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EDIT ARCHITECTURE*

A Thesis Submitted to the Department of Architecture
Harvard University Graduate School of Design, by

ERIK FICHTER

In Partial Fulfillment of the Requirements for the Degree of
[Master of Architecture]

DECEMBER 2022
(Month and Year Thesis Submitted)

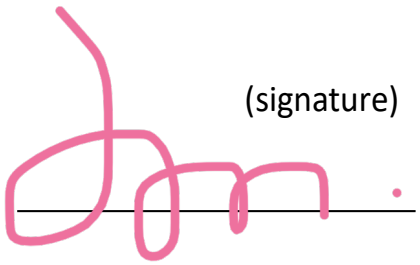
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[Erik Fichter]

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[Jon Lott, Hanif Kara]

Thesis Credits and Attributions
Erik Fichter
Fall 2022

Credits and attributions are listed below for any work shown in the thesis project that is not exclusively my own.

Labor:

Writing Support: Ian Miley, Olivia Howard, Owen Mellett, Samantha Vasseur

Plan Development: Khoa Vu

616 Wood Clips: Pawel Bejm

Study Model No.3 Completion: Pawel Bejm

CNC Flip Mill: Peteris Lazovskis

PLA Removal: Sunah Jeong

Final Model Photography: Hugh Taylor

3D Scan Models for Rendering: Alejandro Saldarriaga, Jacqueline Wong, Jonathan Ng, Vanessa Wu, a. o.

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EDITARCHITECTURE*

Erik Fichter
Thesis Fall 2022
Harvard Graduate School of Design

Design Consultation: Prof. Jon Lott
Structural + Environm. Consultation: Prof. Hanif Kara

**a research on the 1960s office tower in Germany and their editorial potential.*

Edit Architecture*

Erik Fichter
Advised by: Jon Lott, Hanif Kara

Editing just one detail can alter the entire structure of a concept. This thesis explores architecturally editing existing buildings to challenge their conceptual framework.

The global construction boom of the past fifty years has resulted in the production of more buildings than ever before. Today, these buildings face either demolition or repair due to average building lifespans of thirty to fifty years. In addition to these intrinsic expiration dates, contemporary environmental constraints and growing spatial needs require the extension of building lifecycles. However, the resulting misalignment between these structures' original intentions and present-day limitations calls for a practice of conceptual and structural editing that both confronts initial intentions and integrates new desires.

This thesis considers the modernist office tower as an example of the conflicted condition that characterizes buildings approaching their expiration dates. While the public holds these towers in contempt for their sitelessness, the embodied carbon within the heavy structure outrules demolition and redevelopment. Specifically, this project edits the Postbank Tower in Berlin, built in 1971. Because the original building privileges programmatic specificity over site specificity, my proposal challenges this existing prioritization, eschewing functional prescription in favor of programmatic ambiguity. The editorial concept is driven by a structural re-grounding, resulting in a spatial entanglement of old and new structure, where strategic additions and subtractions make a new concept of the building legible.



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karwendelgebirge

Conceptual + Physical Edits





52°29′55.9″N 13°22′48.5″E

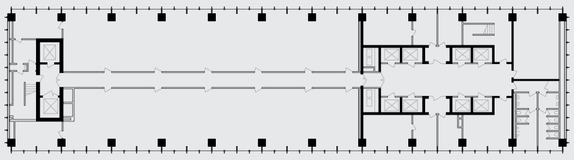


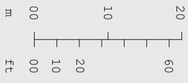
52°29’53.8”N 13°23’06.9”E



52°30′02.7″N 13°22′58.7″E

current plan

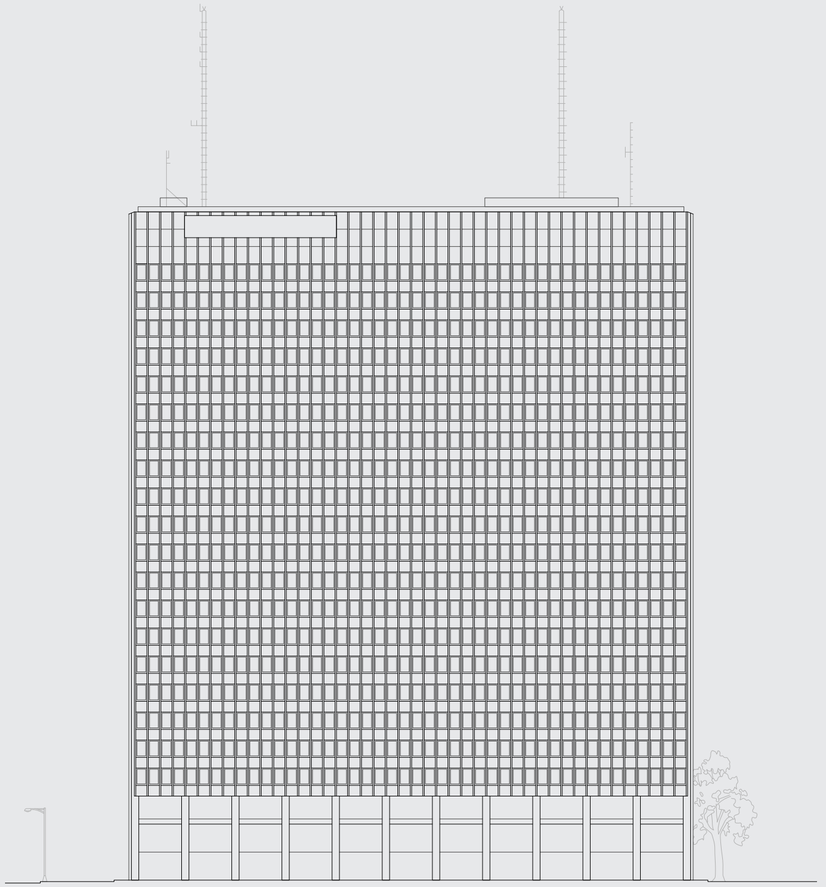




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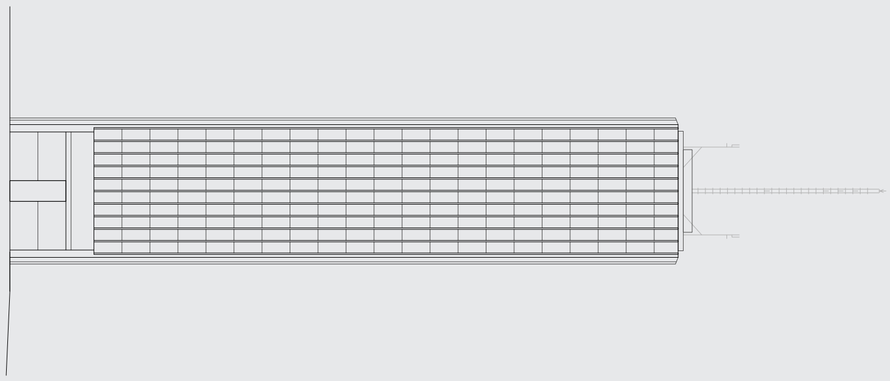
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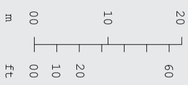


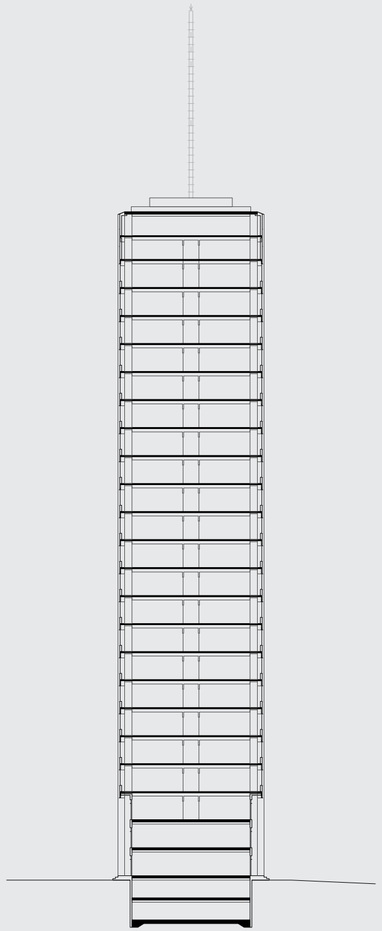
20 60
10 20
00 10
00
m ft

current elevation

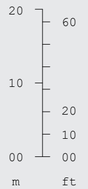
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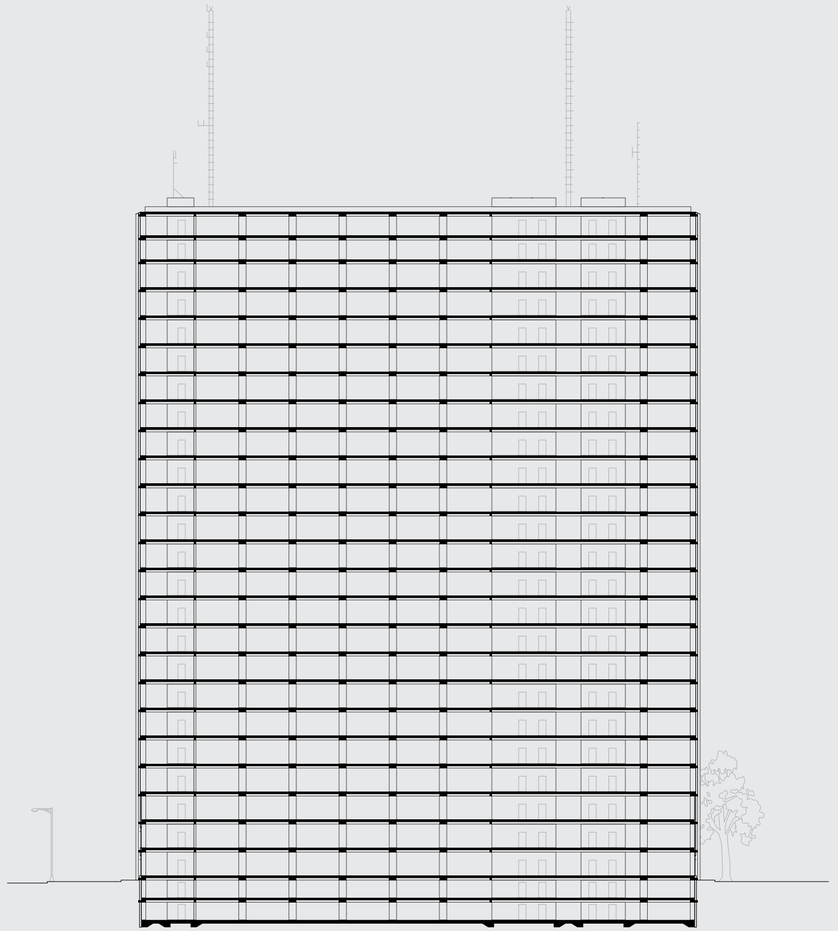




current section



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20 — 60
10 — 20
00 — 10
00
m ft

current section

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inserting more slabs for programs with smaller ceiling requirements
removal of slabs to allow program with need for high spaces
weakening of floorplate requires additional support
structural enhancement
digging for public space
underpinning & weakening
stretched composition reflecting the adjusted spatial conditions
removal of existing core allows an open plan to absorb programs previously not possible
BLAUPUNKT

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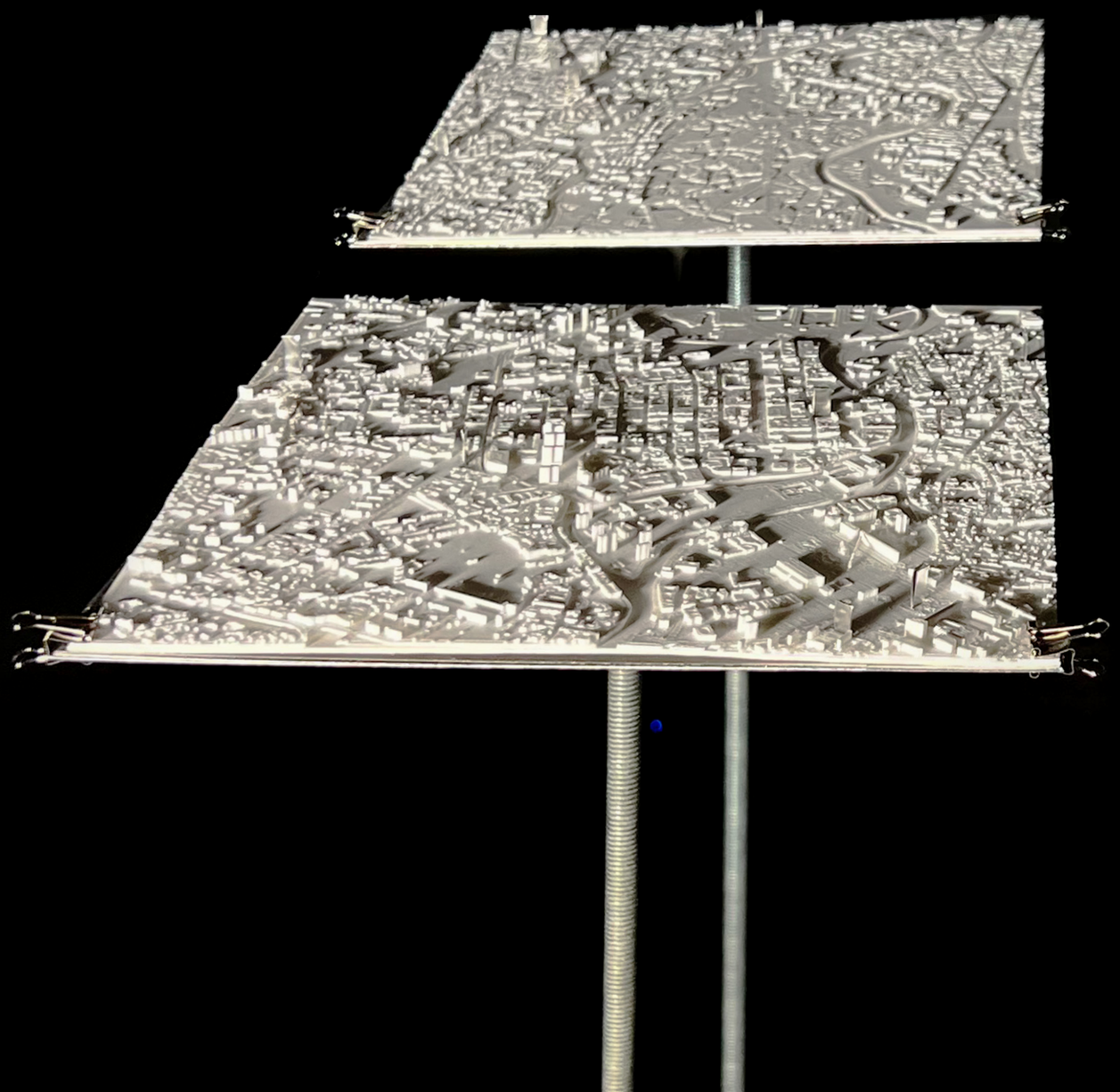
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AfE-Turm. Frankfurt. 1972-2014



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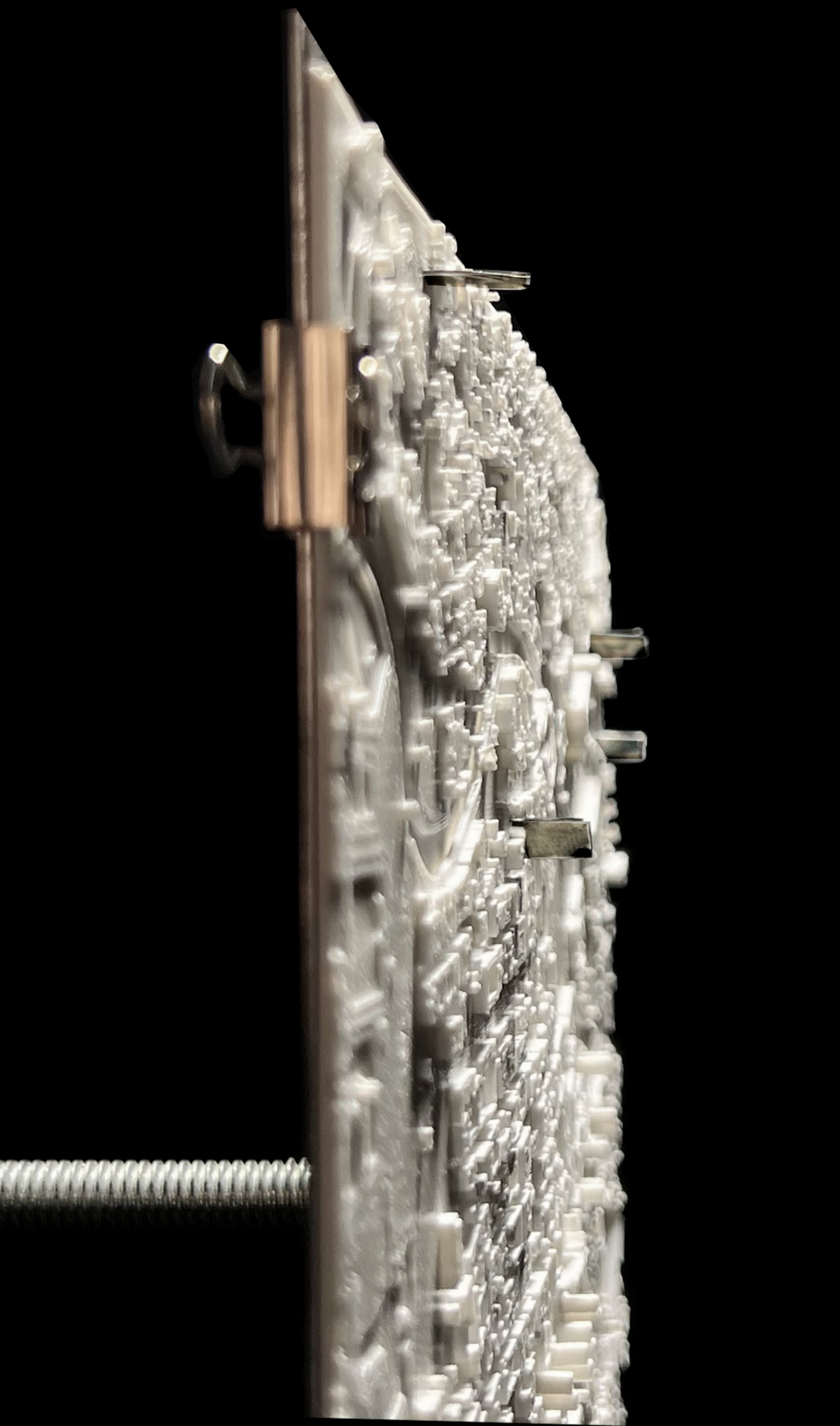
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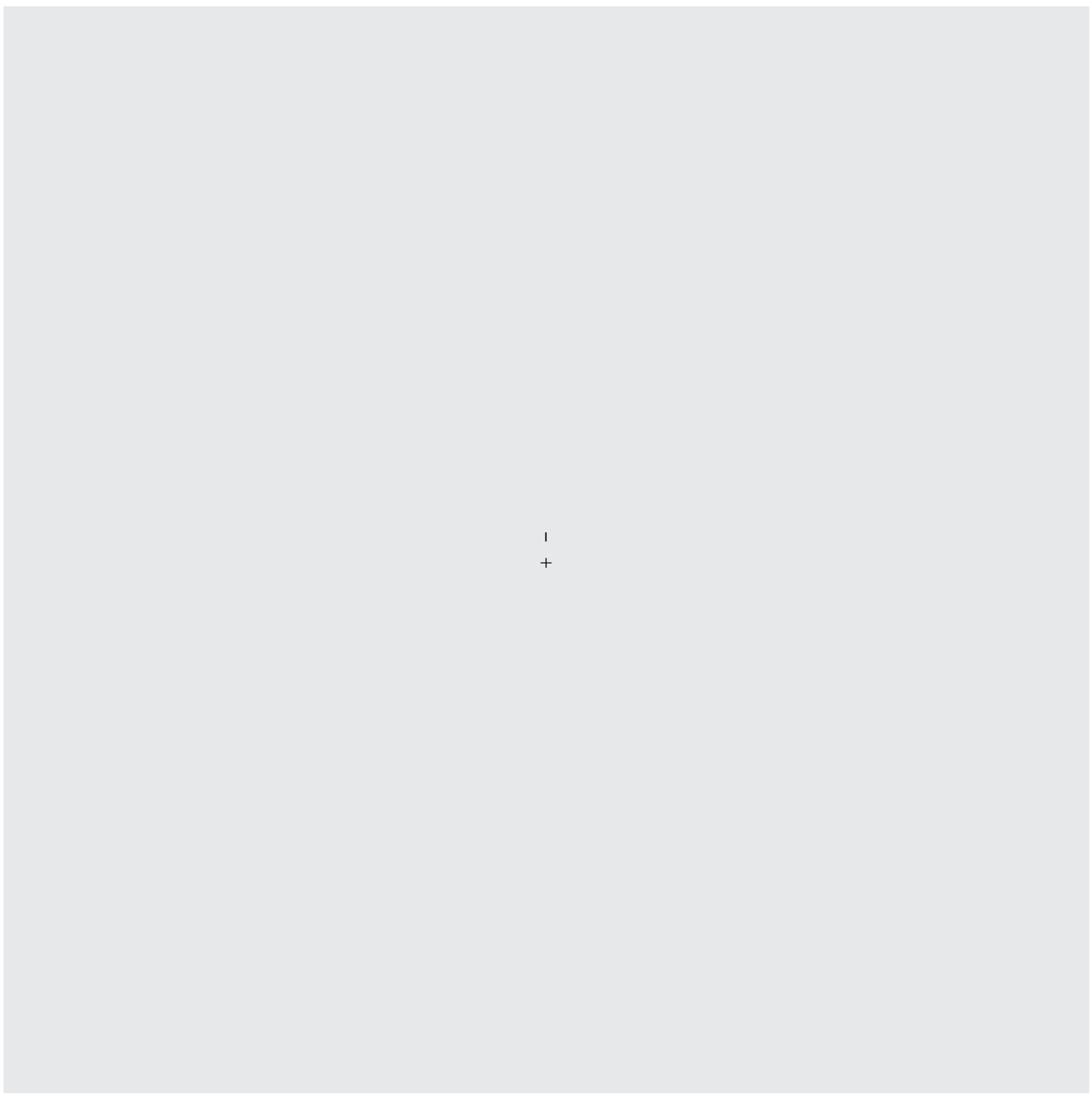
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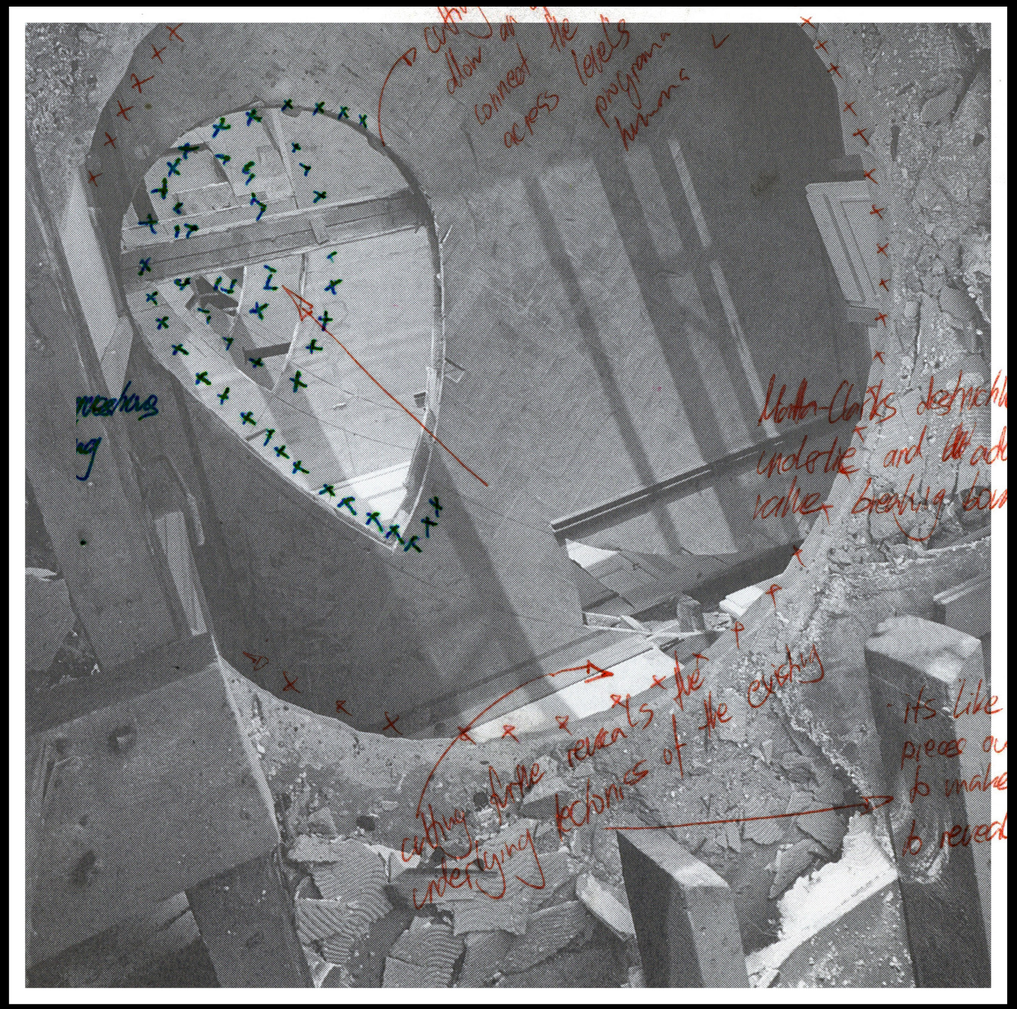


Demolition:
Alienation
Sitelesness

Maintainance:
Sustainable Intentions
Capture Embodied Carbon

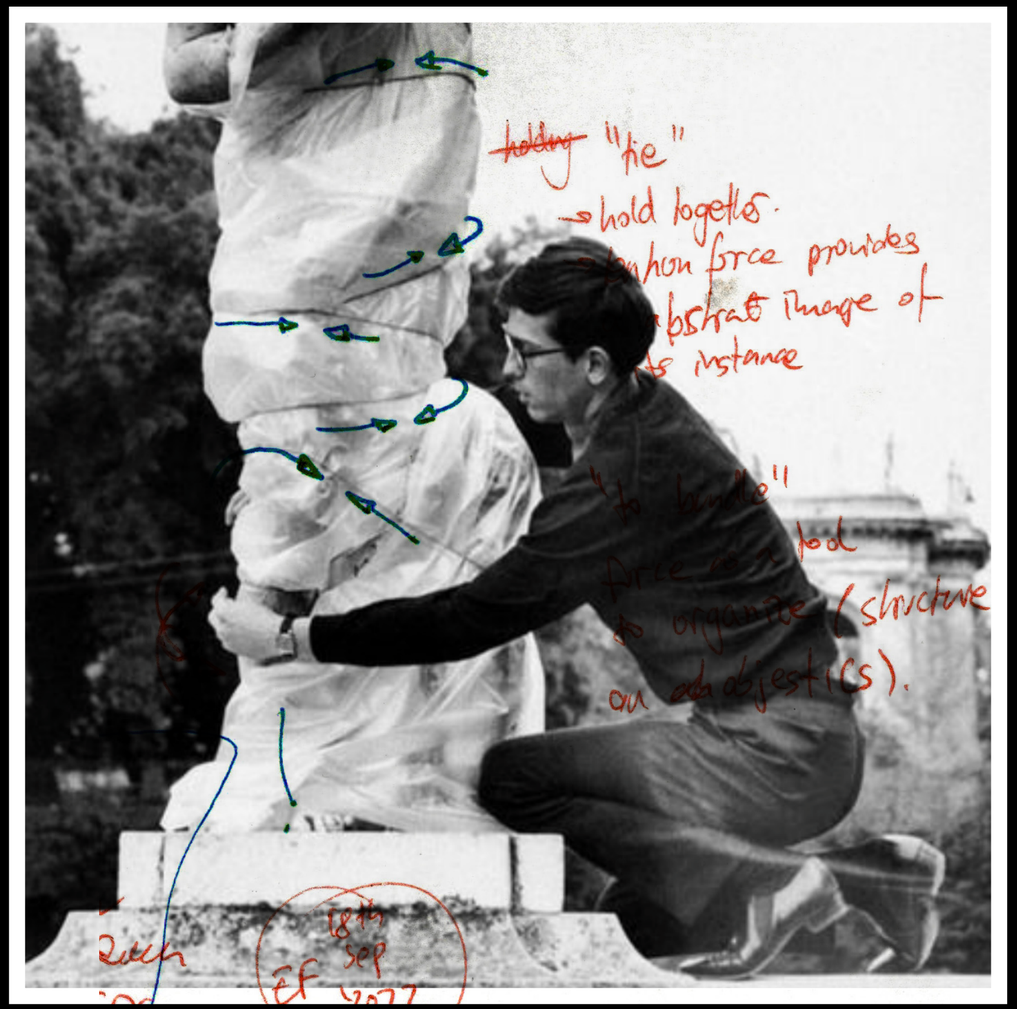


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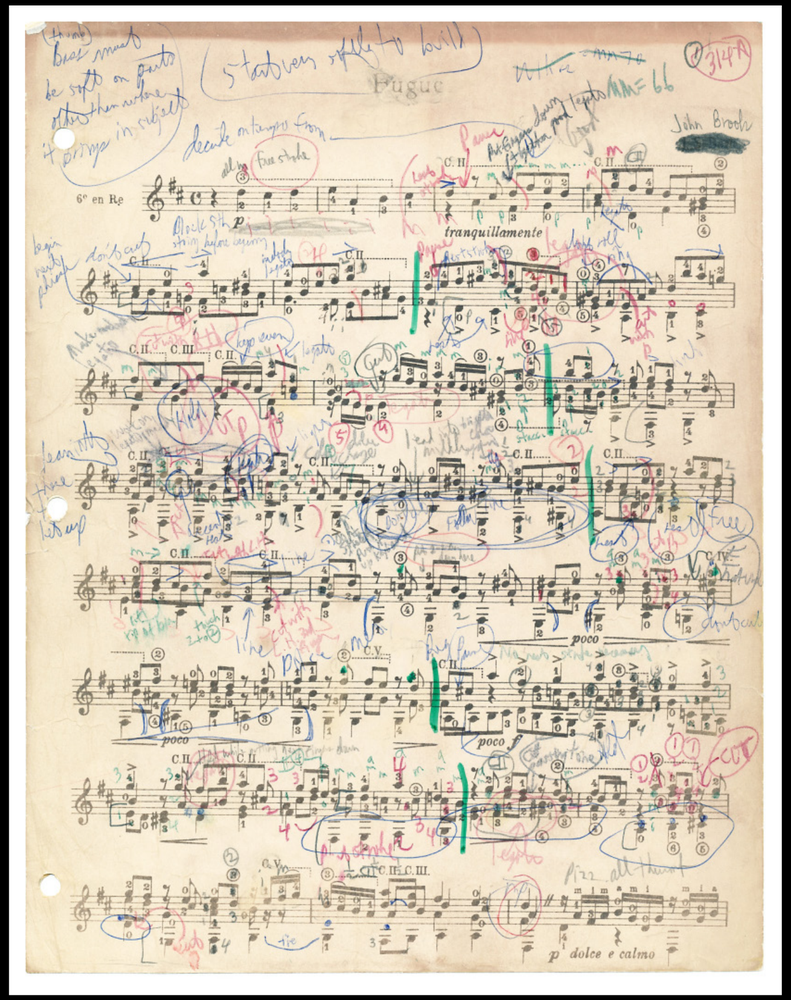


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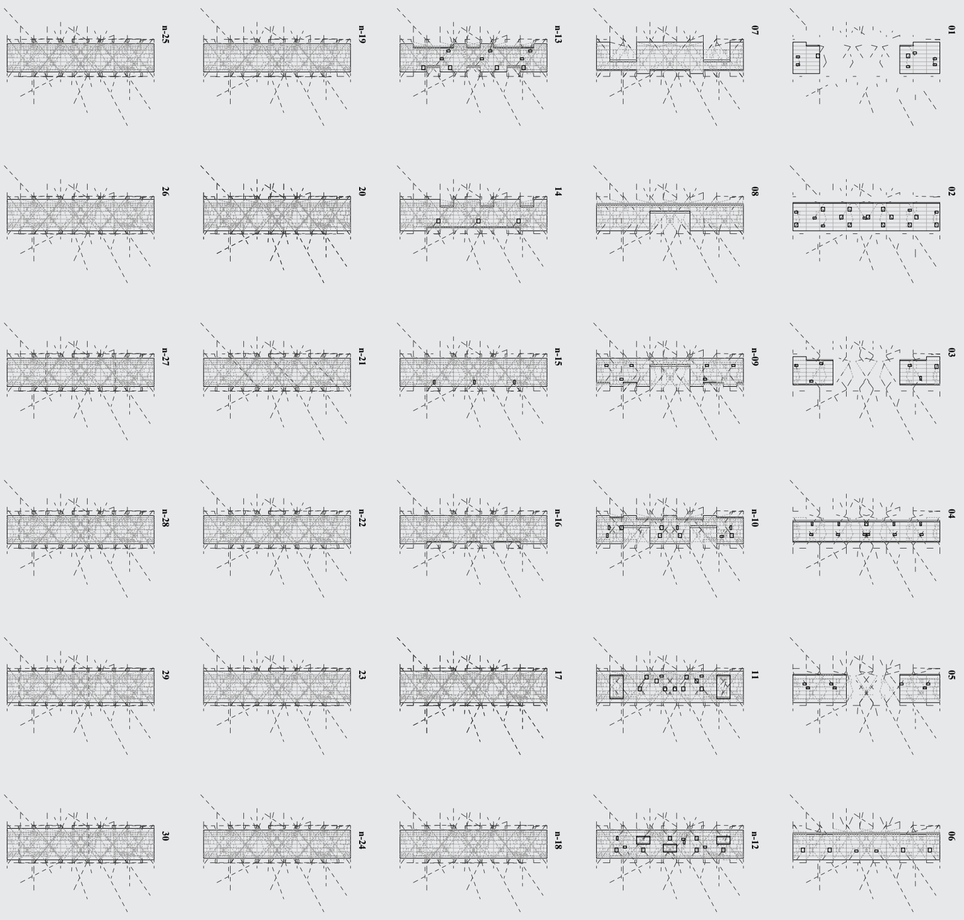


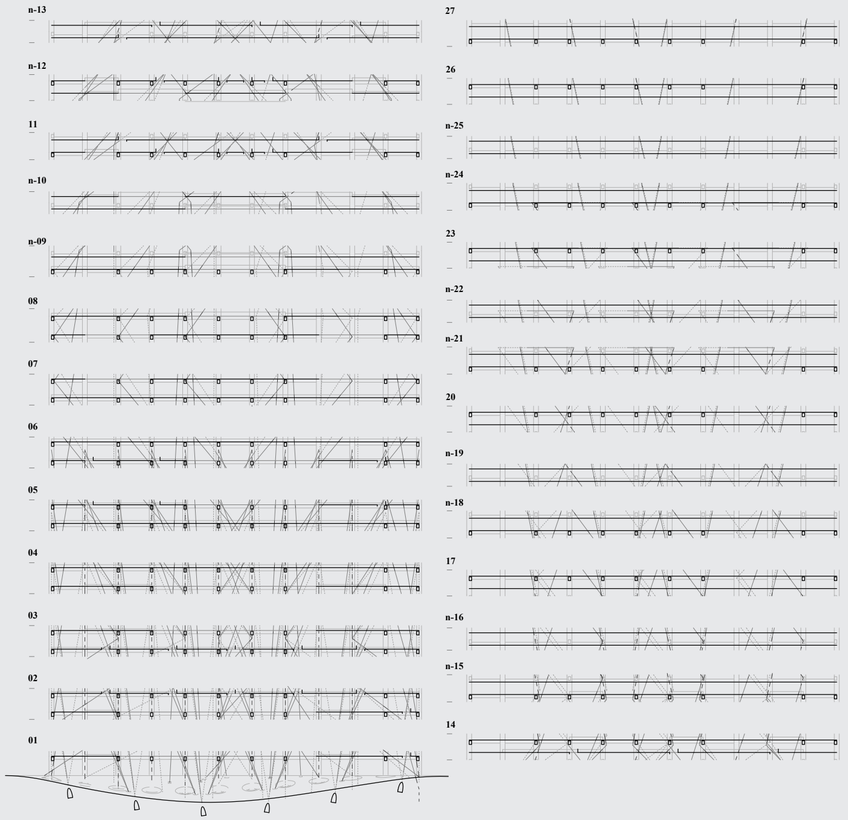
sitelessness ⟷ *re-grounding*

programmatic regidity ⟷ *programmatic openness*

programmatic edit

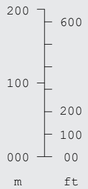
planar elevations





long elevation per floor



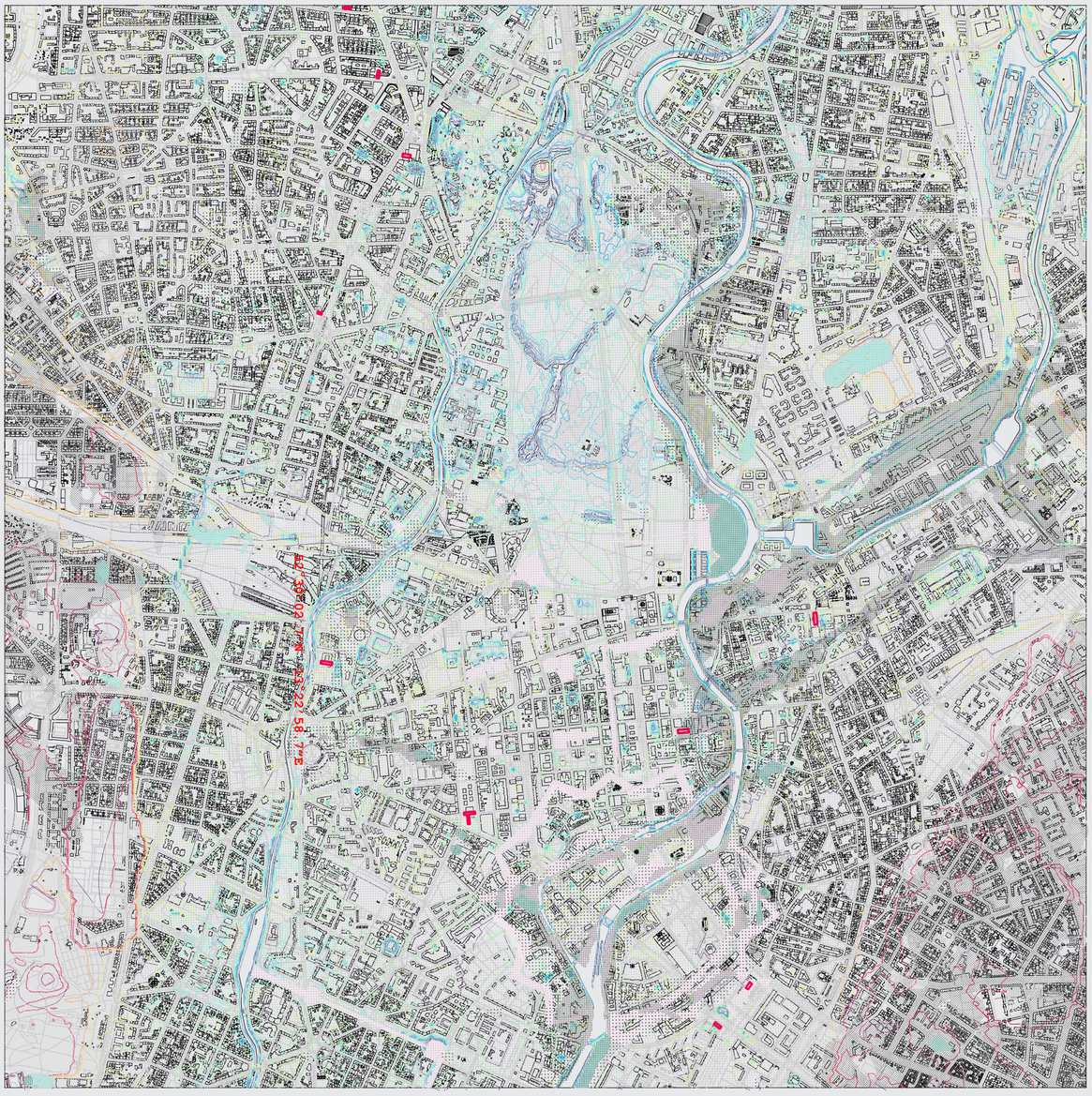


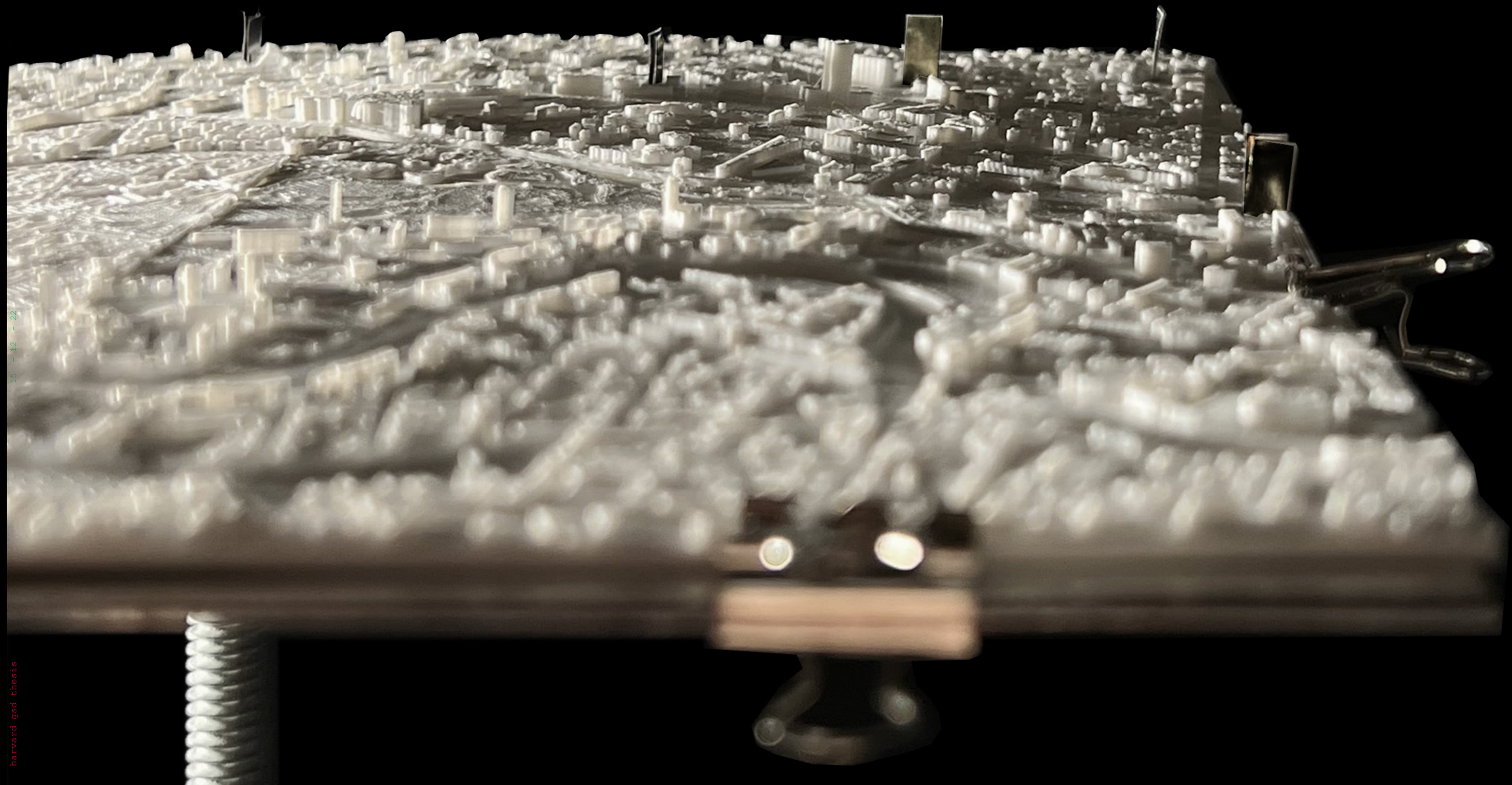
site section

site plan



site plan





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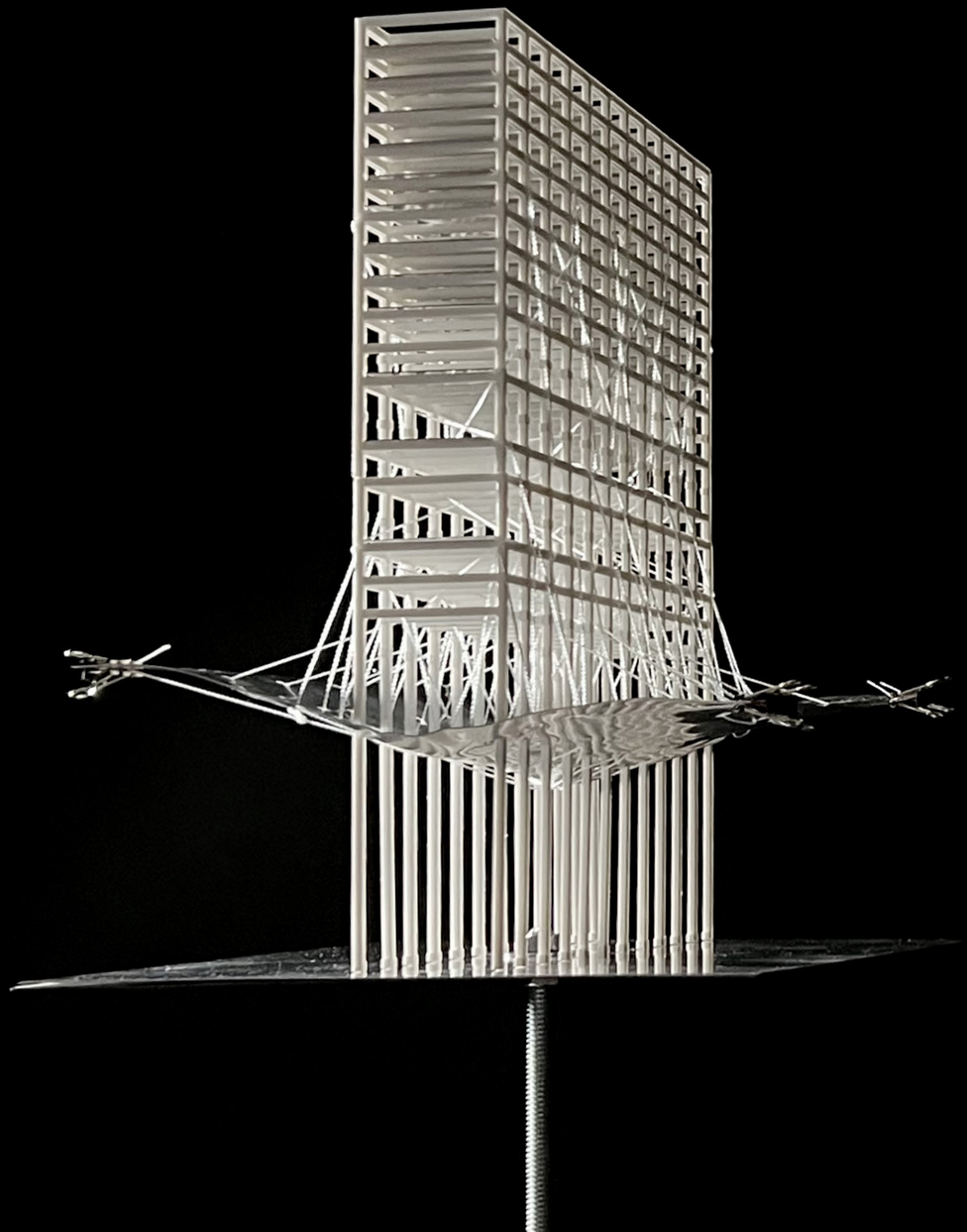
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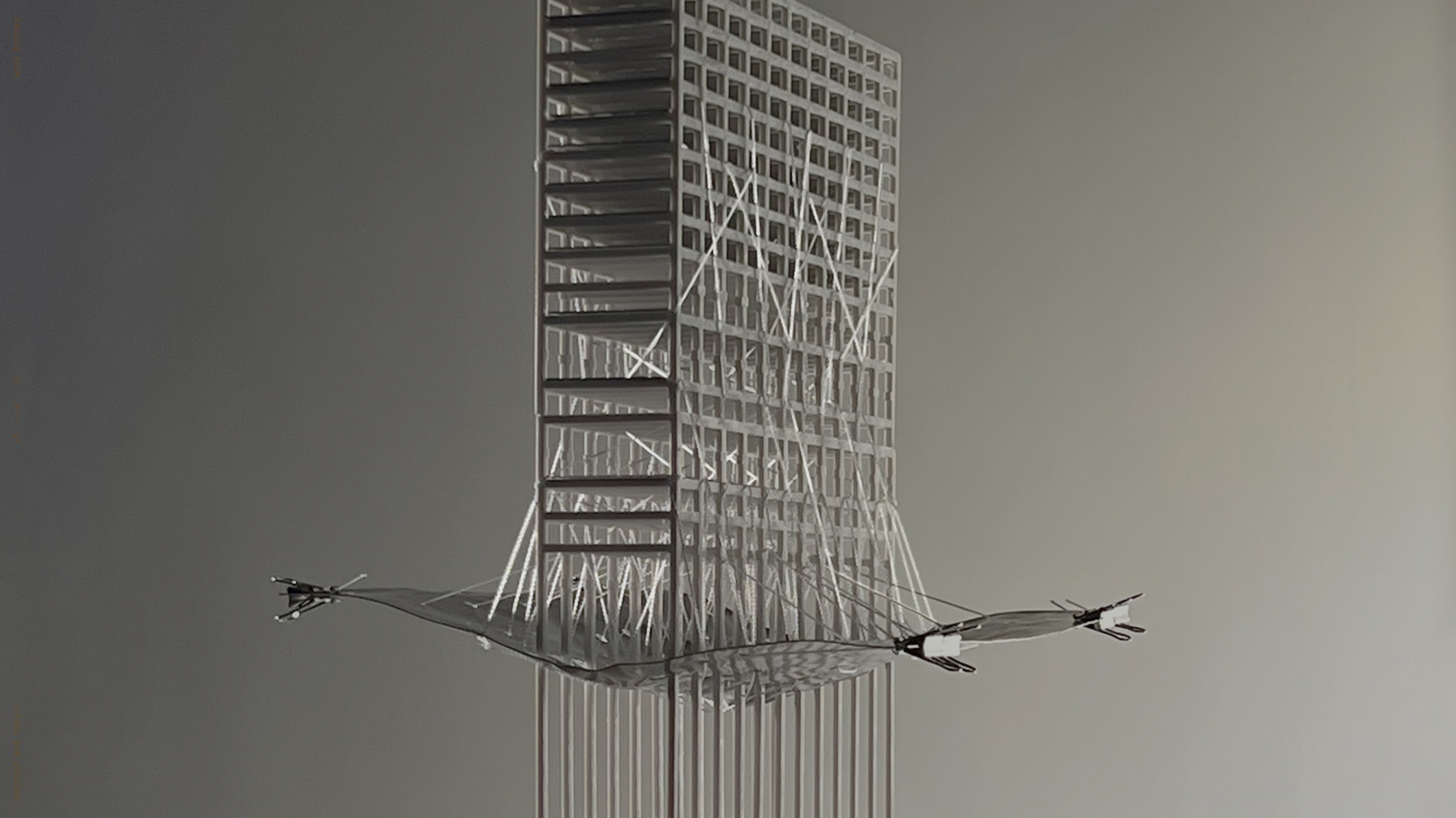
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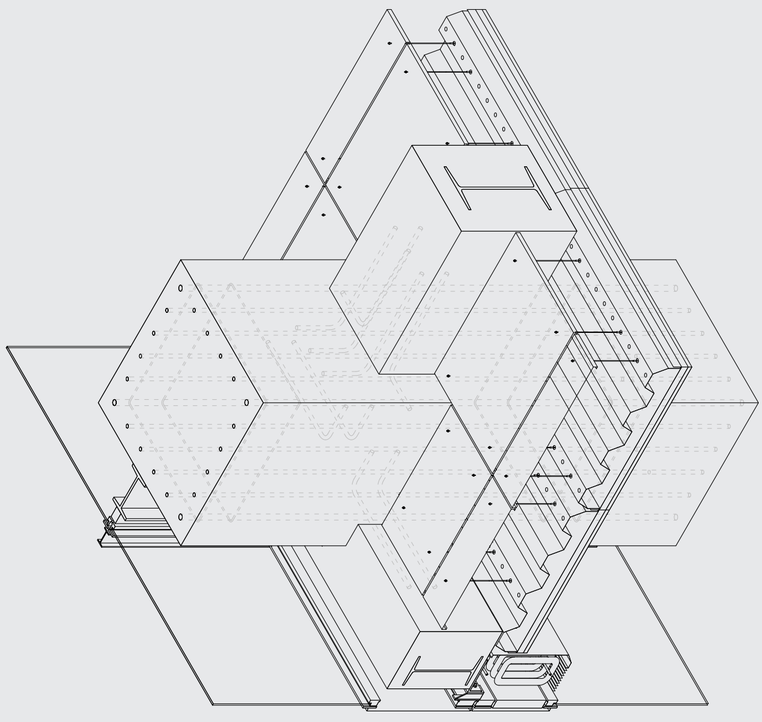
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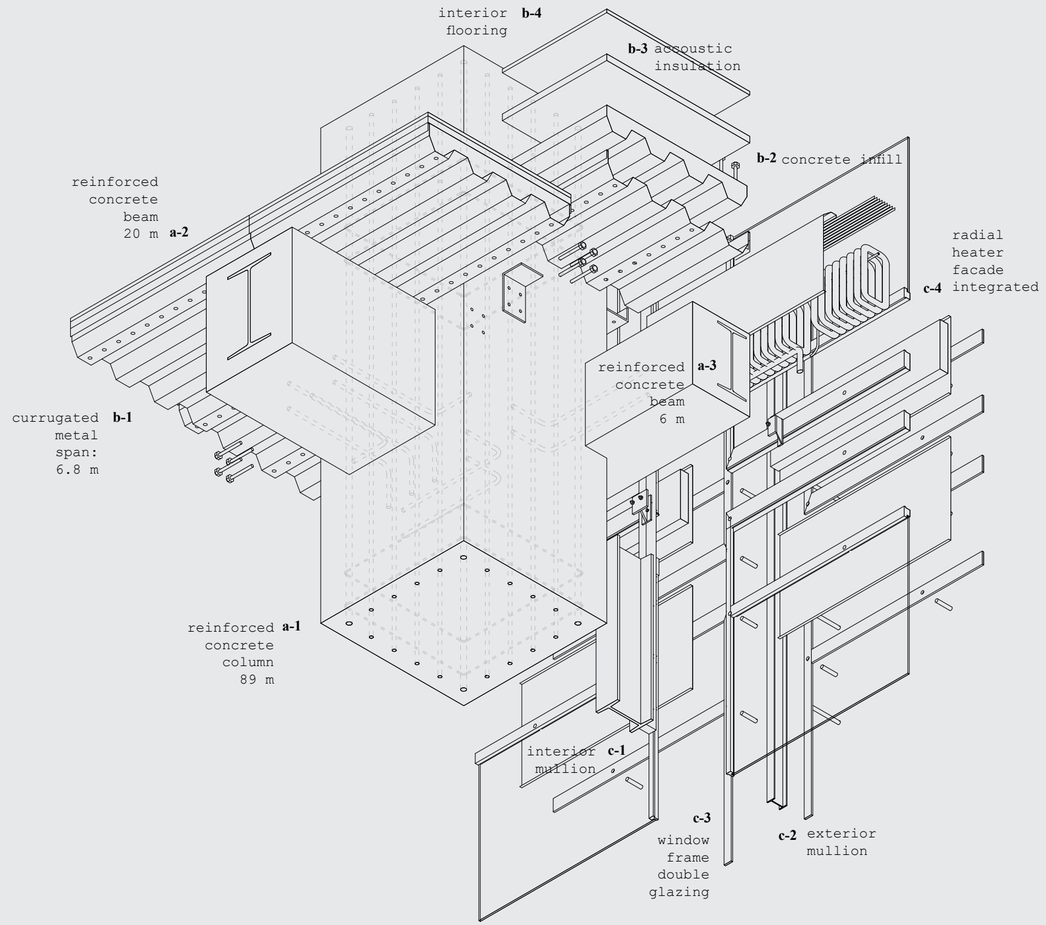
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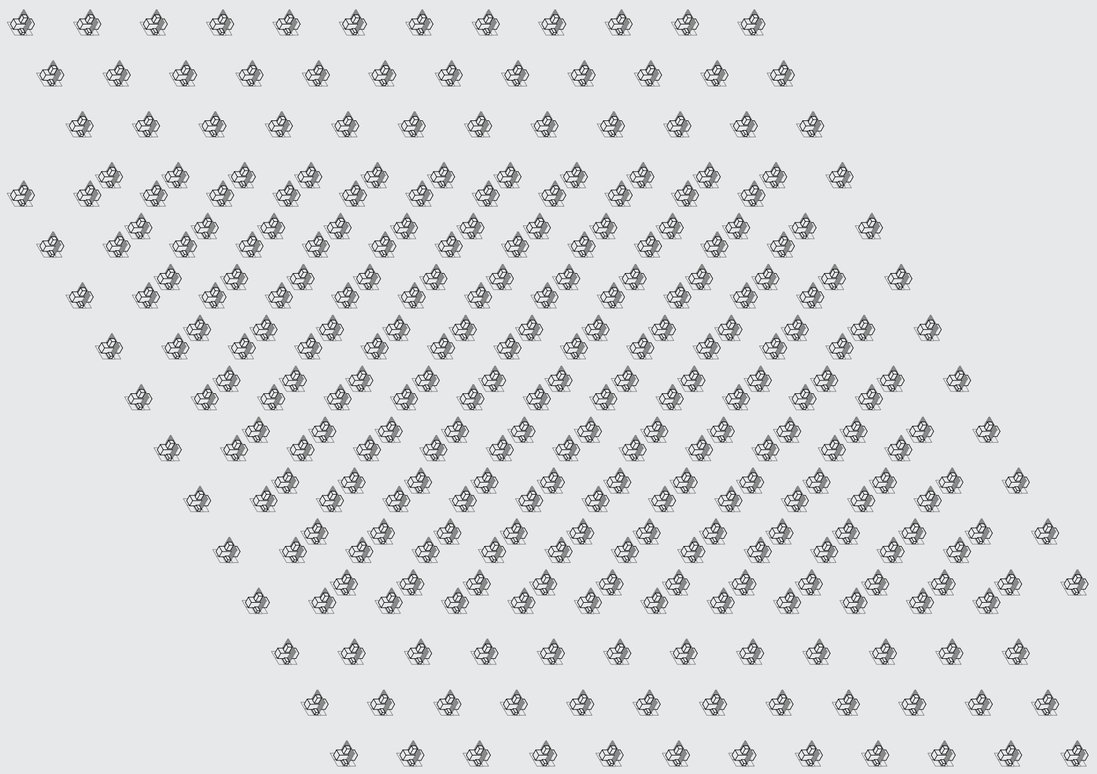
common current detail



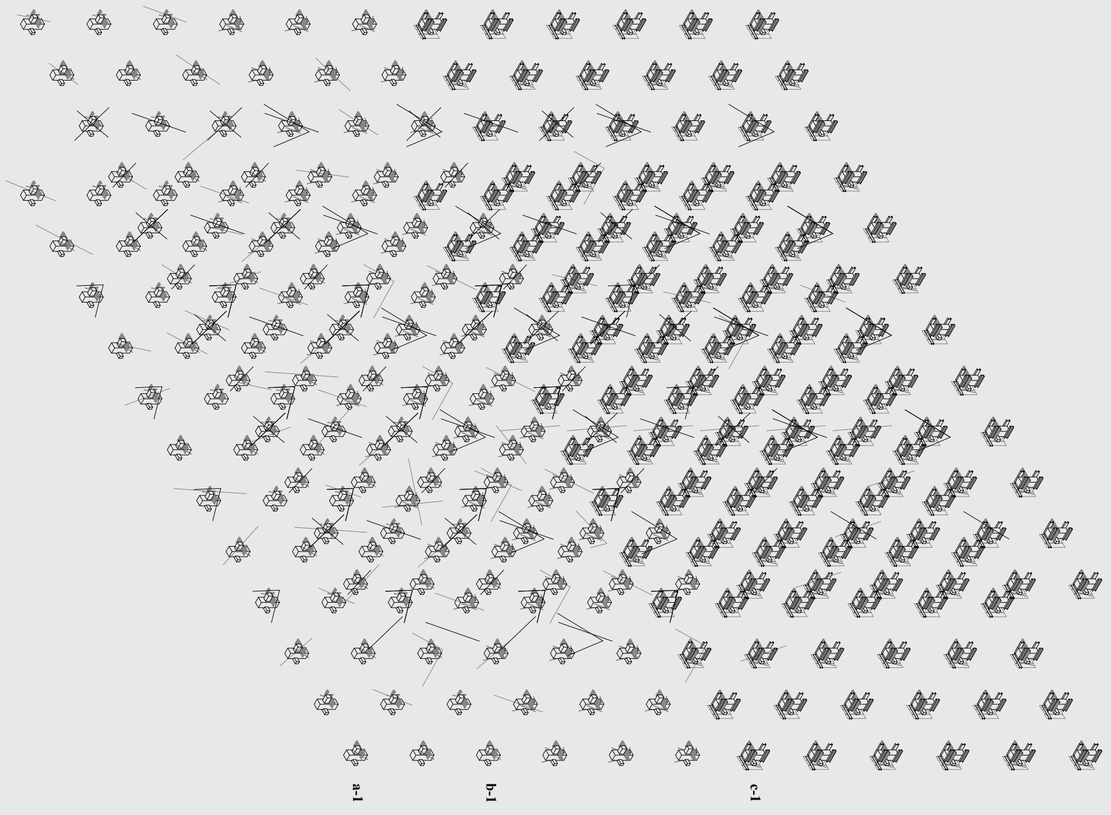


common current detail

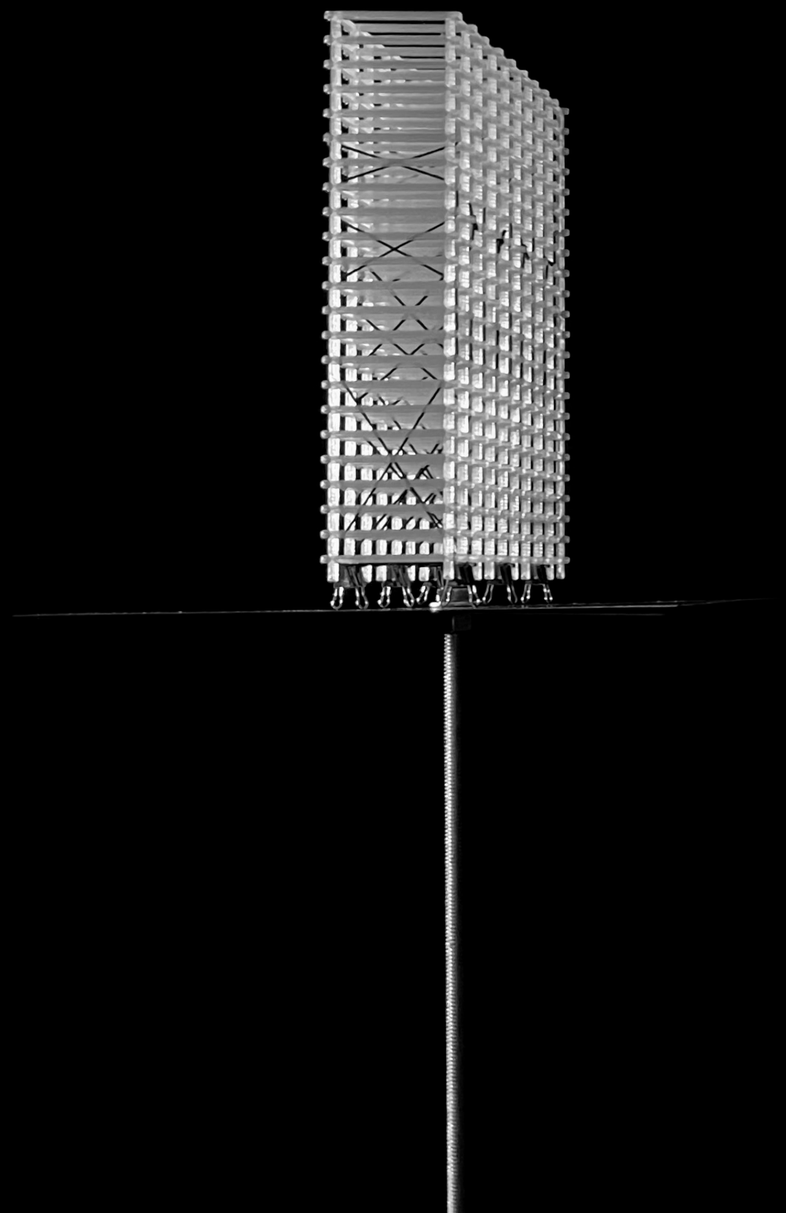
common current detail



edited detail



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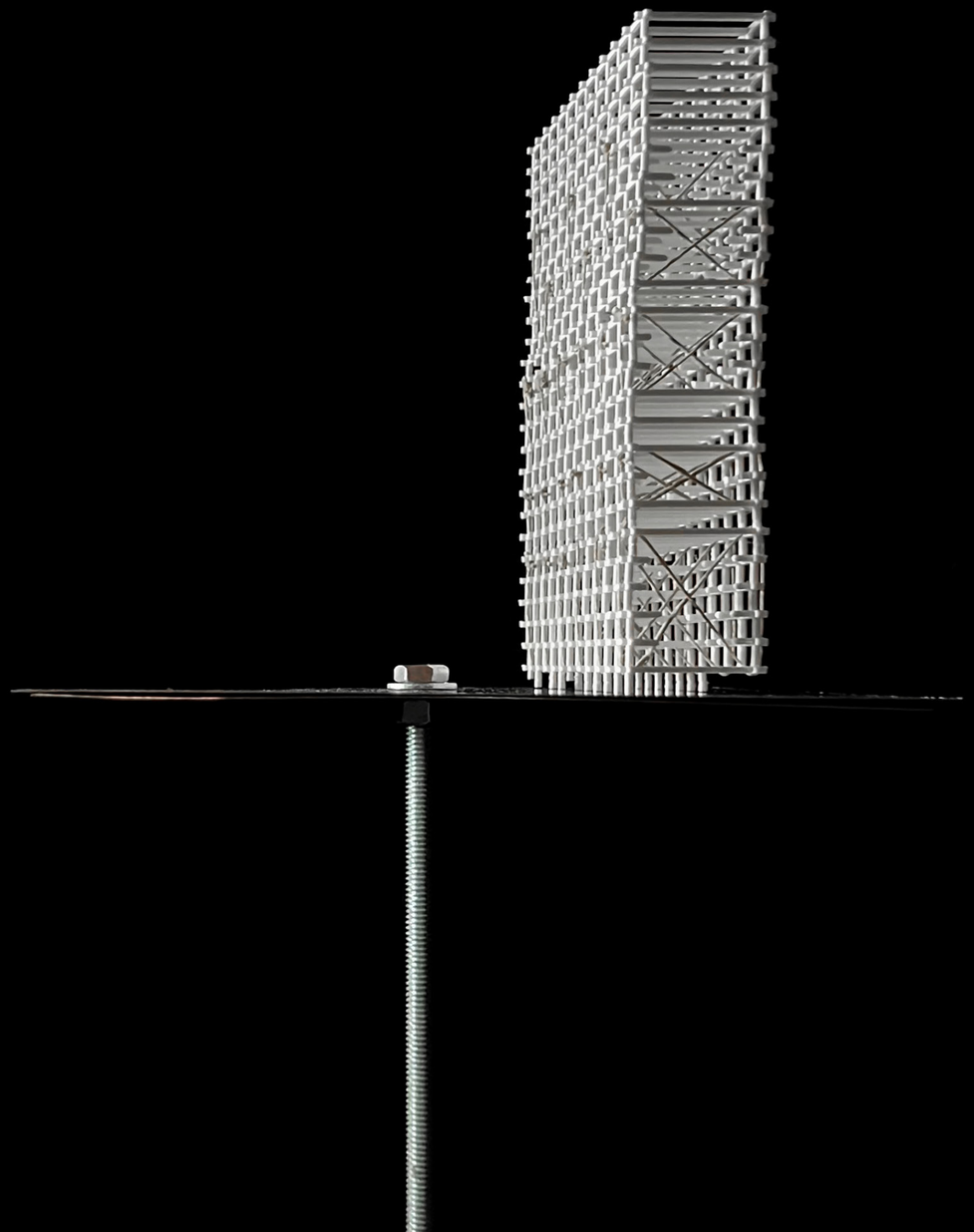
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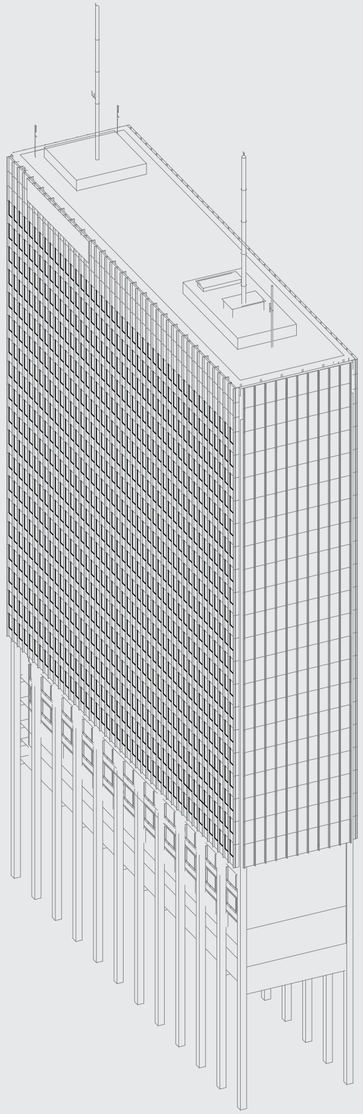
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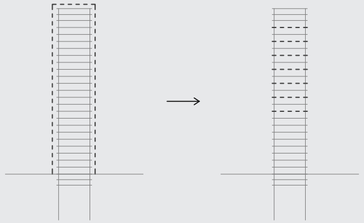
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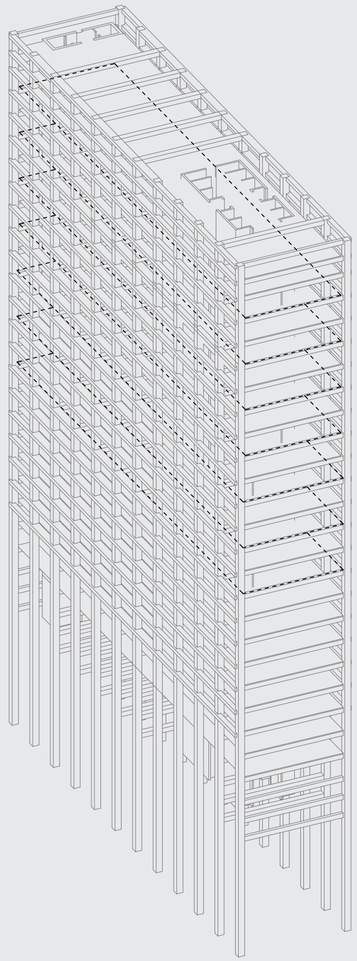


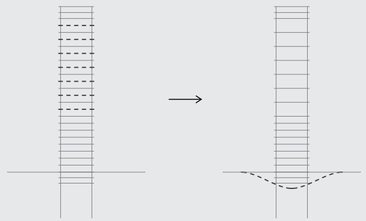




elements	*area (NFA)*	*weight*
existing	22128 m²	47,42 m. kg
- ex. facade	**-**	**- 00,32 m. kg**
- ex. slabs	- 9446 m²	- 04,35 m. kg
+ new foundations	-	+ 00,57 m. kg
+ new cables	- 2740 m²	+ 00,99 m. kg
- ex. cores	+ 3150 m²	- 06,94 m. kg
+ new slabs	+ 15076 m²	+ 01,51 m. kg
+ new facade	+ 3600 m²	+ 00,56 m. kg
+ new cores	-	+ 03,93 m. kg
= edit	= 31768 m²	= 40,25
	(+43%)	**(-15%)**

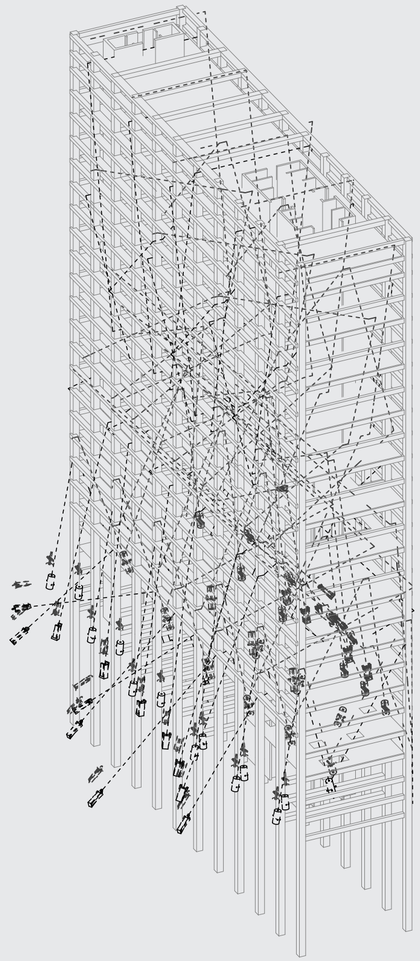
loosing skin

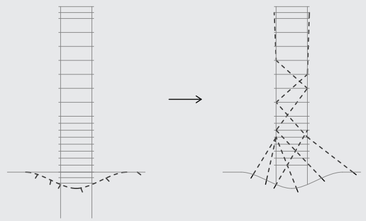




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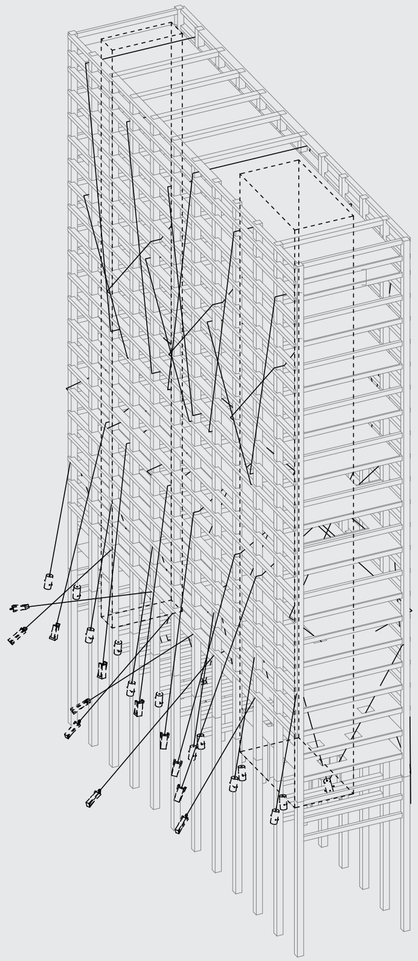
loosing slabs

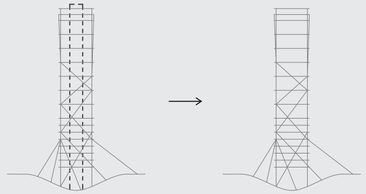




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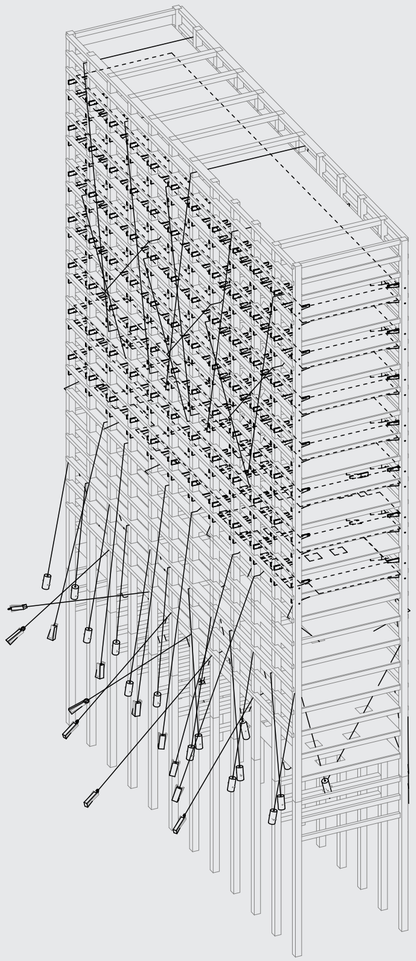
gaining cables

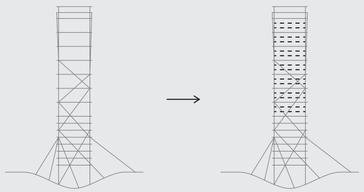




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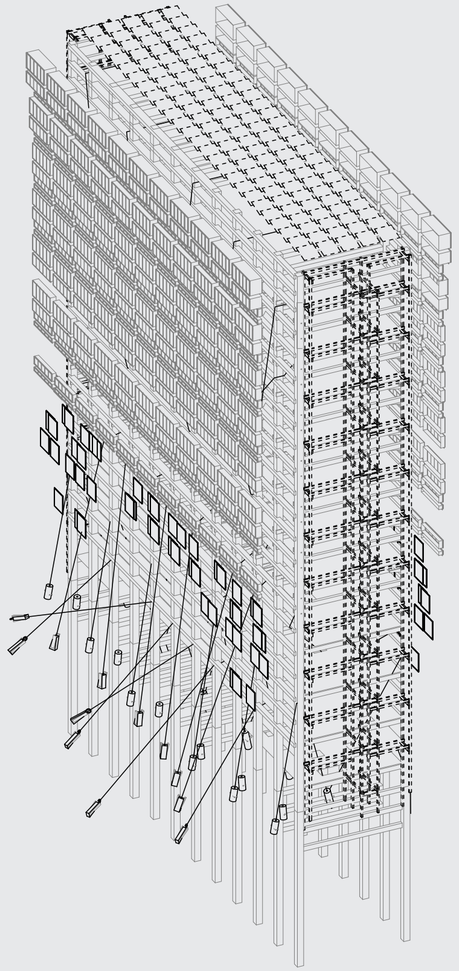
loosing cores

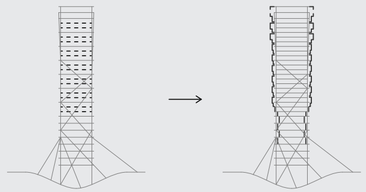




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gaining slabs



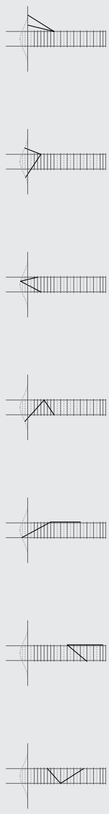


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- ex. cores	+ 3150 m²	- 06,94 m. kg
+ new slabs	+ 15076 m²	+ 01,51 m. kg
+ new facade	**+ 3600 m²**	**+ 00,56 m. kg**
+ new cores	**-**	**+ 03,93 m. kg**
= edit	**= 31768 m²**	**= 40,25**
	(+43%)	***(-15%)***

gaining skin

carbon break-down

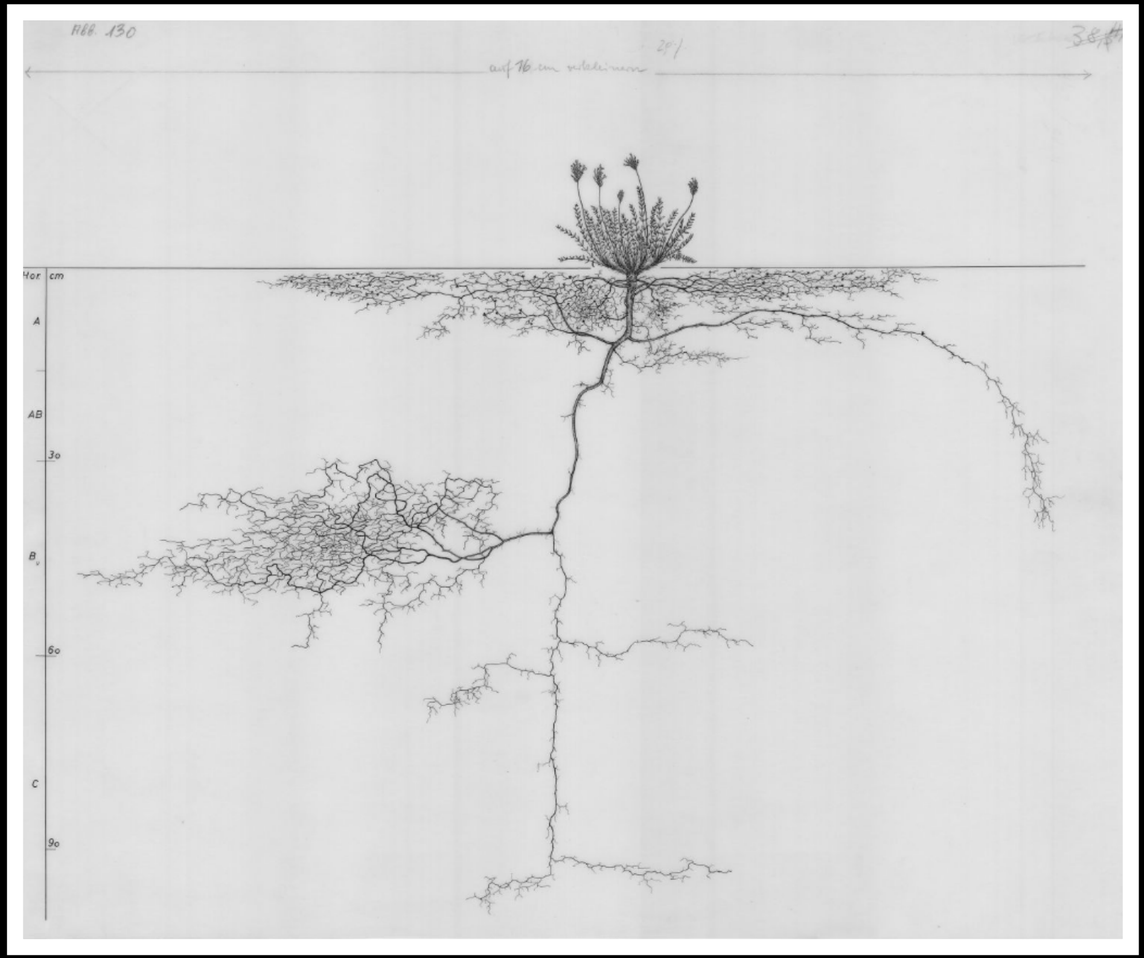
bracing conditions



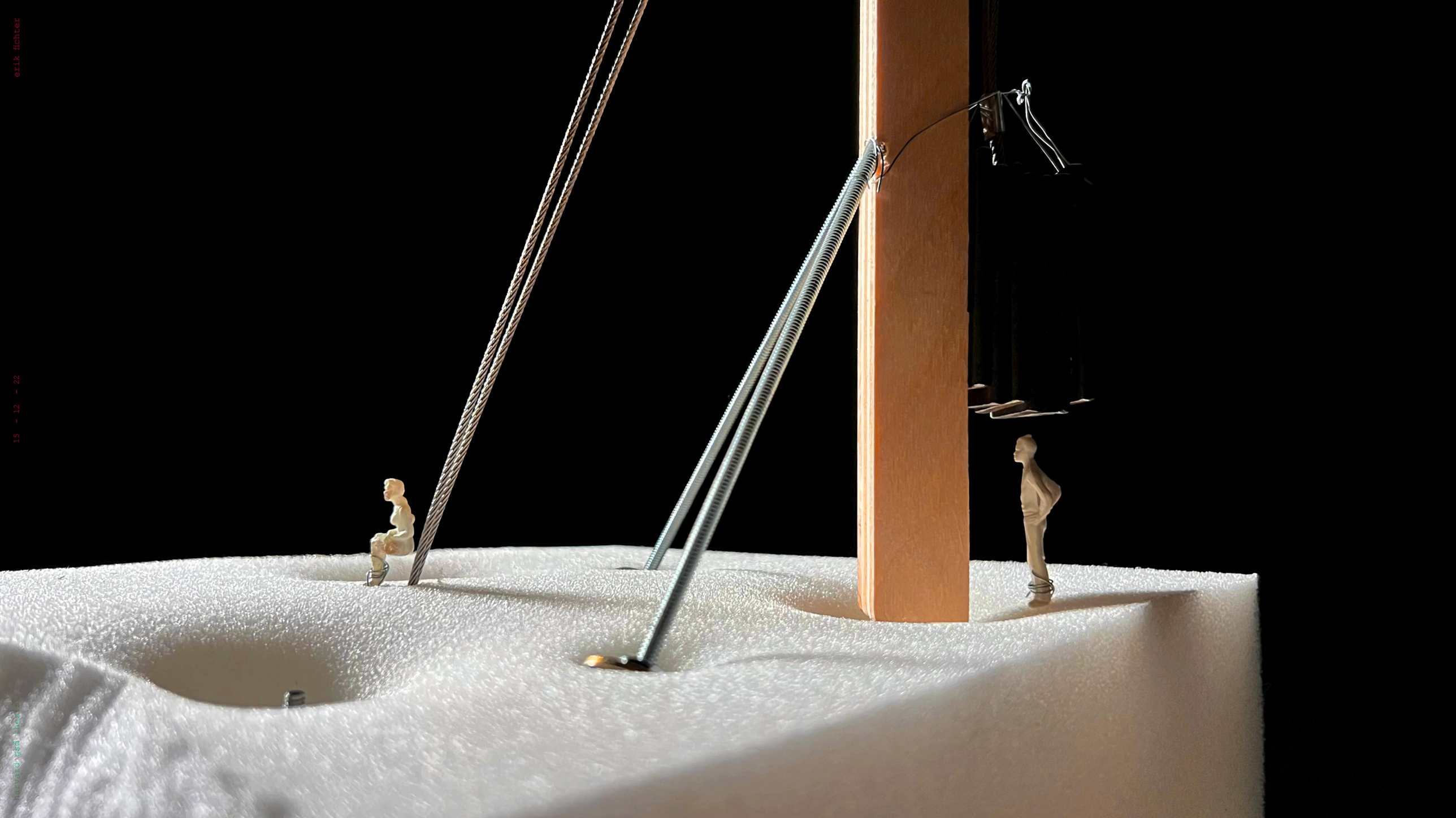
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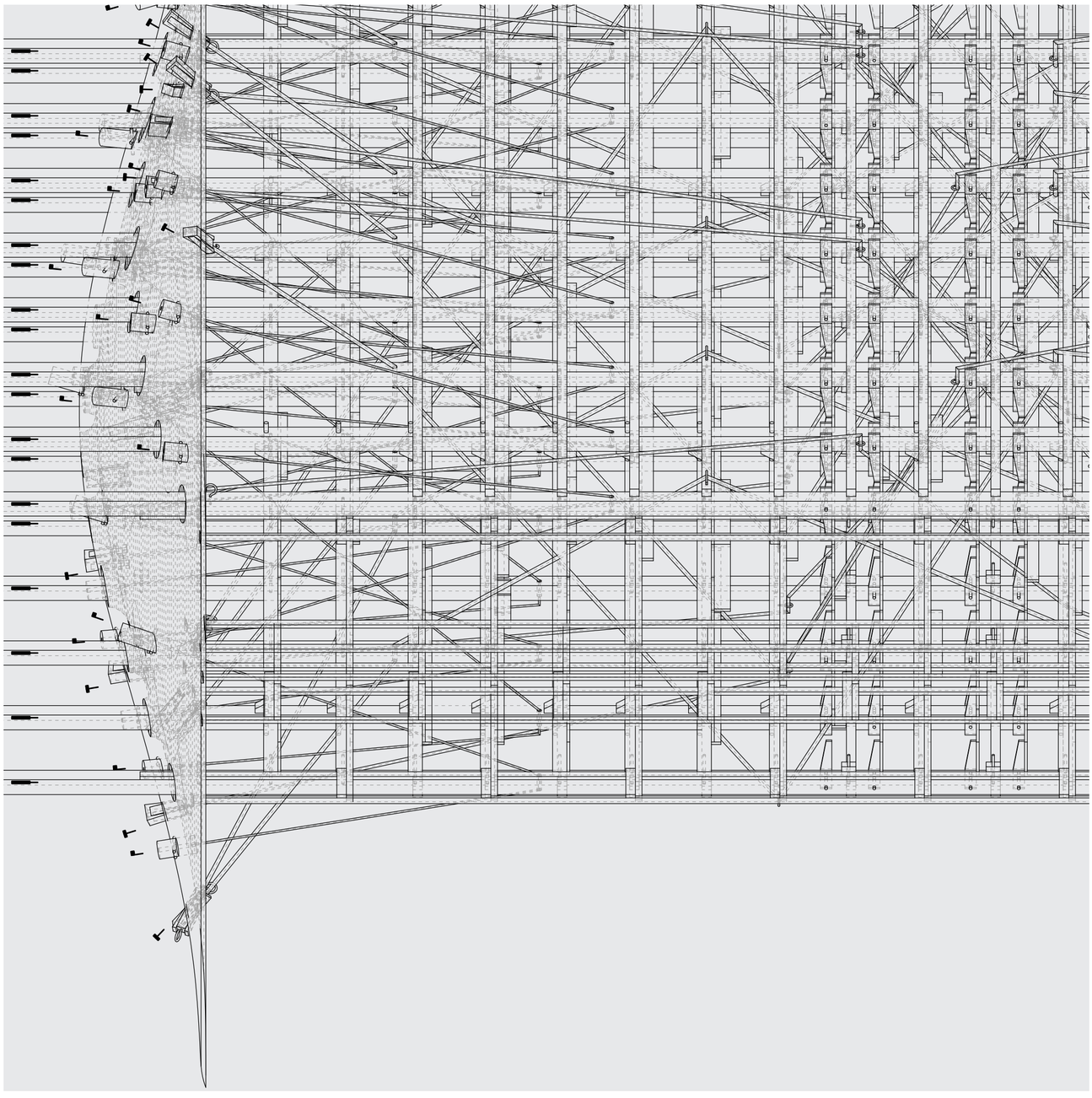
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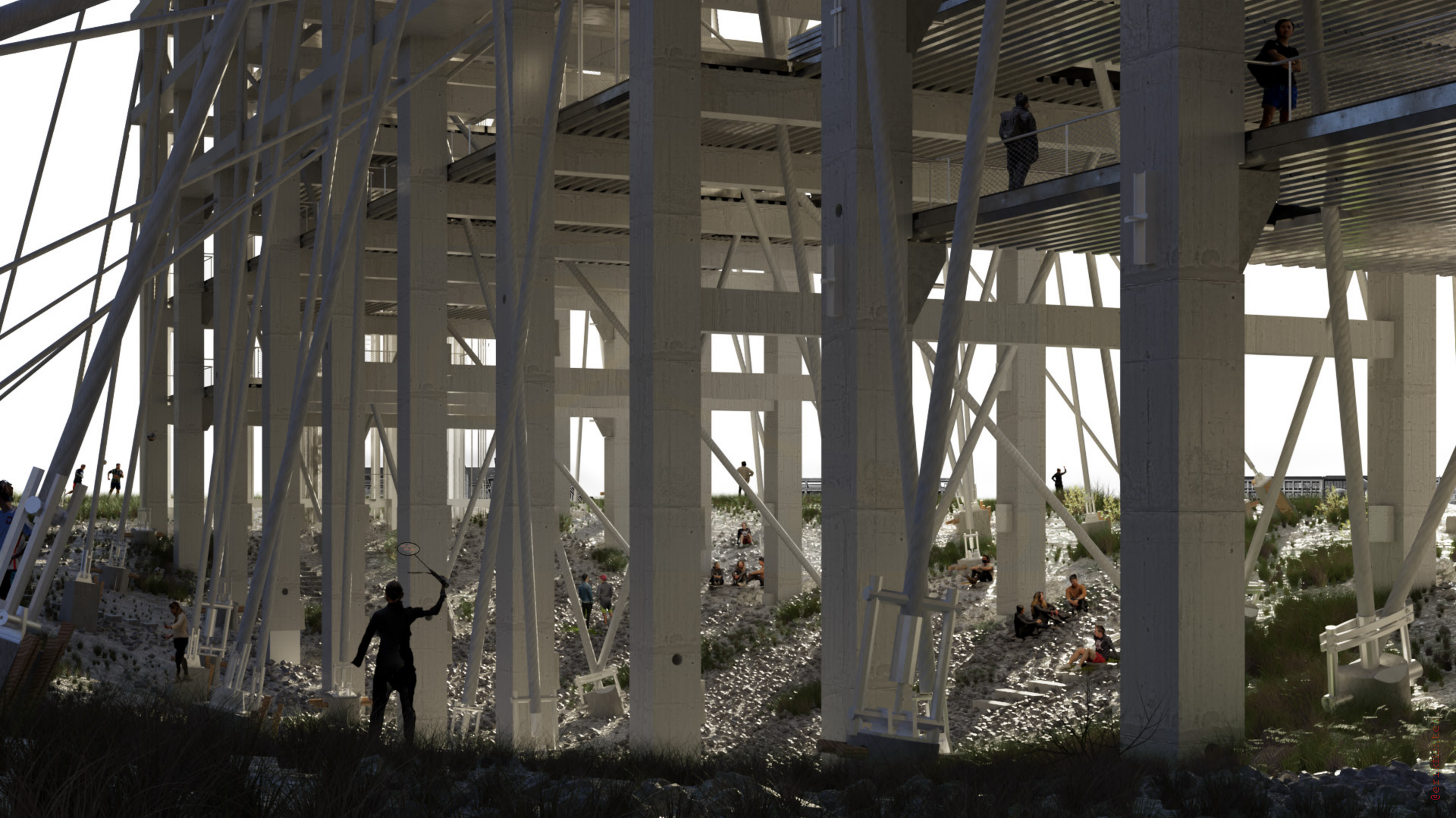



52°29'53.8"N 13°23'06.9"E


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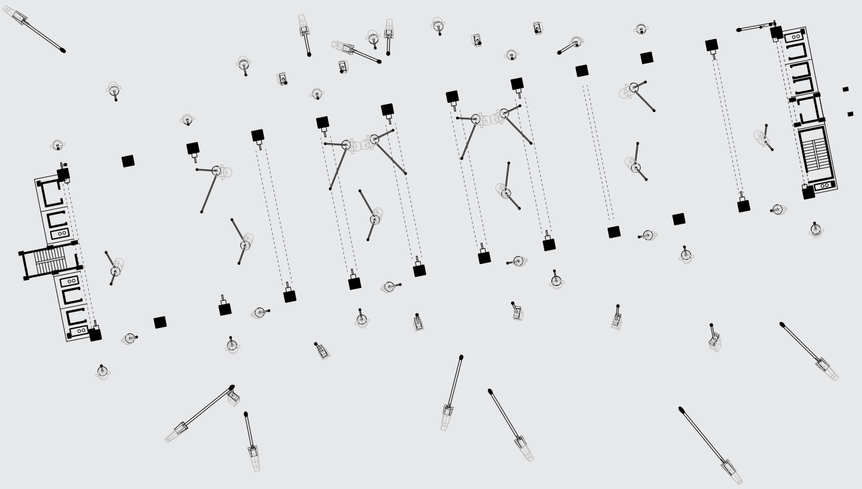


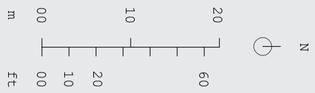






ground plan











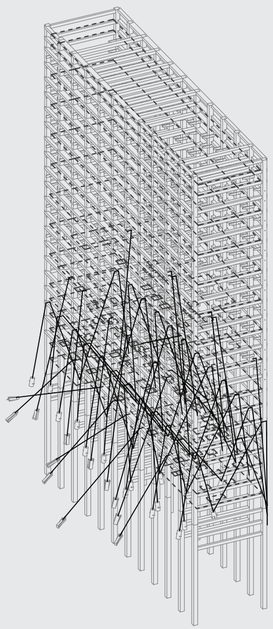

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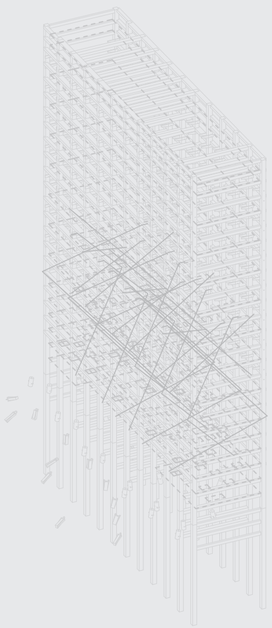

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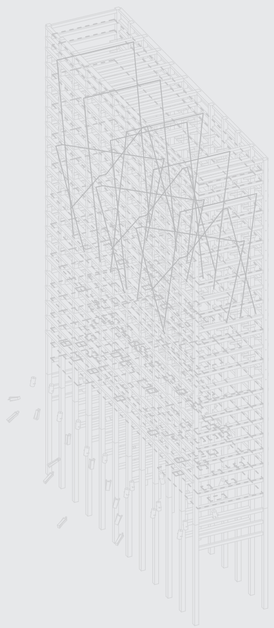


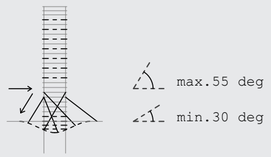
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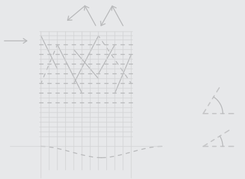


max.55 deg

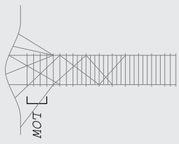
min.30 deg

low

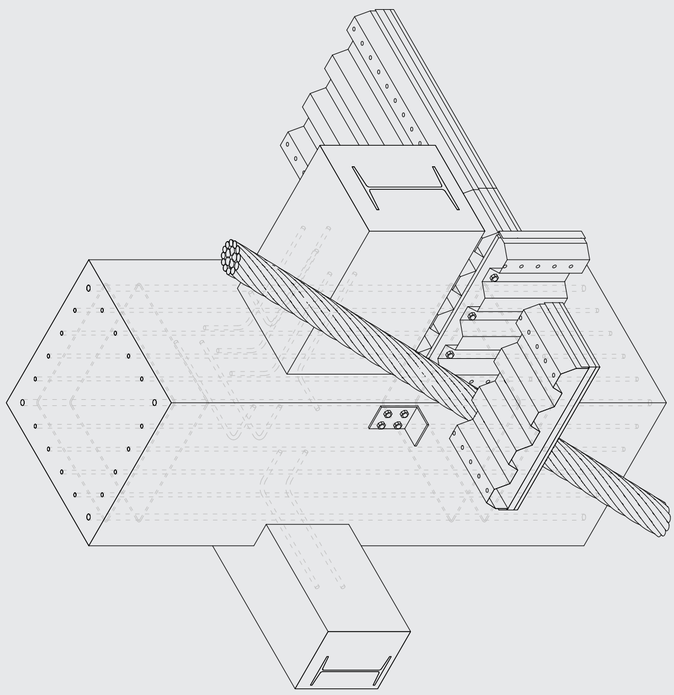




structural mechanism



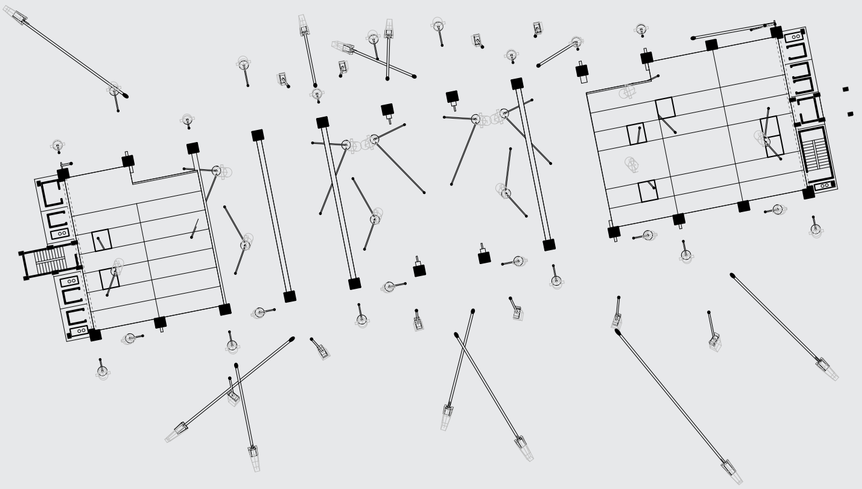


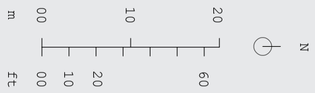


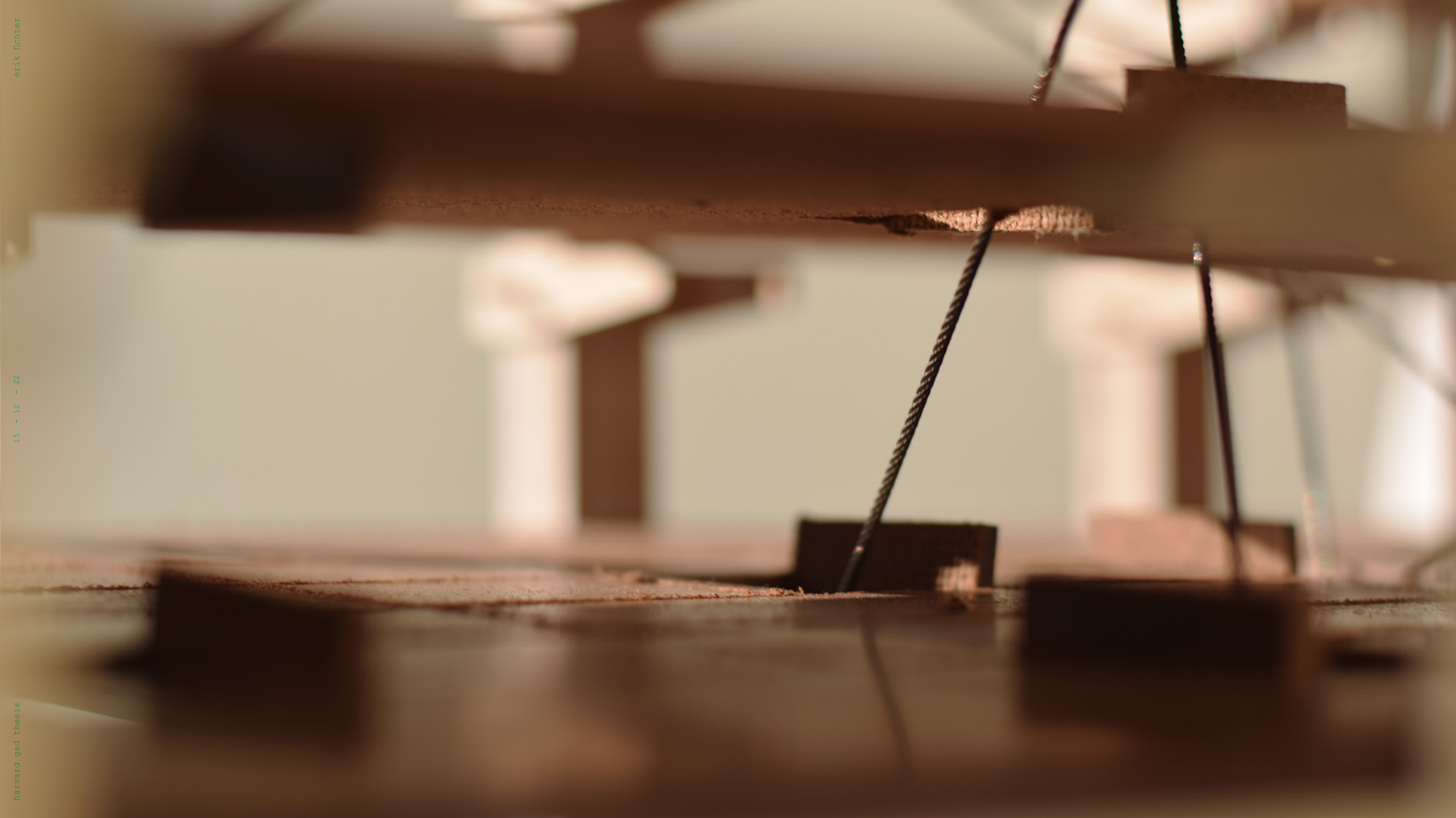
edit 01



lower plan







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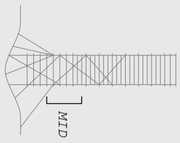
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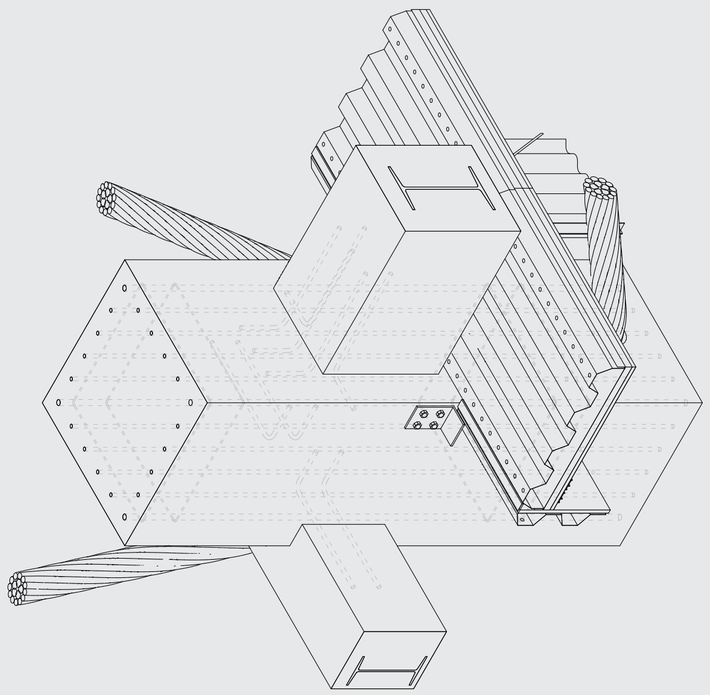

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harmonic oscillations

mid

structural mechanism



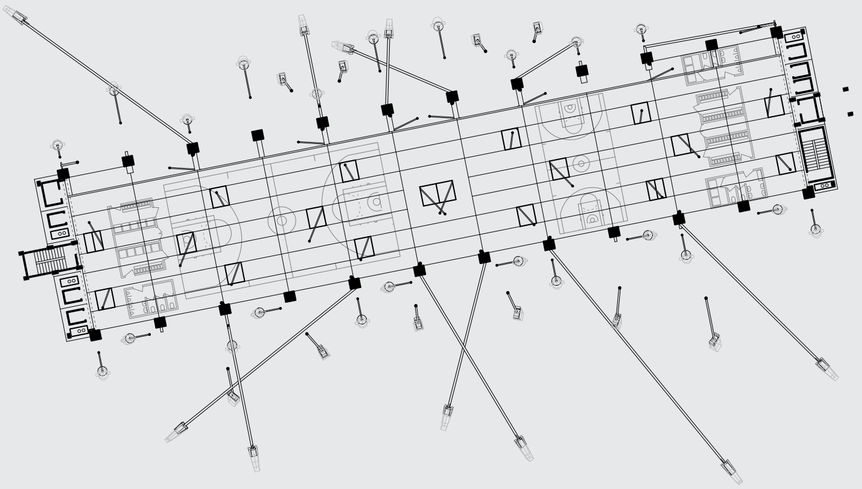


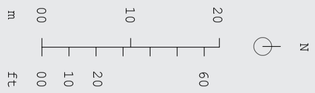


edit 02



mid plan









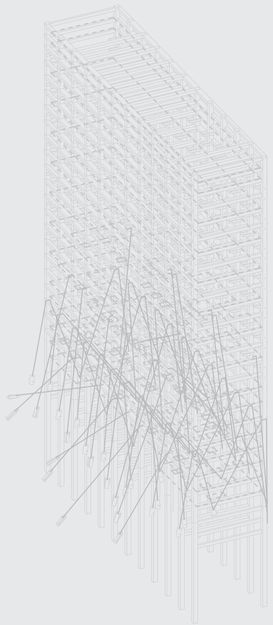
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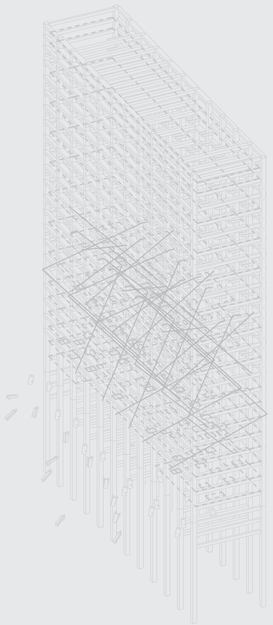
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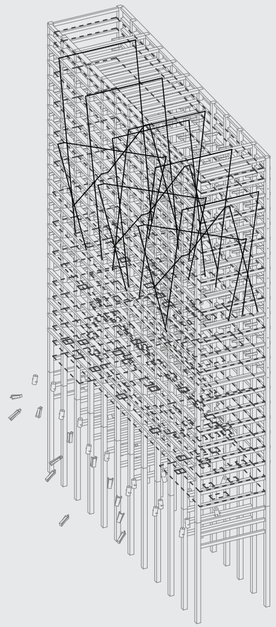
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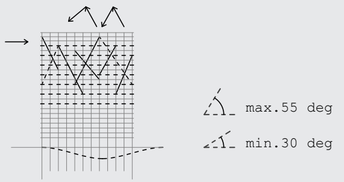




low

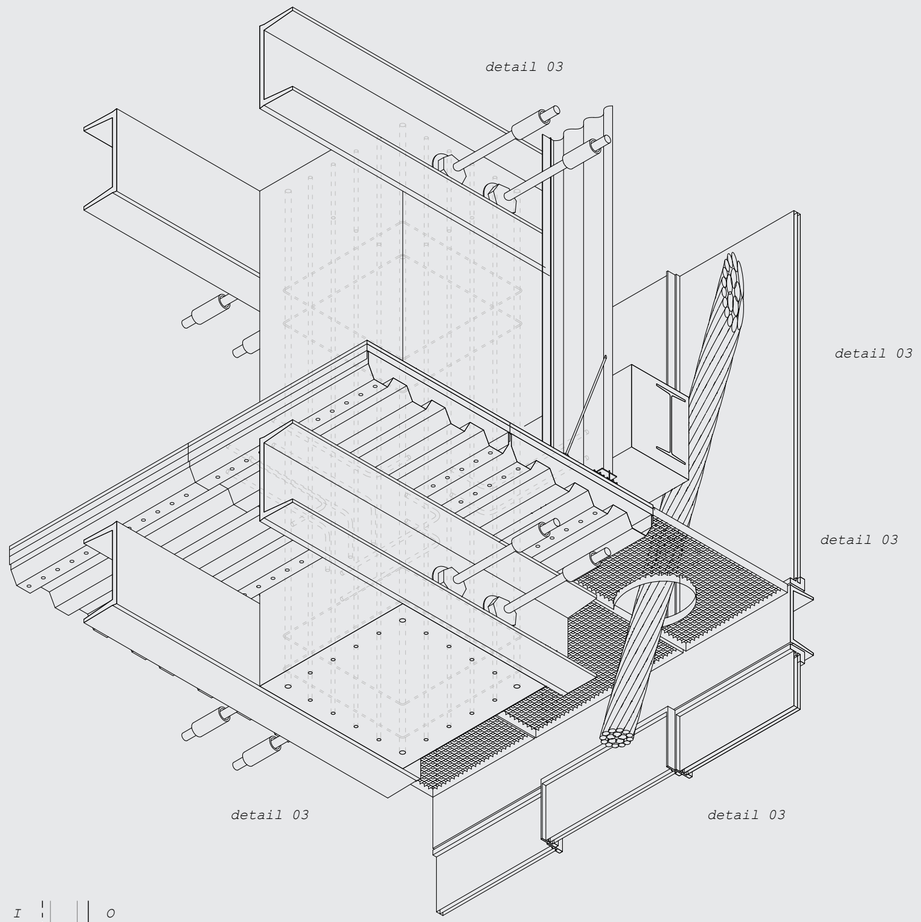


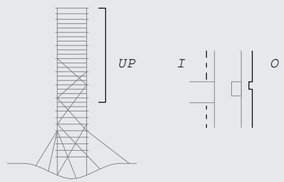
mid



up

structural mechanism



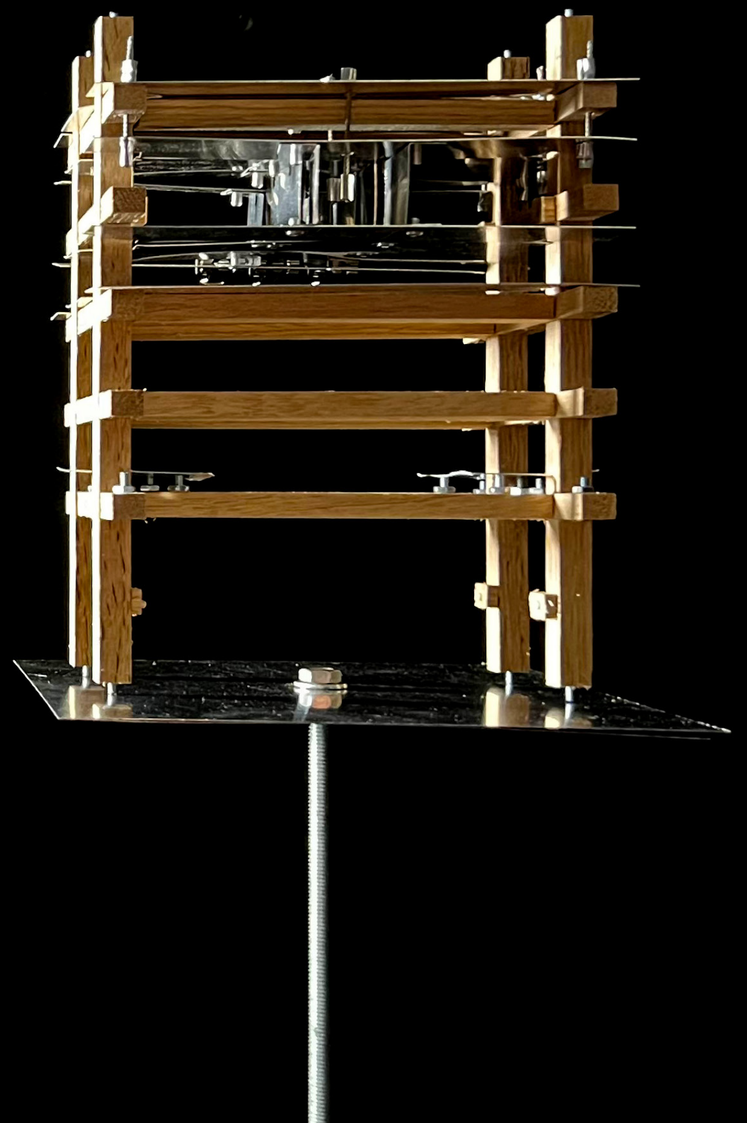


edit 03

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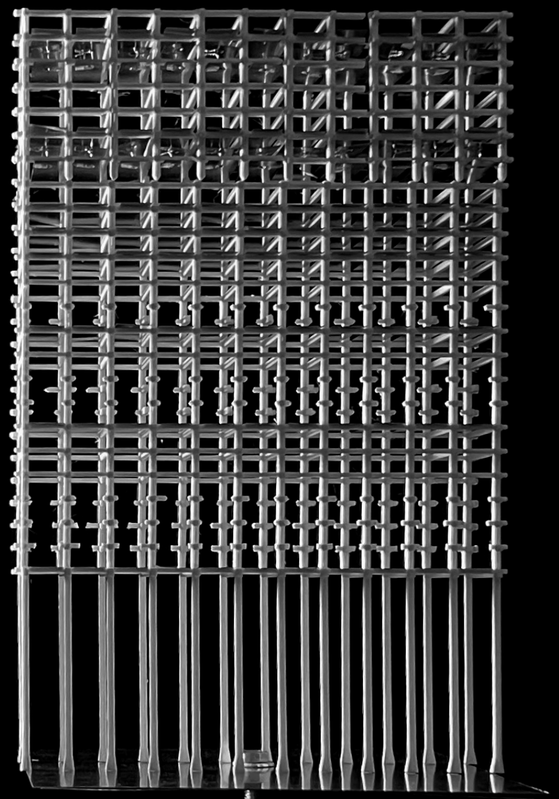
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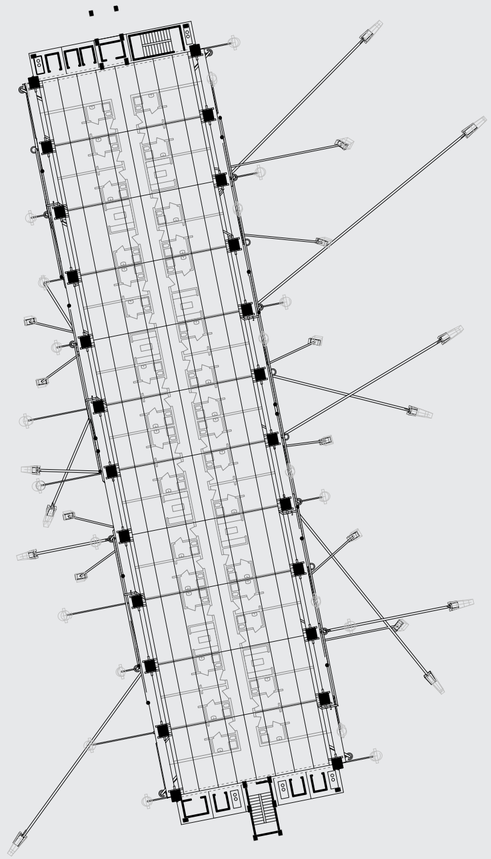
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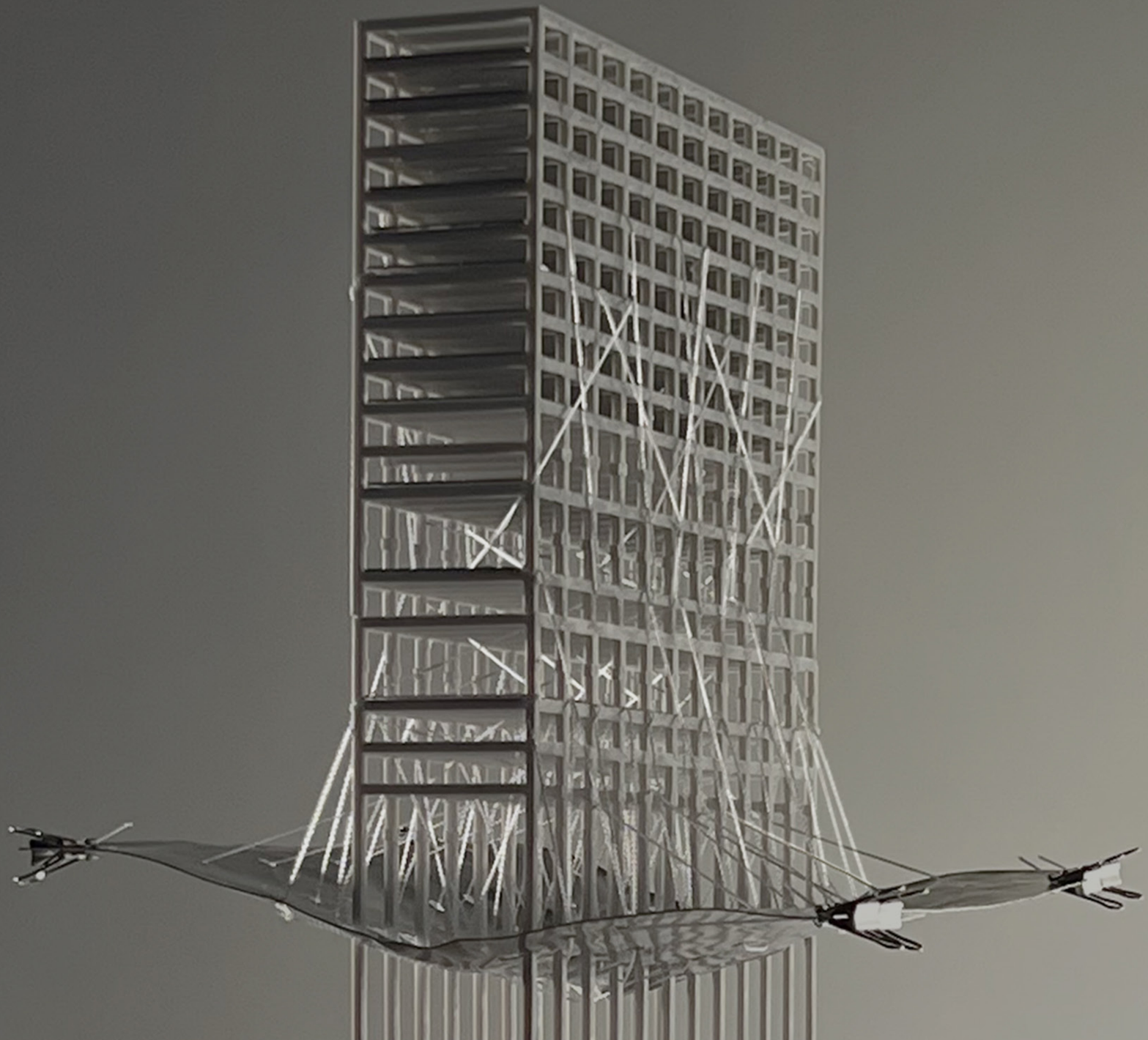
upper plan

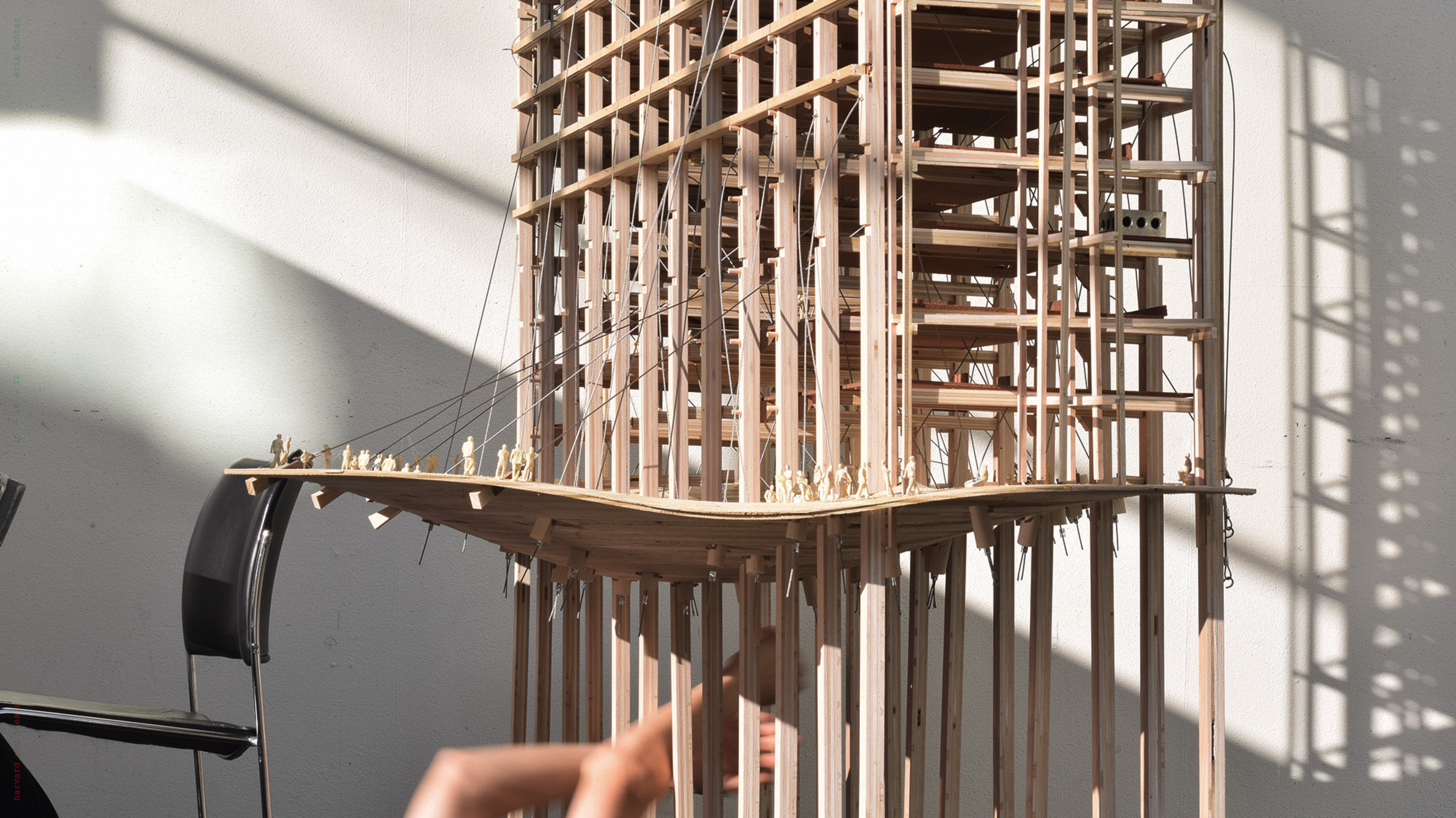
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16-10-22