

**The Rozenpark Pavilion**  
*Reused architecture inspired by Indigenous Building Techniques*  
P5 Lilani Oei 4848039

*A fascination*



*indigenous building knowledge*

## *Research methodology*



*Indigenous*

## Research methodology



STACKED



WRAPPED



FILLED



SCAFFOLDED



Indigenous

## Research methodology



STACKED



WRAPPED



FILLED



SCAFFOLDED



*Indigenous*

*contemporary*

## Research methodology



STACKED



?



WRAPPED



FILLED

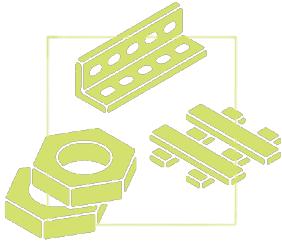


SCAFFOLDED



Indigenous

contemporary



**local material harvesting**  
reframing 'local materials'

**form follows available resources**  
innovation born from limitations

*Design objective*

HOW CAN THE TRADITIONAL ECOLOGICAL KNOWLEDGE  
EMBEDDED IN INDIGENOUS BUILDING TECHNIQUES INFORM  
THE REUSE OF MATERIALS IN CONTEMPORARY ARCHITECTURE?



## Research methodology



STACKED



WRAPPED



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Indigenous

contemporary

prototypes

*Design*

*Project location*

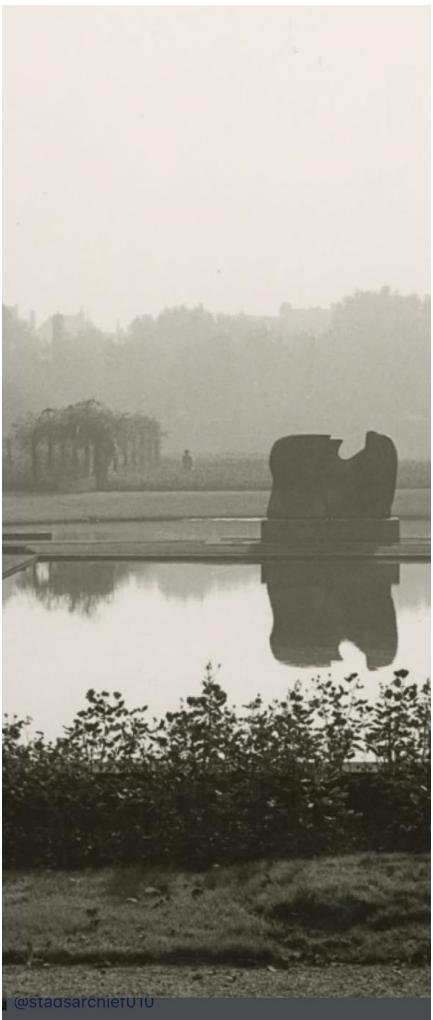


*Urban context of Rotterdam*

*Project location*



## History Museumpark



Sparkling fountains, sculptures, live art and cooling down in Museumpark

Museumpark today



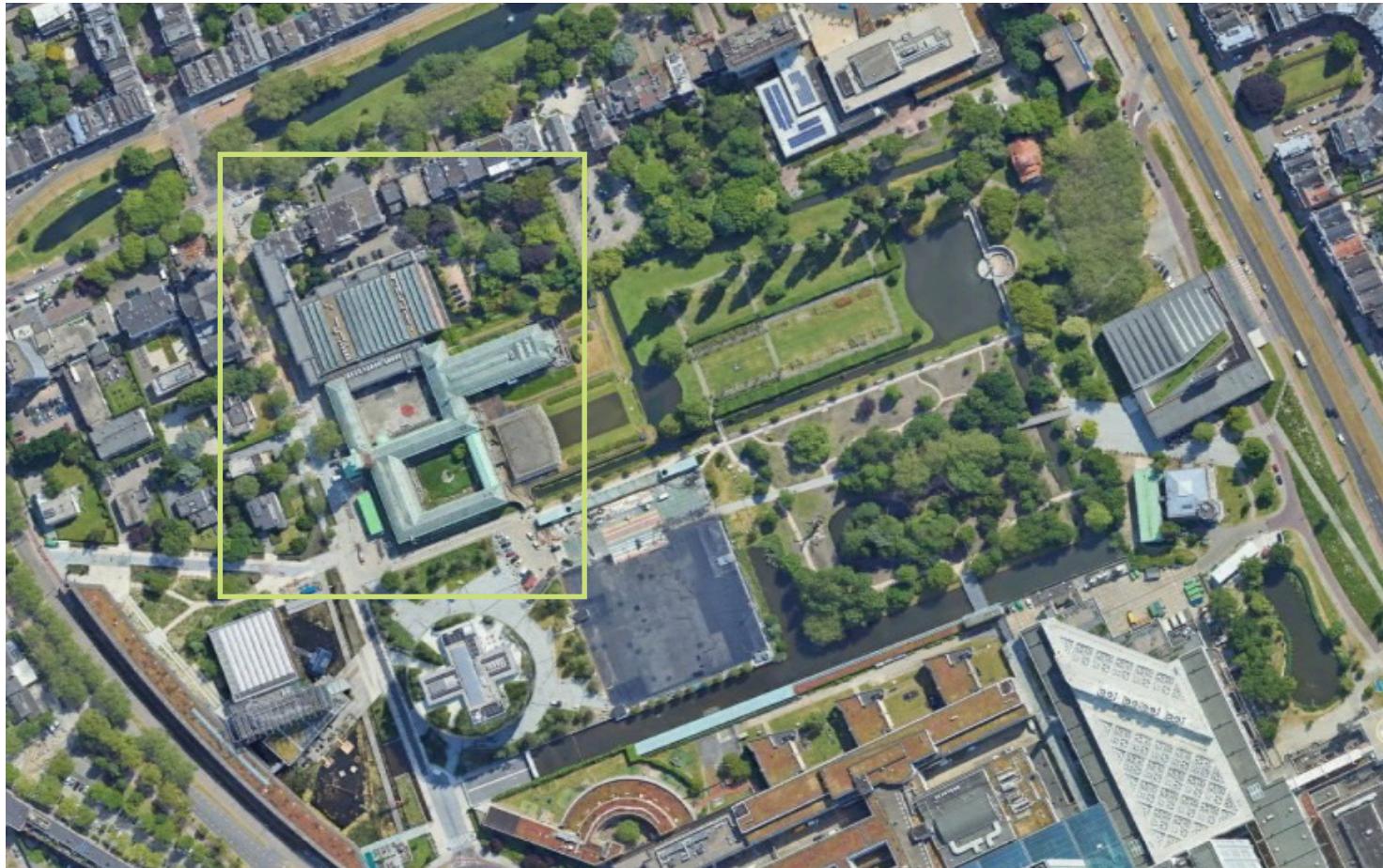
constructions, opens space, no (he)art in the park

*Museumpark today*



*constructions, opens space, no (he)art in the park*

Museumpark today



*constructions, opens space, no (he)art in the park*

## Boijmans van Beuningen Museum



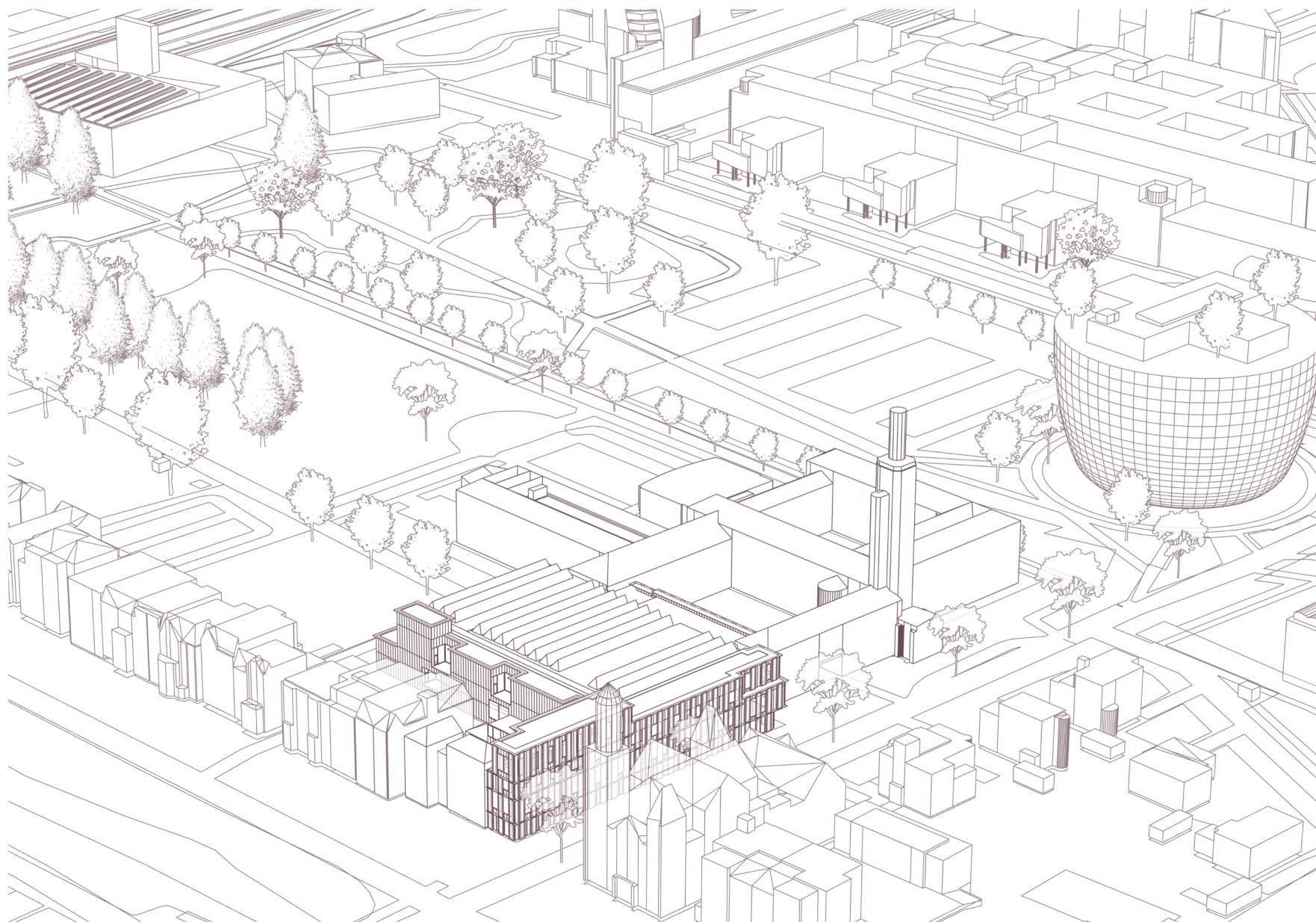
Definitive renovation plans by Mecanoo, December 2025

2003 wing by Robbrecht & Daem



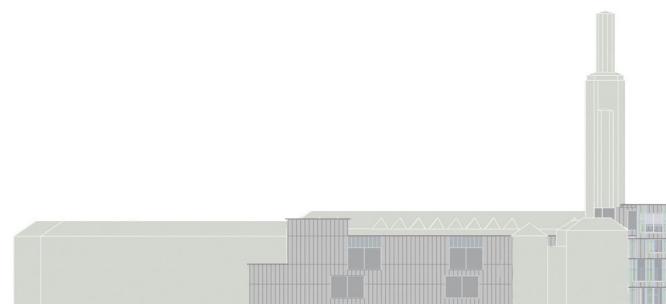
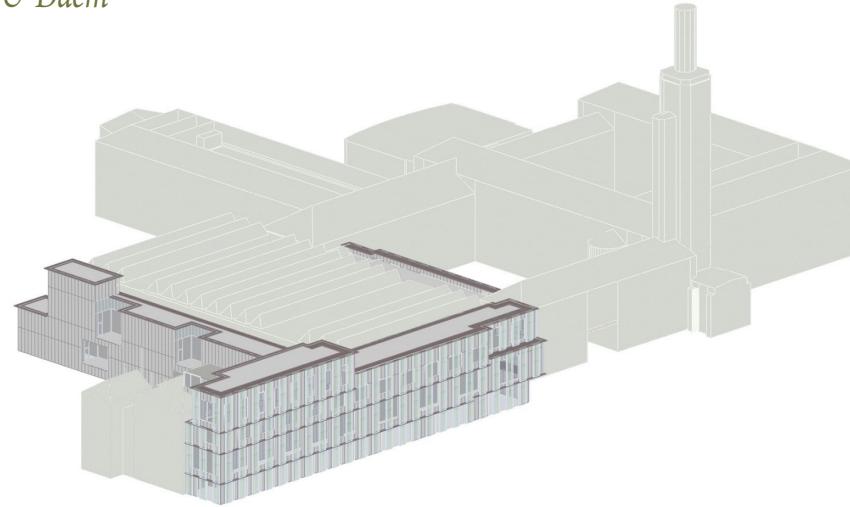
To be demolished wing, in perfect state

2003 wing by Robbrecht & Daem in context



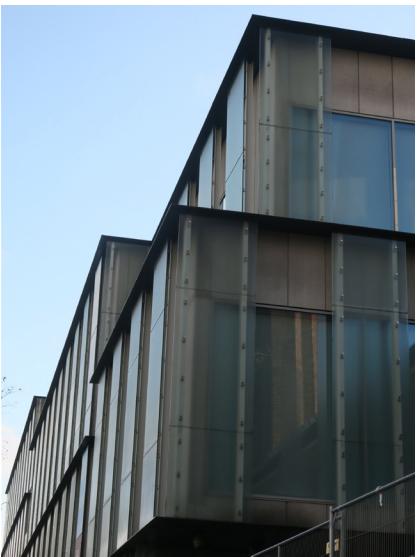
To be demolished wing, in perfect state

*Inventarisation of wing by Robbrecht & Daem*



*axo, north facade (middle), east facade (lower)*

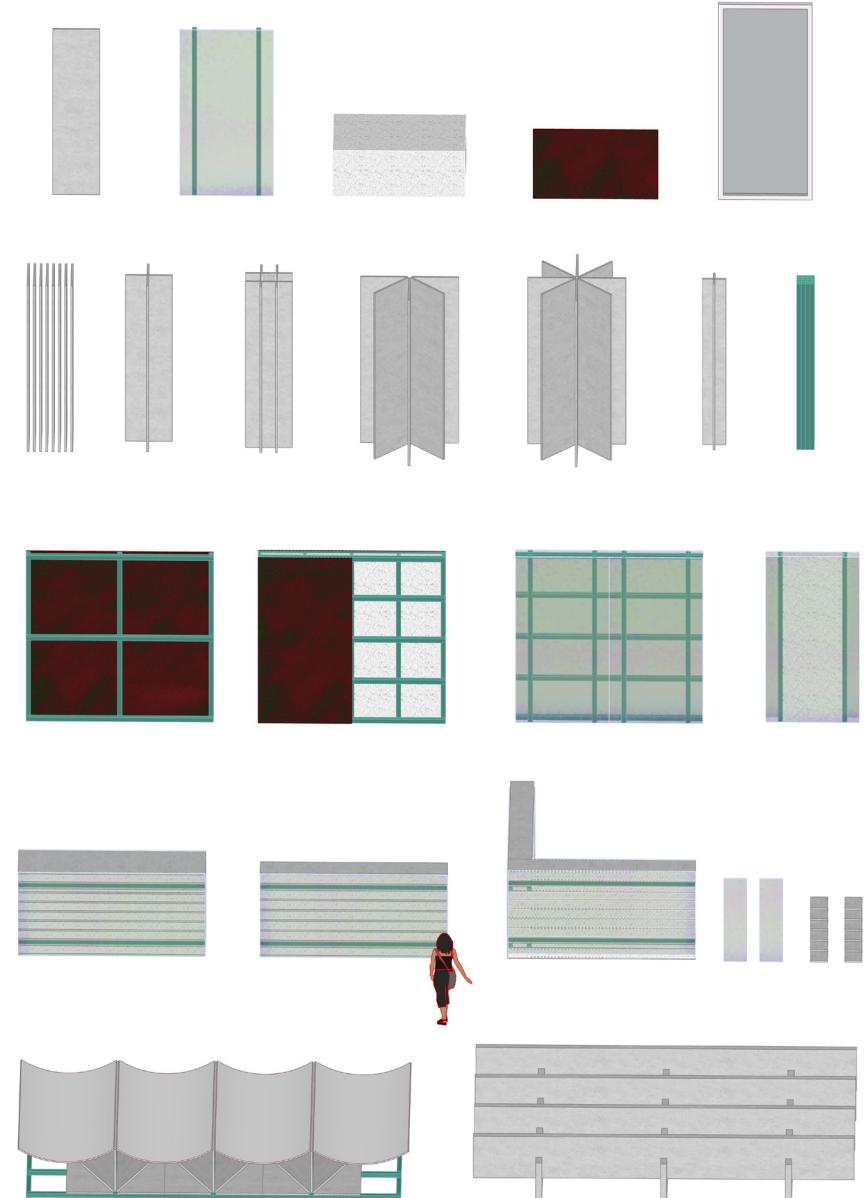
## Site visit R&D wing



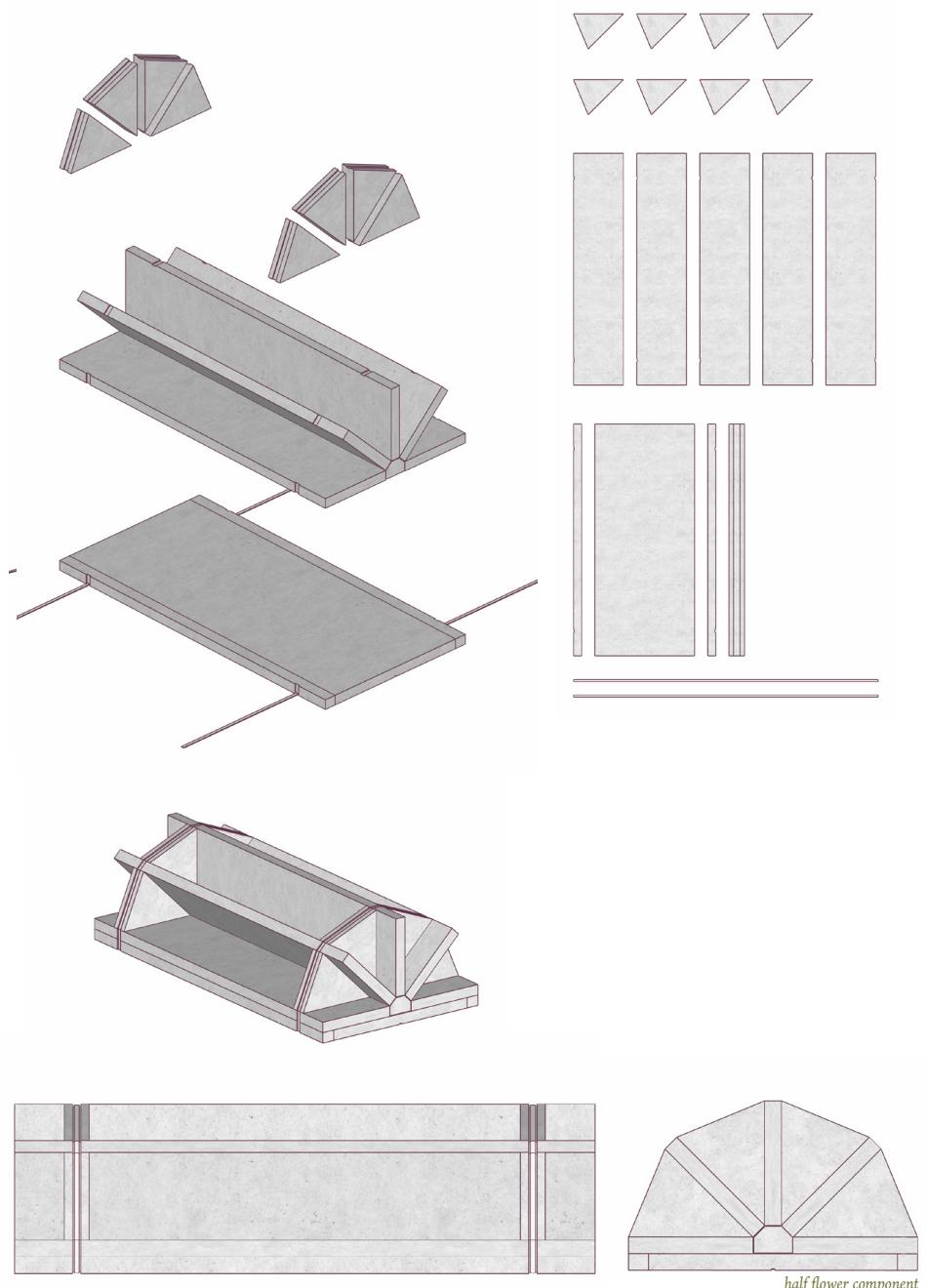
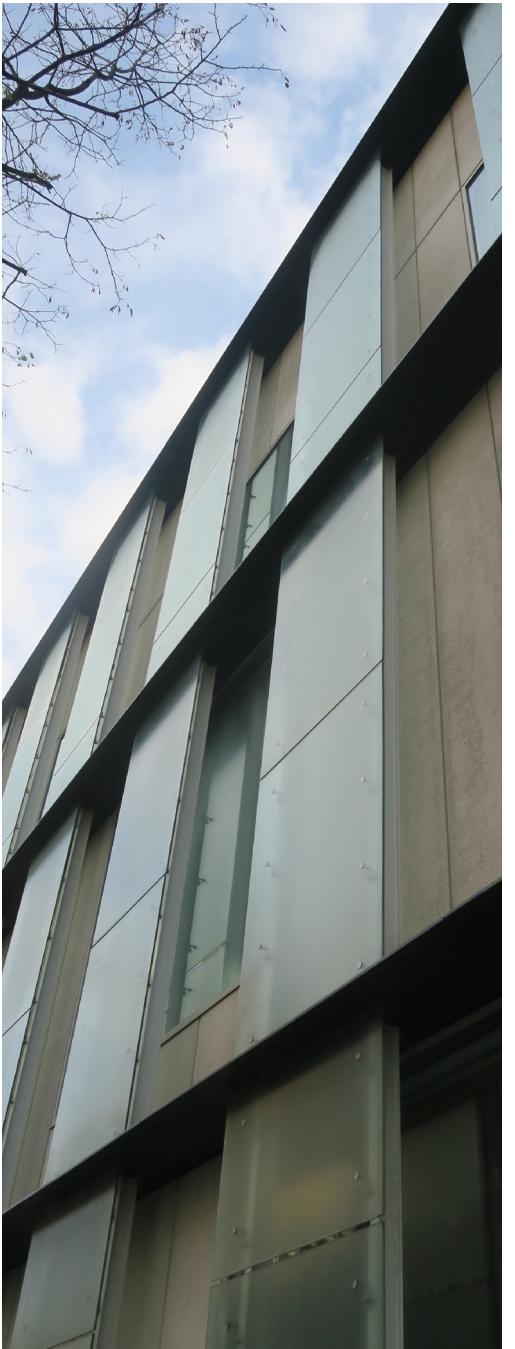
material hunt



primarily: concrete facade panels, cathedral glass panels + HEA, concrete rubble, steel roof sheets and windows etc.

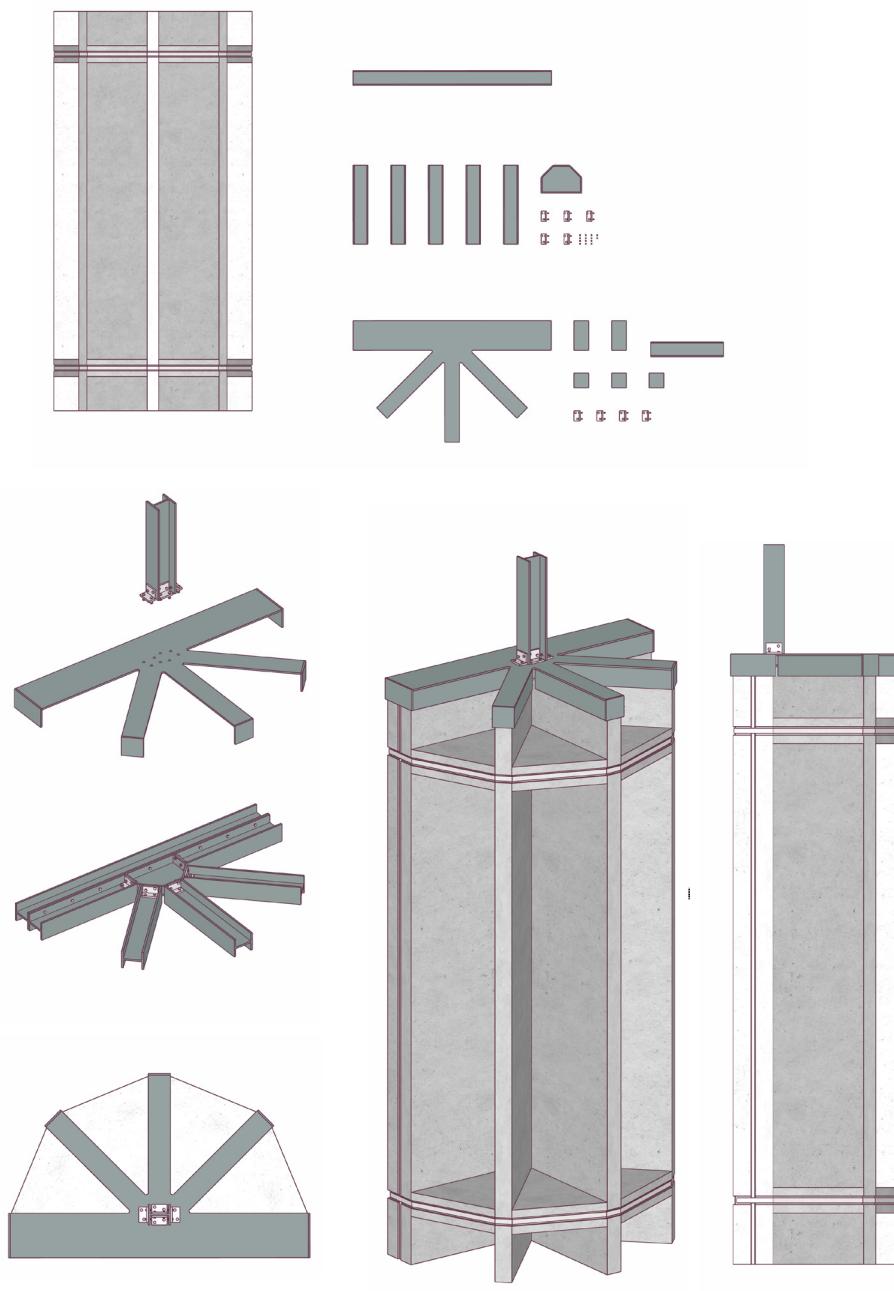
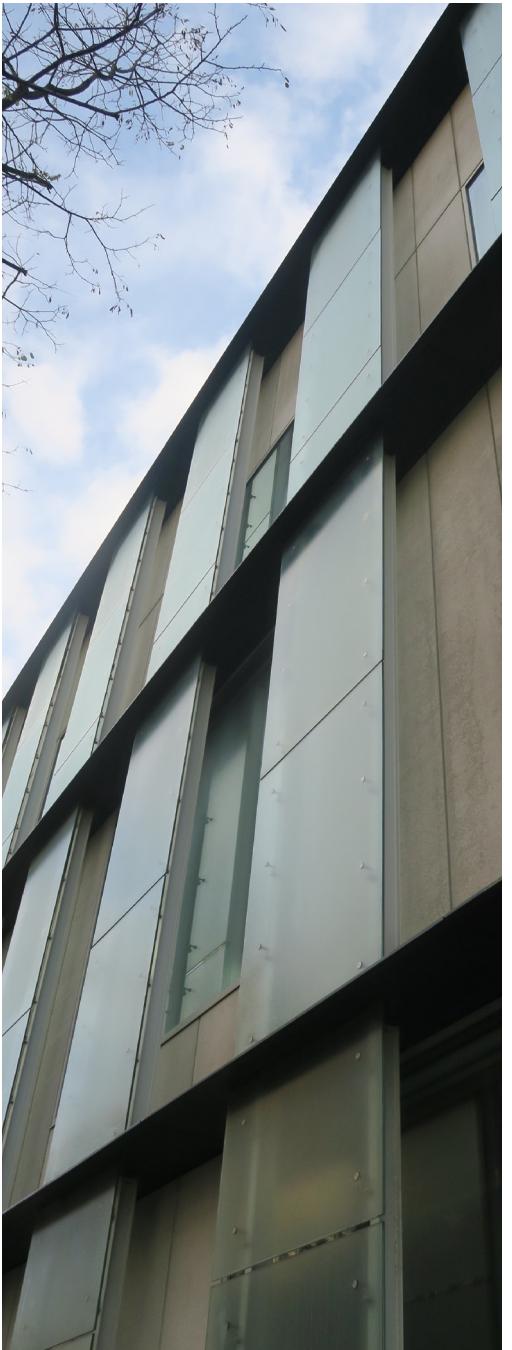


experimentation : materials to components

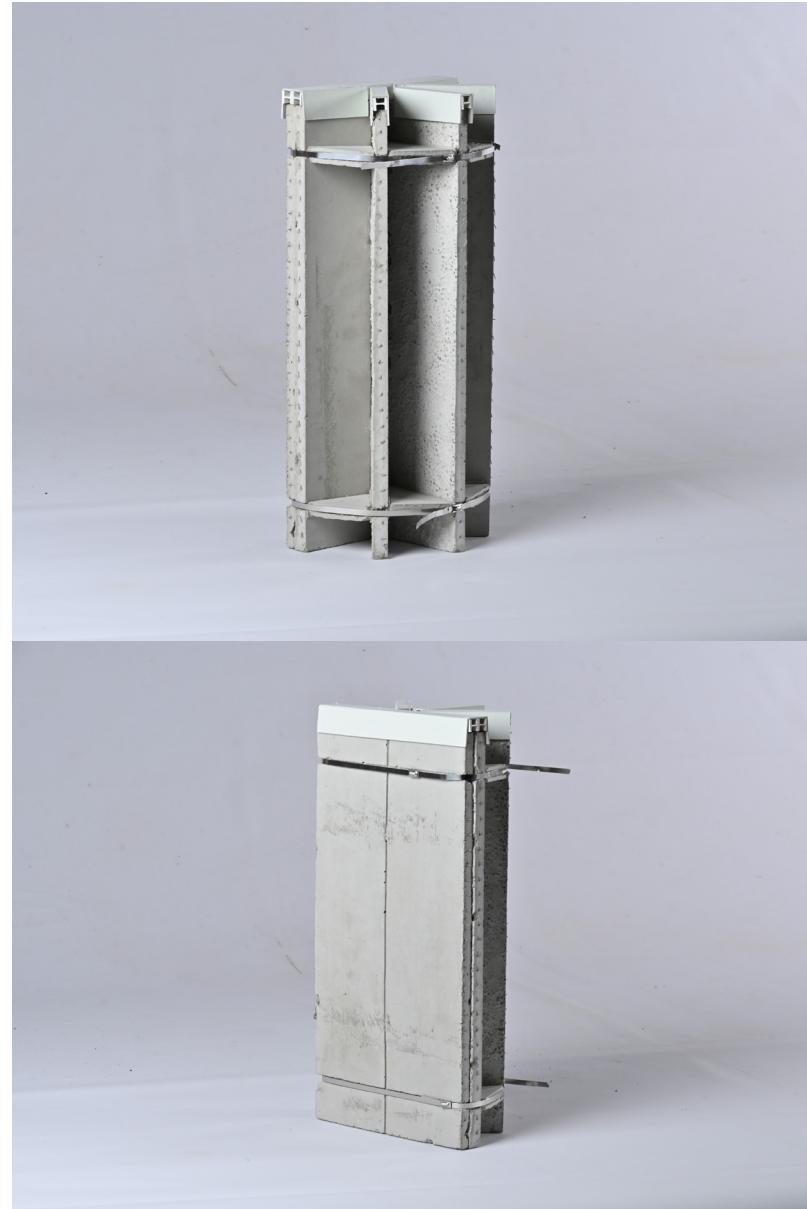


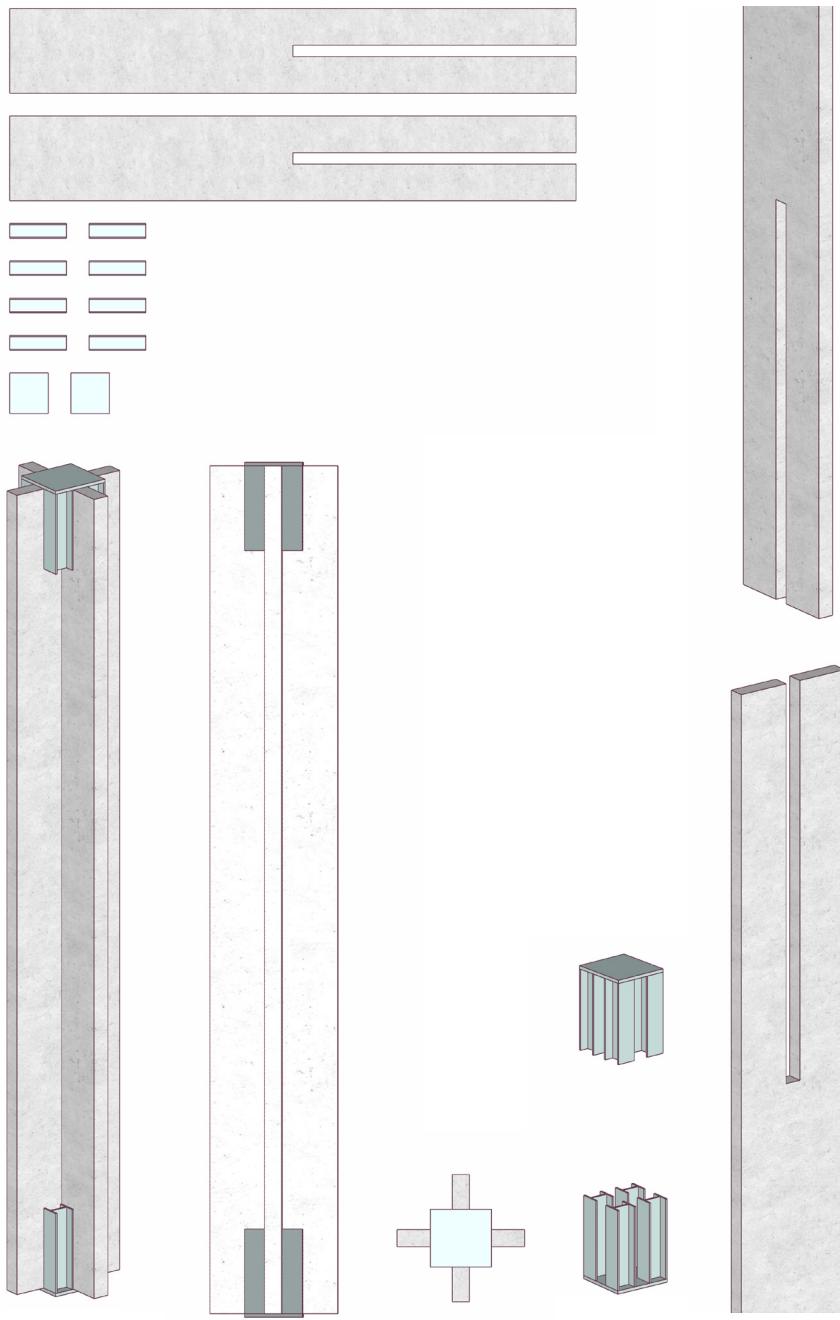
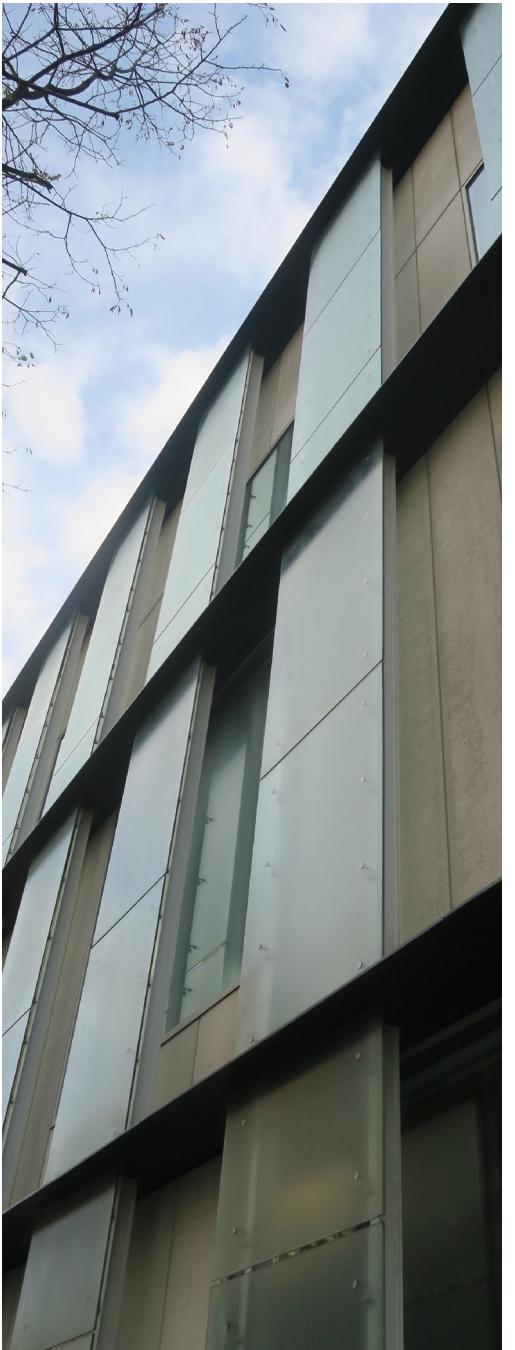
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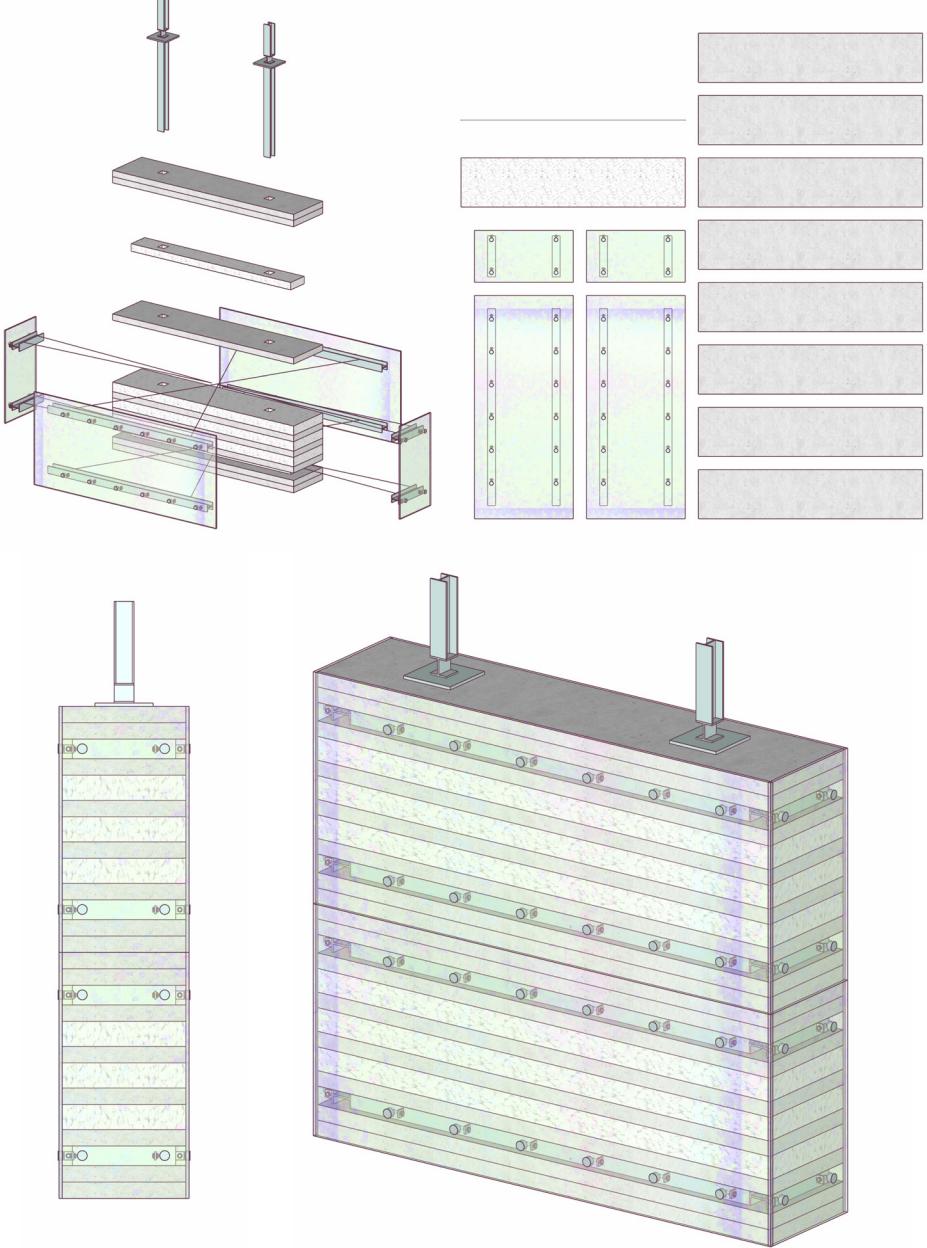
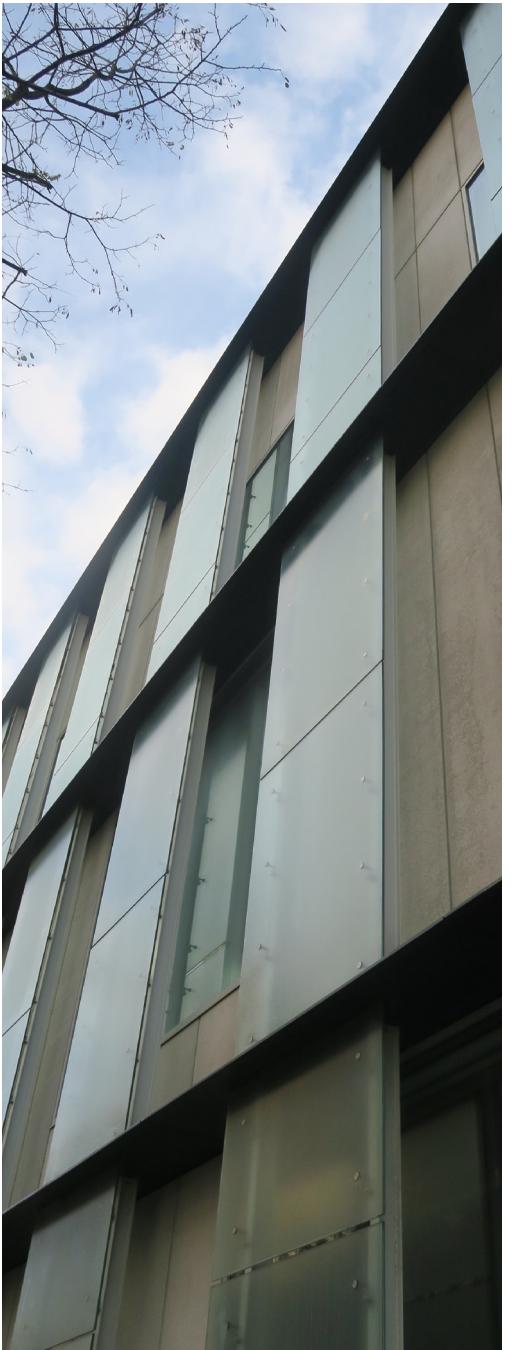


*half flower column component*

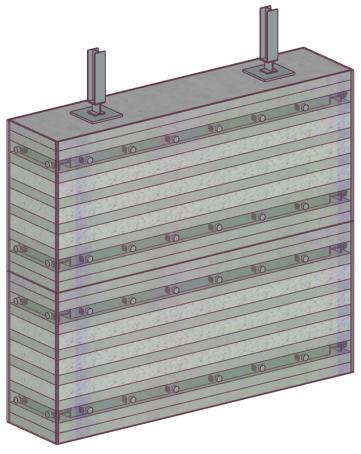




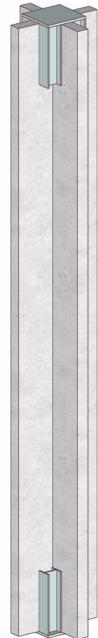
*cross column component*



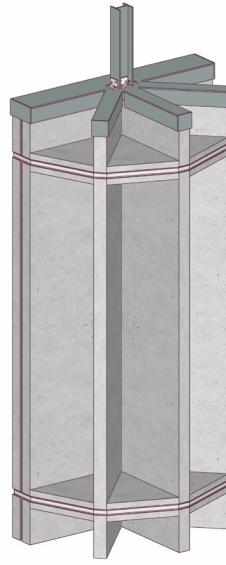
Oei 4848039



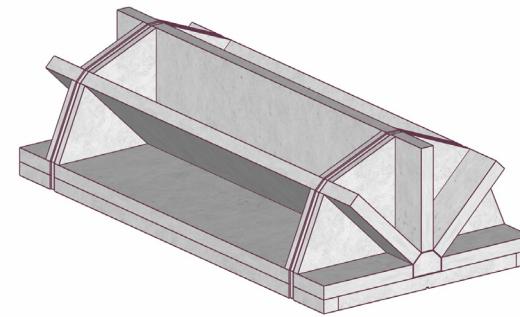
*wall*



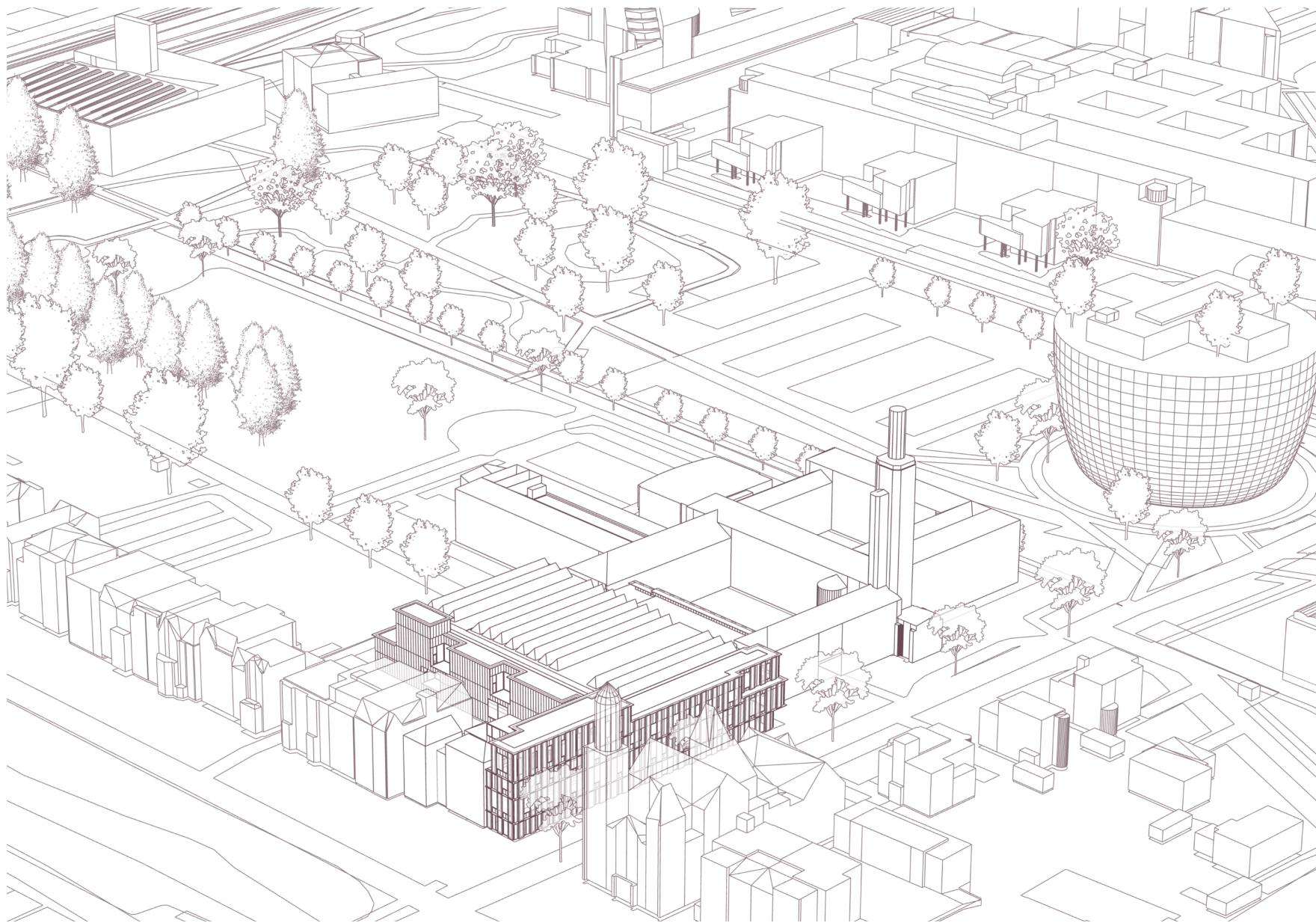
*cross column*



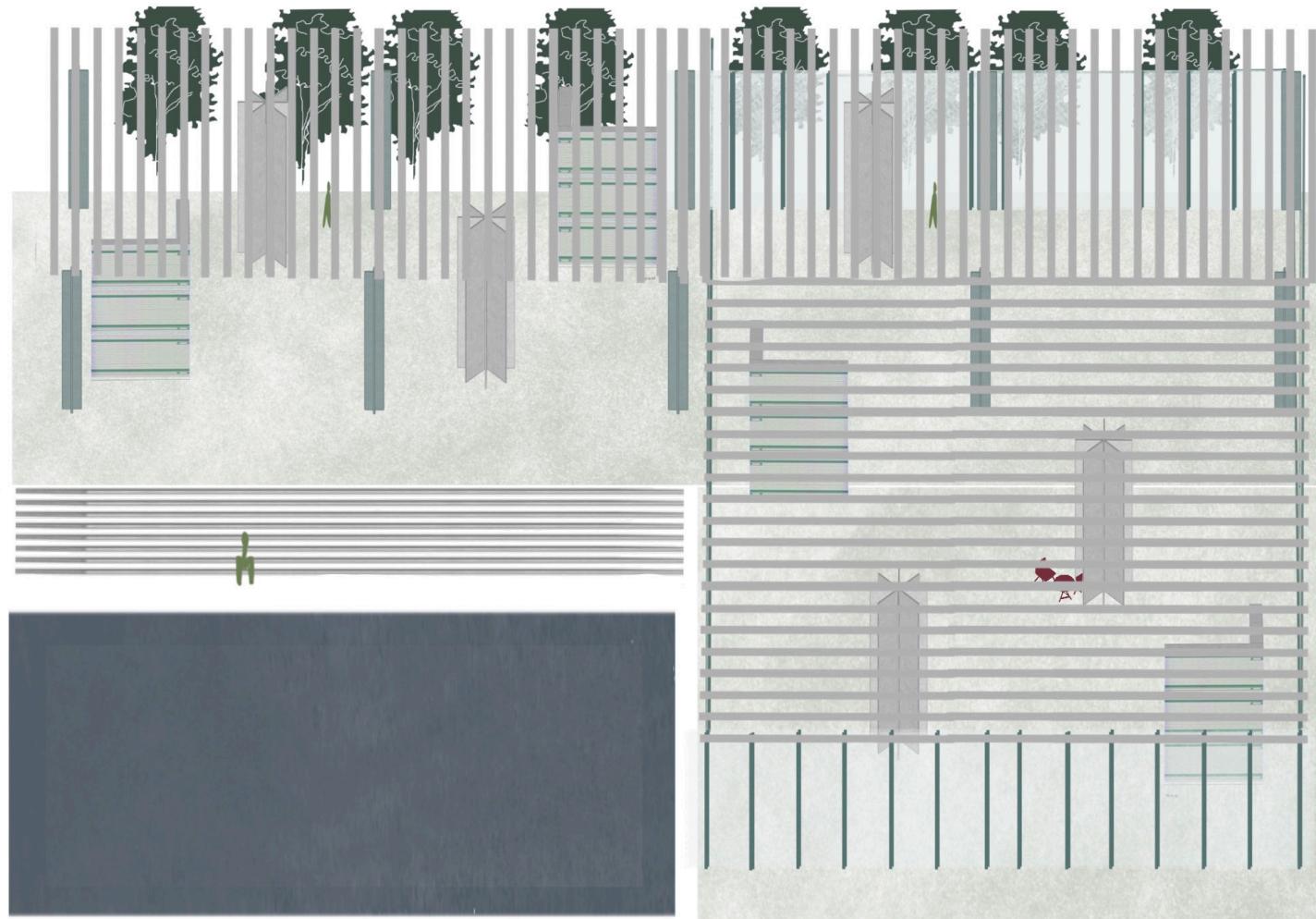
*flower column*



*flower component*



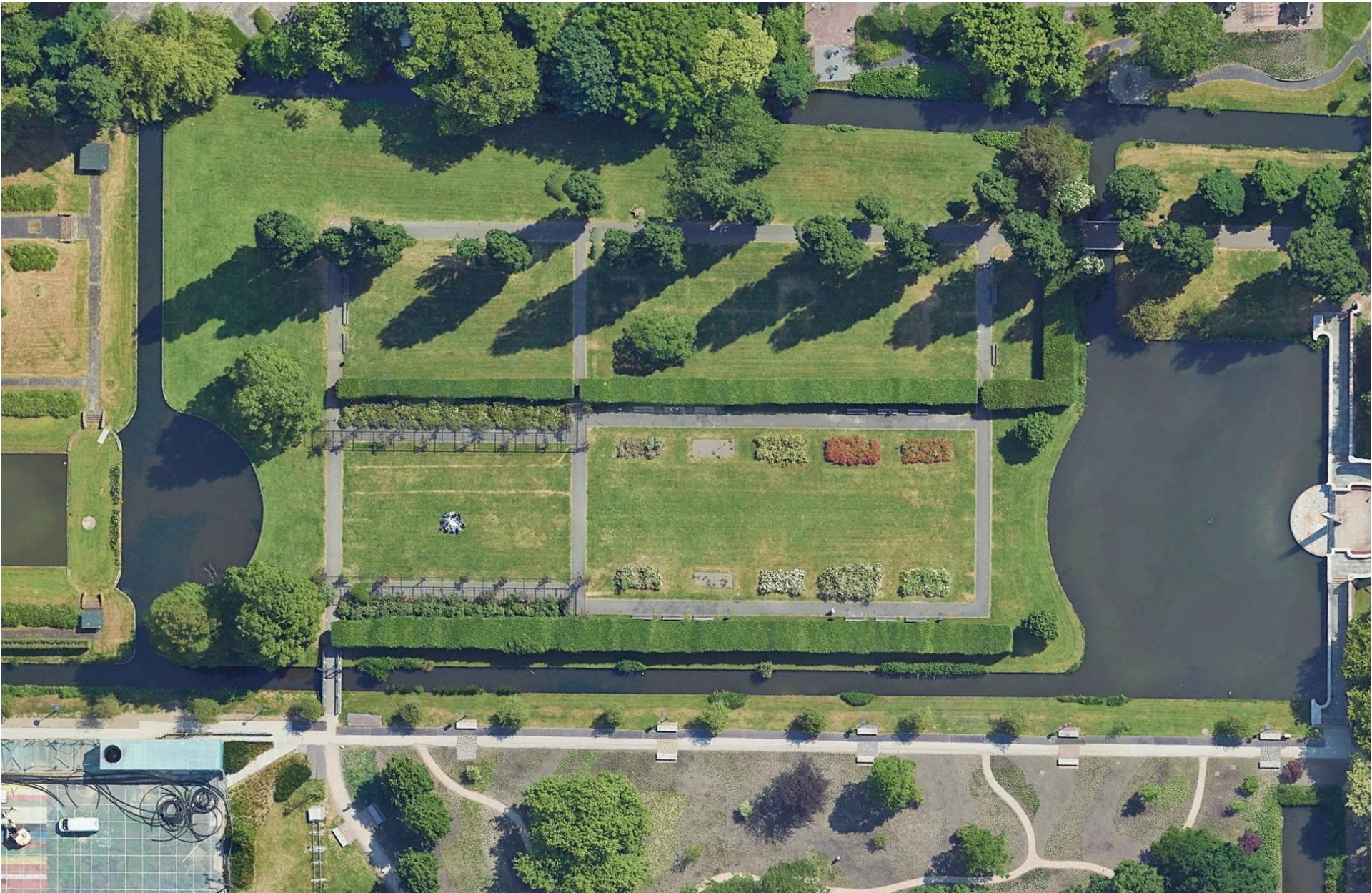
To be demolished wing, in perfect state

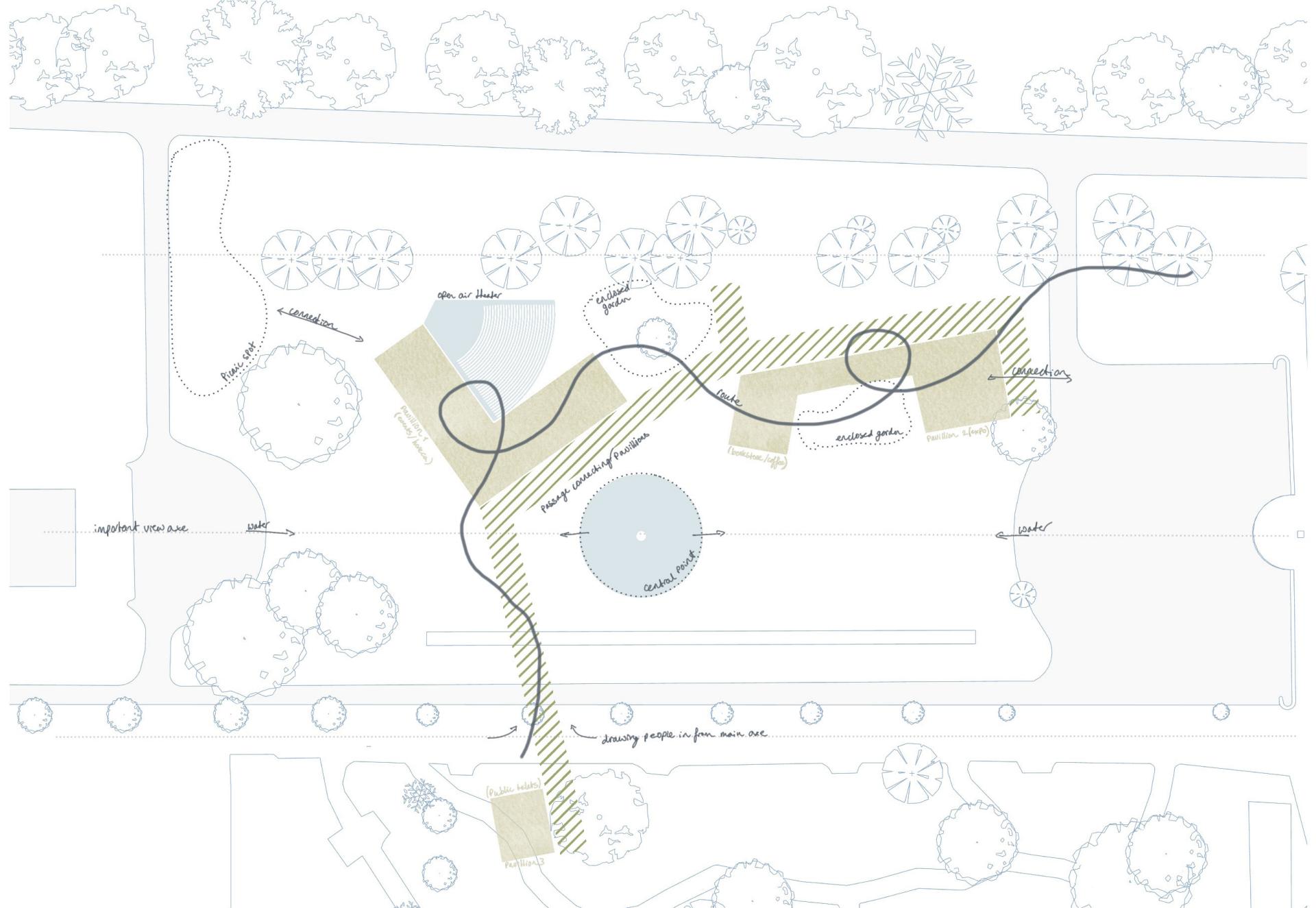


concept collage

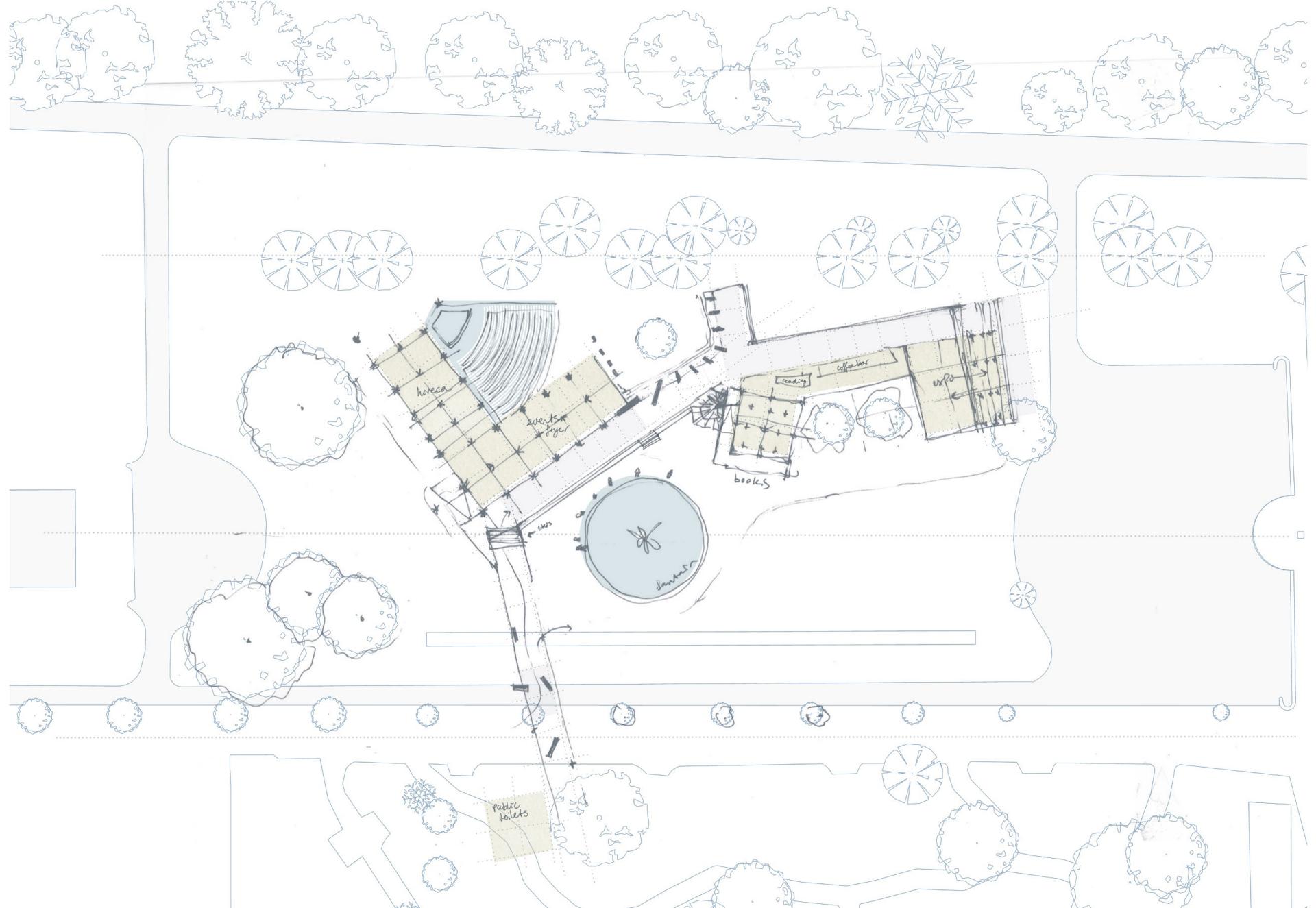


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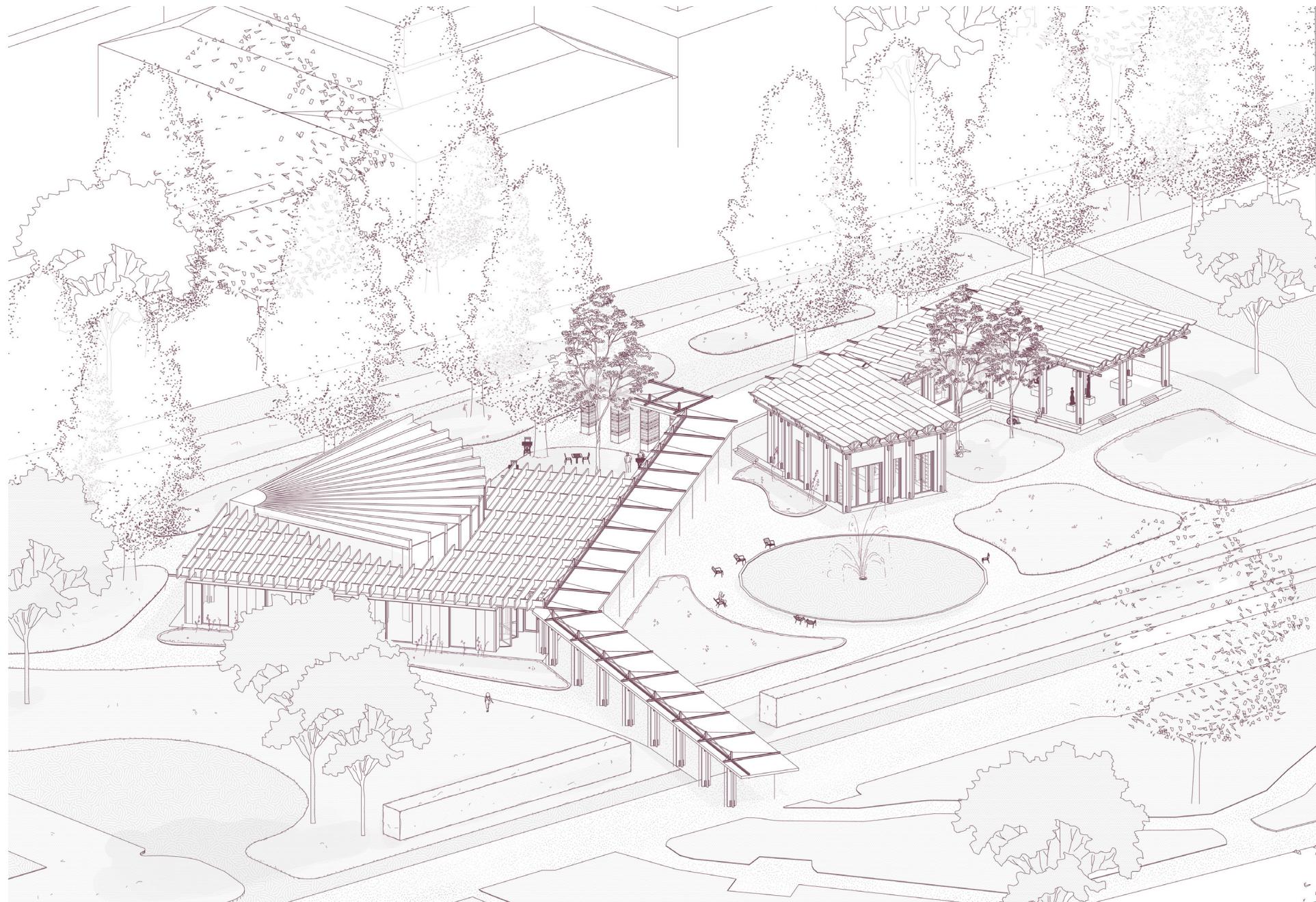
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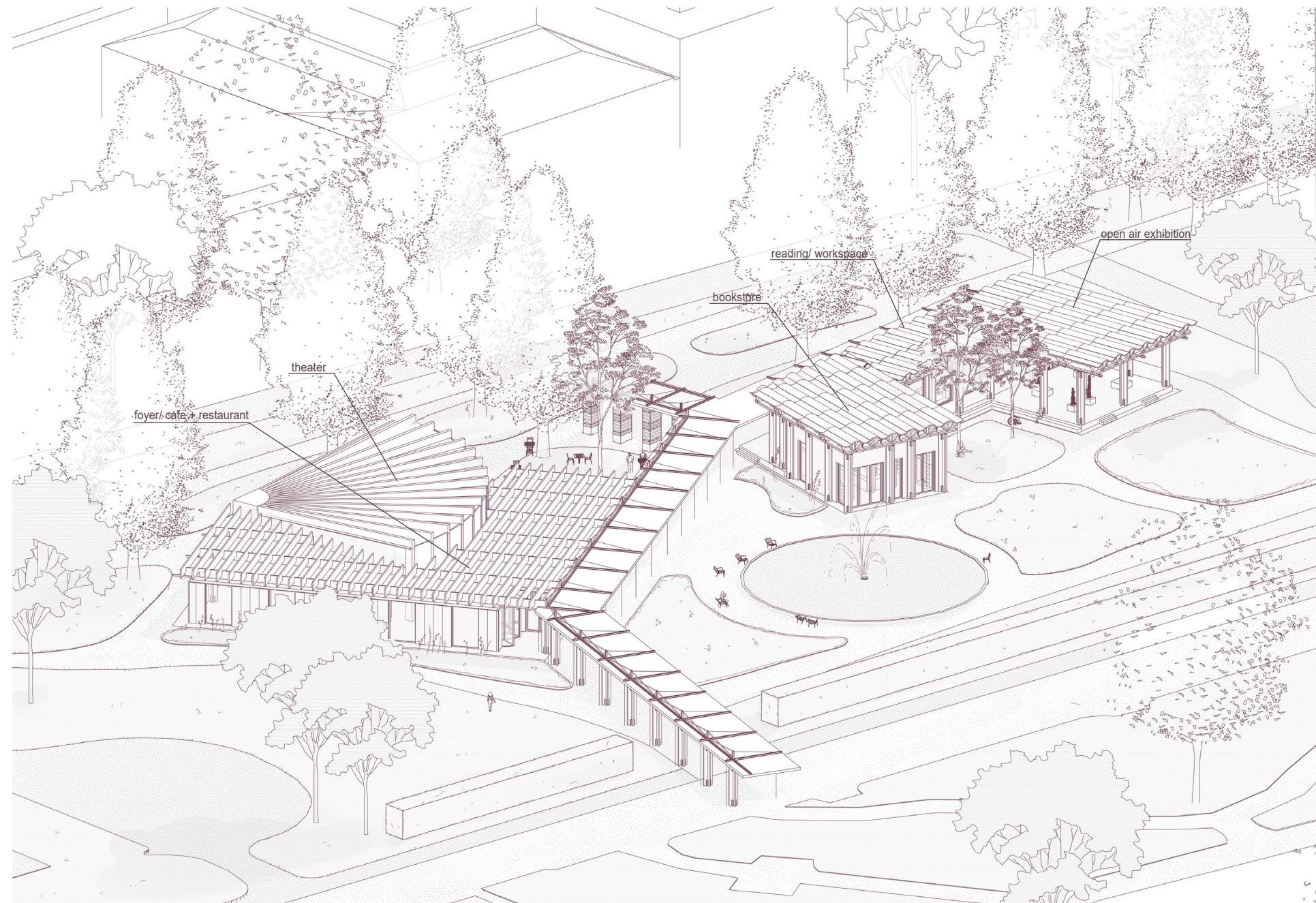




← N

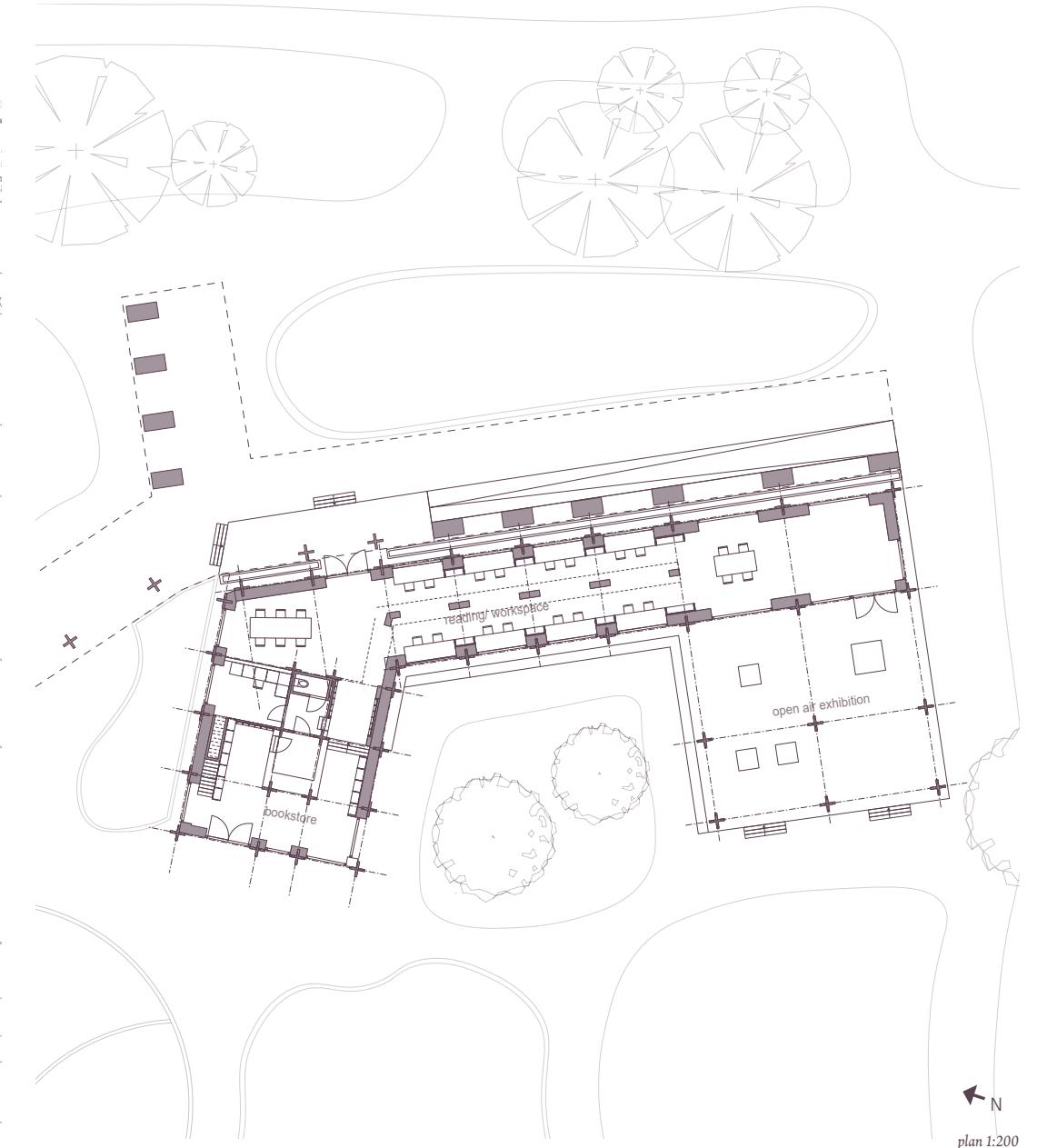
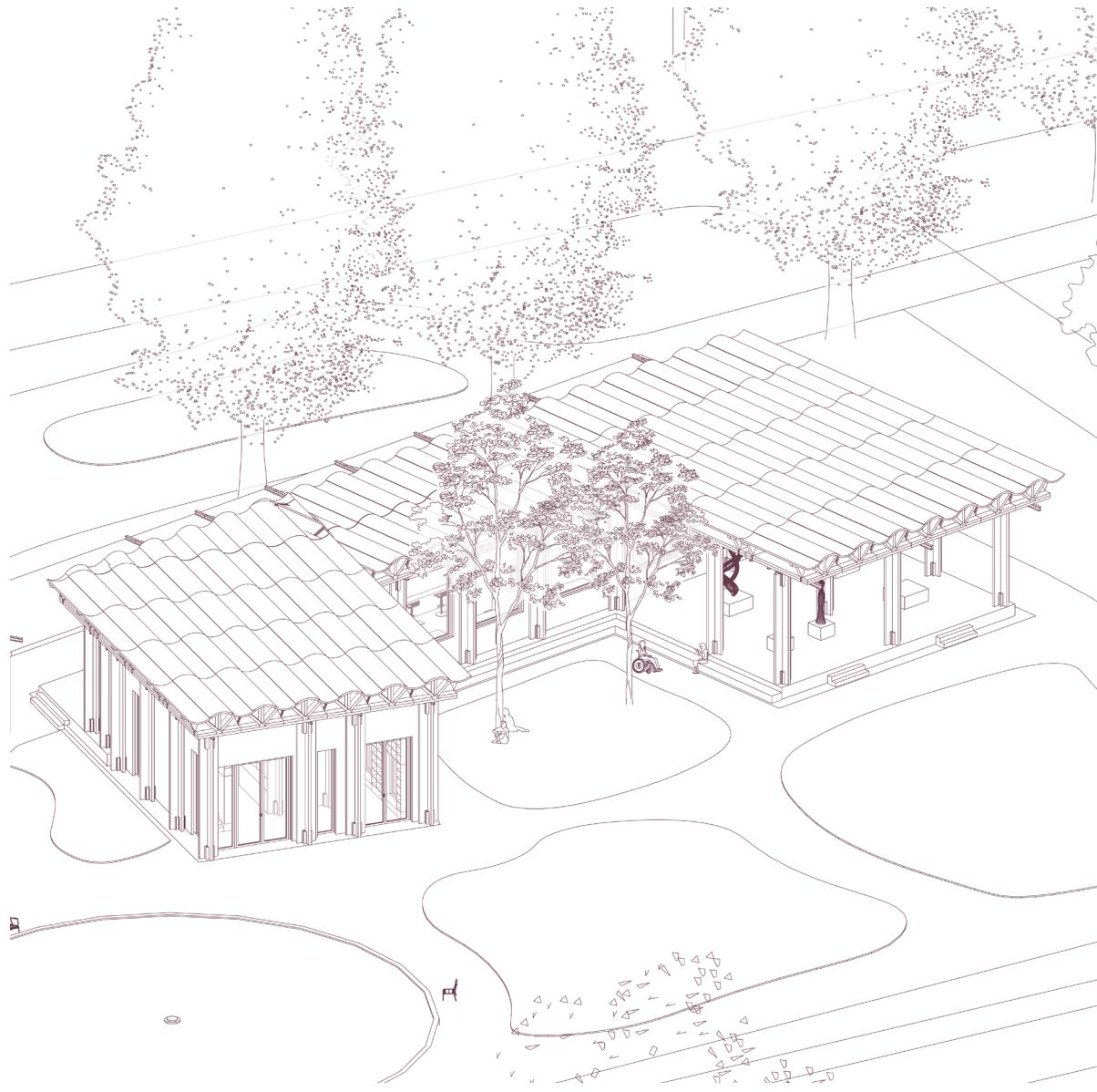
plan 1:200

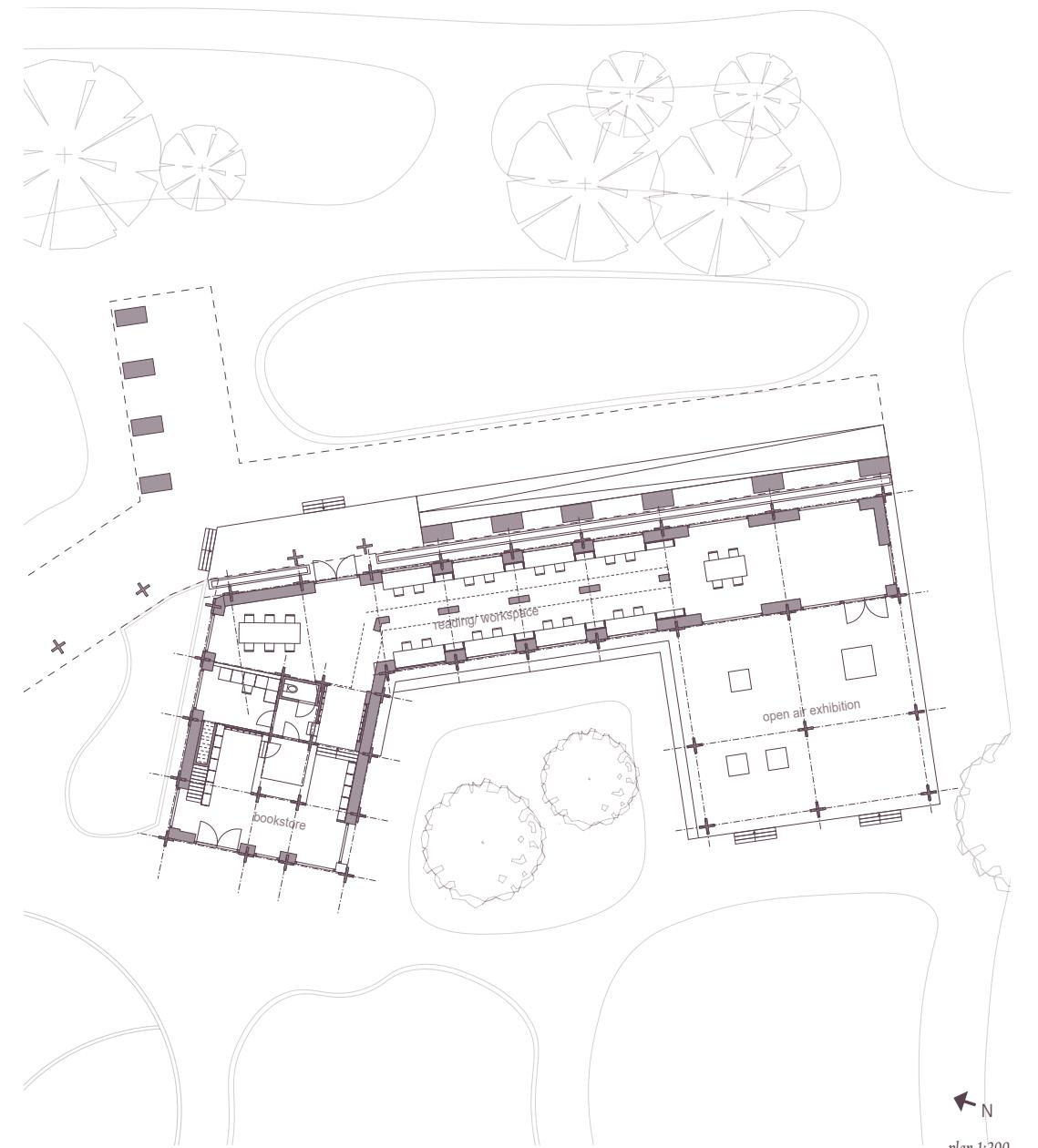
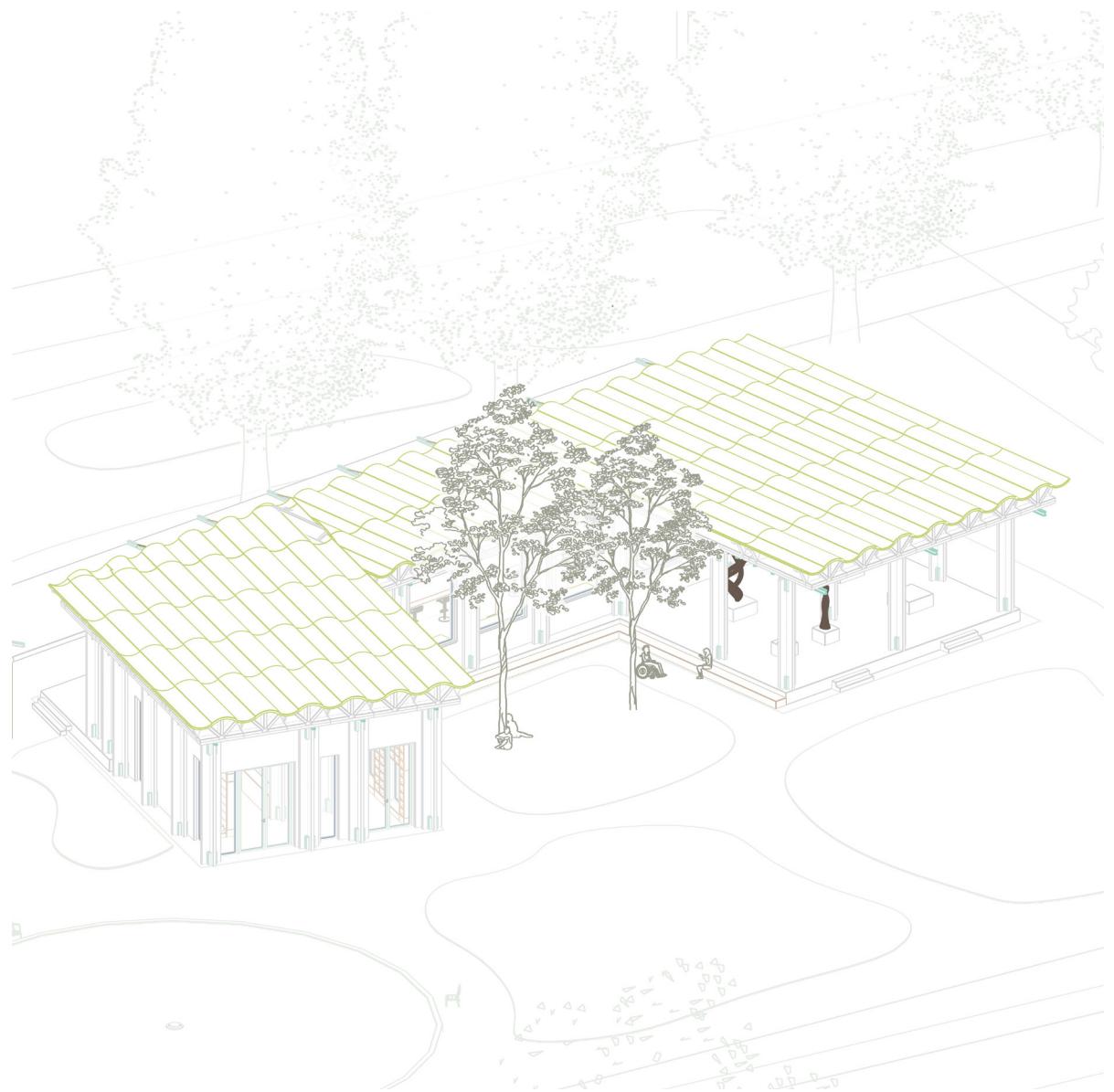


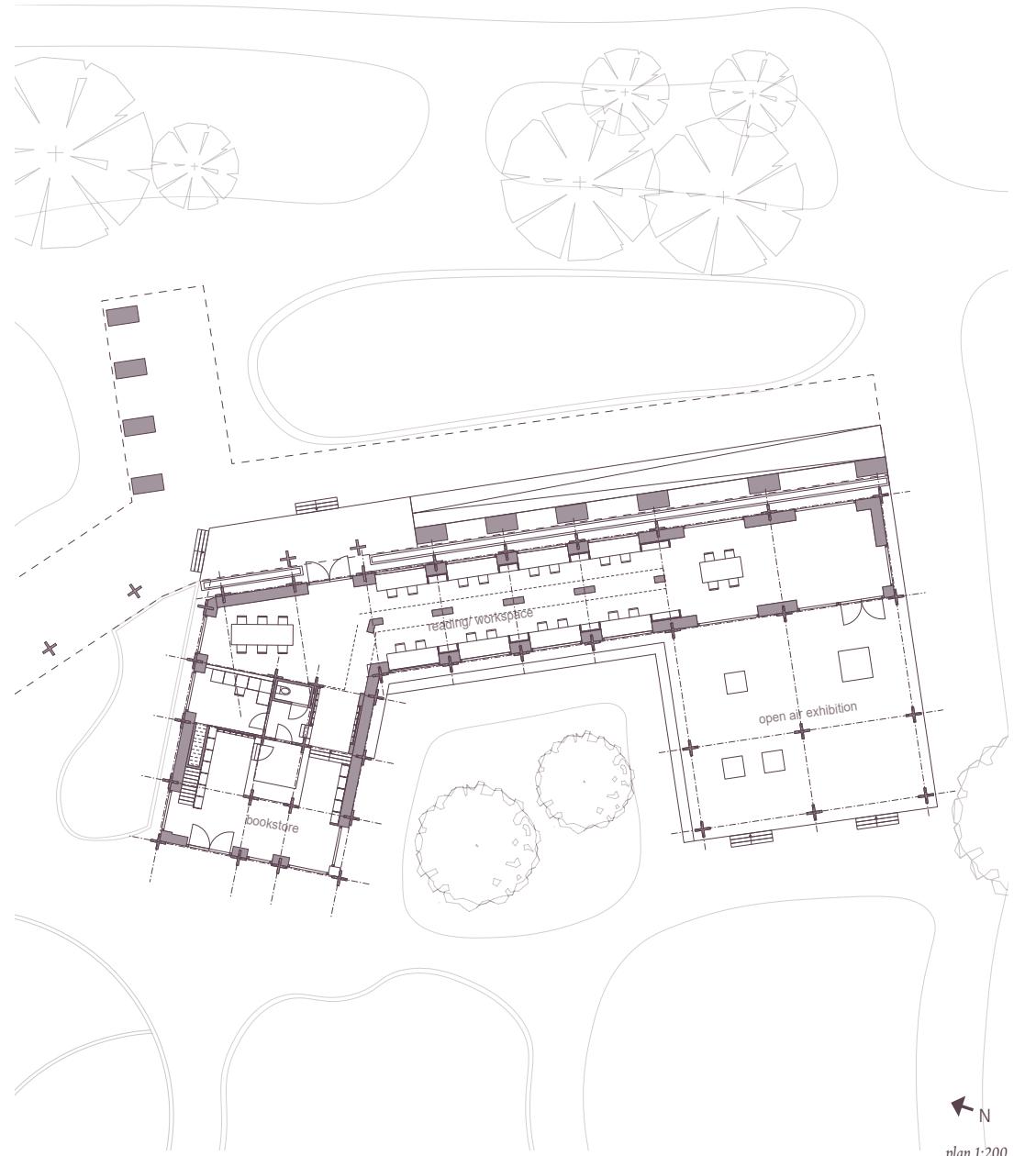
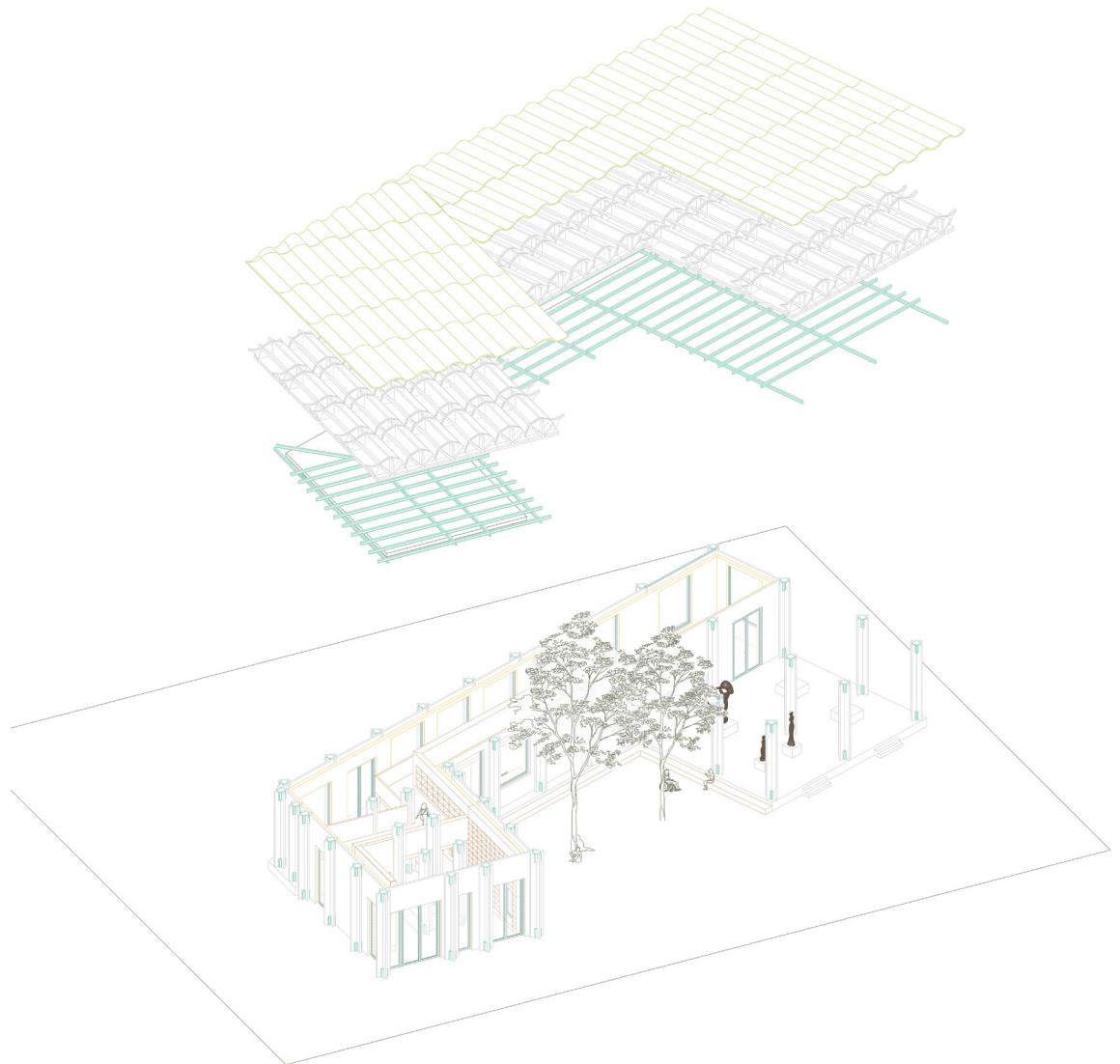


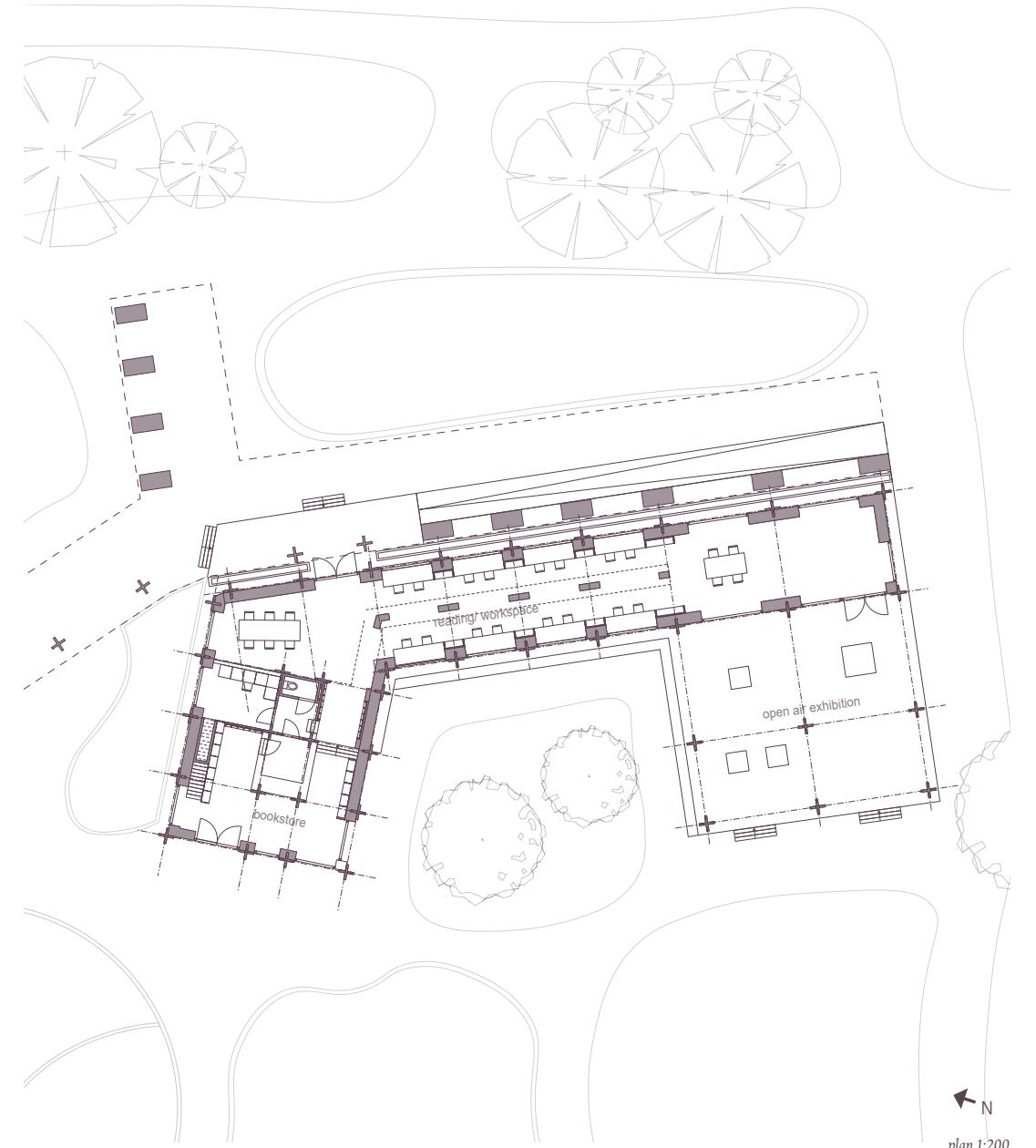
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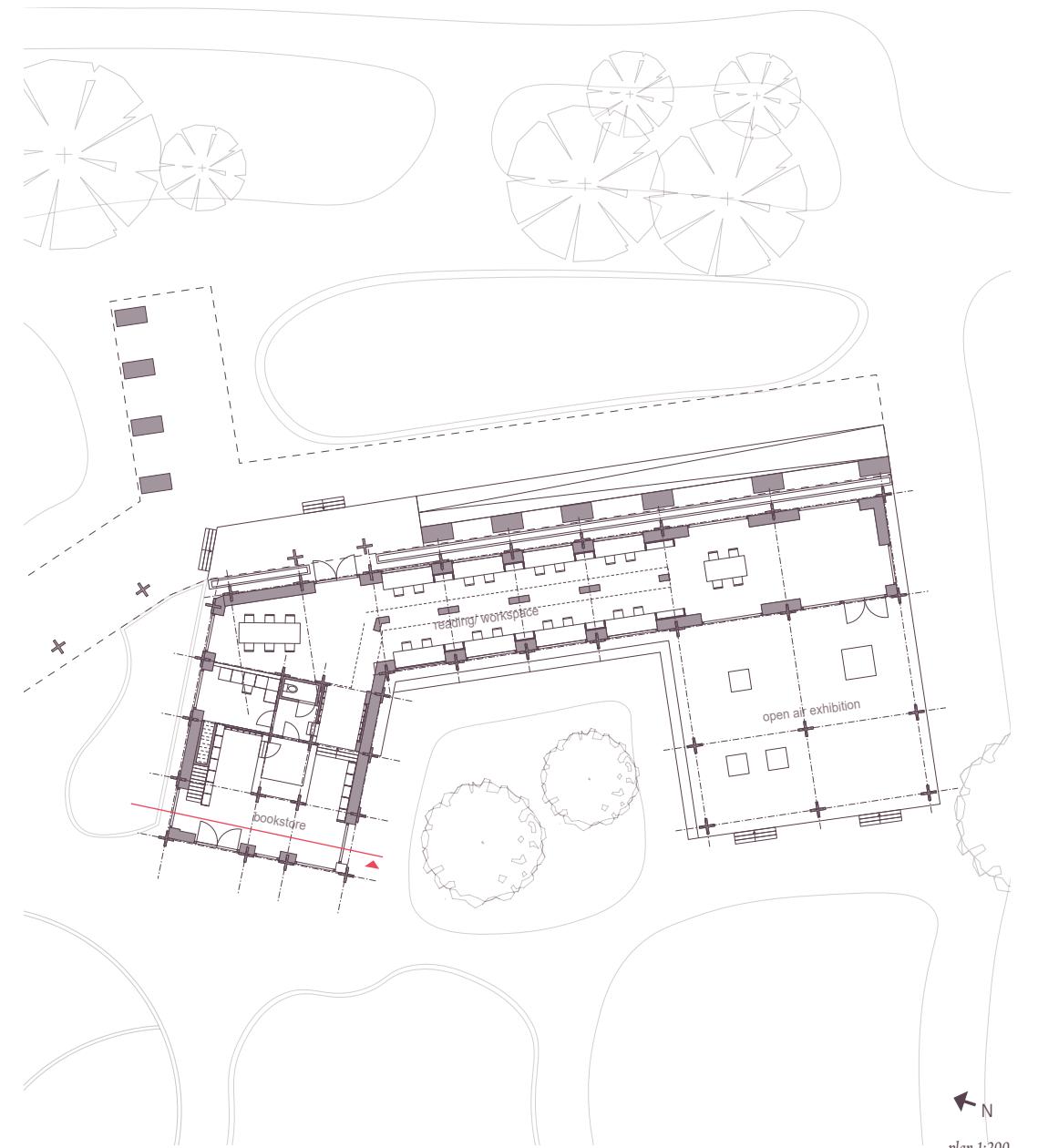
isometric view pavilion

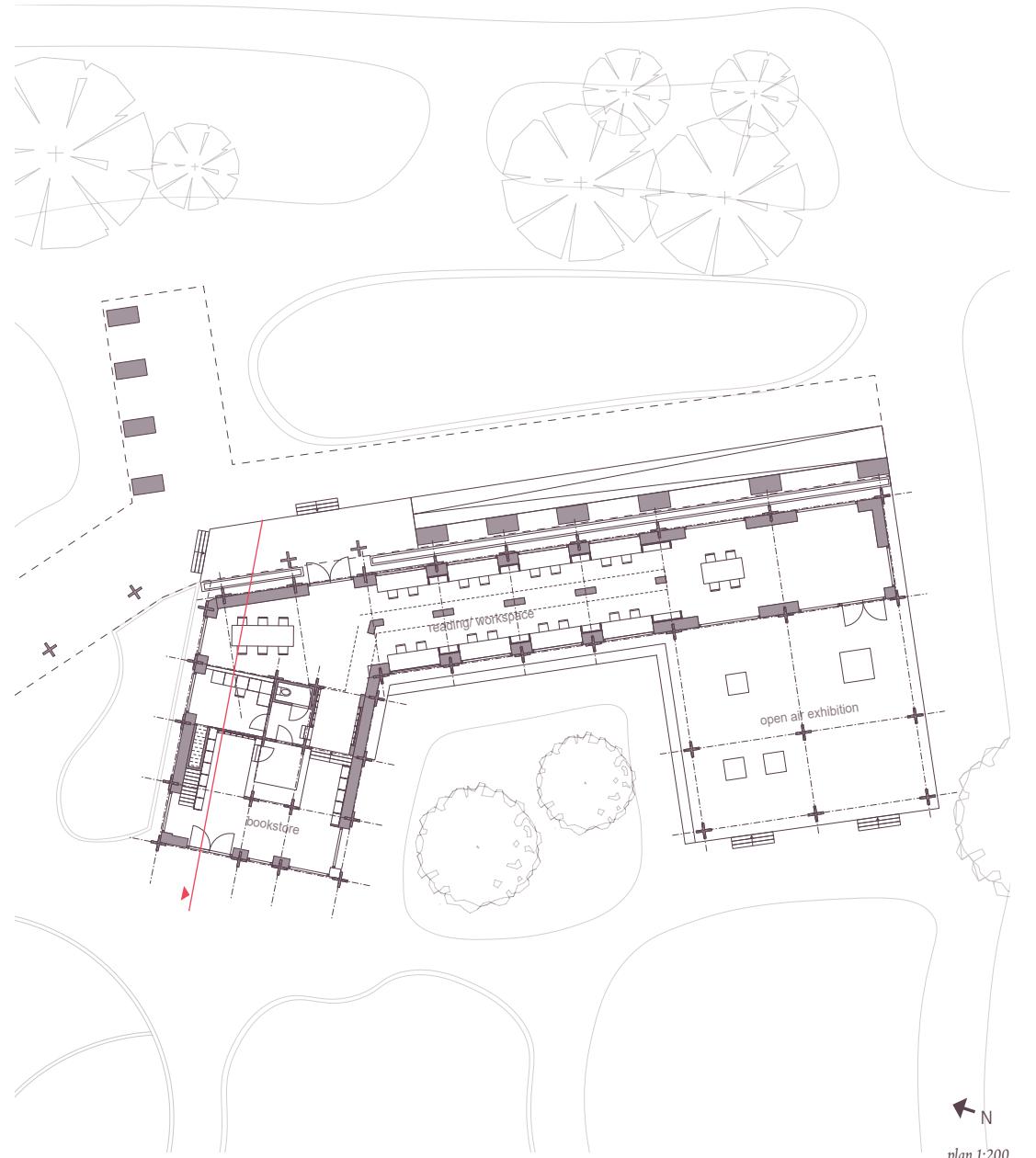


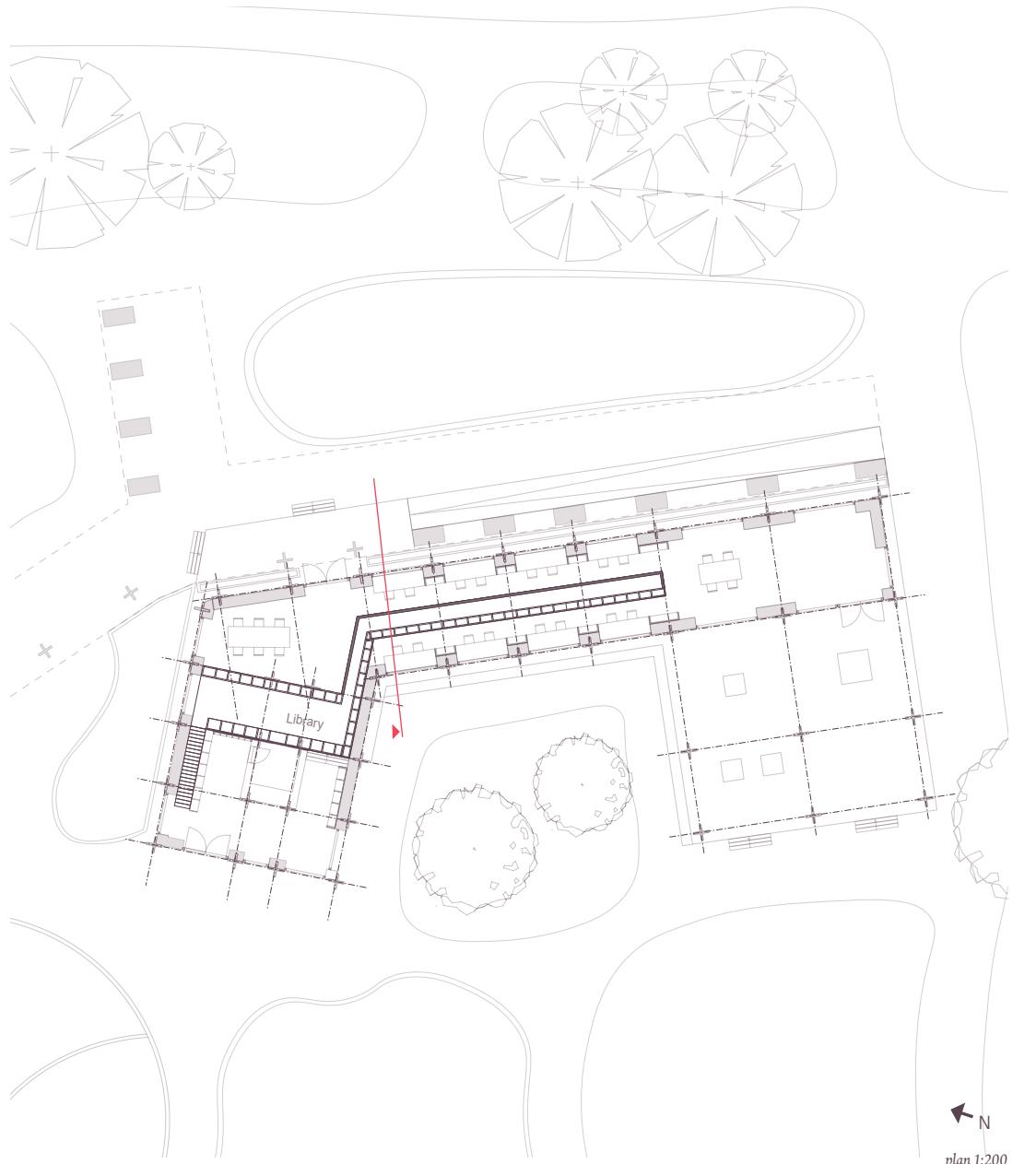
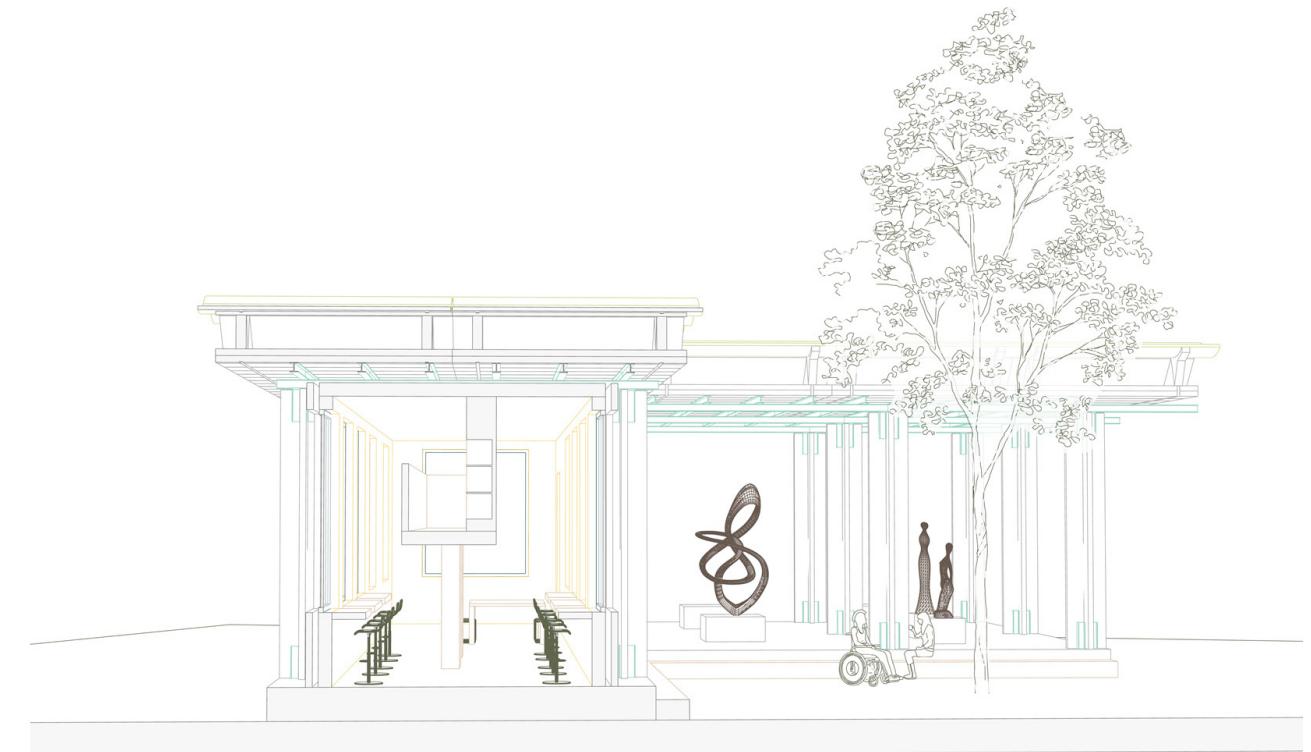


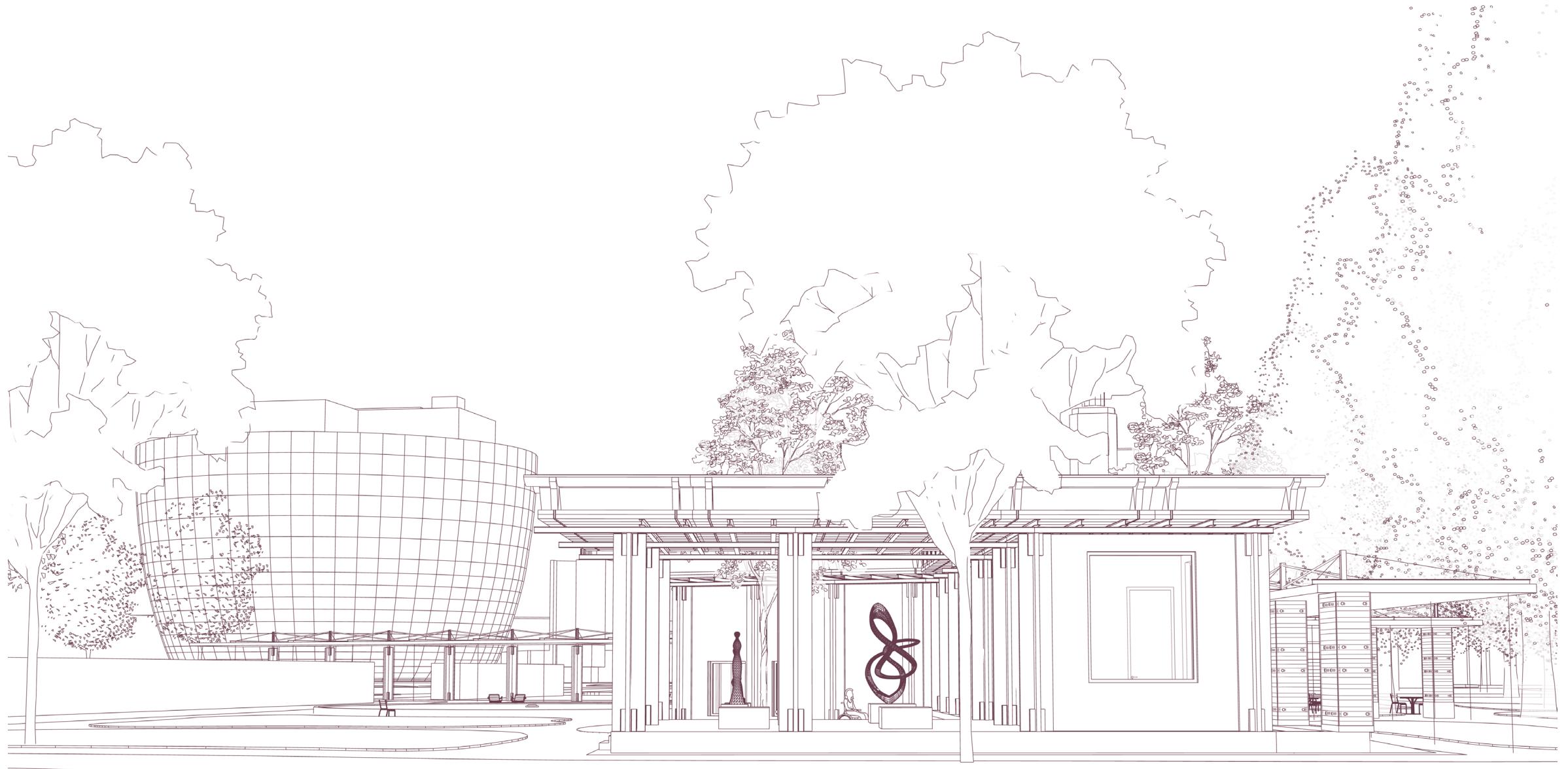




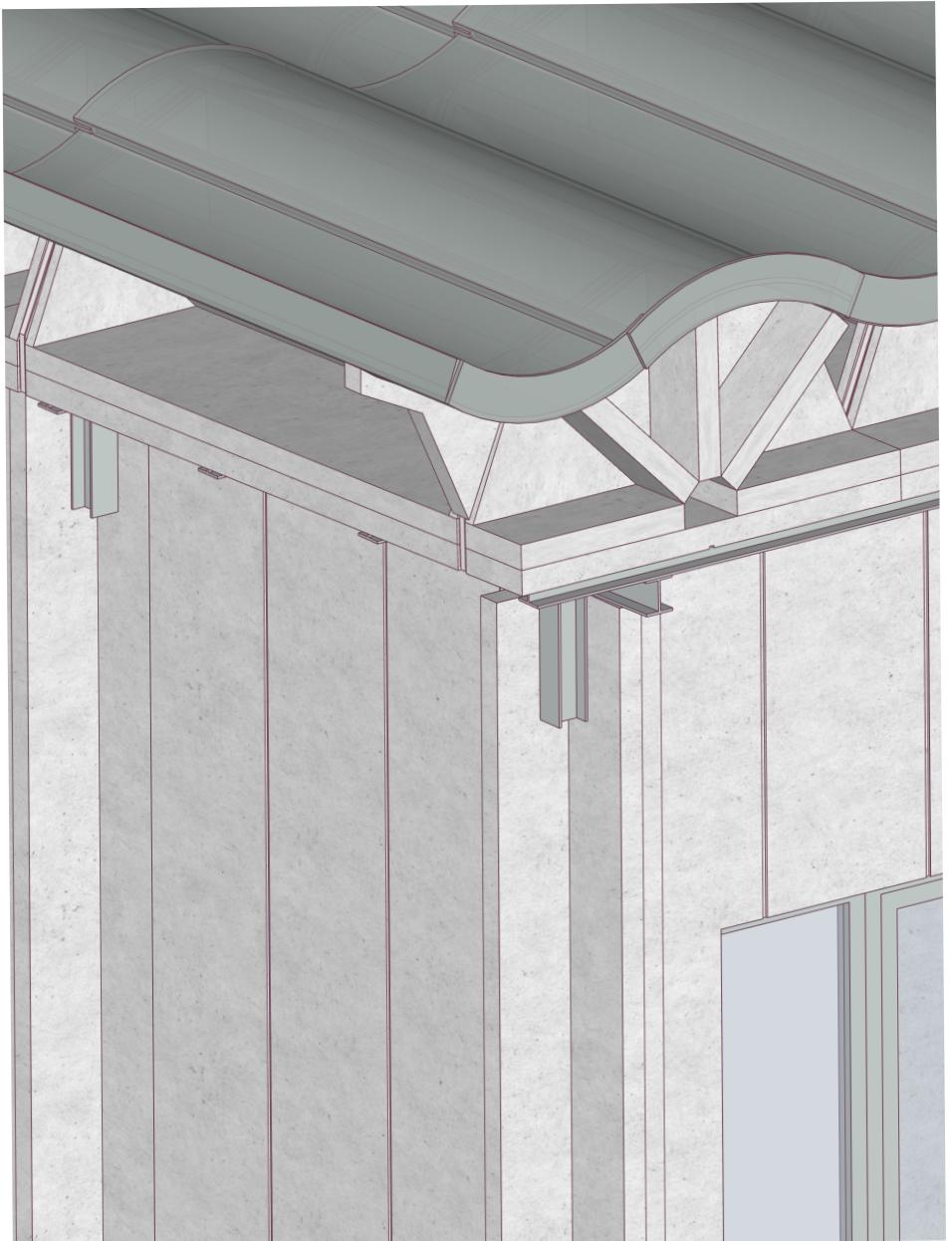




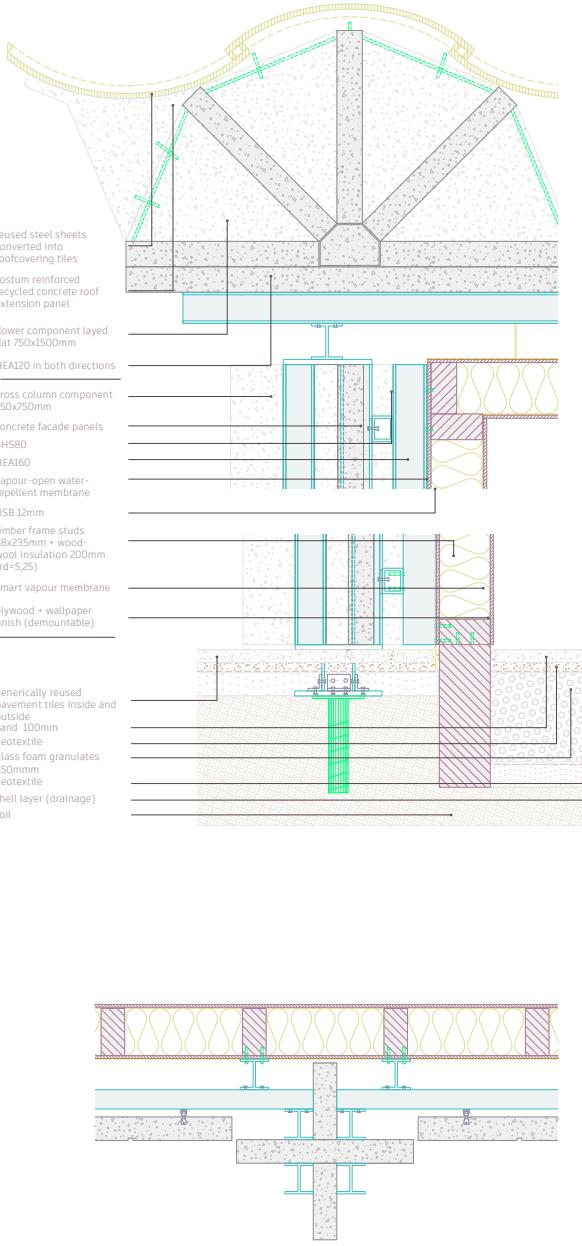




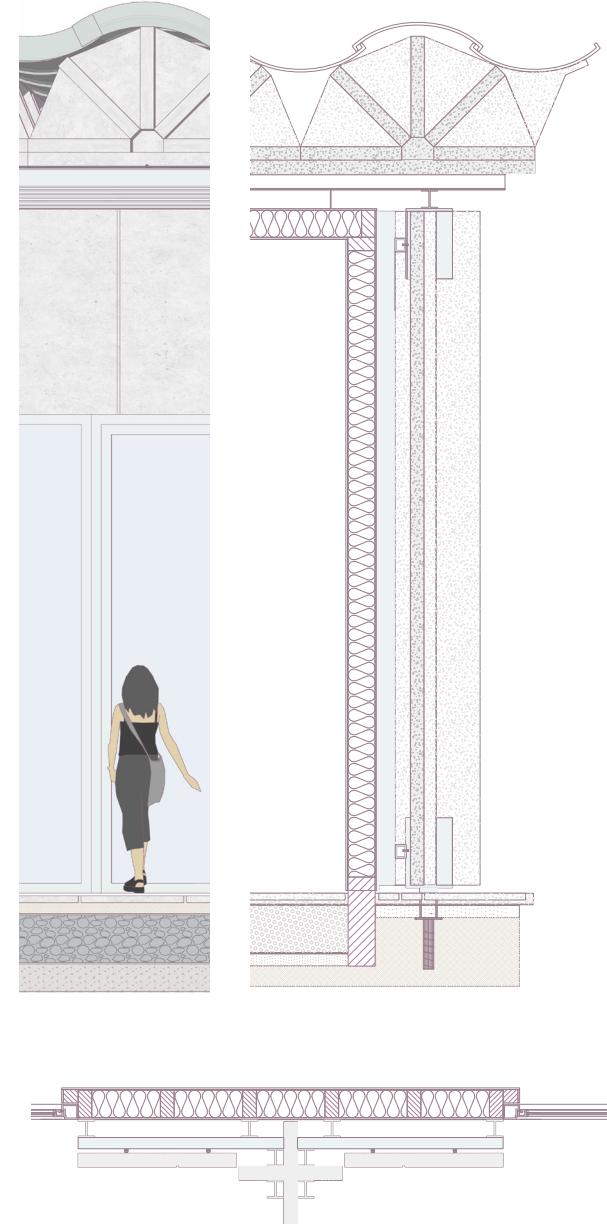
view A



axo close-up fragment



details horizontal + vertical

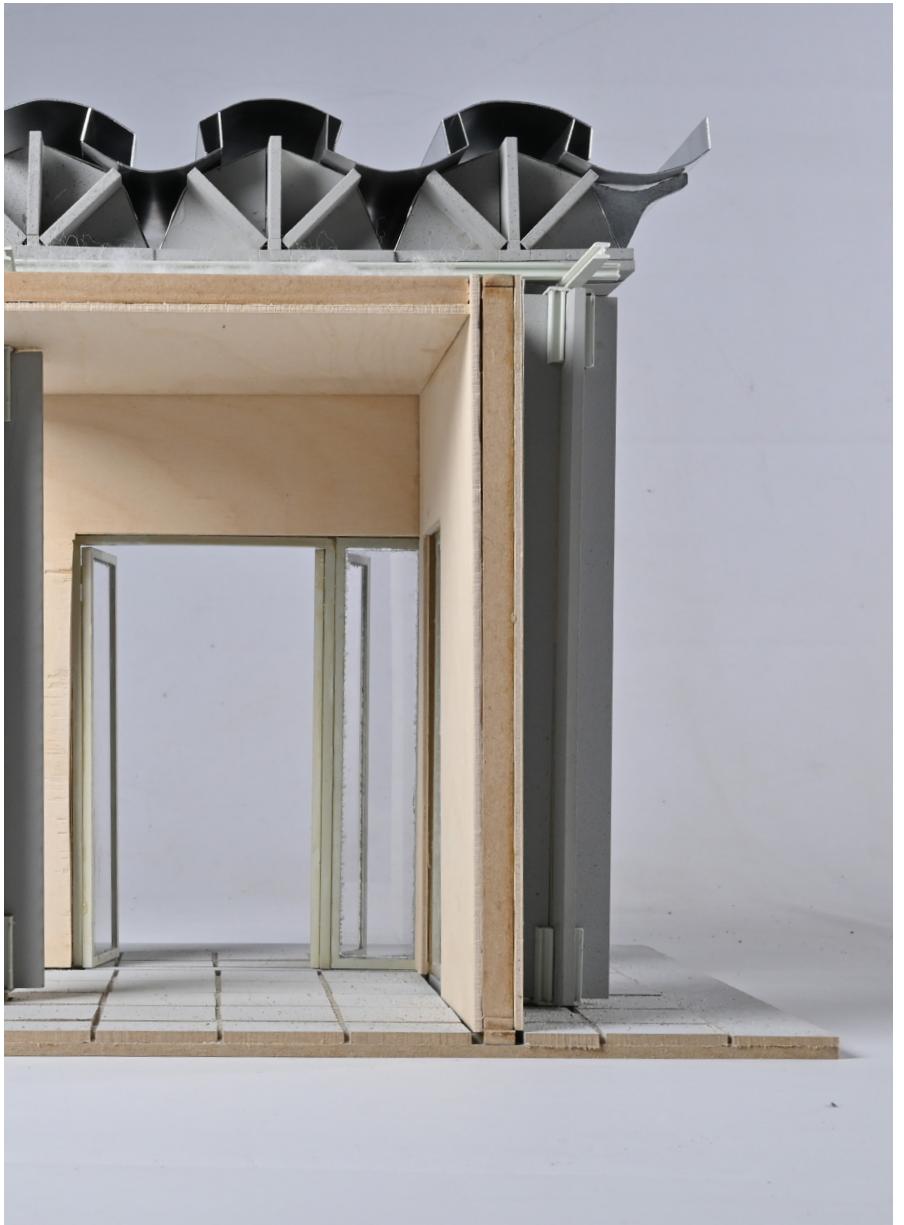




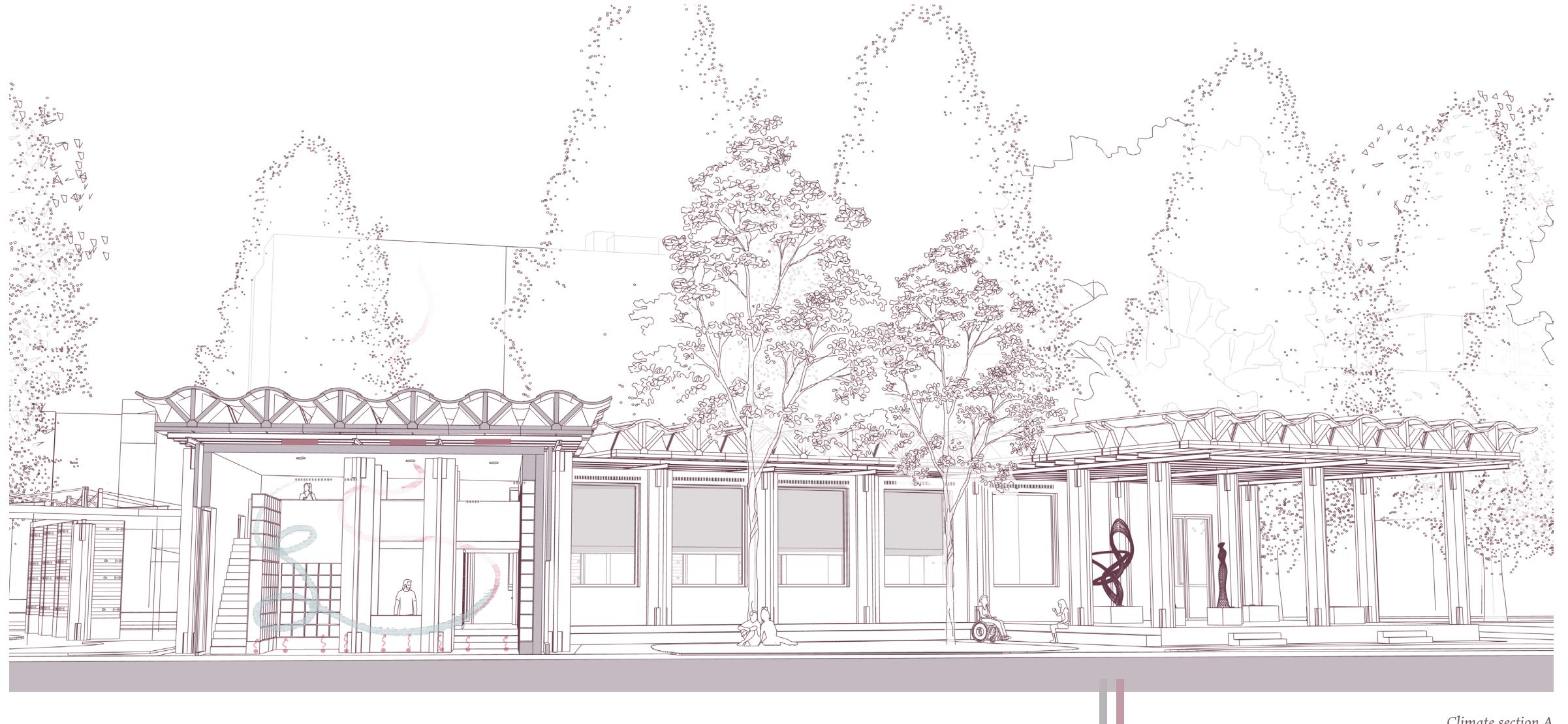
Fragment model - bookstore pavilion



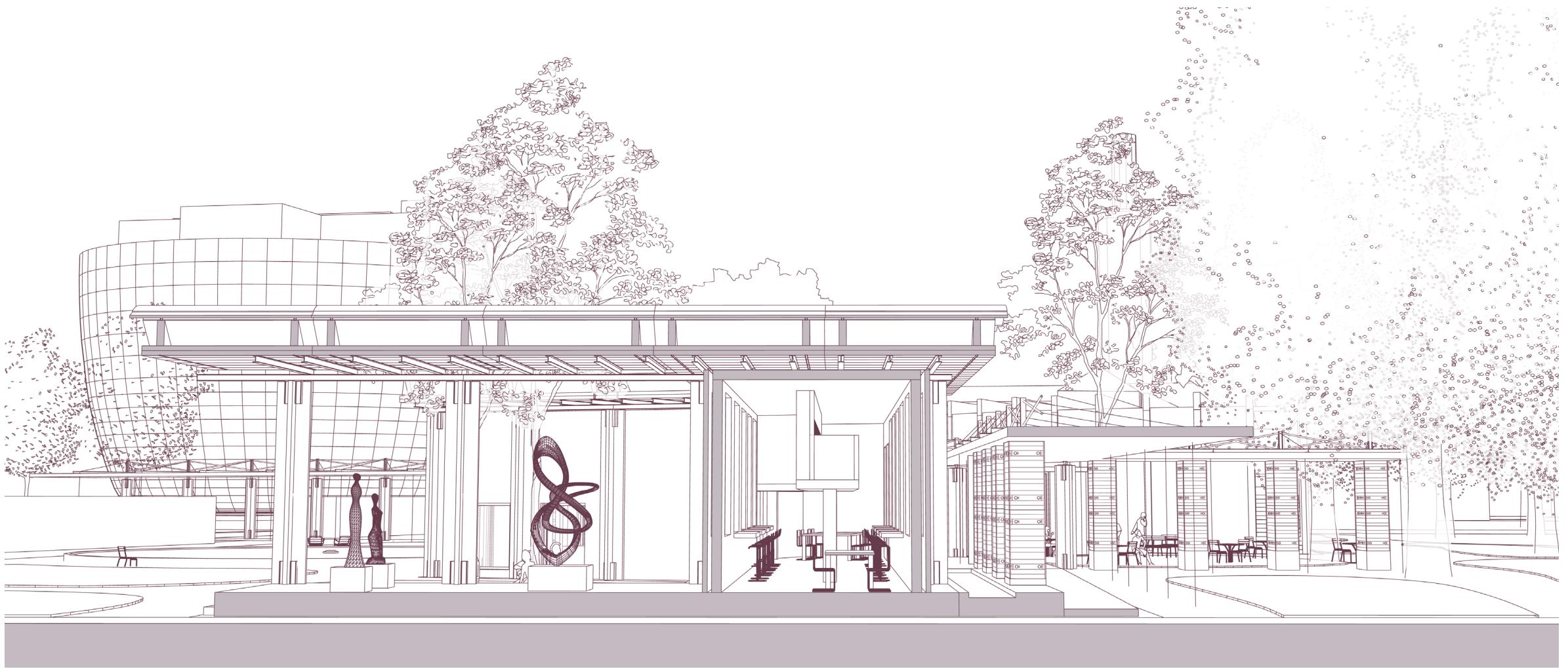
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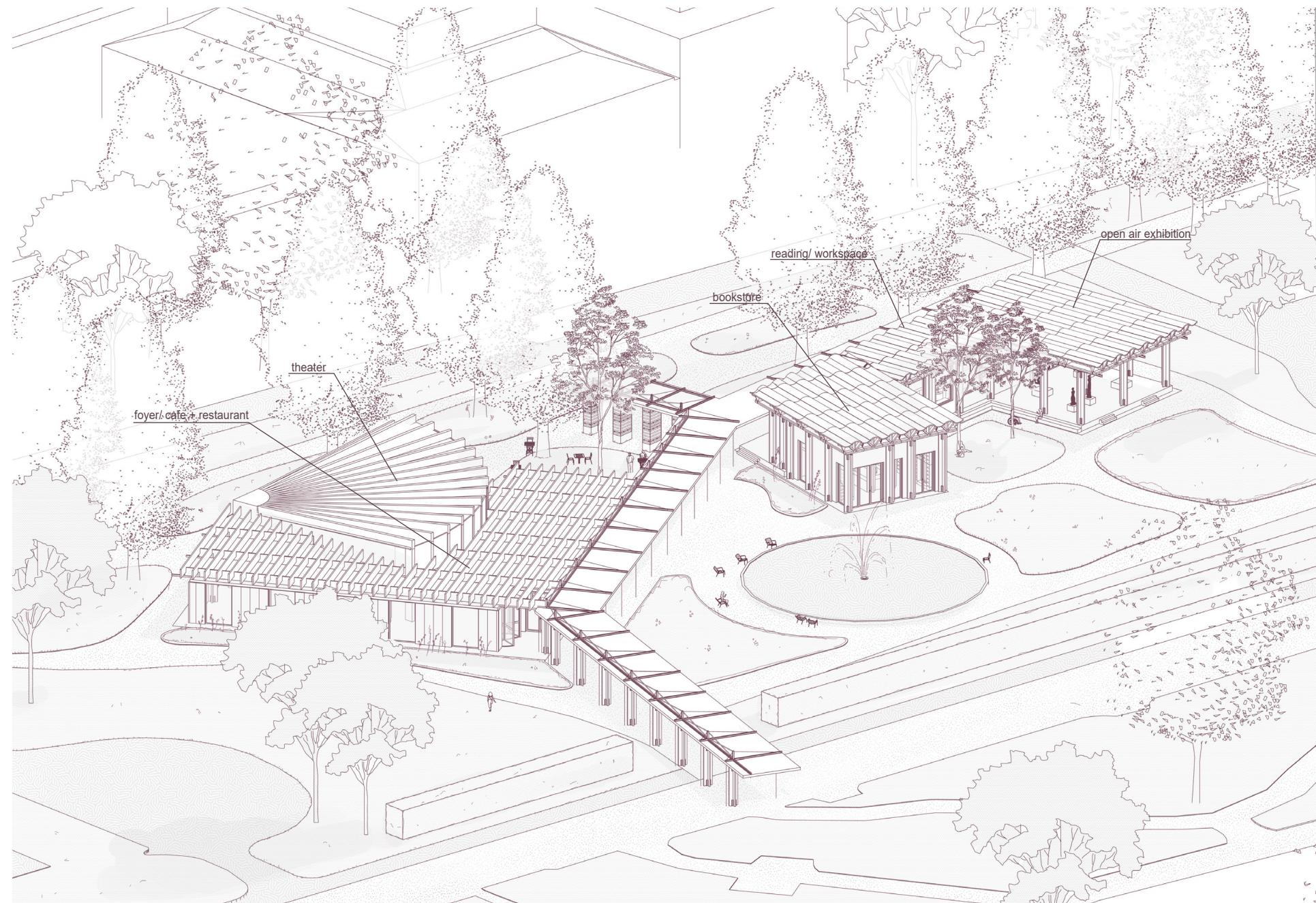
Fragment model - bookstore pavilion

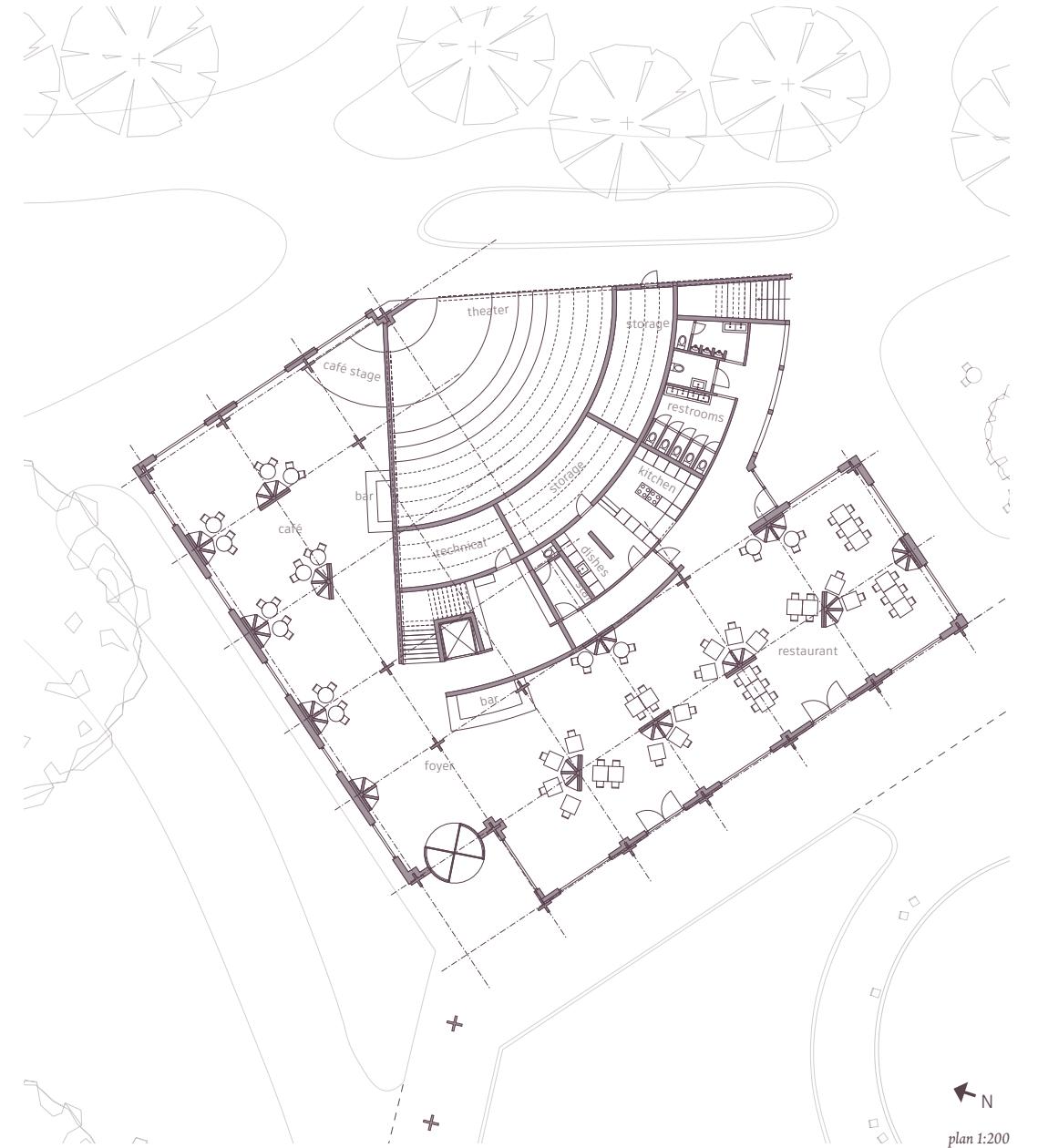
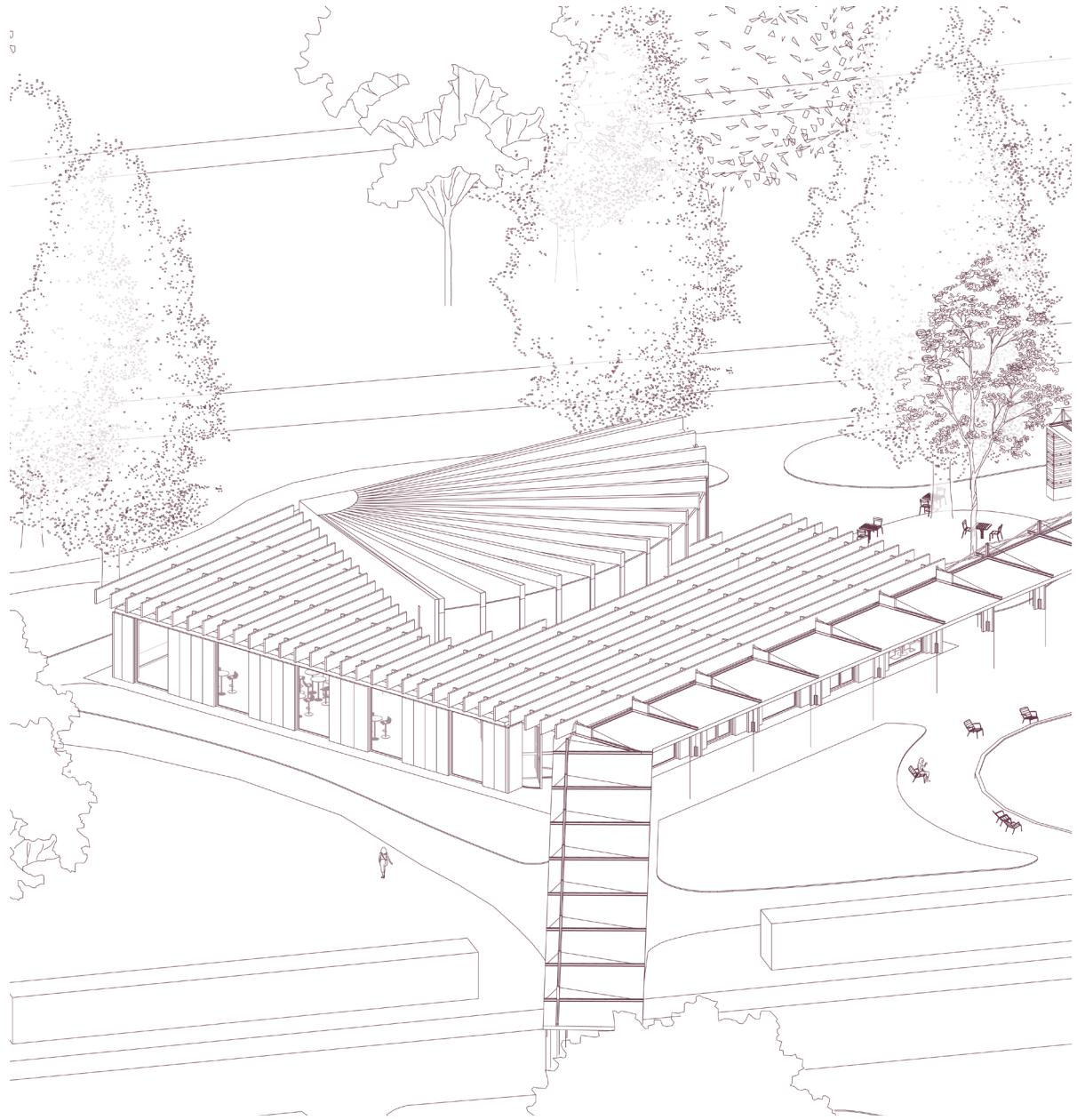


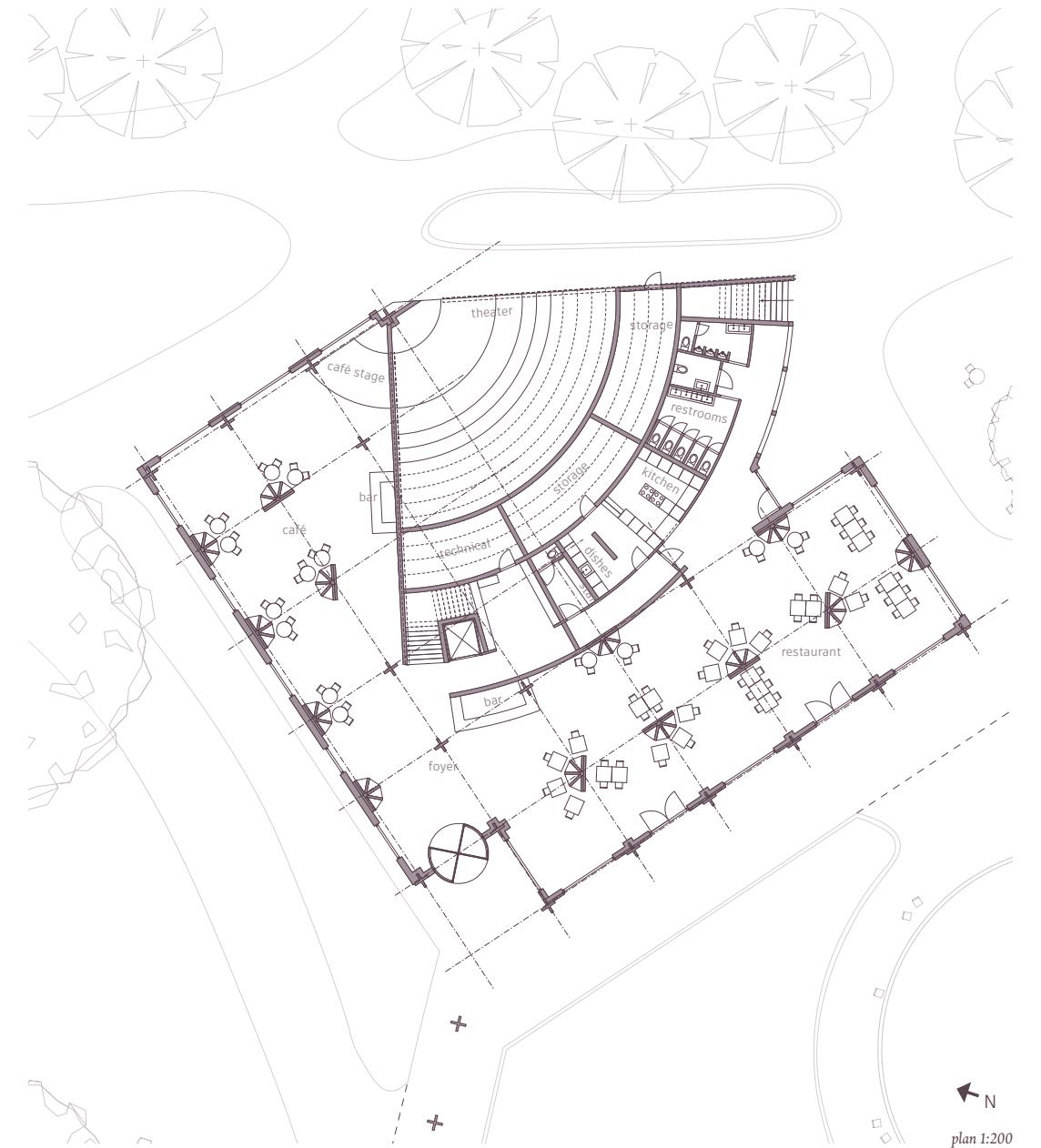
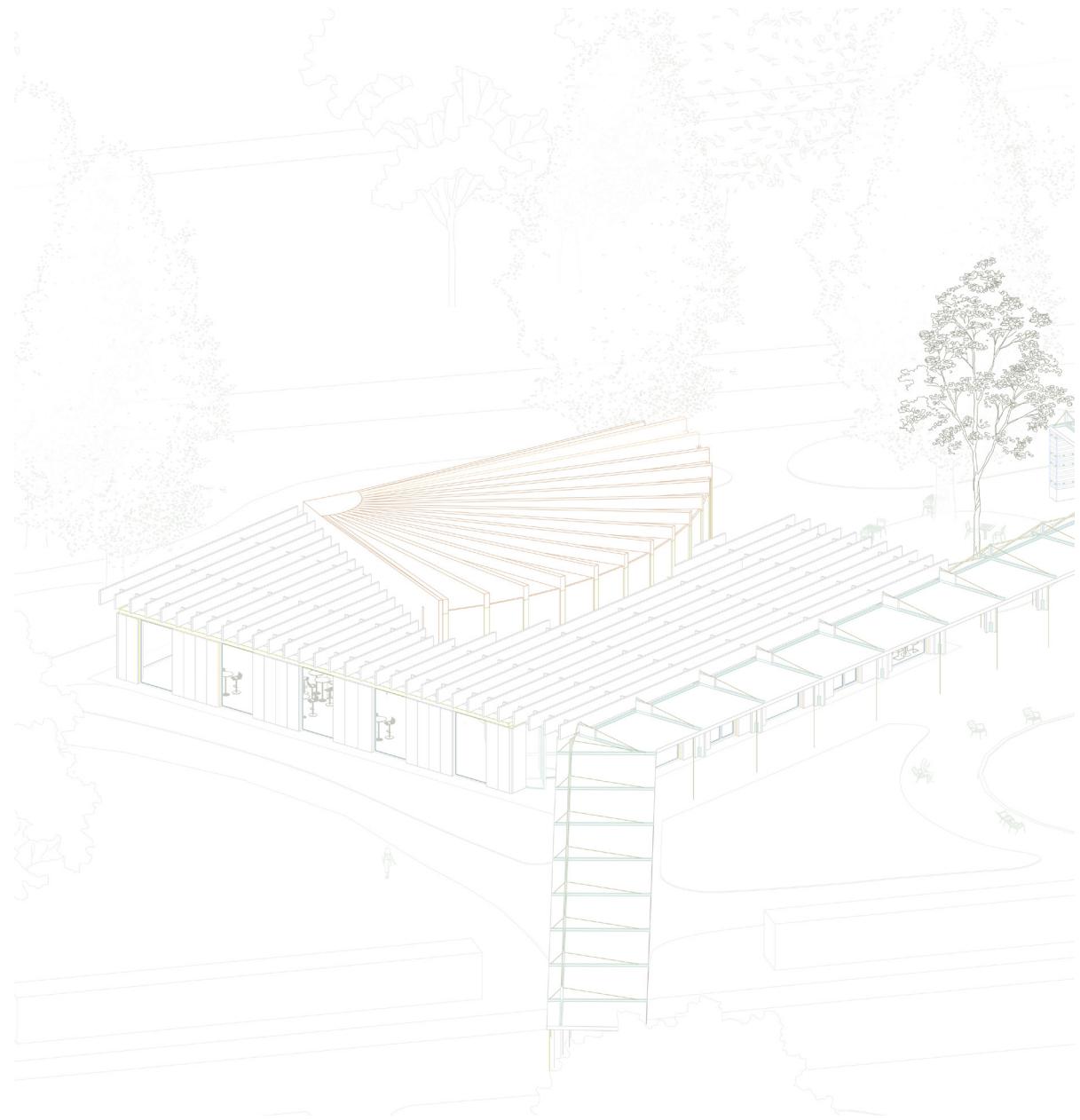
Climate section A

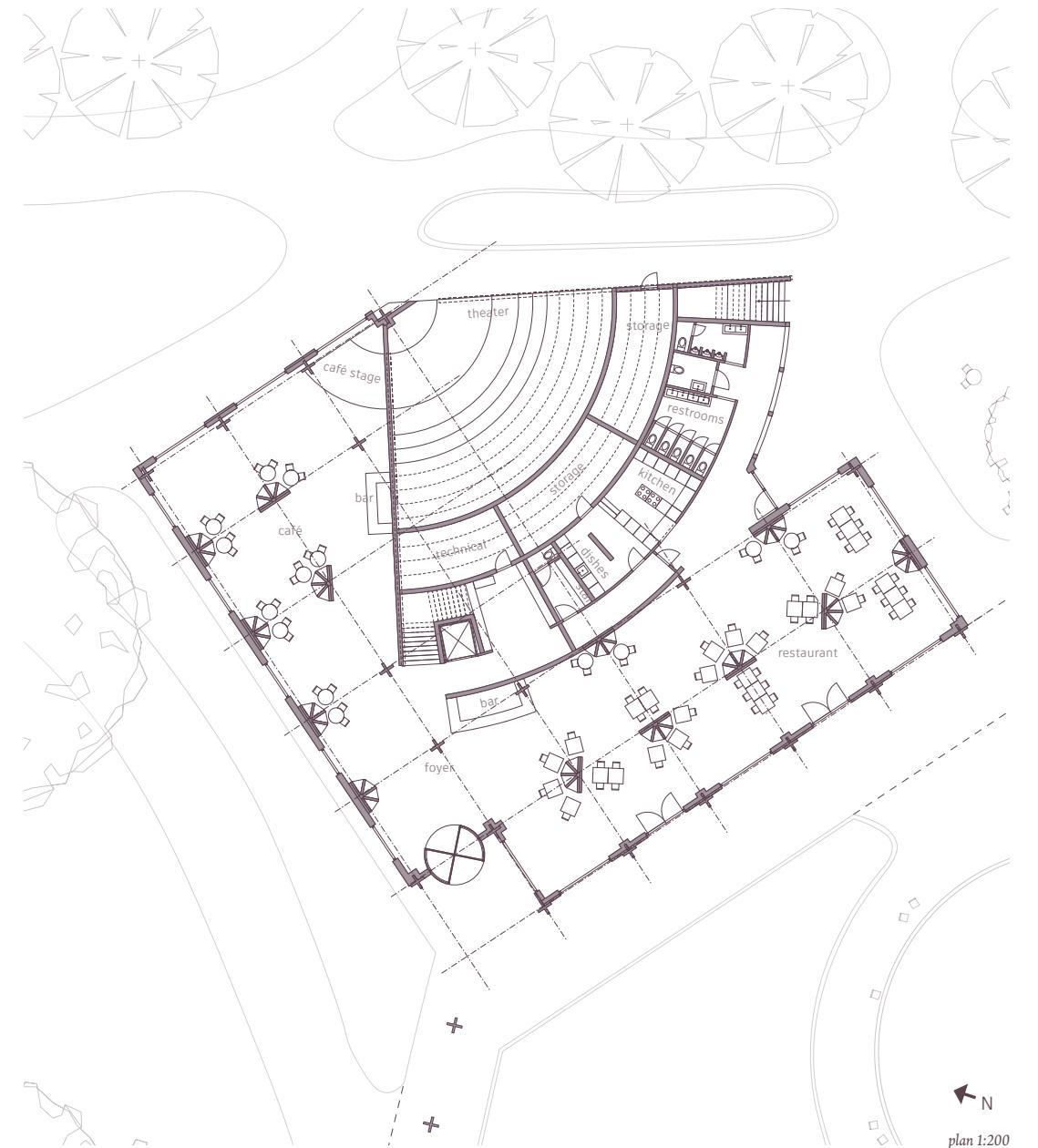
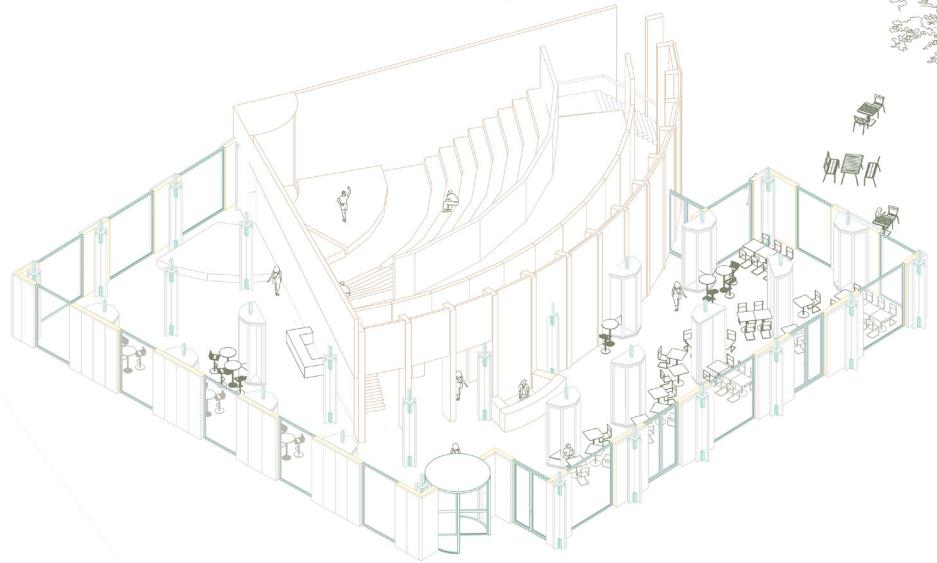
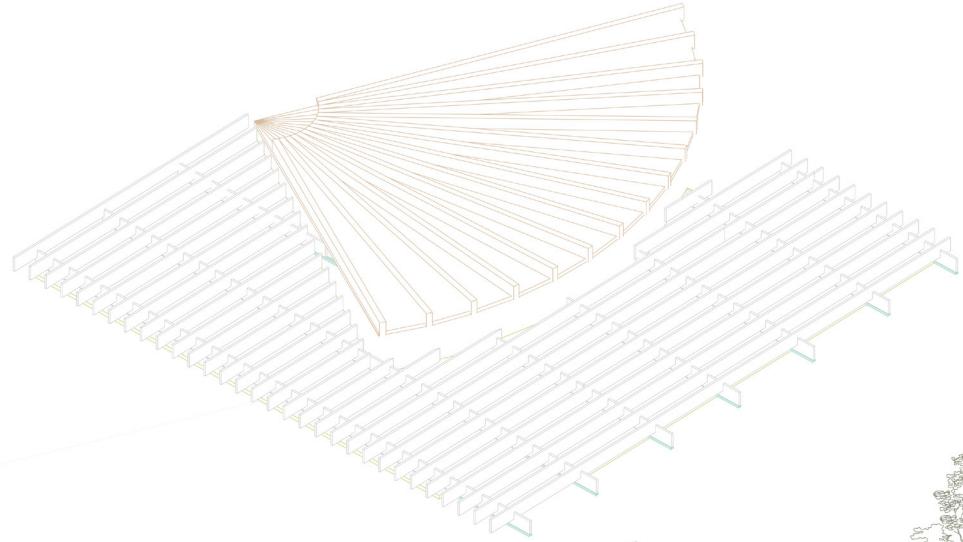


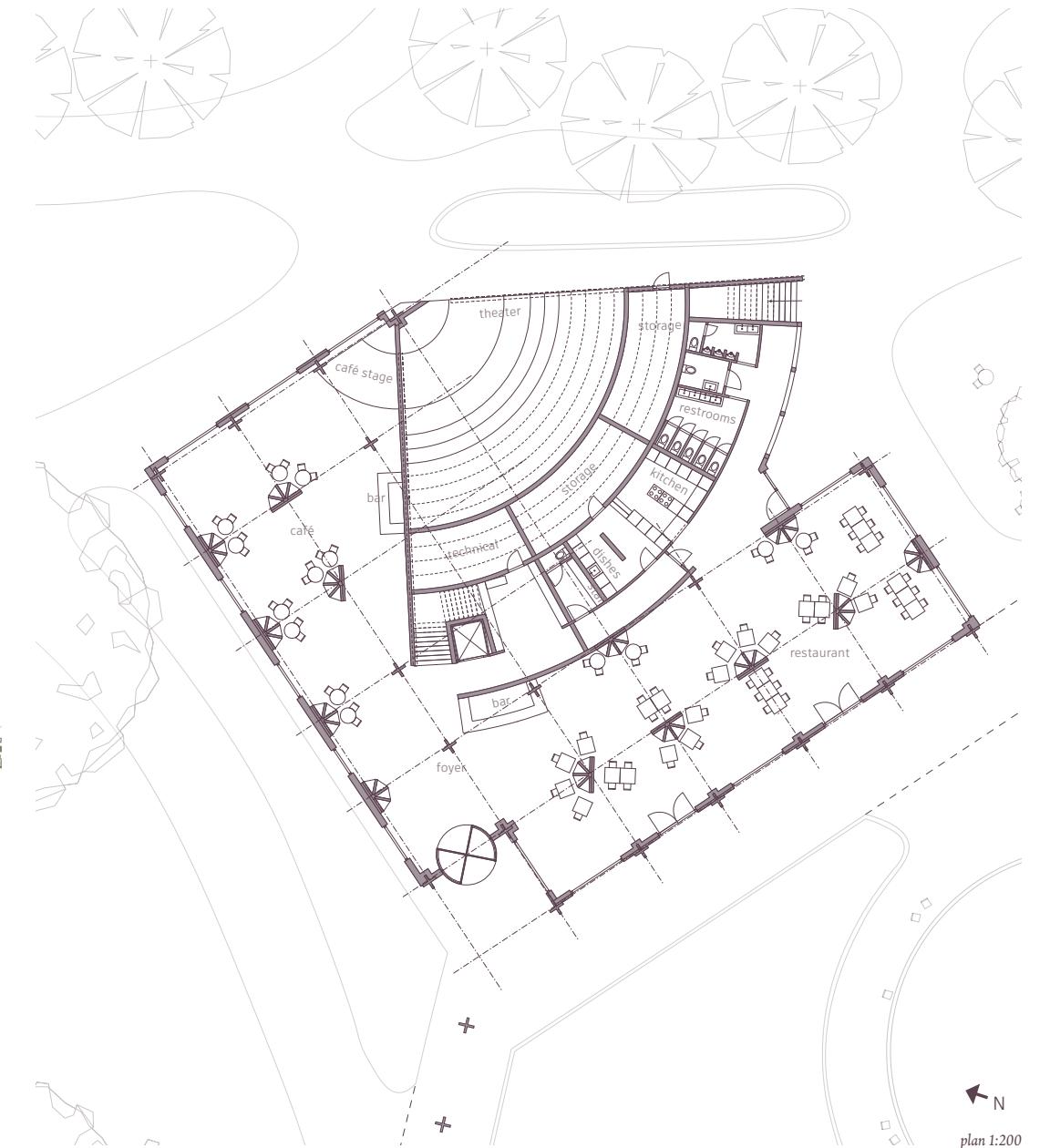
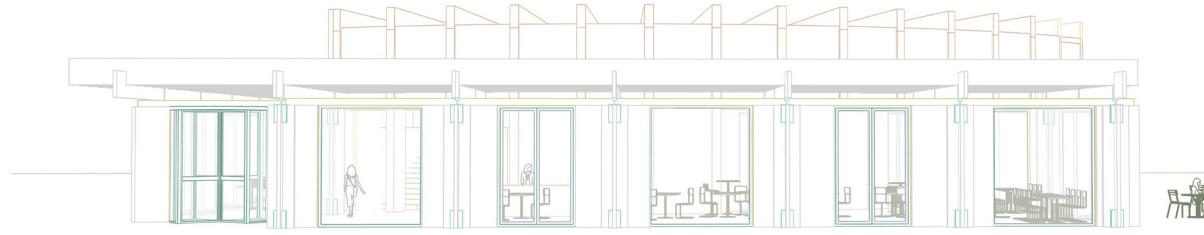
Section through open air art exhibition and reading room



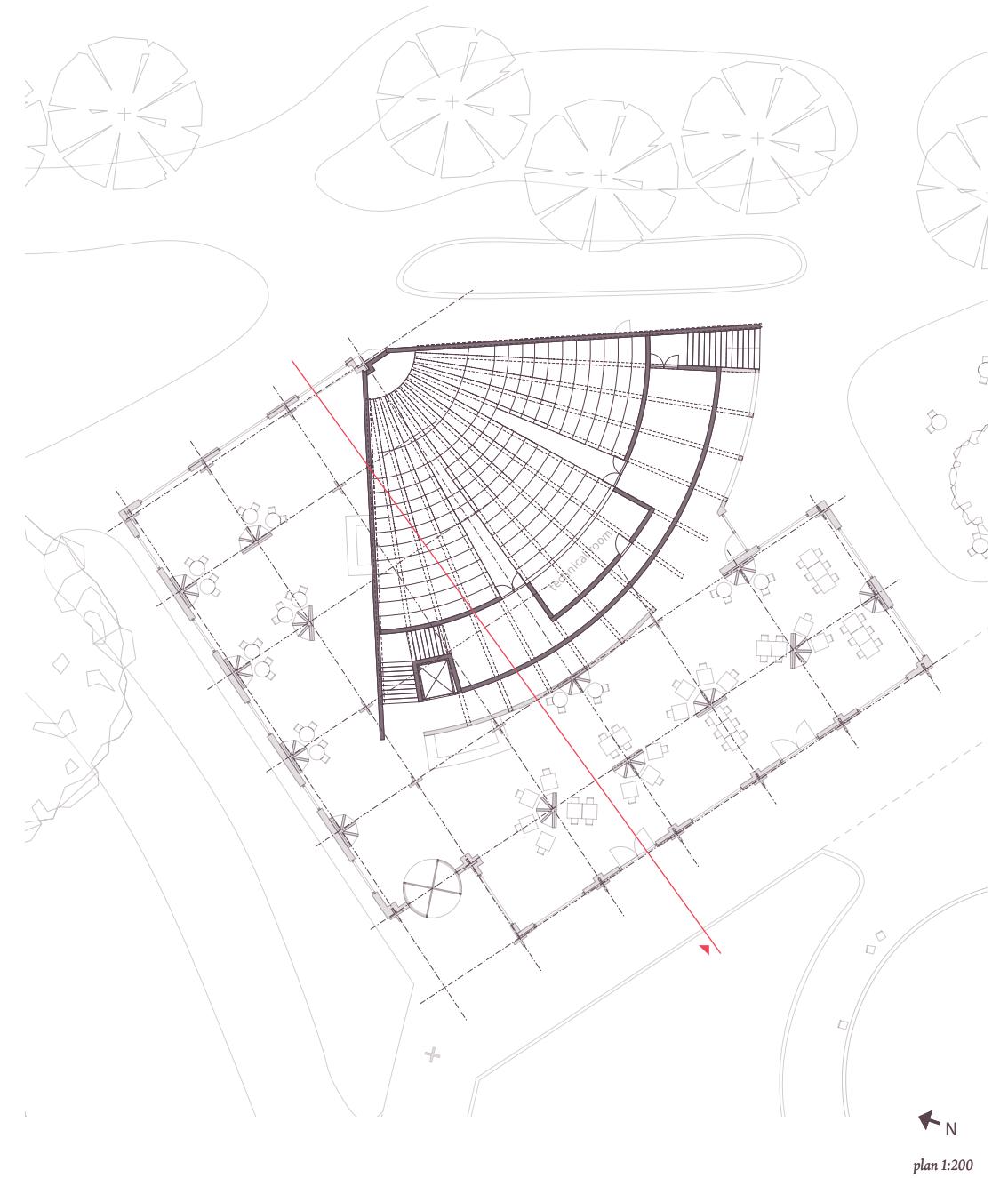


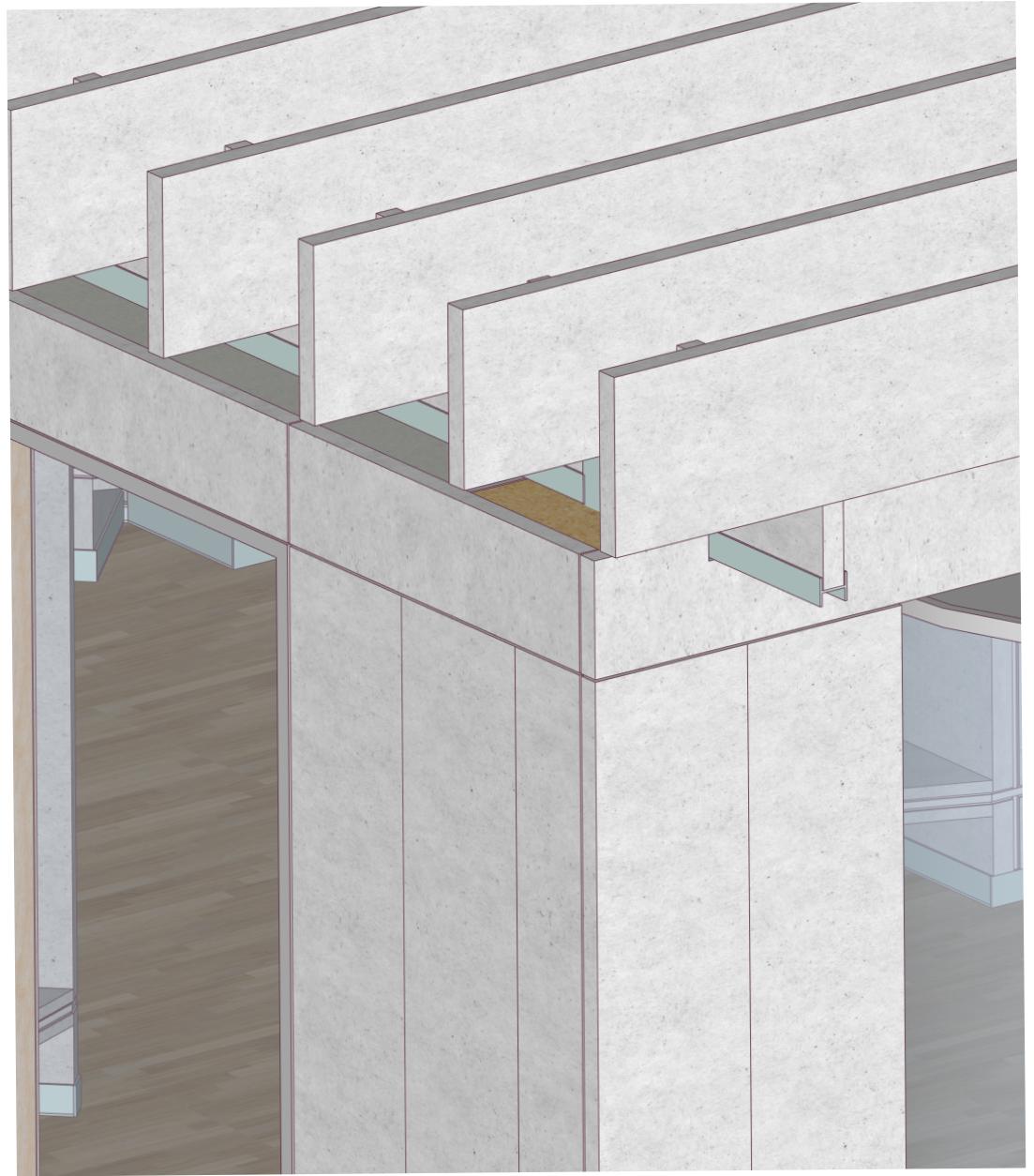




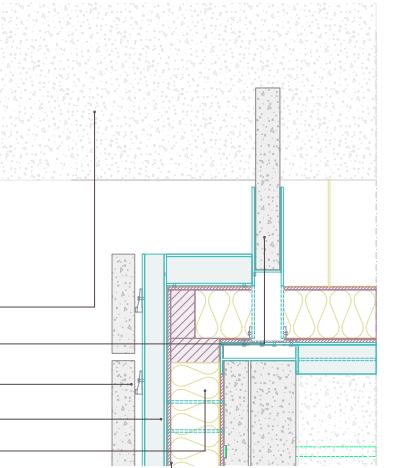




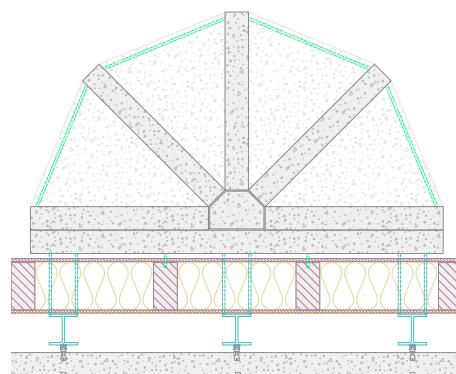
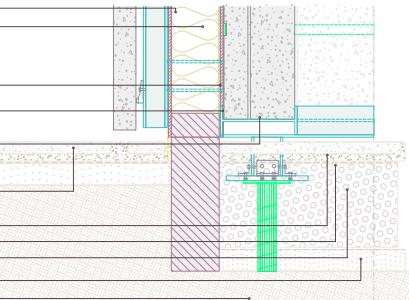




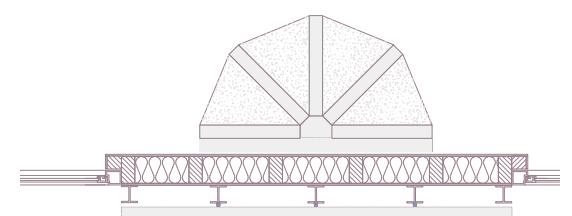
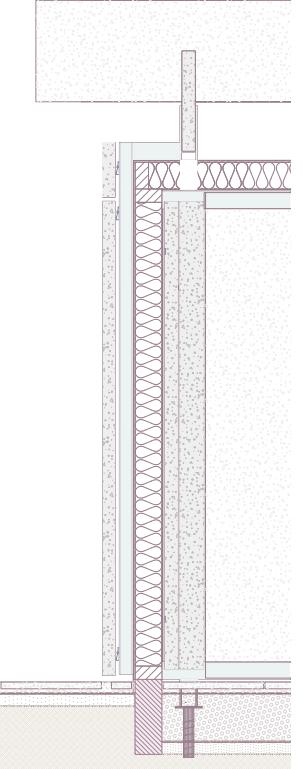
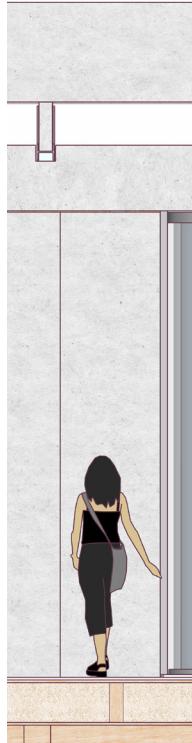
axo close-up fragment



half-lap interlocking concrete panels  
HEA120 with thermal break plate  
concrete facade panels 100mm  
HEA120 + panel anchors (re-used)  
HEA120 with thermal break plates on both sides  
vapour-open water-repellent membrane  
OSB 12mm  
timber frame studs 38x235mm + wood-wool insulation 200mm (rd=5,25)  
smart vapour membrane  
plywood + wallpaper finish (demountable)  
flower column component 750x1500mm  
generically reused pavement tiles inside and outside  
sand 100mm  
geotextile  
glass foam granulates 350mm  
shell layer (drainage)  
soil



details horizontal + vertical



fragment horizontal + vertical



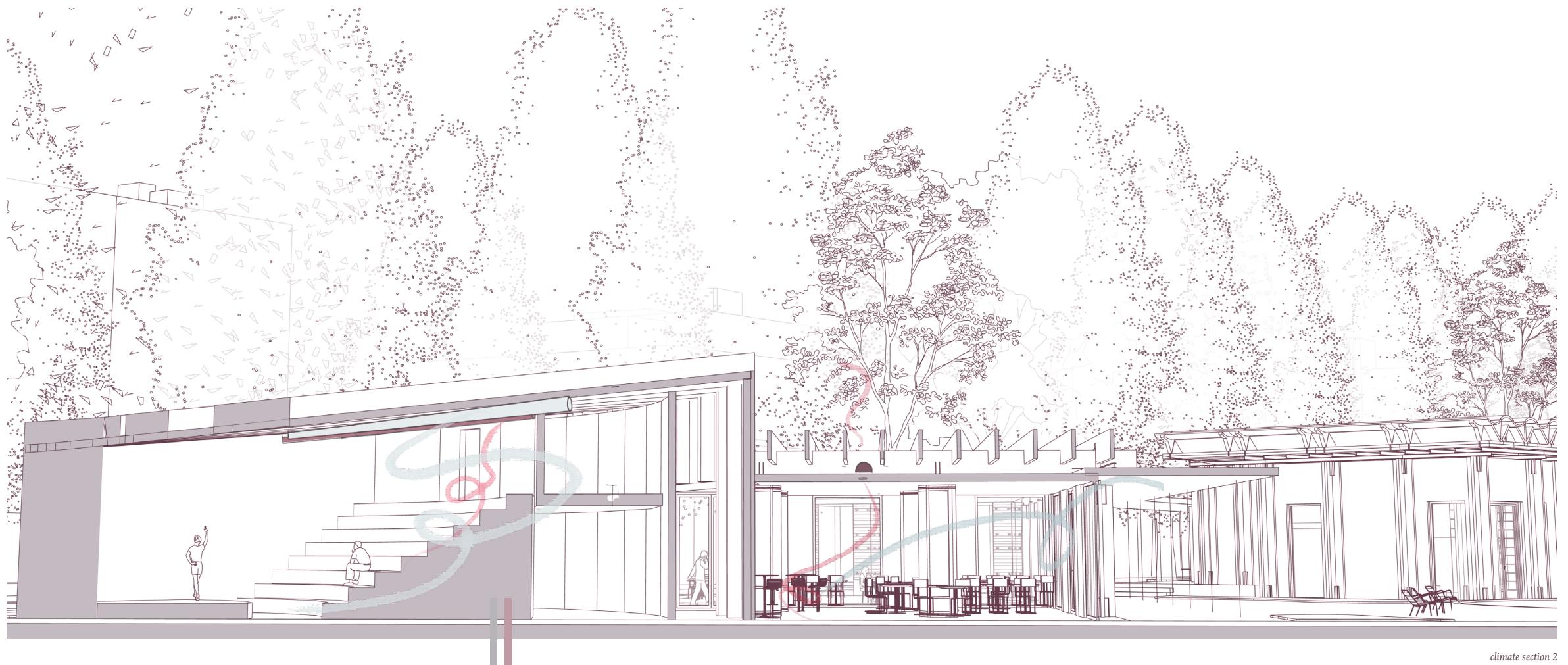
*Fragment model - restaurant pavilion*

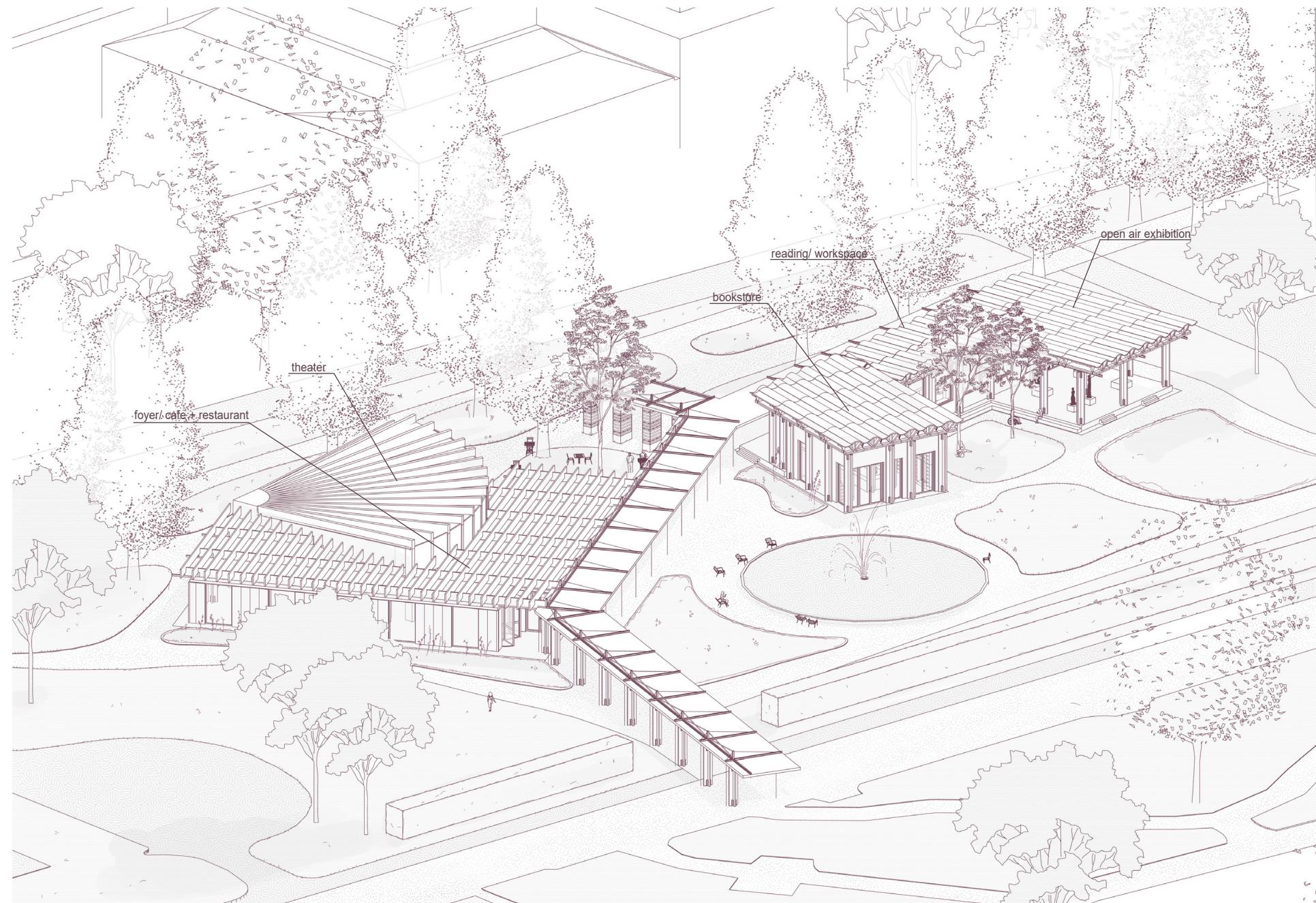


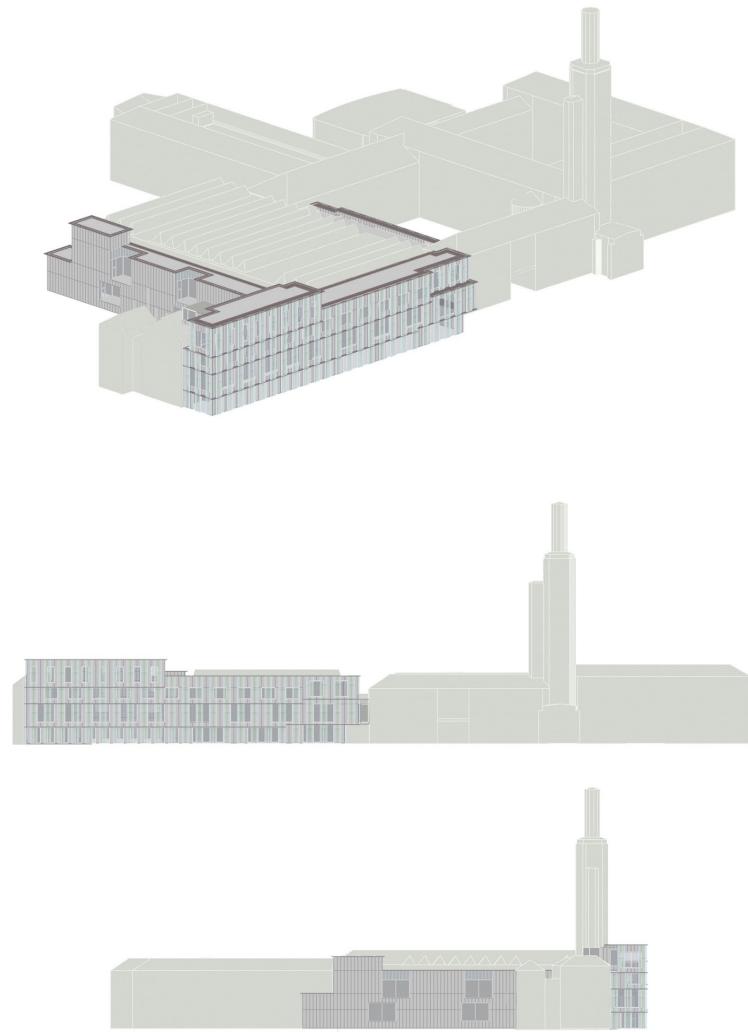
*Fragment model - restaurant pavilion*



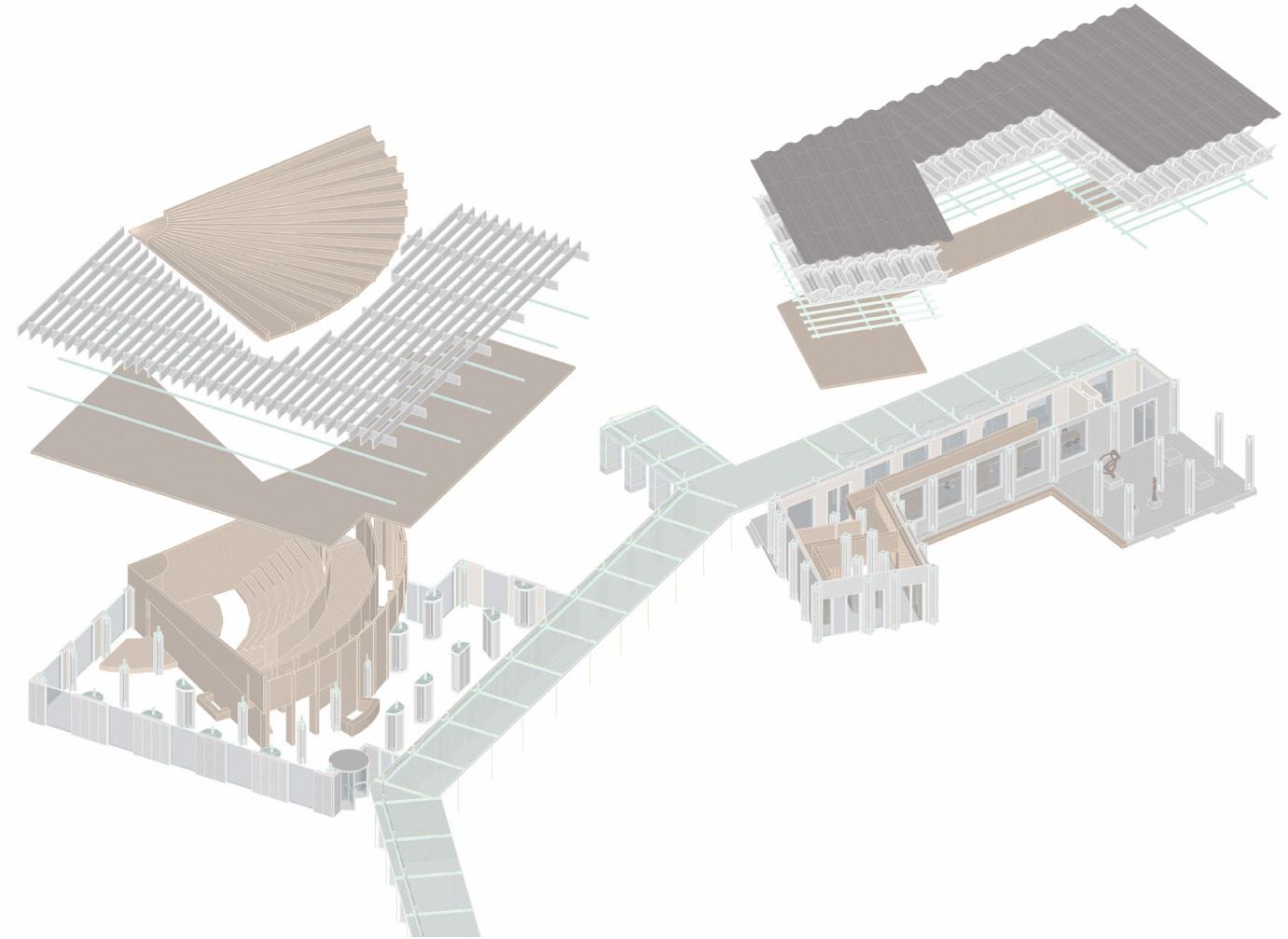
*Fragment model - restaurant pavilion*

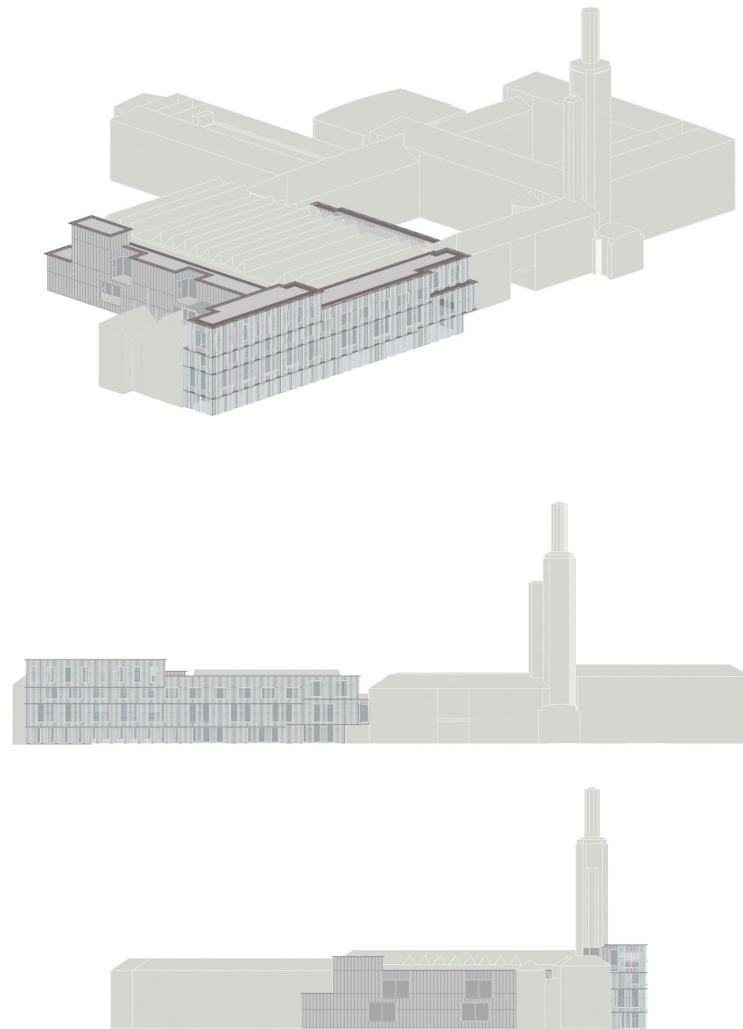




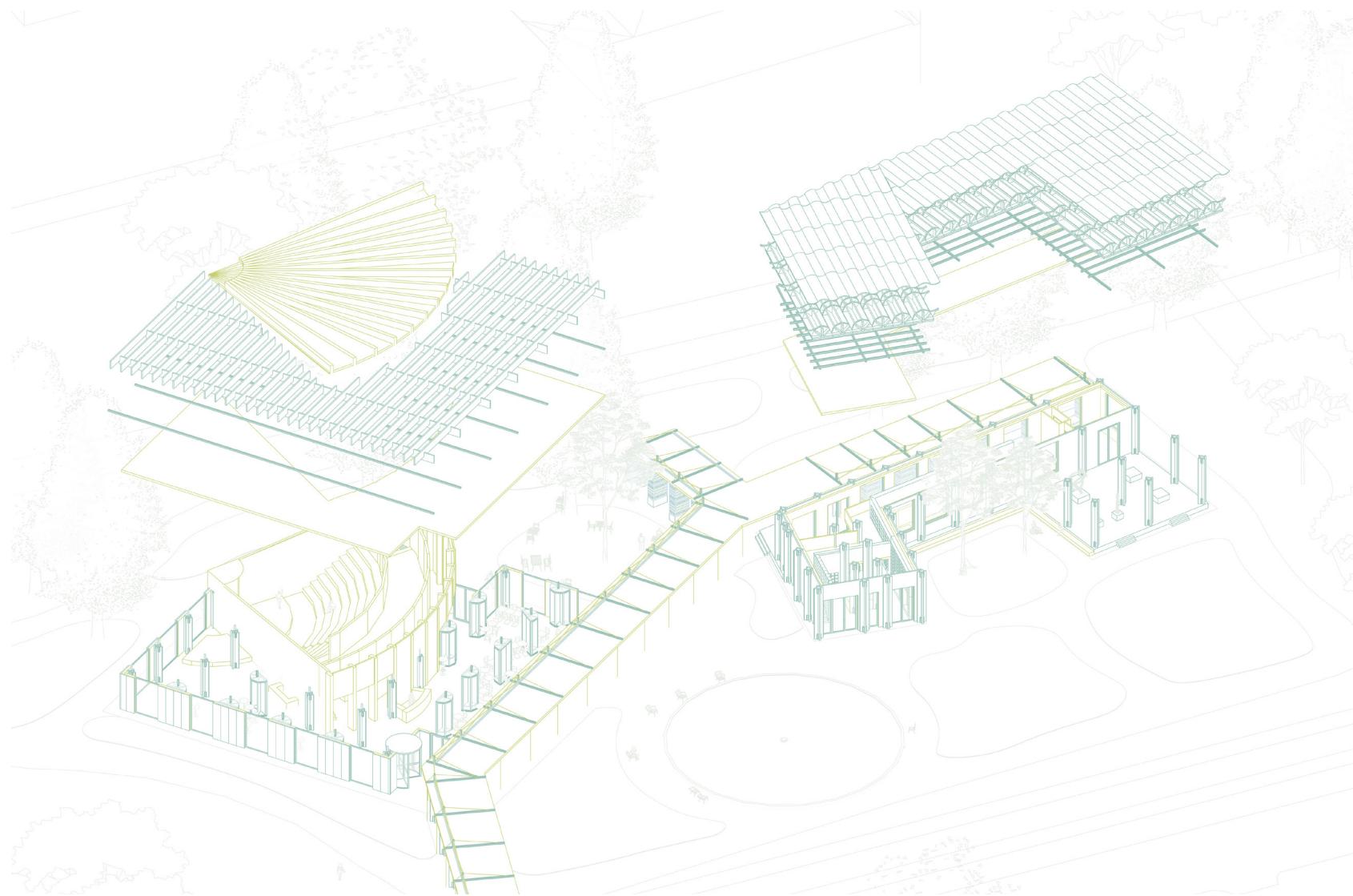


75% of main materials is reused





75% of main materials is reused



100% reused main structure  
biobased and recycled materials as complimentary material



impression 1 of Rozentuin Pavilion



*the end, thank you for listening*

*impression 2 of Rozentuin Pavilion*

**Concluding:**

general approach - applicable to any project

1. determine local surrounding
2. inventarise
3. experiment
4. design
5. implement alternative materials if needed (biobased/ recycled)



*recognizing material values and rethinking material assembly  
for a sustainable and locally-bound architecture*

*thank you for listening*