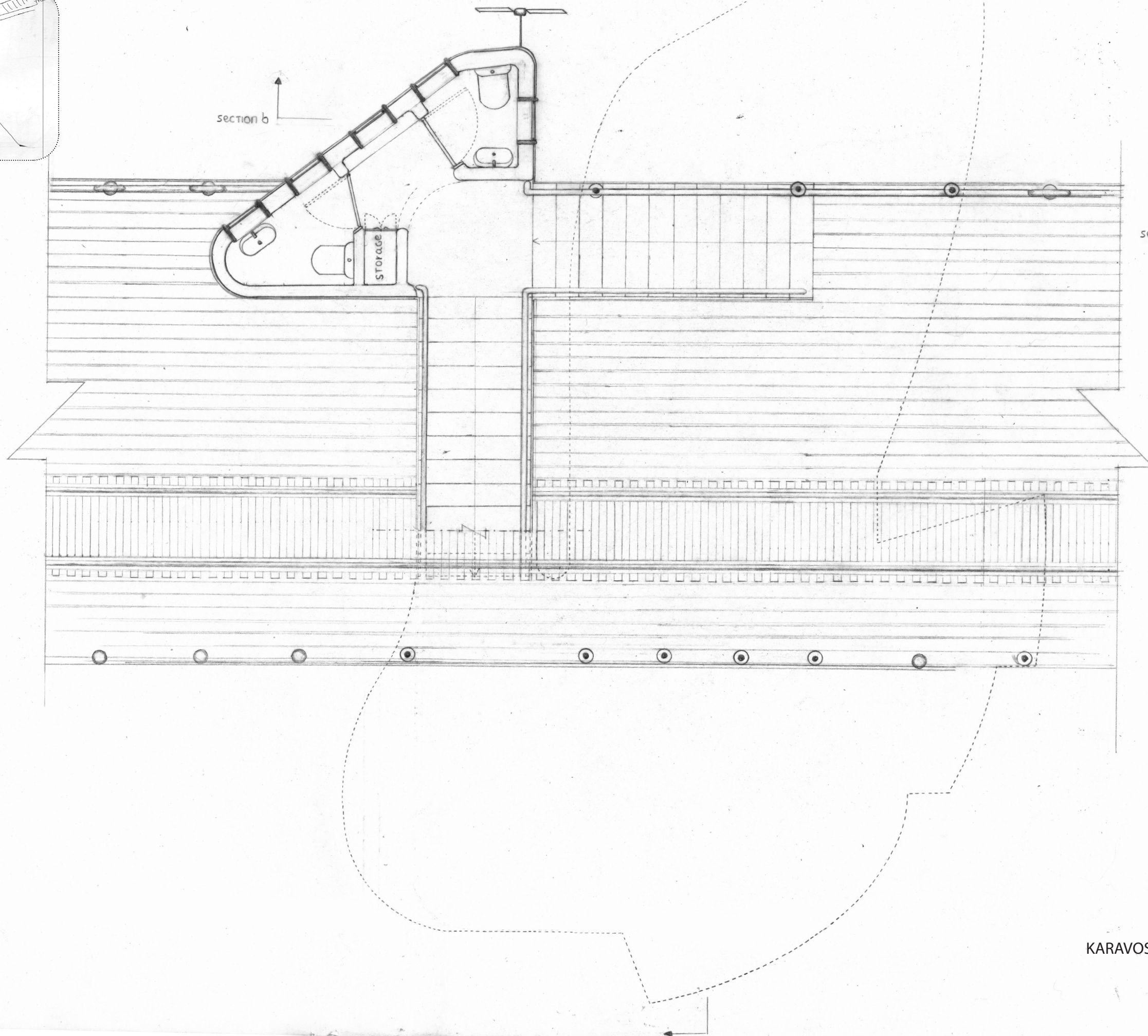
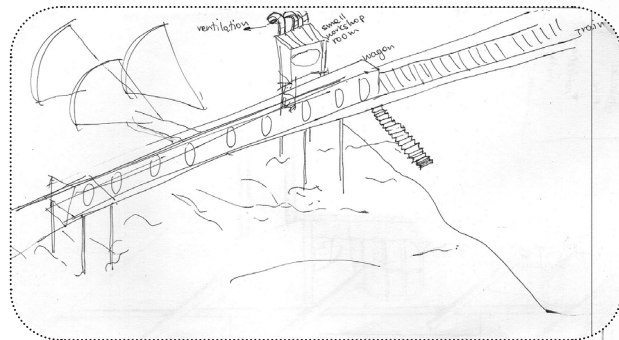


MODEL'S 3D SCANS

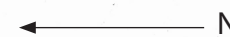


AXONOMETRIC SKETCHES

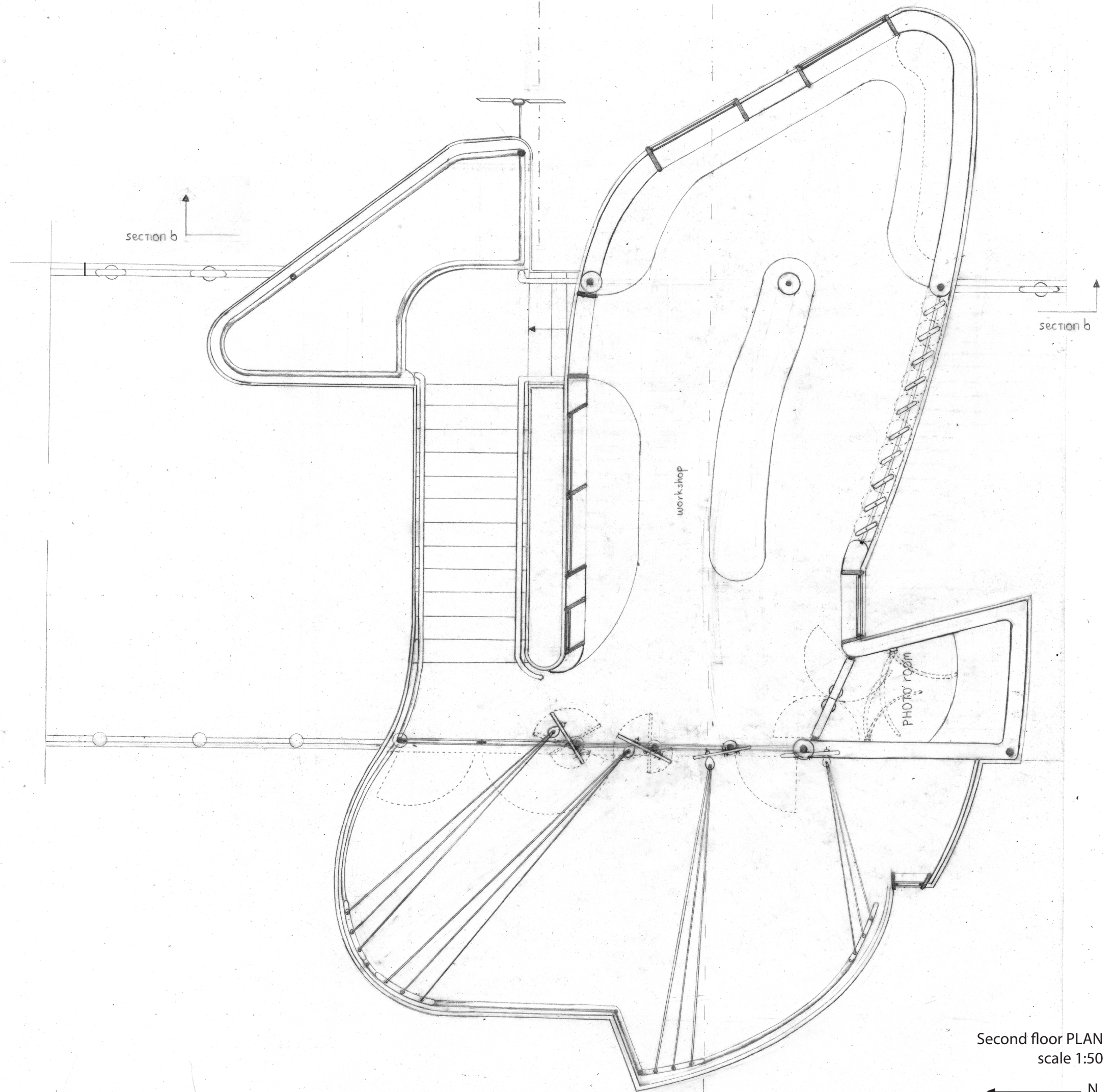
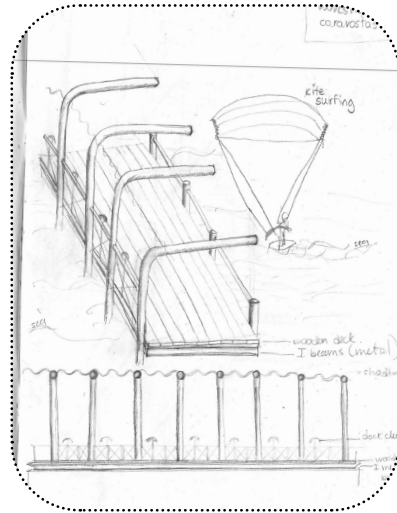




KARAVOSTASI STRUCTURE 1  
First floor PLAN  
scale 1:50



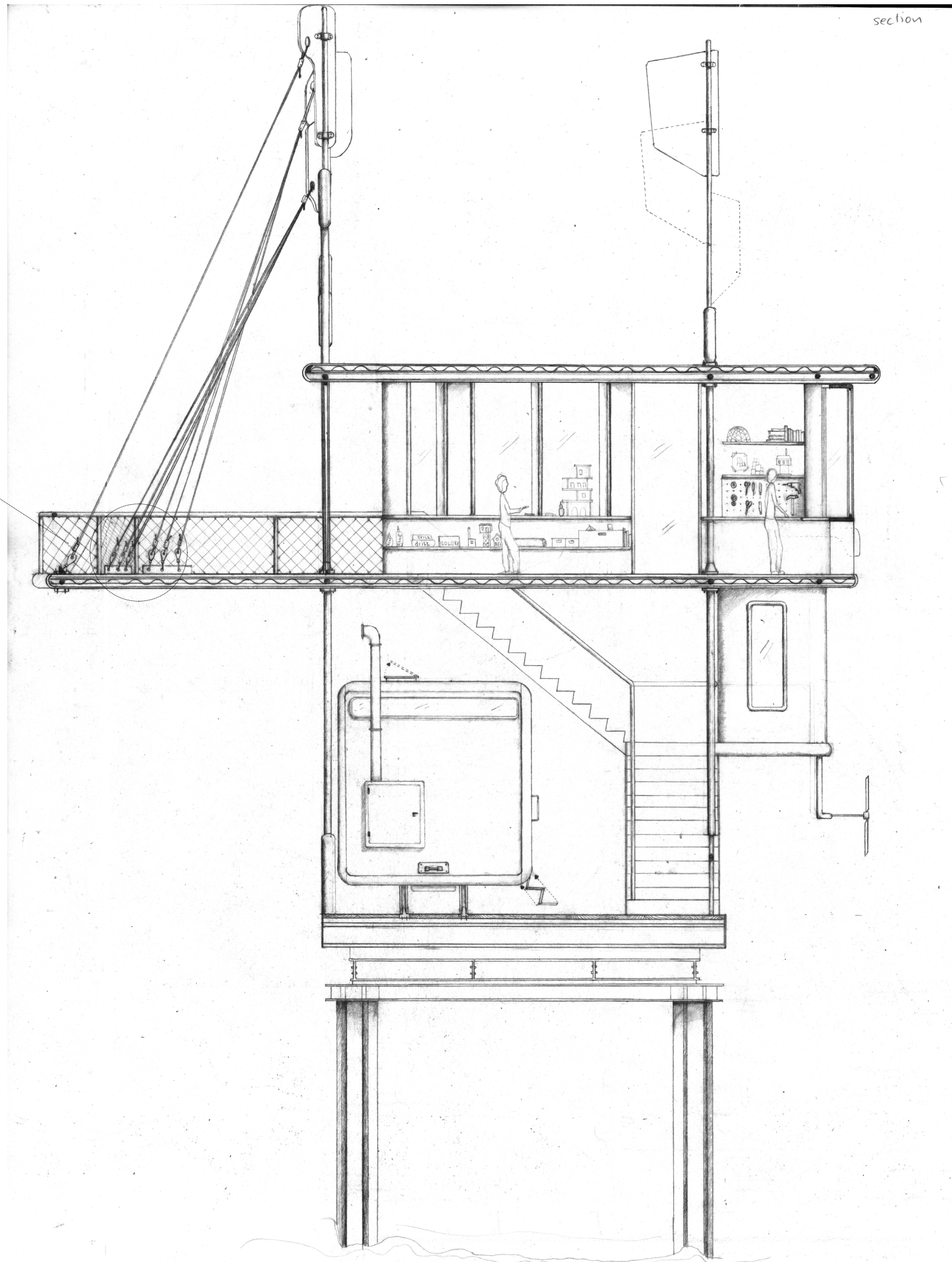
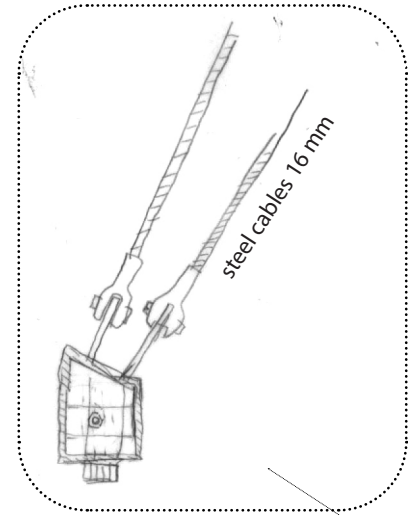




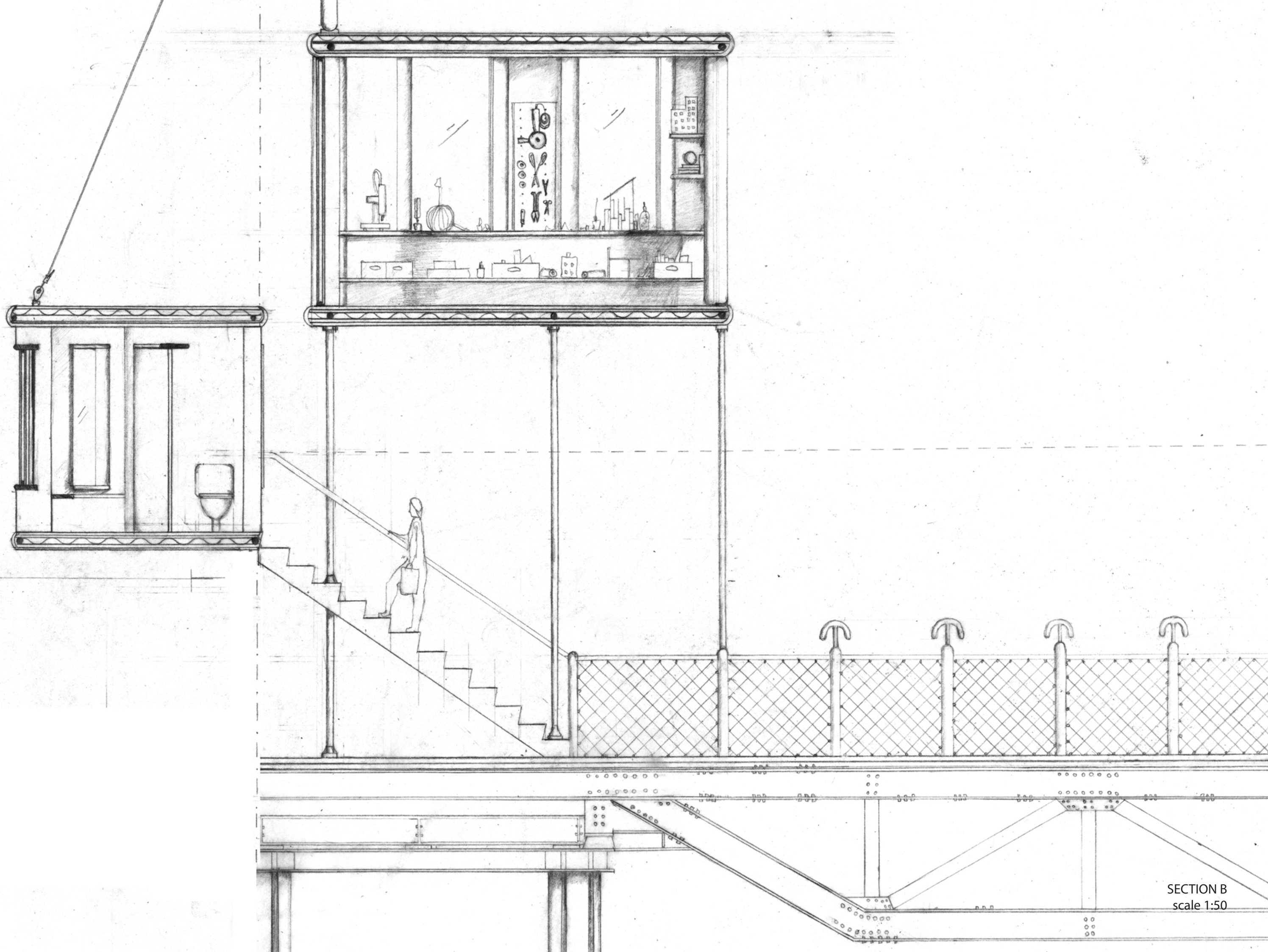
Second floor PLAN  
 scale 1:50





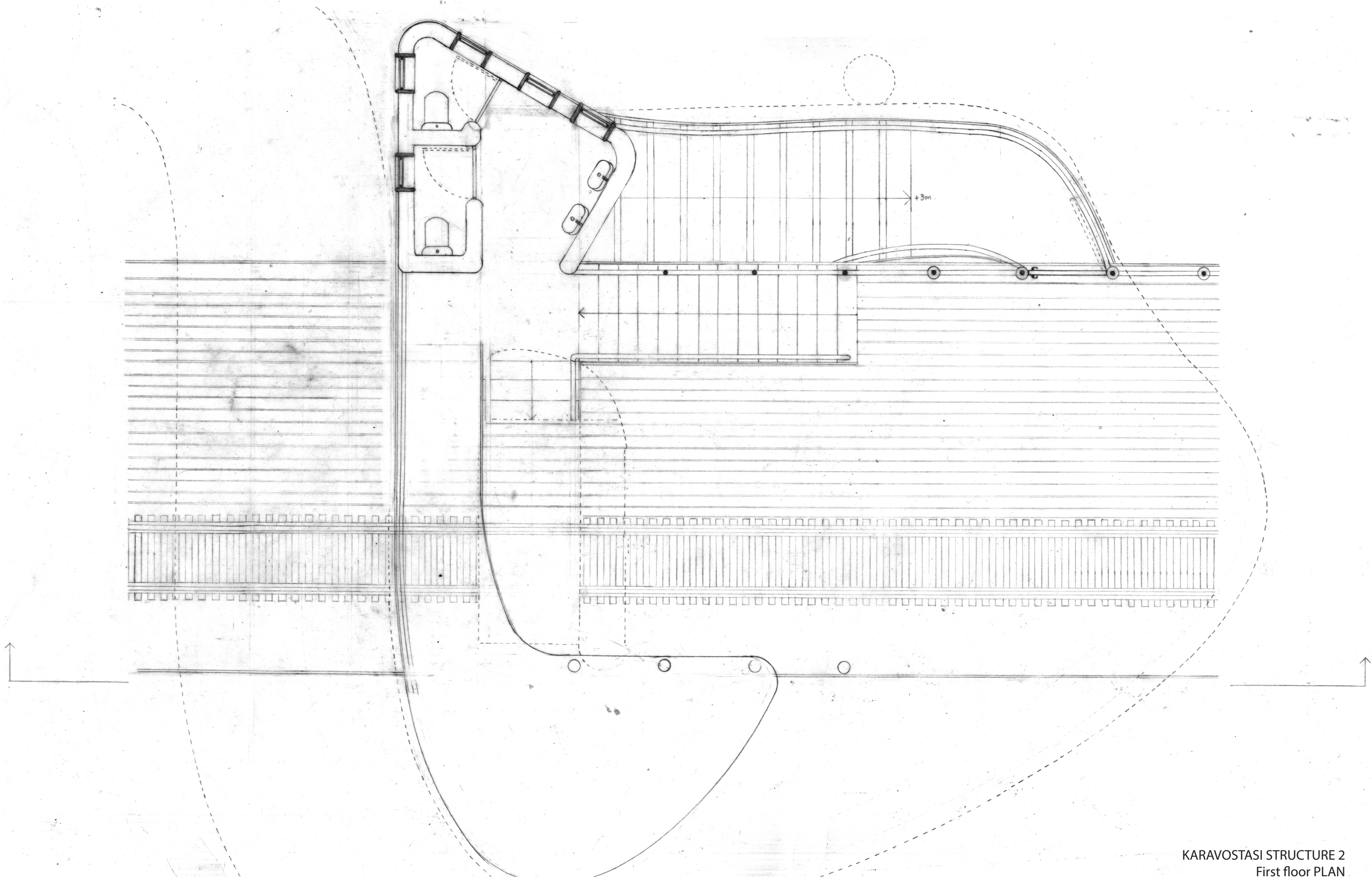






SECTION B  
scale 1:50

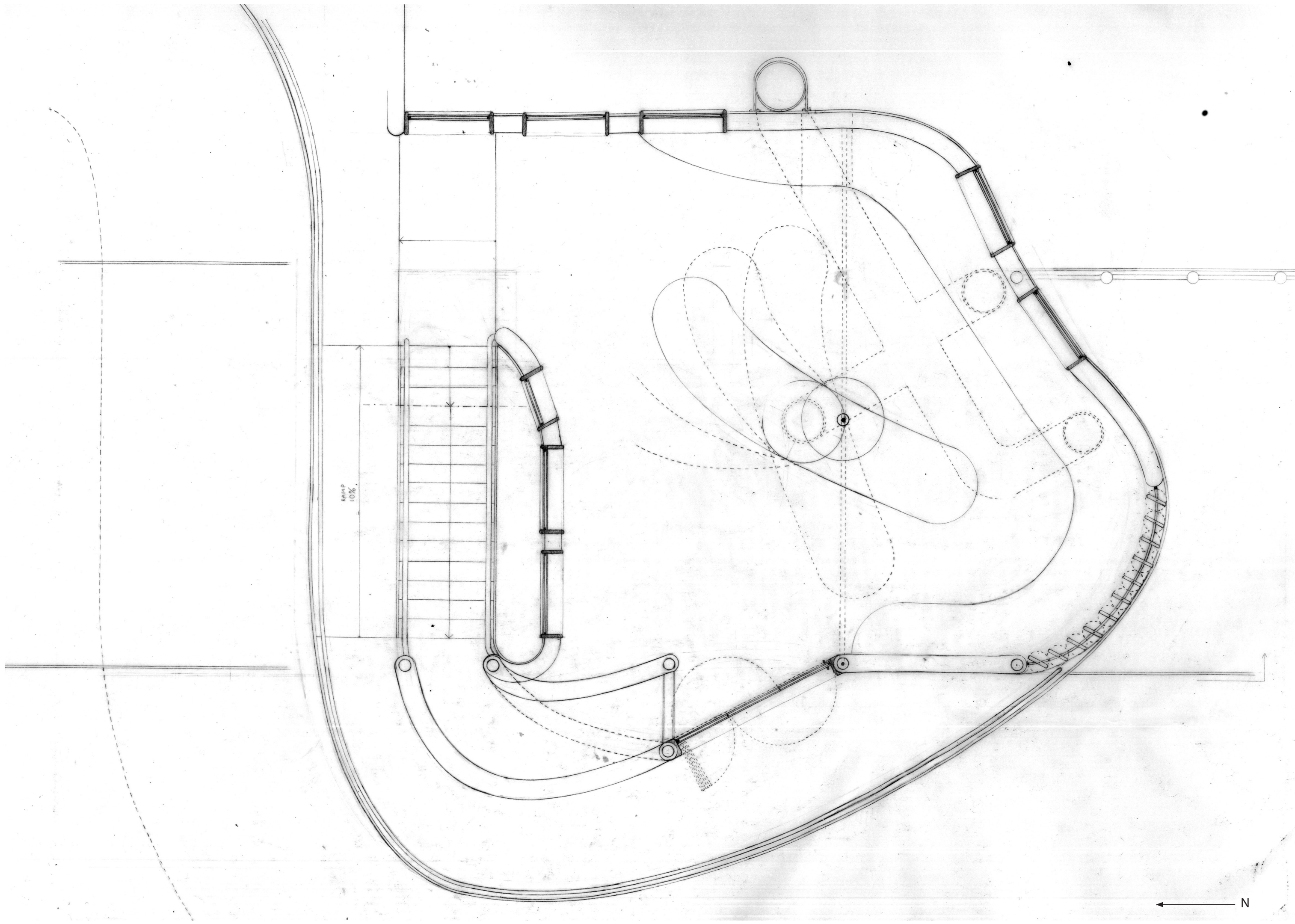




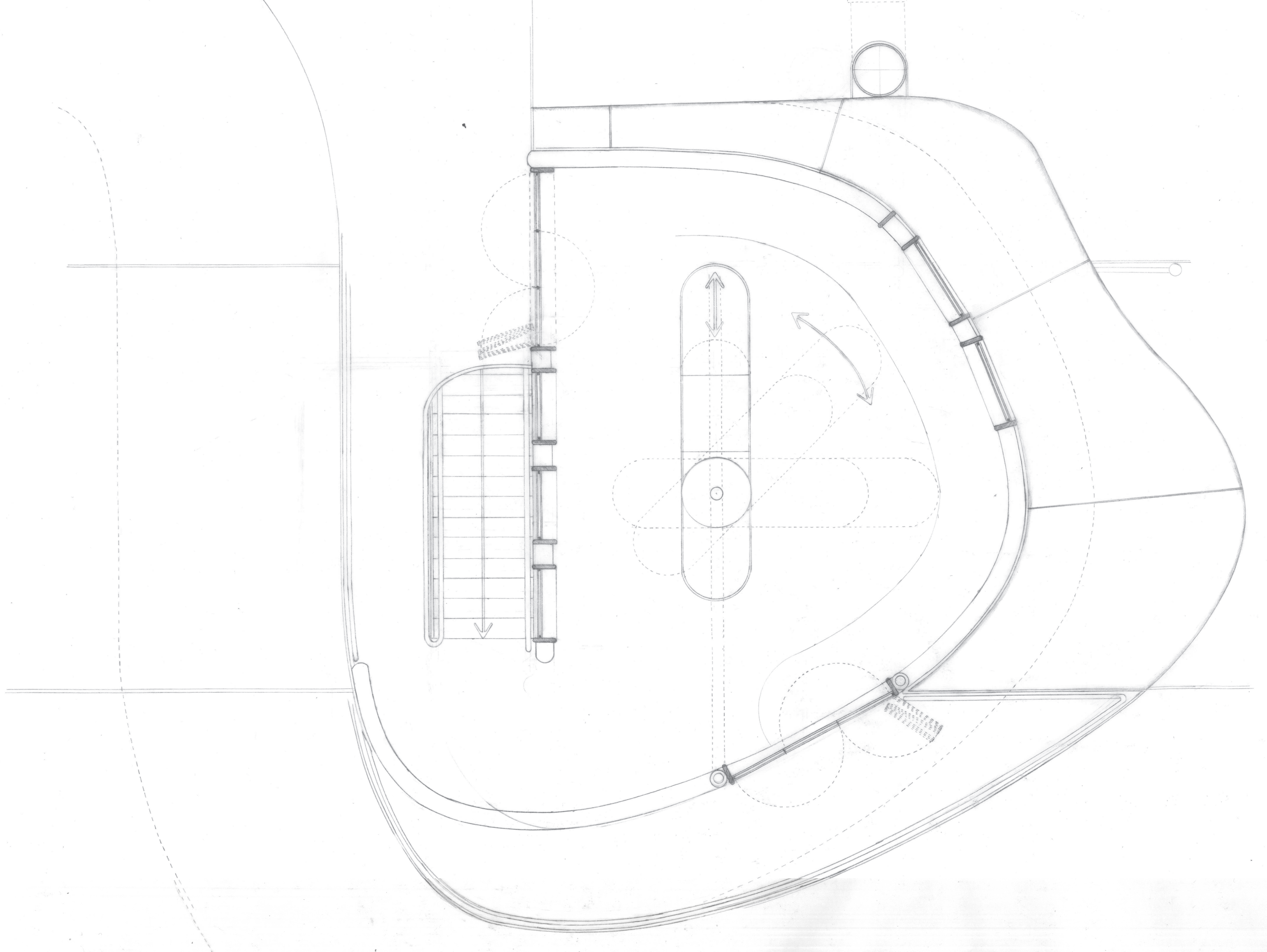
KARAVOSTASI STRUCTURE 2  
First floor PLAN  
scale 1:50

← N

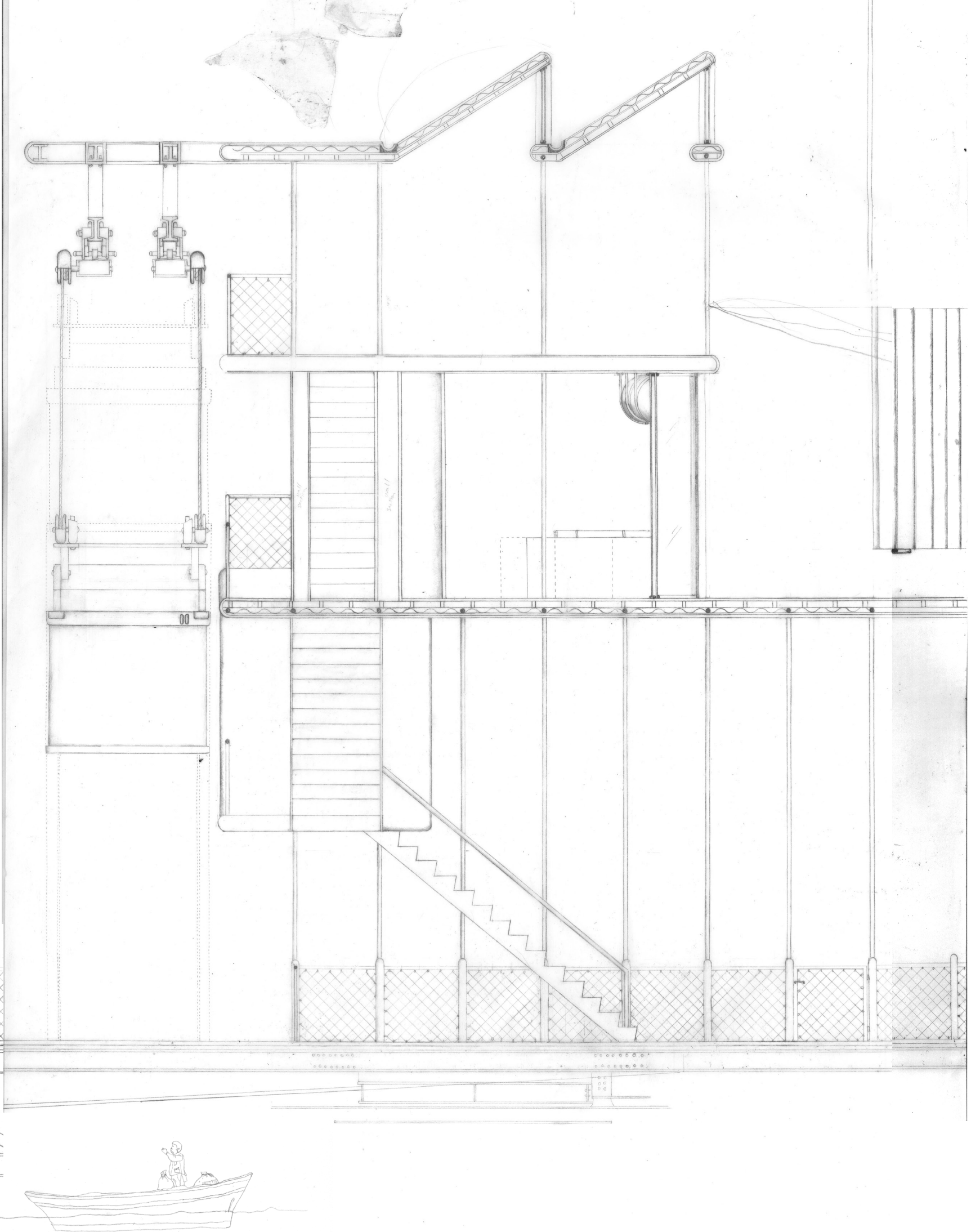
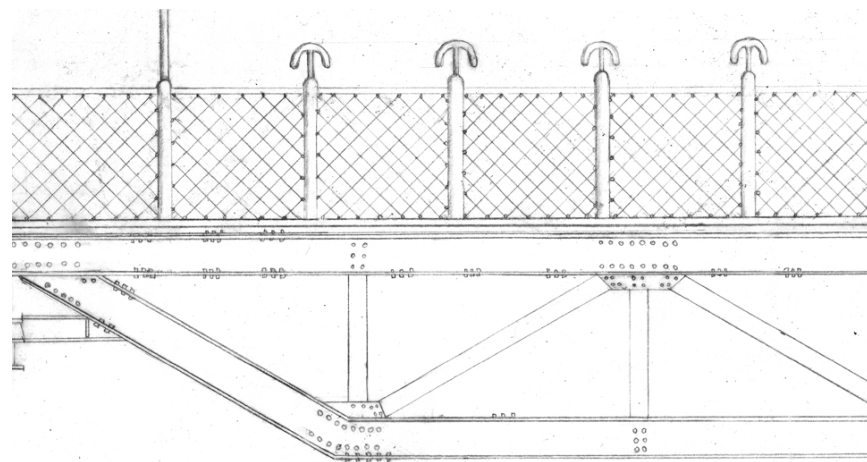
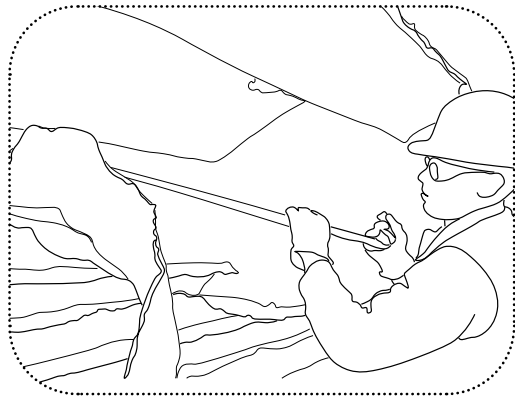








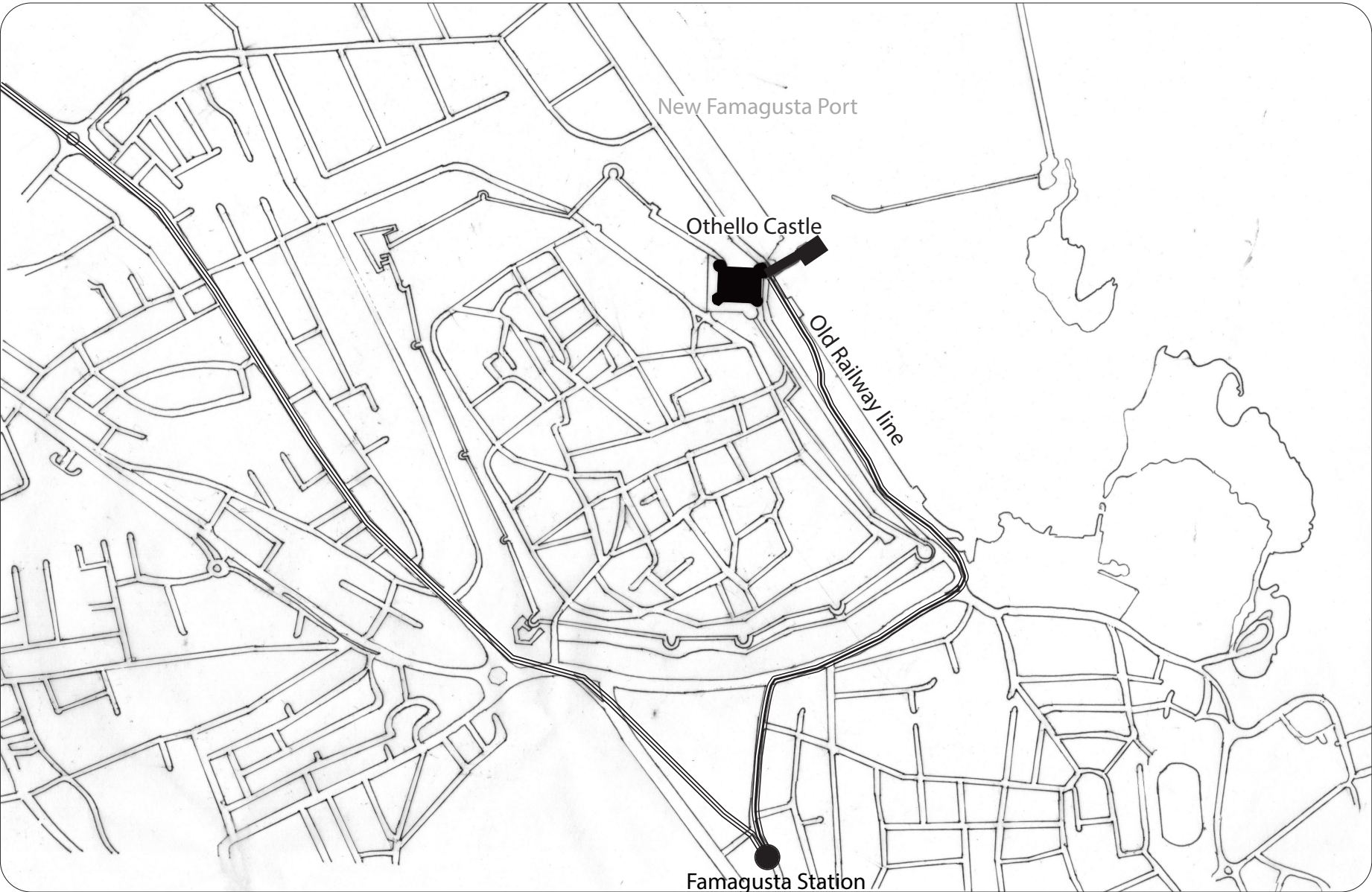








RAILWAY CONNECTING THE OLD HARBOUR



FAMAGOUSTA HARBOUR

FAMAGUSTA SITE MAP







OTHELLO'S CASTLE

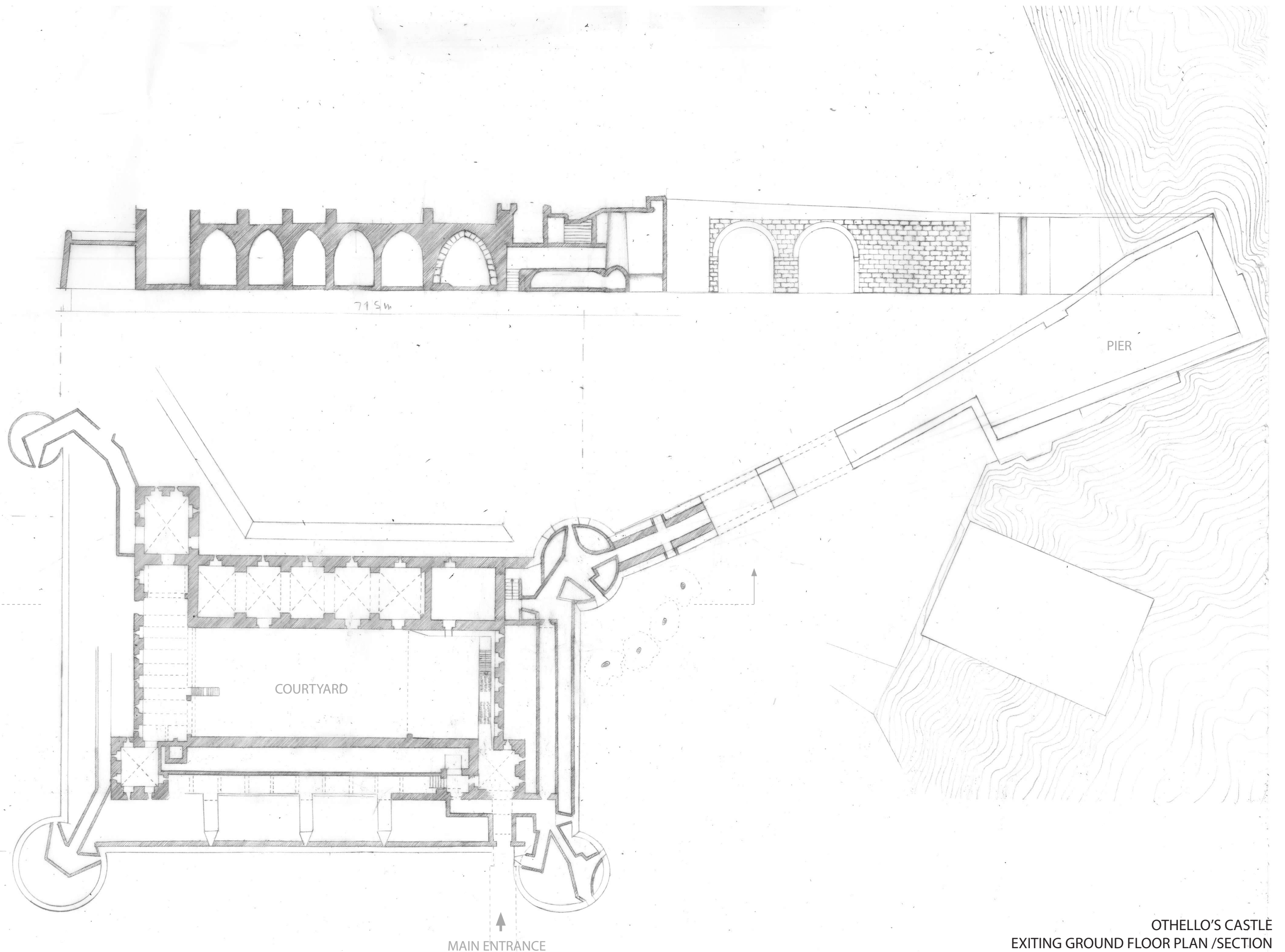


OTHELLO'S PIER

OTHELLO'S CASTLE LOCATION



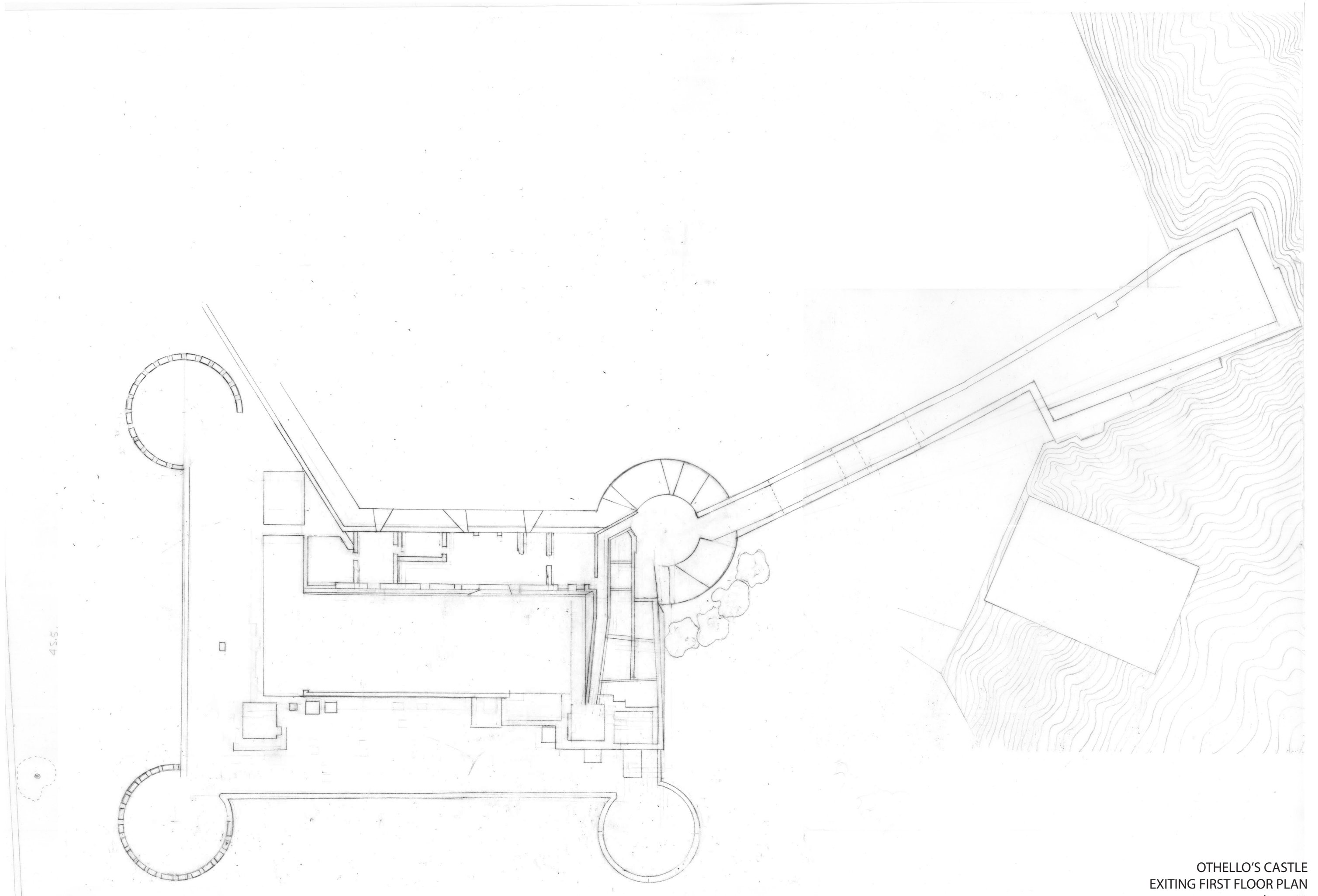




OTHELLO'S CASTLE  
EXISTING GROUND FLOOR PLAN /SECTION  
scale 1:500



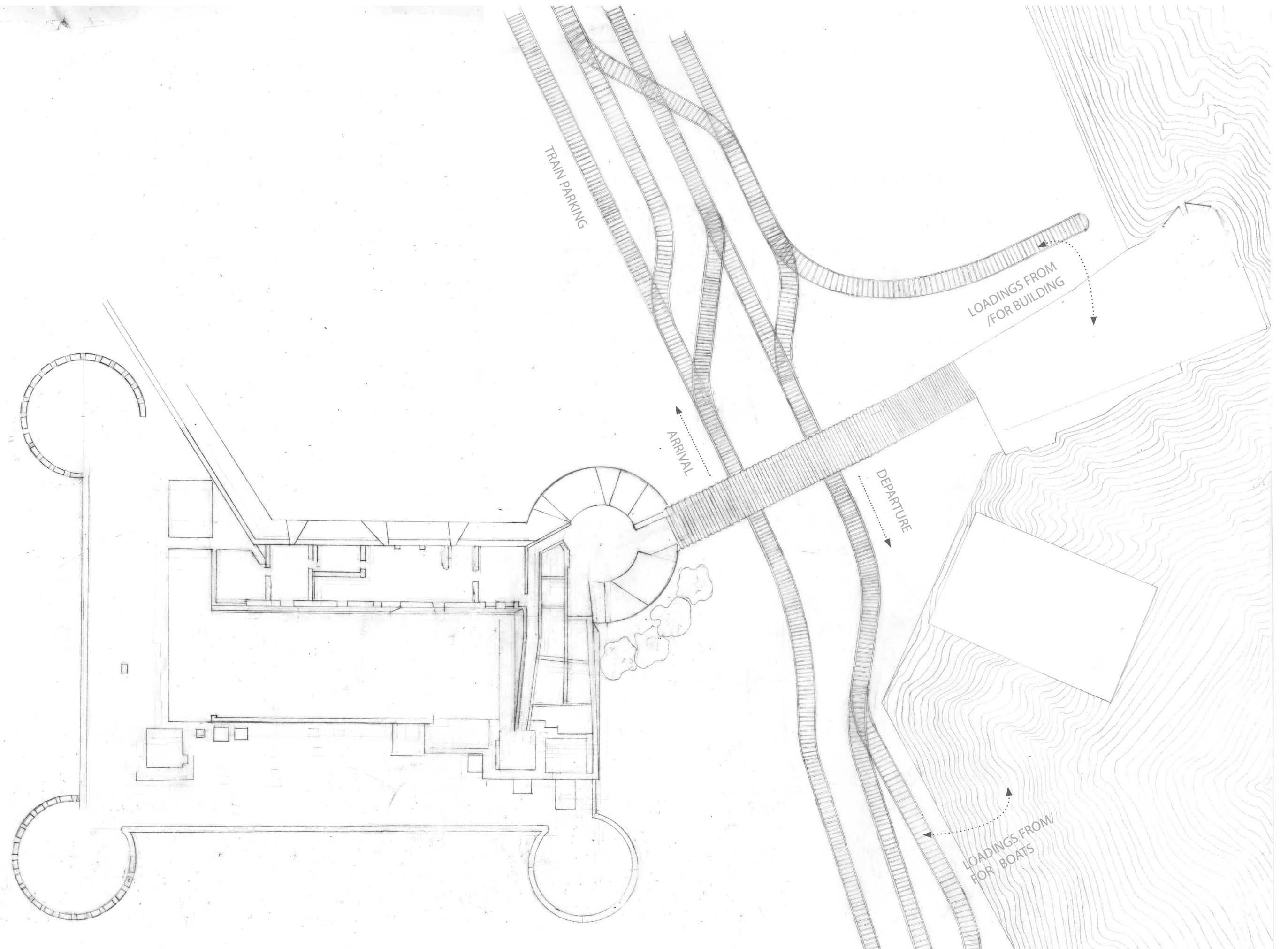




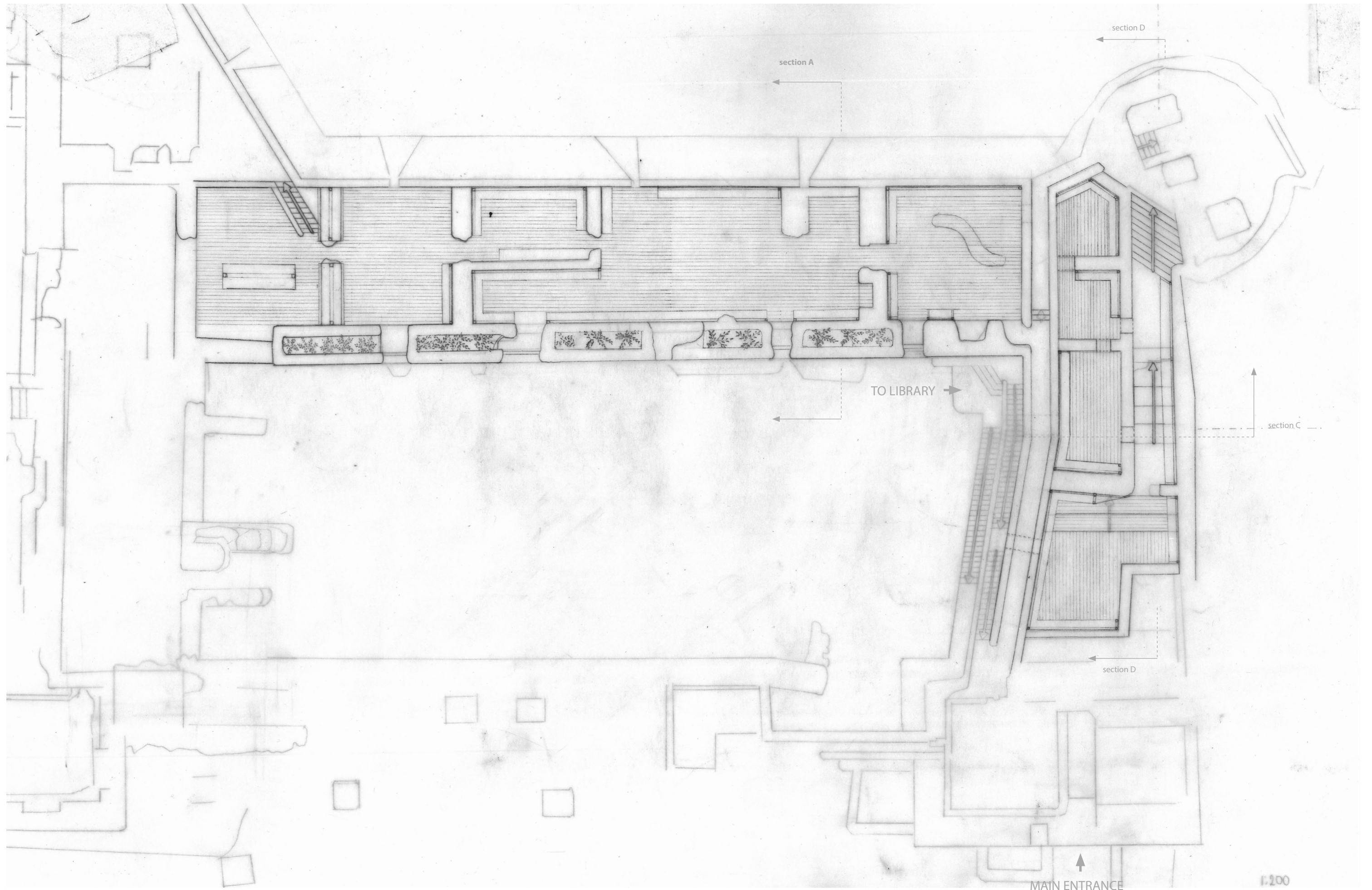
OTHELLO'S CASTLE  
EXITING FIRST FLOOR PLAN  
scale 1:500







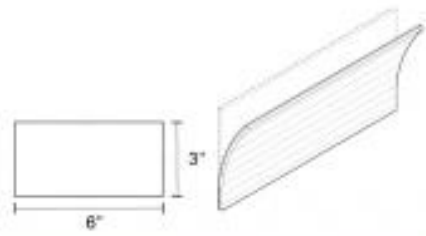




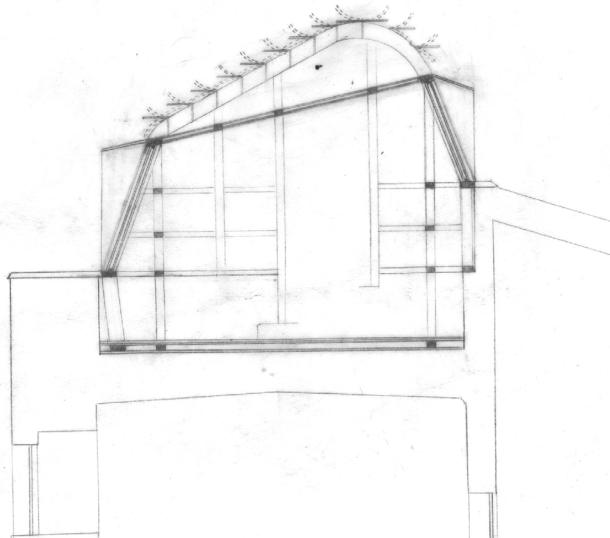
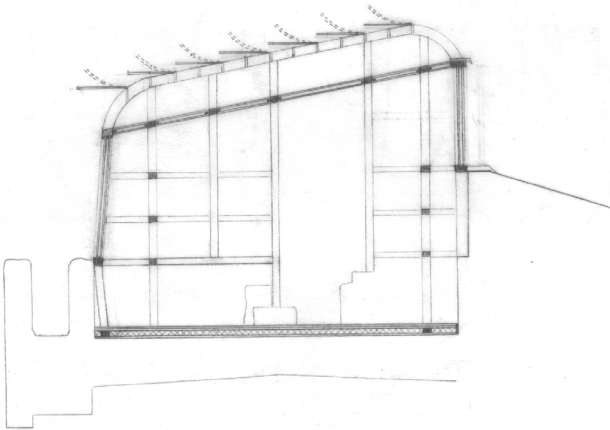
OTHELLO'S CASTLE INTERVENTIONS  
FIRST FLOOR PLAN  
scale 1:200



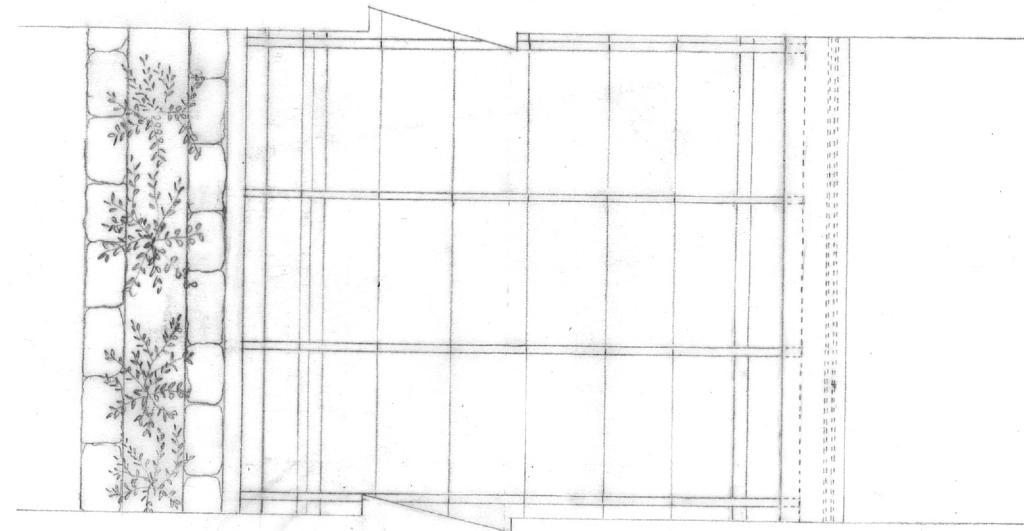




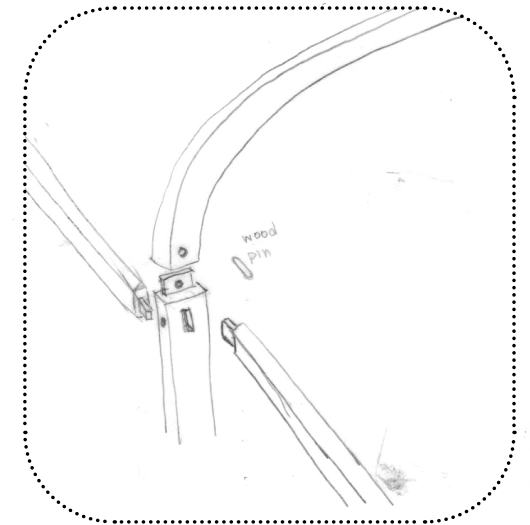
HYGROSCOPIC LOUVER SYSTEM



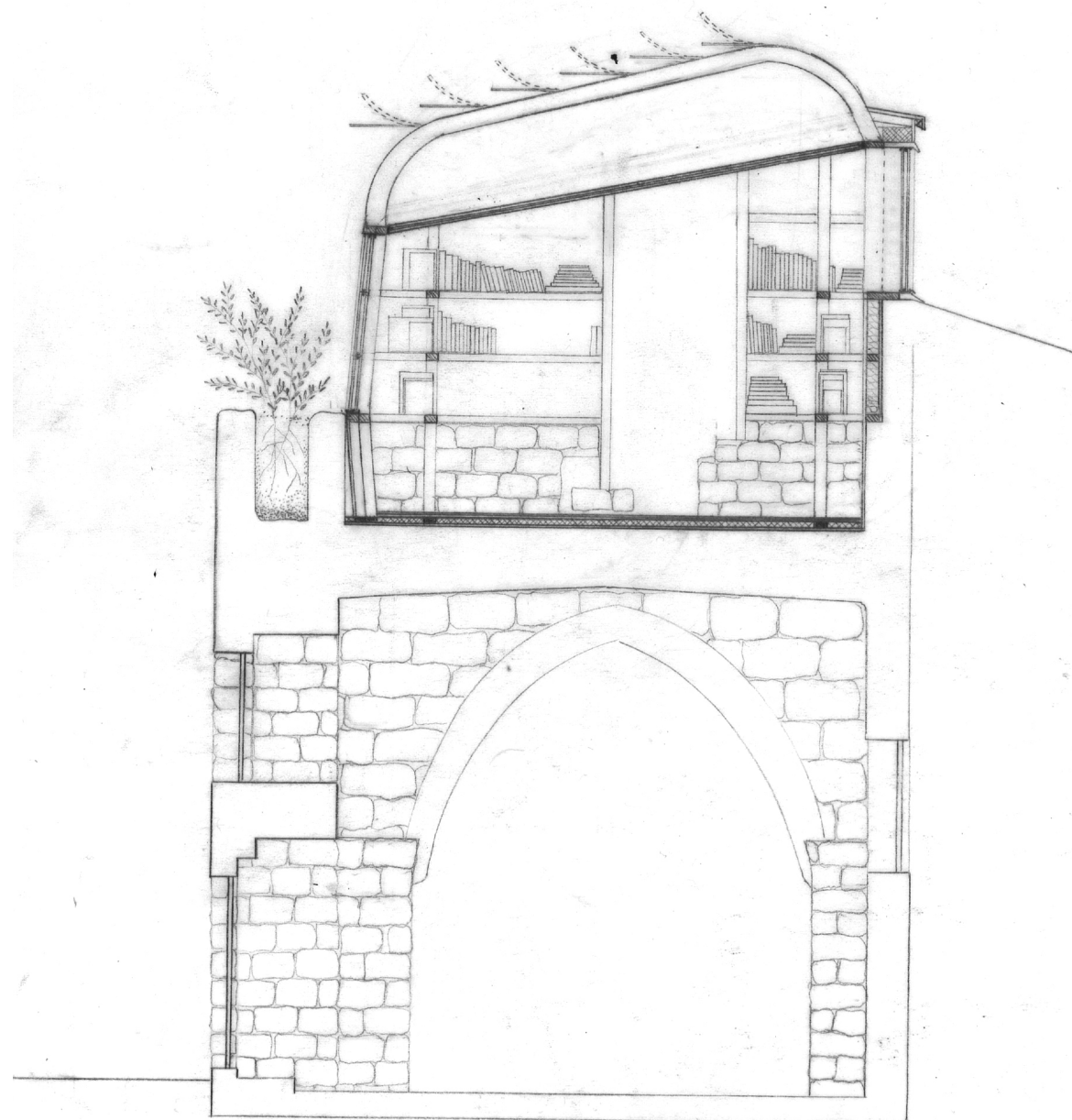
SECTIONAL PROCESS DRAWINGS



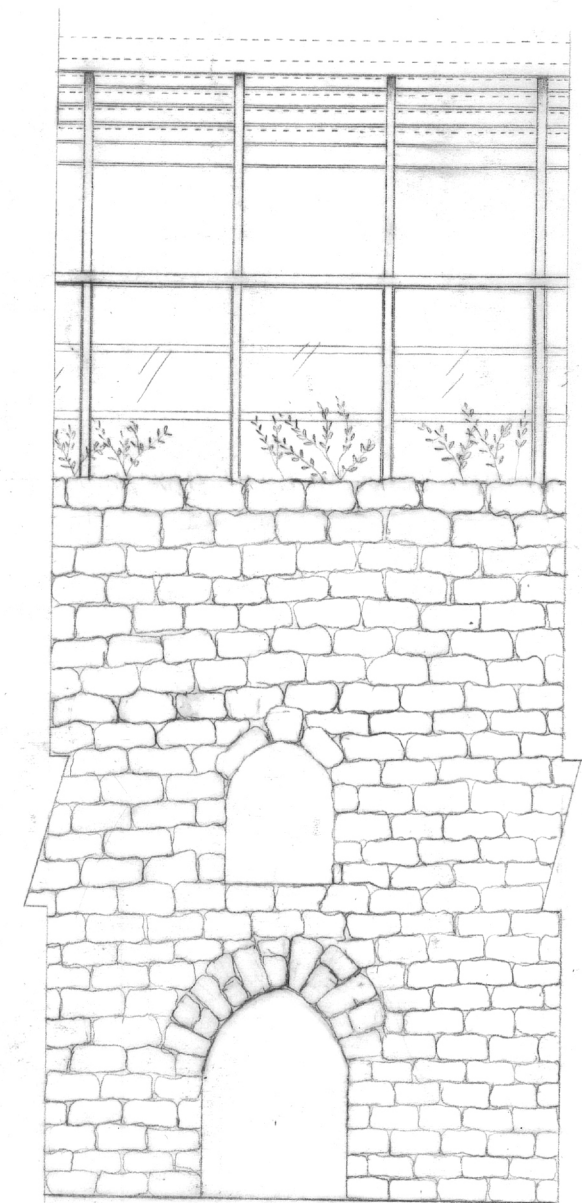
PLAN



WOODEN JOINERY



SECTION A



ELEVATION

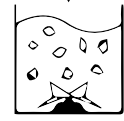




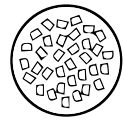
EXPERIMENTAL HOUSE IN HOKKAIDŌ, Japan  
Kengo Kuma and Associates, 2011



COLLECTION OF PLASTIC



CRUSH AND WASH



POLYESTER CHIPS

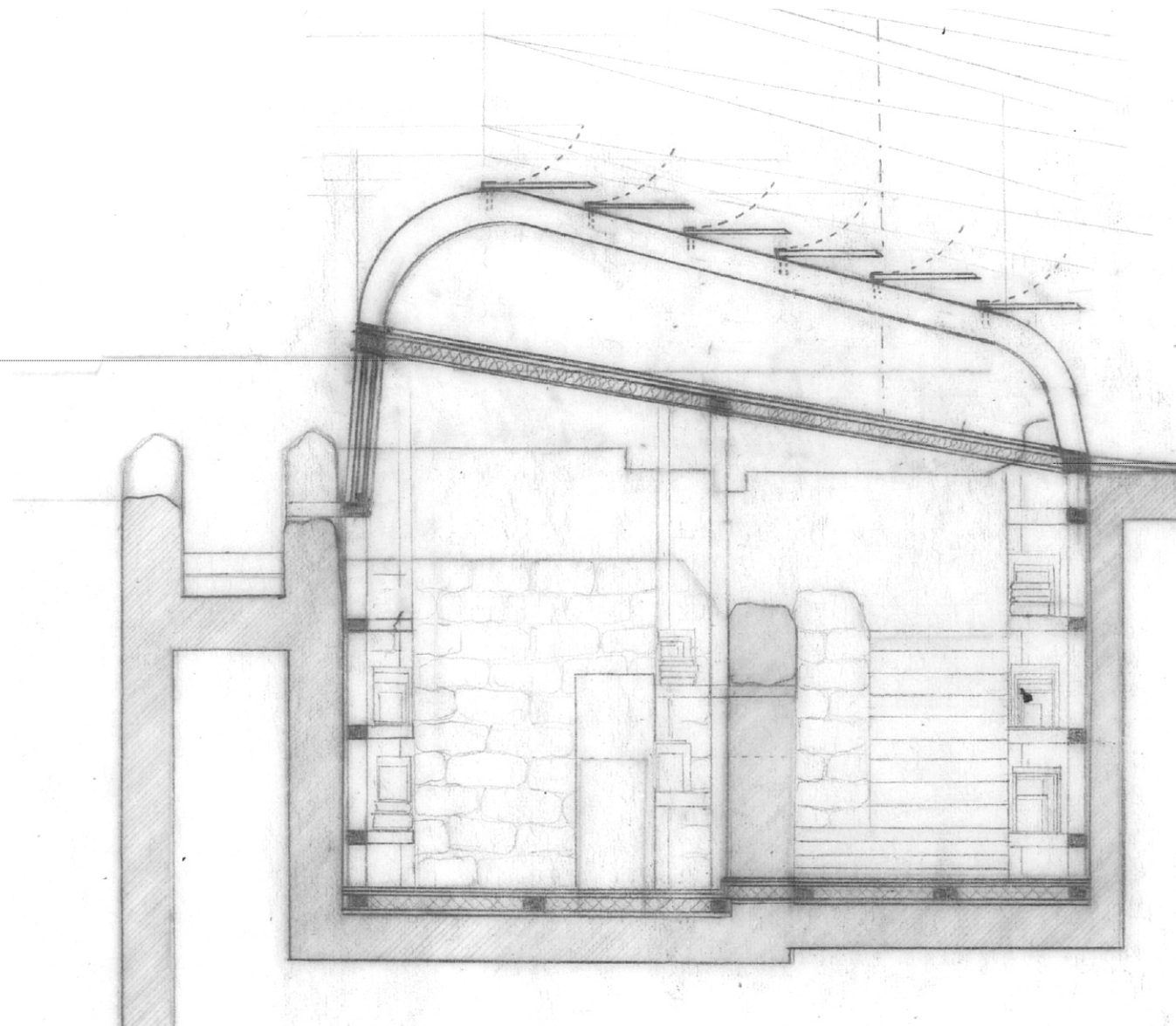
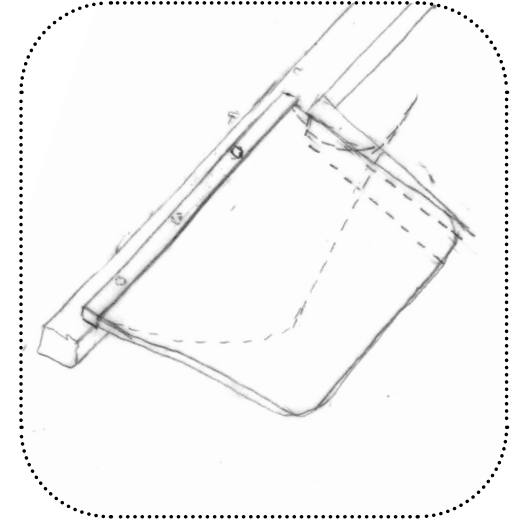


MAKE YARN

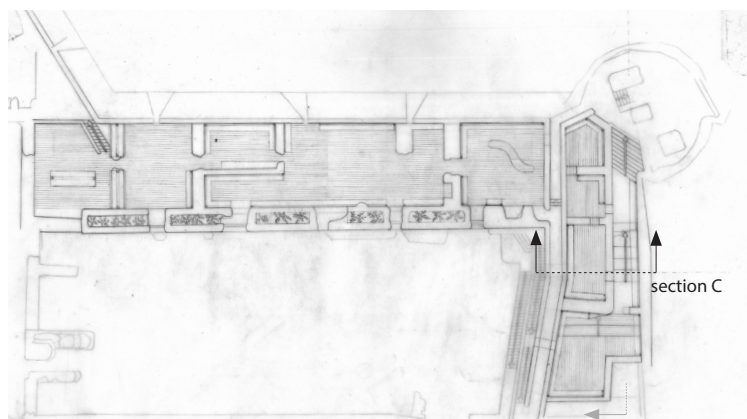


FABRIC

POLYESTER FROM SEA-WASTE



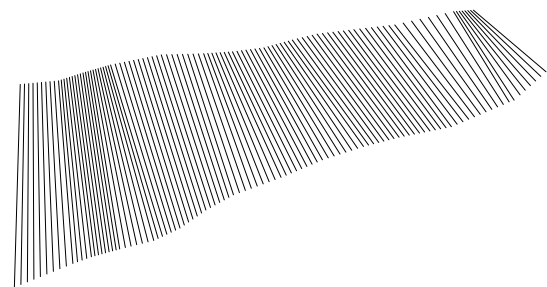
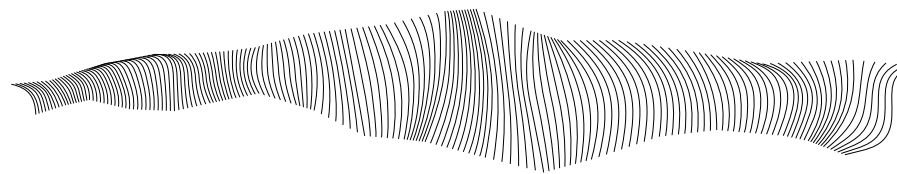
ROOF  
membrane  
polyester insulation  
polyethylene sheet



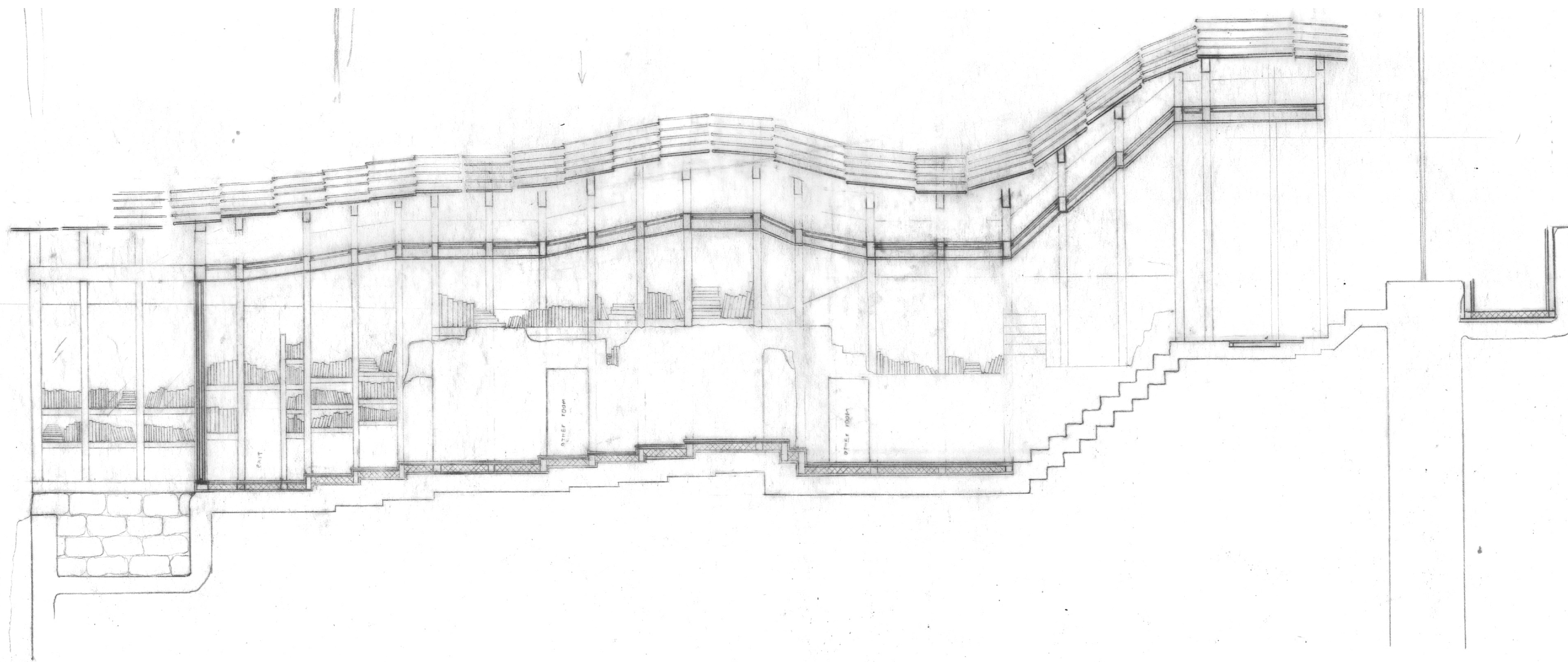
section C

SECTION C  
scale 1:100

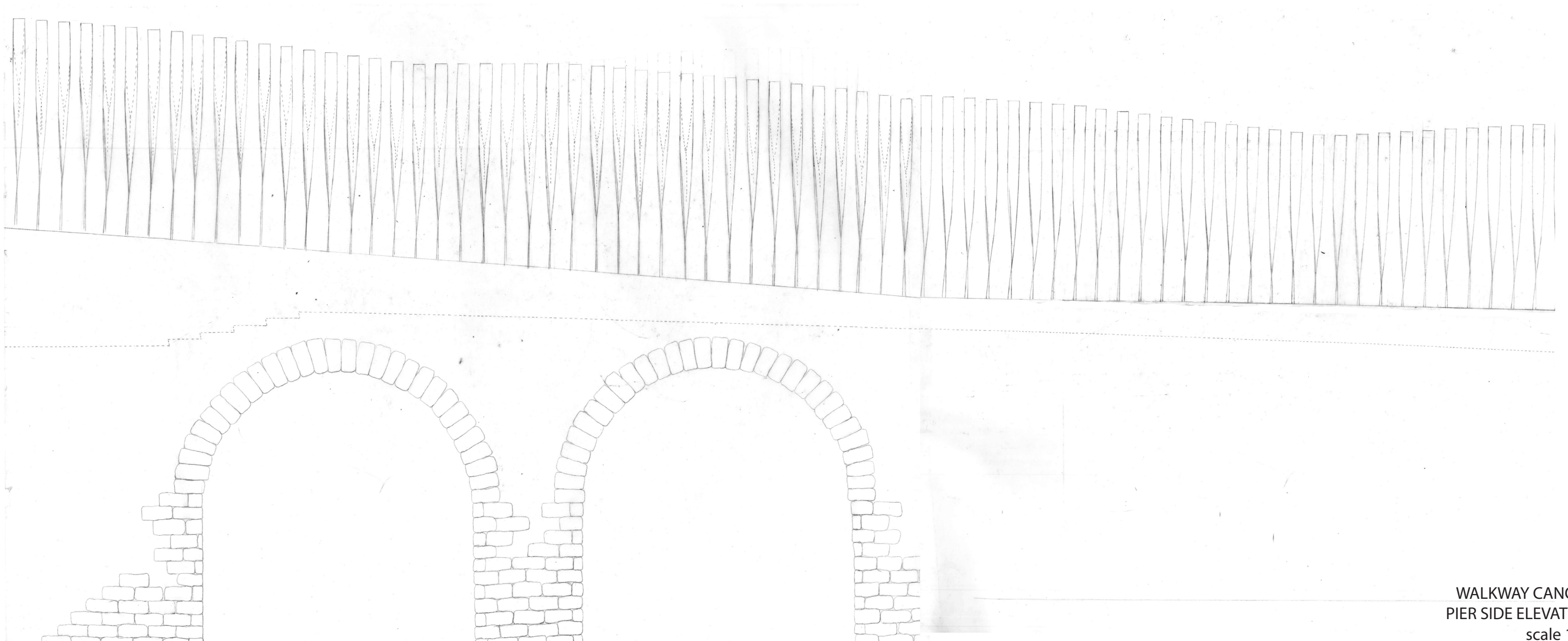
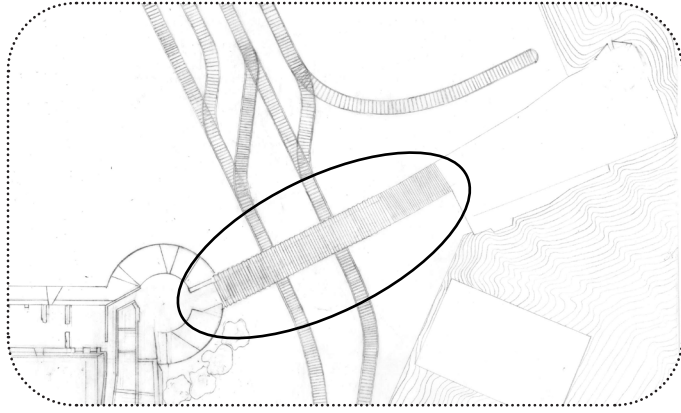




FABRIC RESPONSE TO WIND'S EFFECT

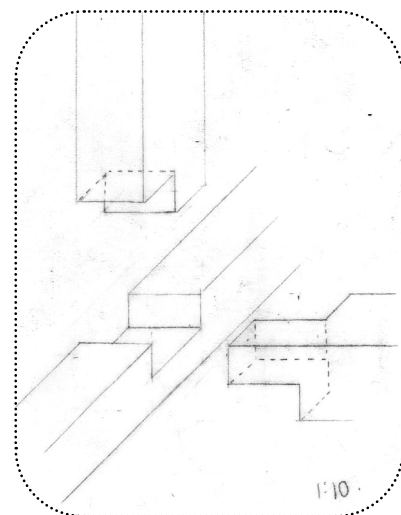




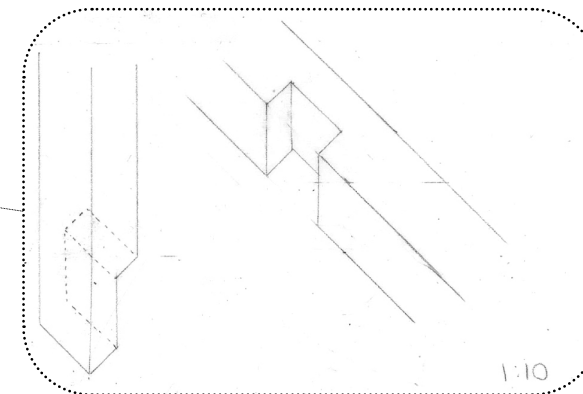
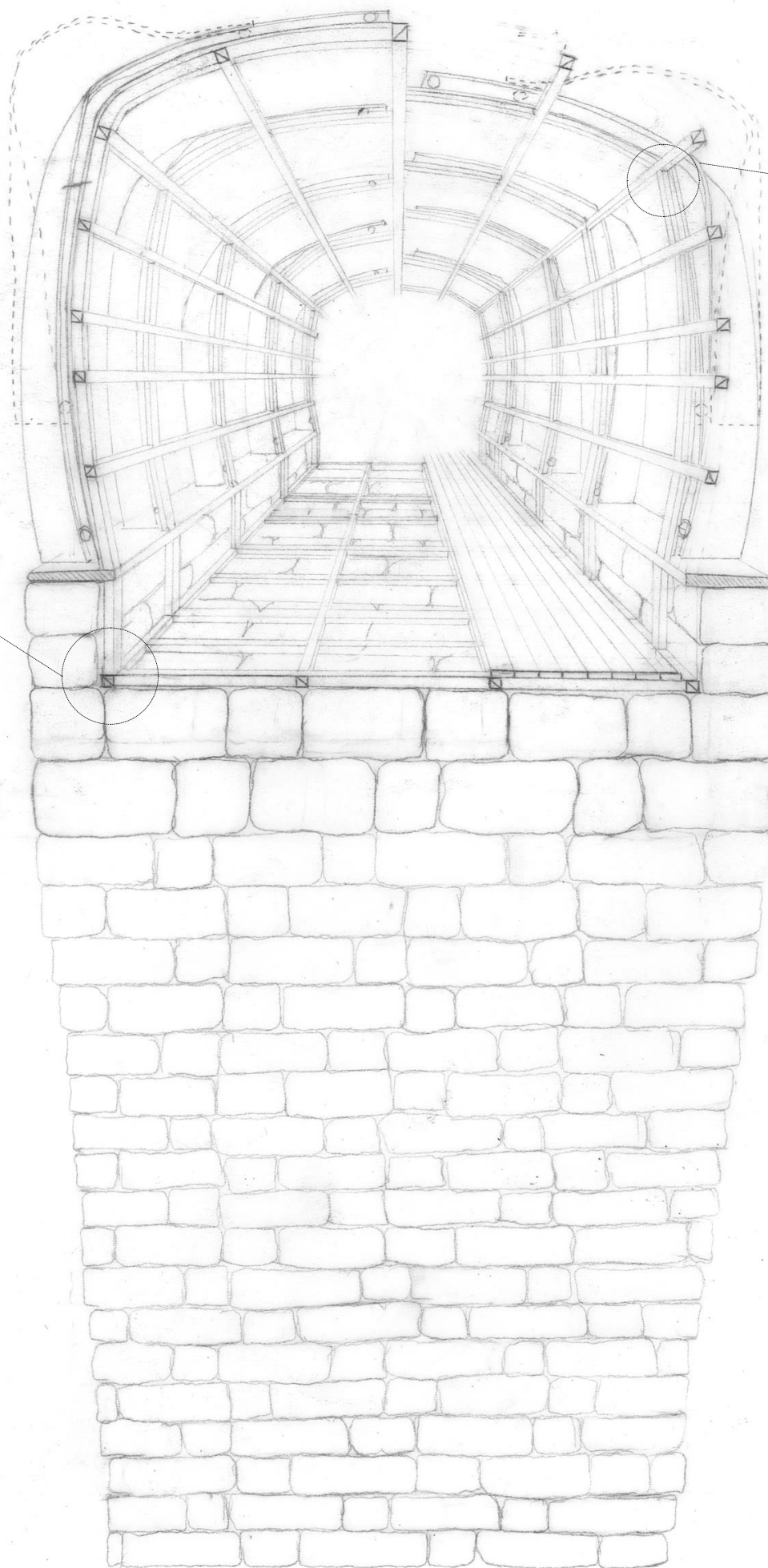


WALKWAY CANOPY  
PIER SIDE ELEVATION  
scale 1:50

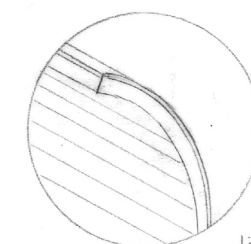




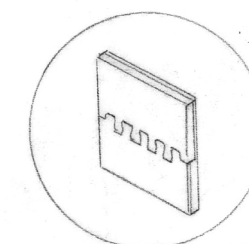
CROSS LAP JOINTS 1:10



LAP JOINTS 1:10



BILAYER STRUCTURE 1:2



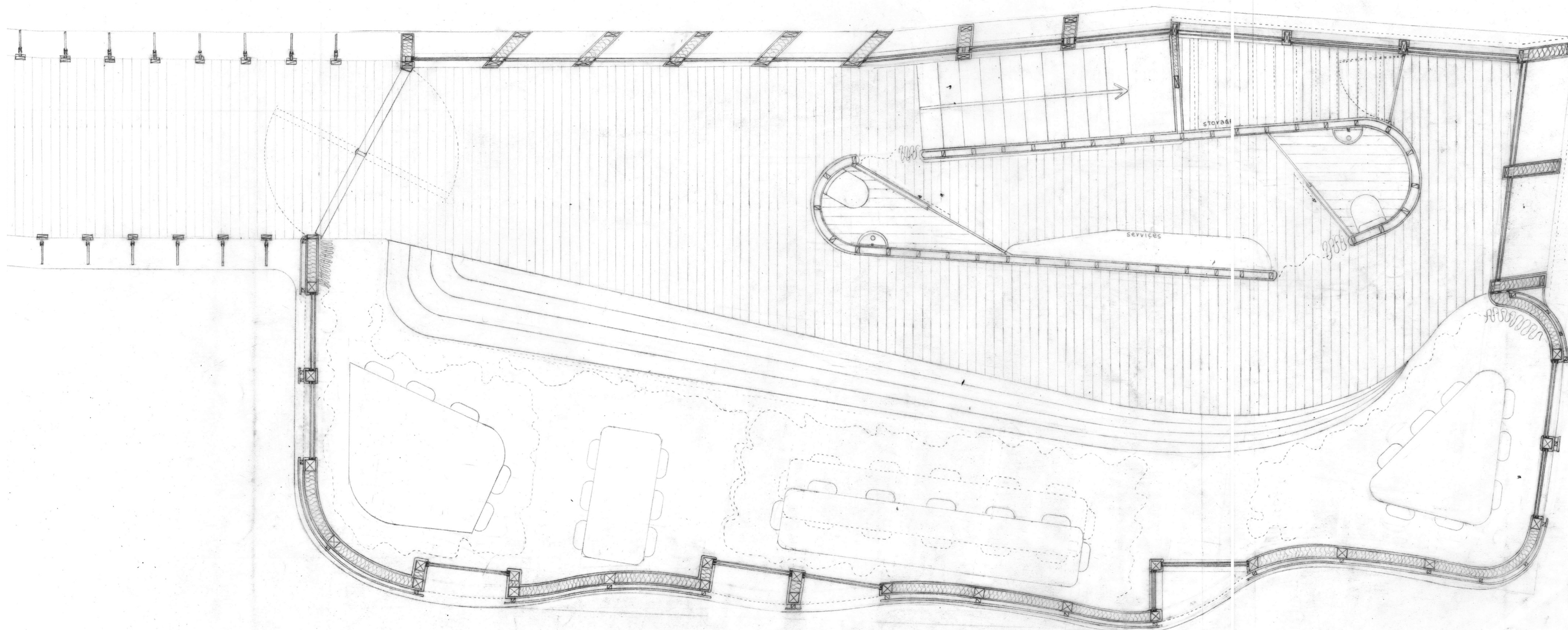
FINGER JOINT 1:5



DEFORMATION PERFORMANCE

WALKWAY CANOPY  
SECTIONA PERSPECTIVE  
scale 1:50

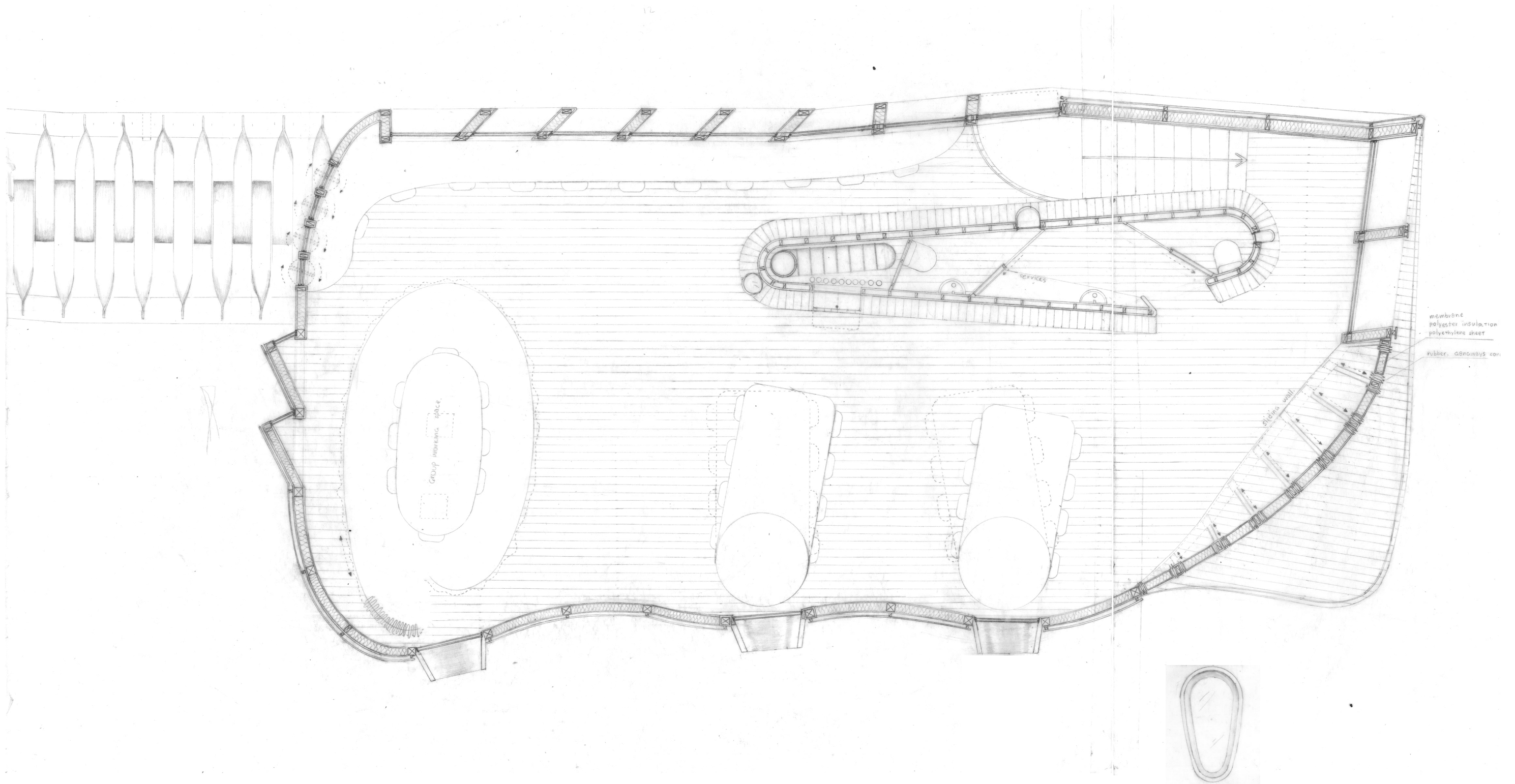




READING/STUDY AREA  
GROUND FLOOR PLAN  
scale 1:50

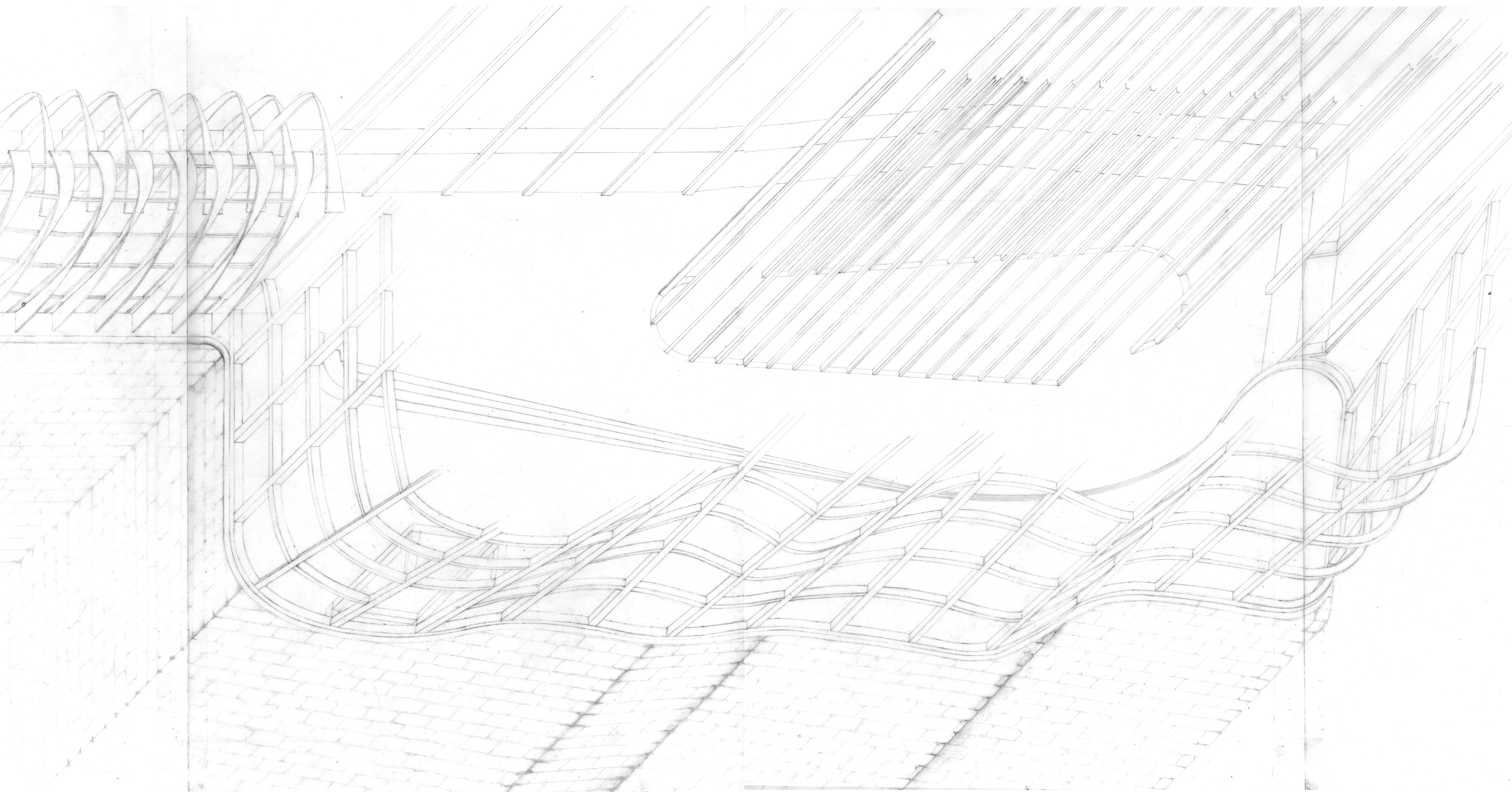






READING/STUDY AREA  
FIRST FLOOR PLAN  
scale 1:50





READING/STUDY AREA  
STRUCTURAL AXONOMETRIC  
scale 1:50



polyester mat insulation 50mm  
structure plywood 12mm

laminated plywood  
bee wax finish

vertical cedar siding  
water proof stain  
furring strips 45x45mm  
damp proof sheet  
vertical furring strips 45x45mm  
polyester insulation  
structure plywood 9mm

78° summer sun

READING/STUDY AREA  
SECTION  
scale 1:50



