

# HOCH BAUEN MIT HOLZ

05.04.2016 ZÜRICH

dünser christoph, Architekten Hermann Kaufmann



Der Alte Bau – 1445  
Geislingen





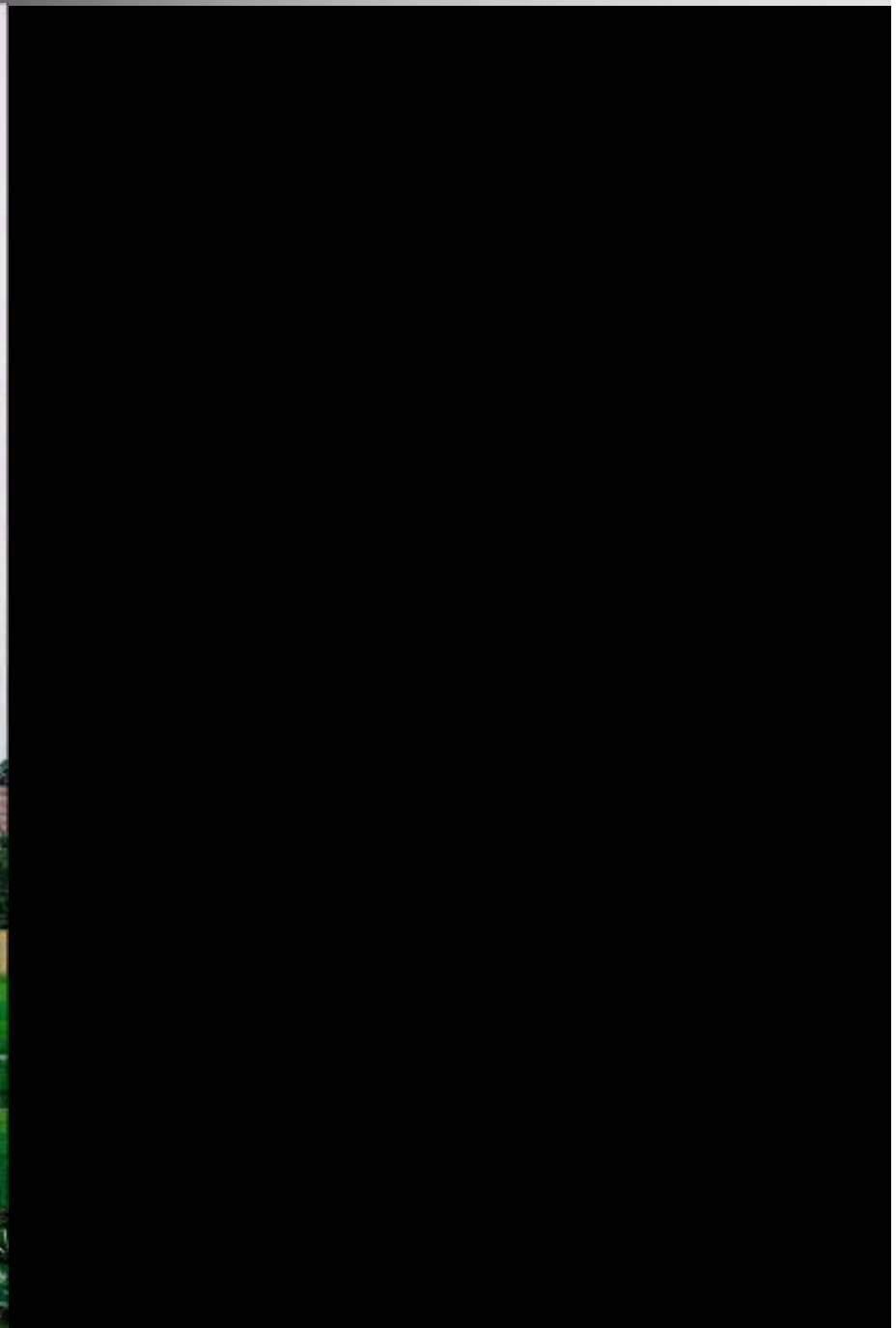
La Tour – 1958  
Evolène

## ÖLZBÜNDT - 1996

### TEAM

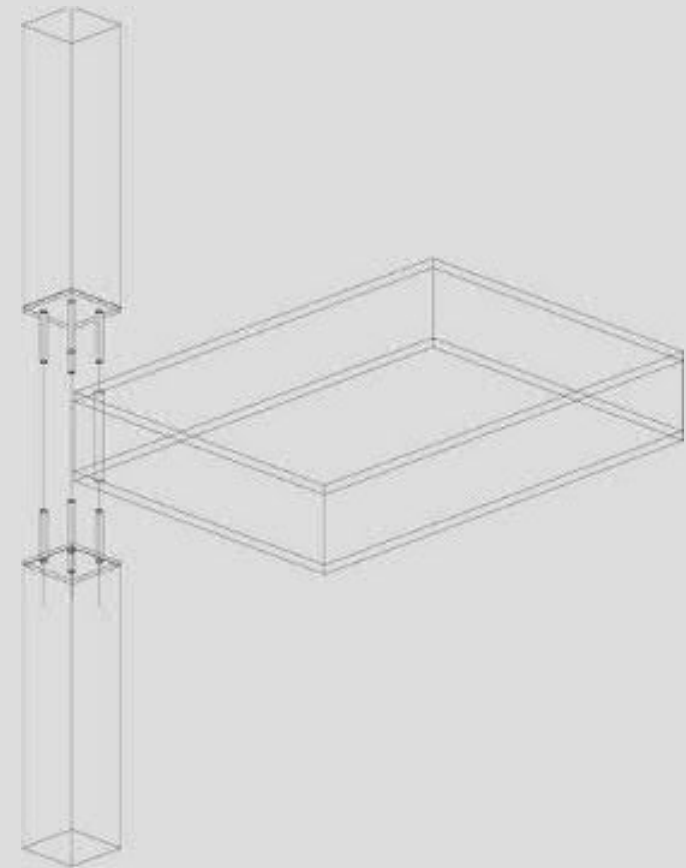
Architekten Hermann Kaufmann ZT GmbH,  
Merz- Kley & Partner, Structure  
IBS, Fire Safety  
GMI, HVAC  
Hecht, E















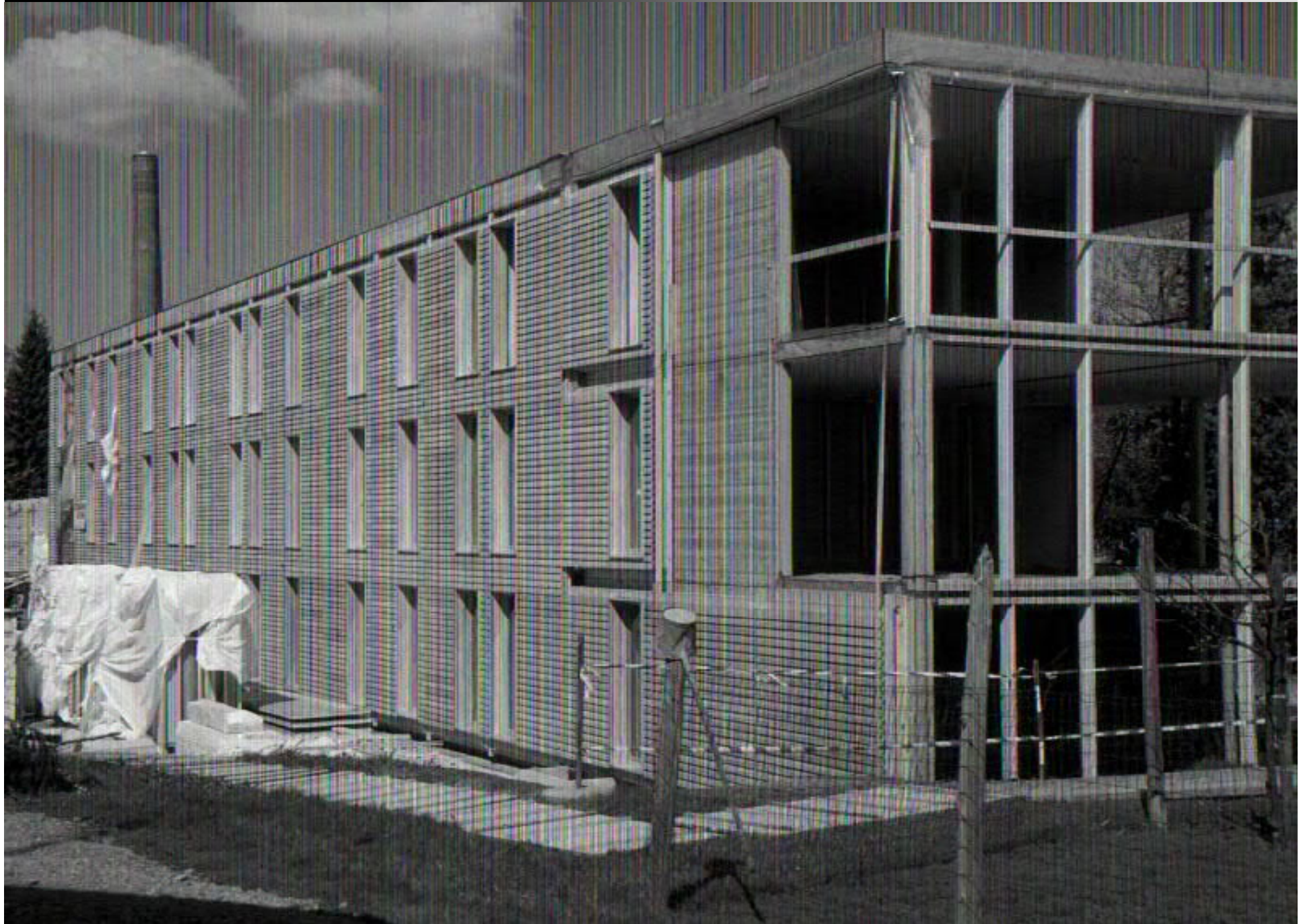












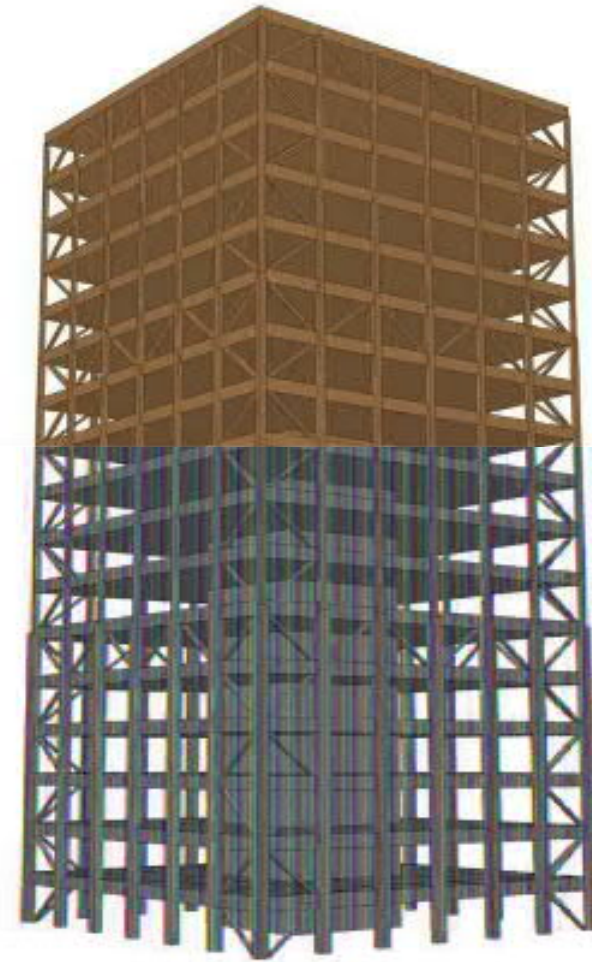
## RESEARCH: LIFECYCLE TOWER 2009

- Research Project finished:2010
- Funded by: FFG - Haus der Zukunft Österreich
- Team: Rhomberg BAU, Ove Arup, WIHAG, Architekten Hermann Kaufmann ZT GmbH



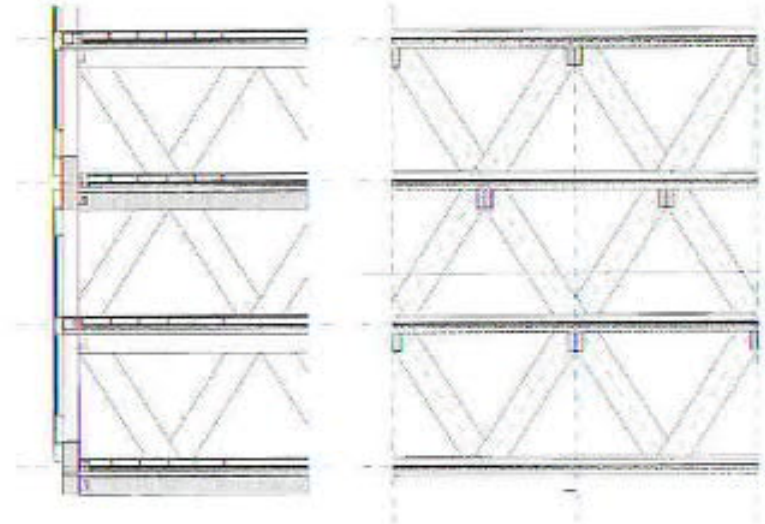
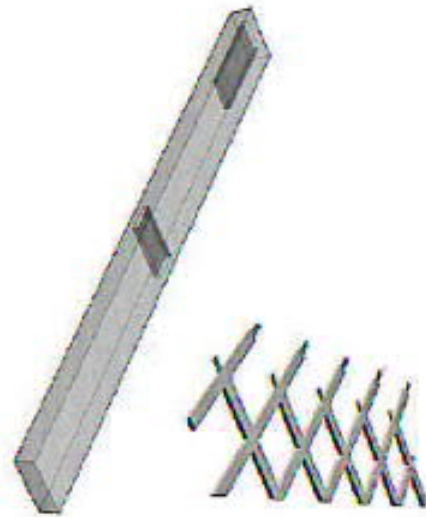


Forschungsprojekt 8+ 2008

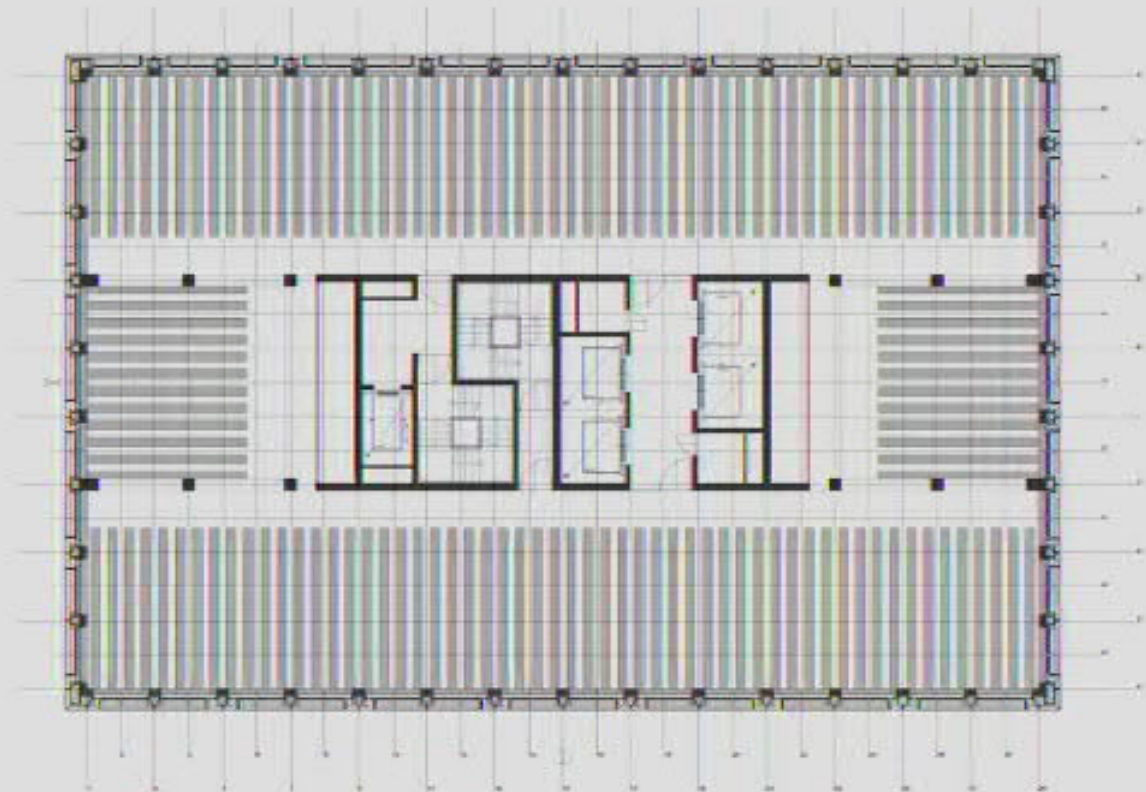
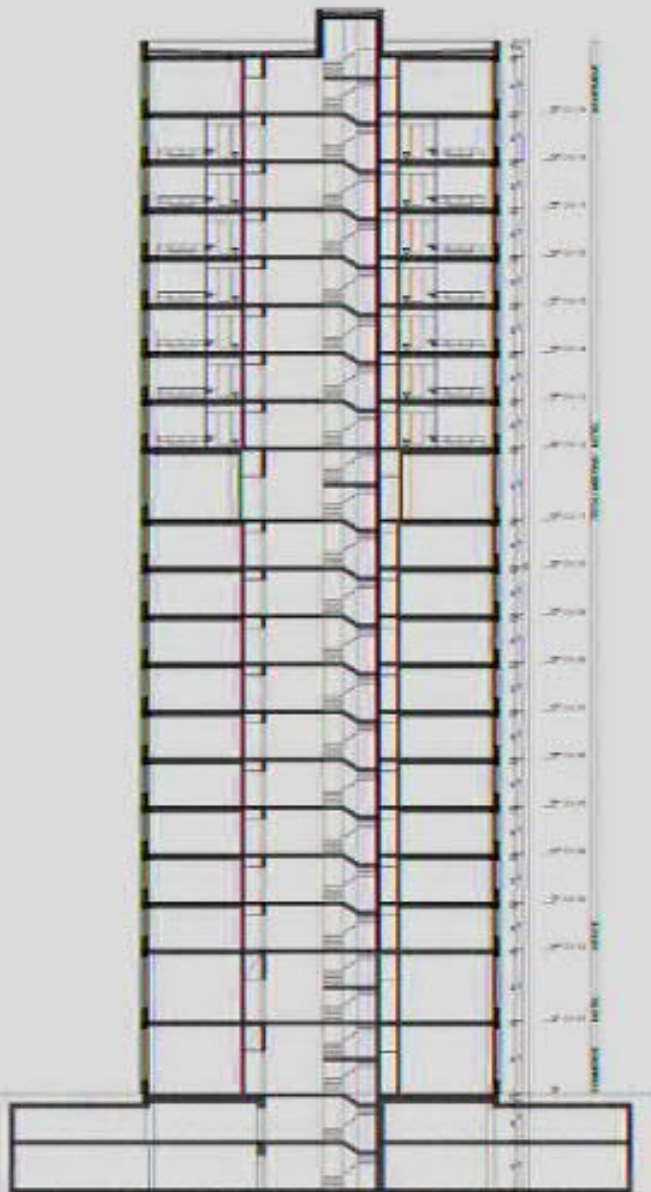


Arch. Michael Schluder

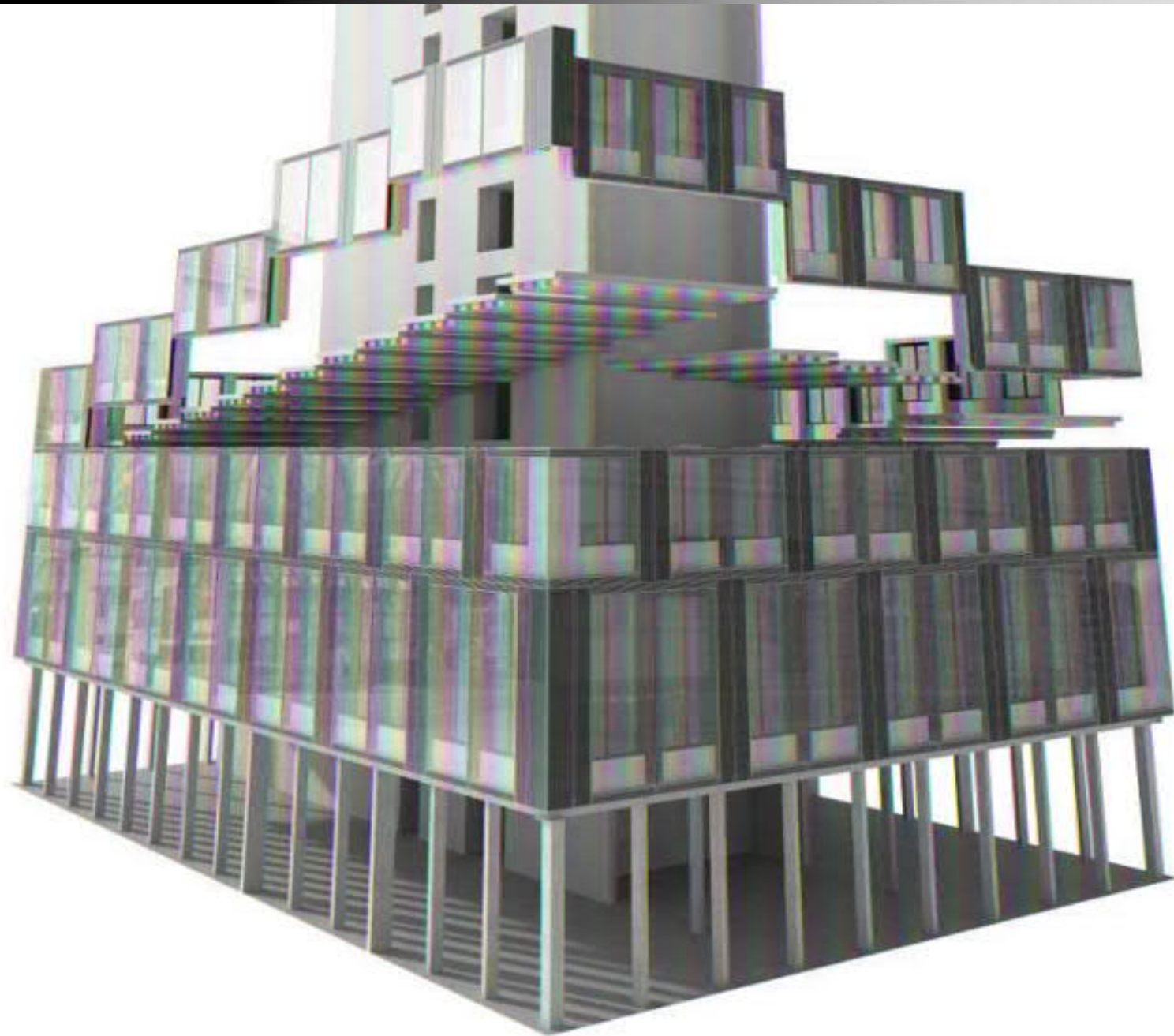












Rhomburg Bau GmbH

Life Cycle Tower  
20-geschossiges Holzhochhaus

Zusätzlich erfolgte eine Berechnung der Eigenwerte des Gesamtsystems. Die Berechnung der Eigenwerte erfolgte mit allen ständigen und quasi-ständigen Lasten. Die ständigen Lasten setzten sich aus den Eigenlasten der Tragstruktur und der Fassade und den Ausbaulasten zusammen. Die quasi-ständigen Lasten entsprechen 30% der Nutzlasten. Die Nutzlasten werden hierbei nicht zusätzlich über die Geschossanzahl abgemindert.

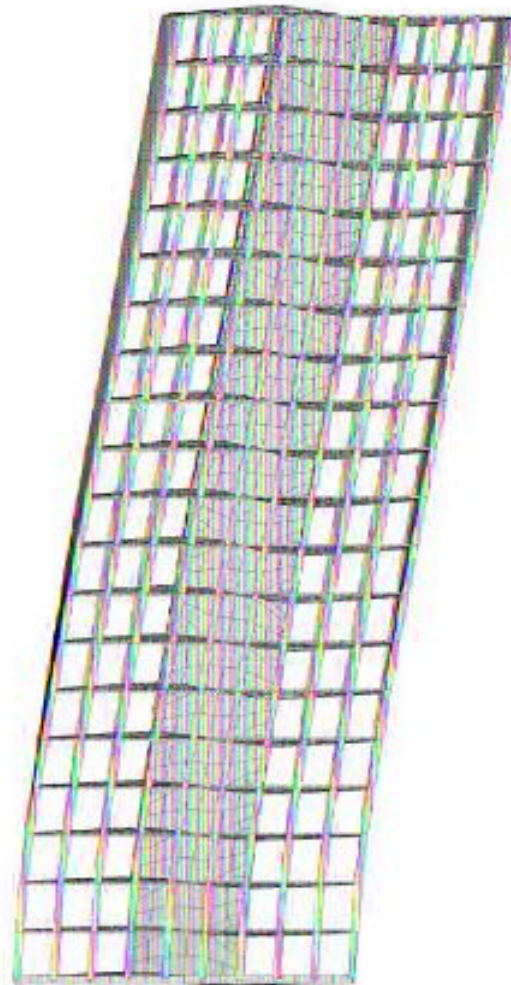


Bild 53 Eigenform zur 1. Eigenfrequenz von 0,29 Hz

Rhomburg Bau GmbH

20-geschossige

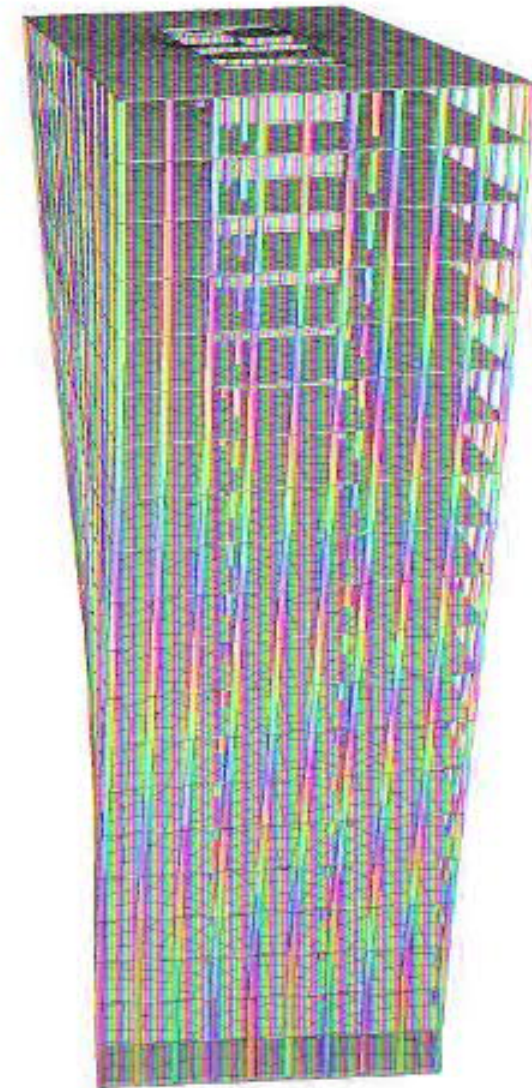


Bild 55 Eigenform zur 3. Eigenfrequenz von 0,37 Hz

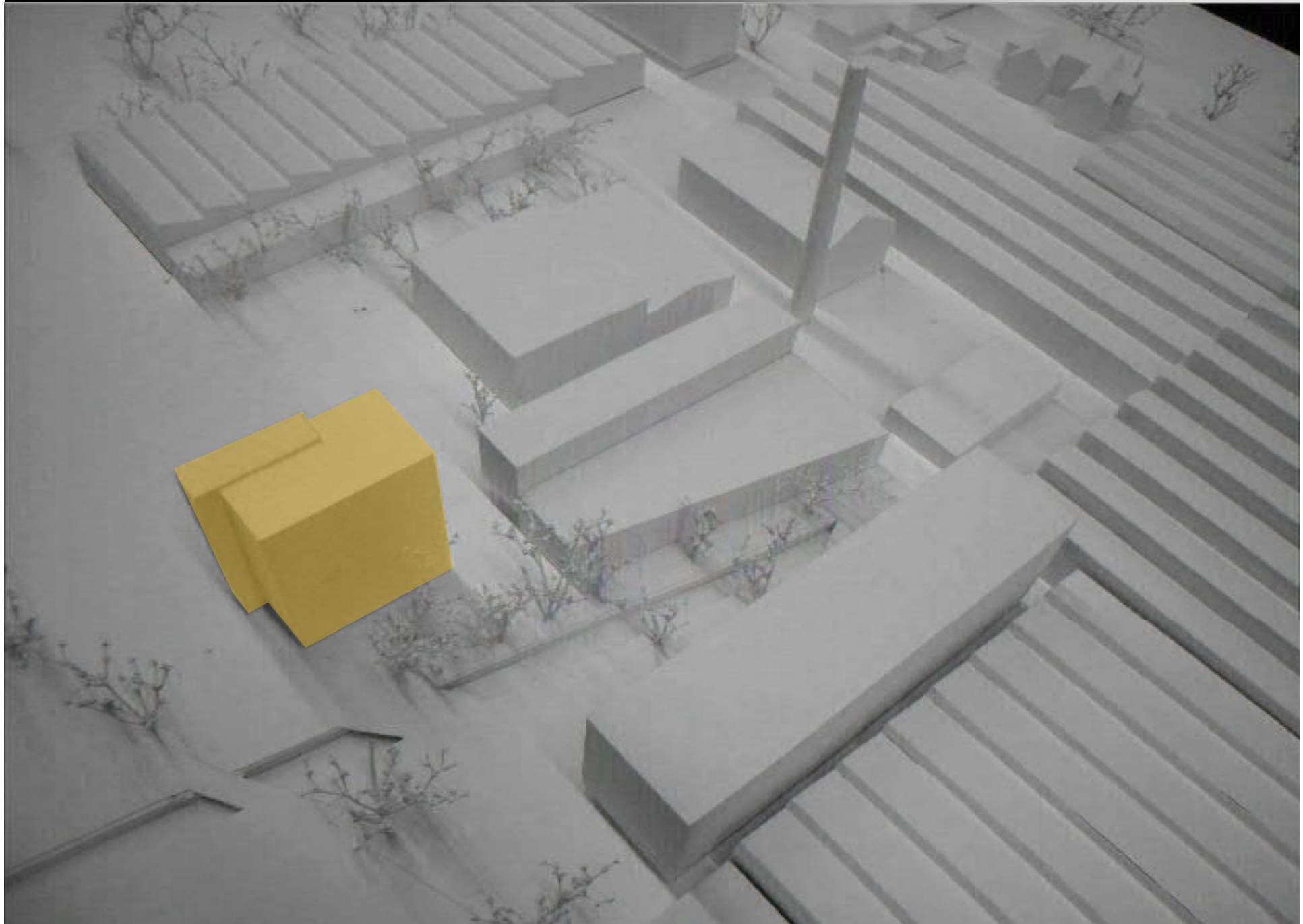


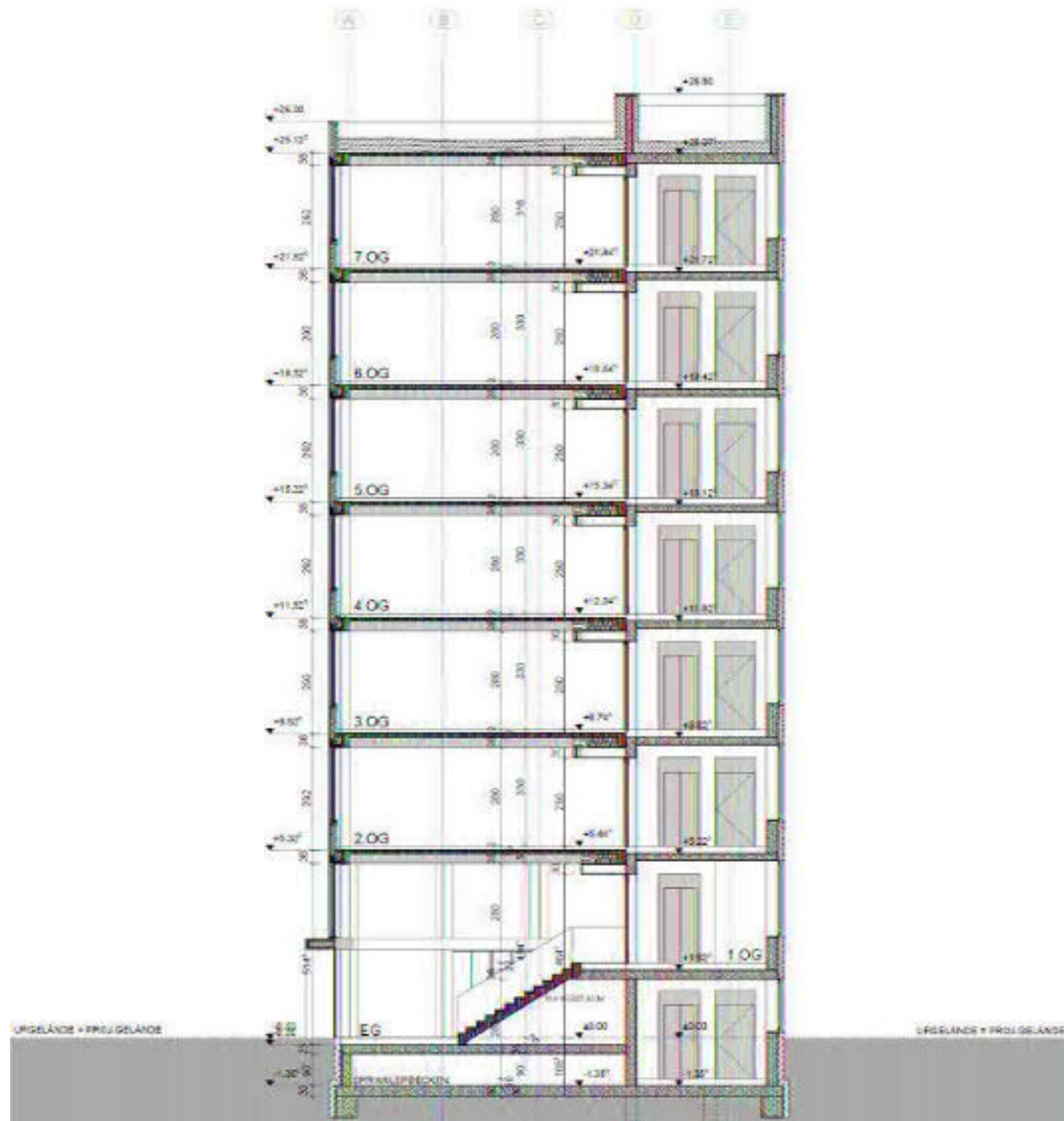


## LCT ONE 2012

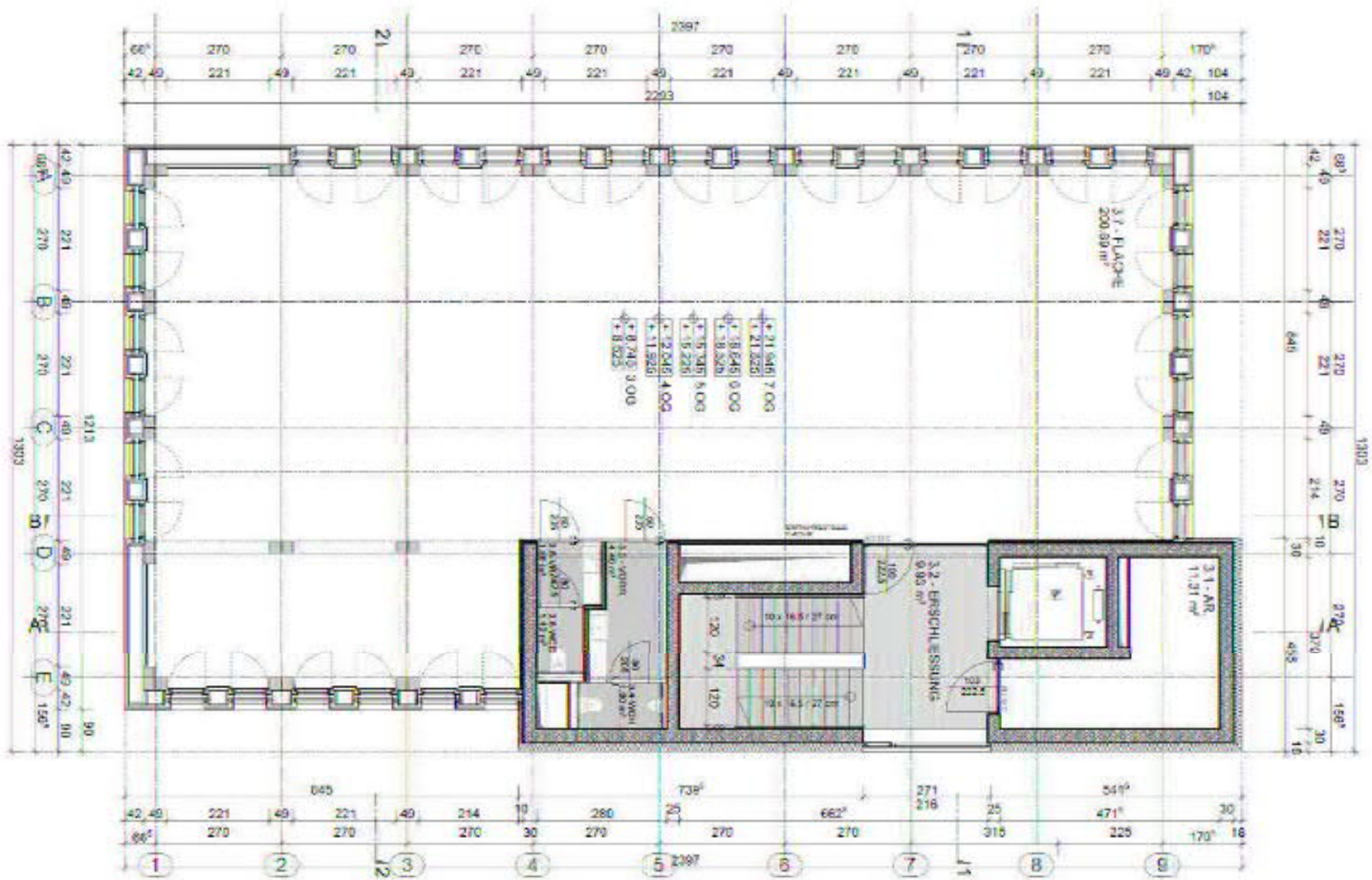
CREE (Rhomberg Bau Bregenz),  
Architekten Hermann Kaufmann ZT GmbH,  
Merz- Kley Dornbirn,  
EGS Stuttgart,  
GBD Dornbirn;  
IBS Linz  
Holzforschung Austria  
PetraK GmbH  
Zumtobel AG  
Brugger Ingenieure











## TEST OF CONCEPT - PROTOTYP







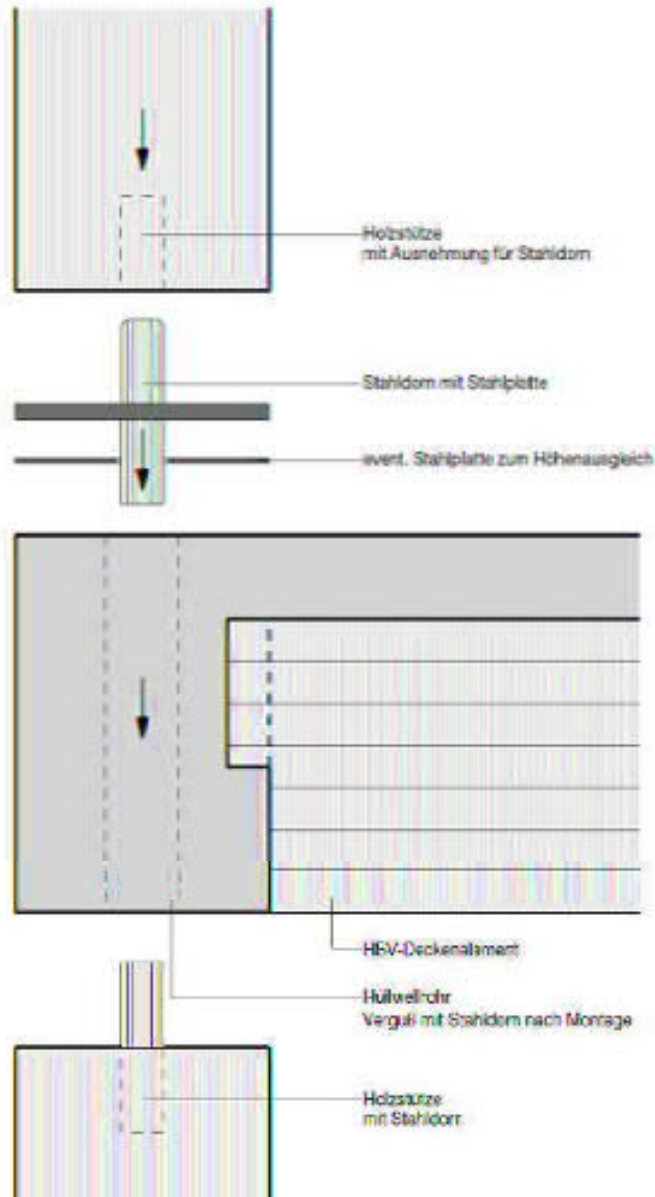






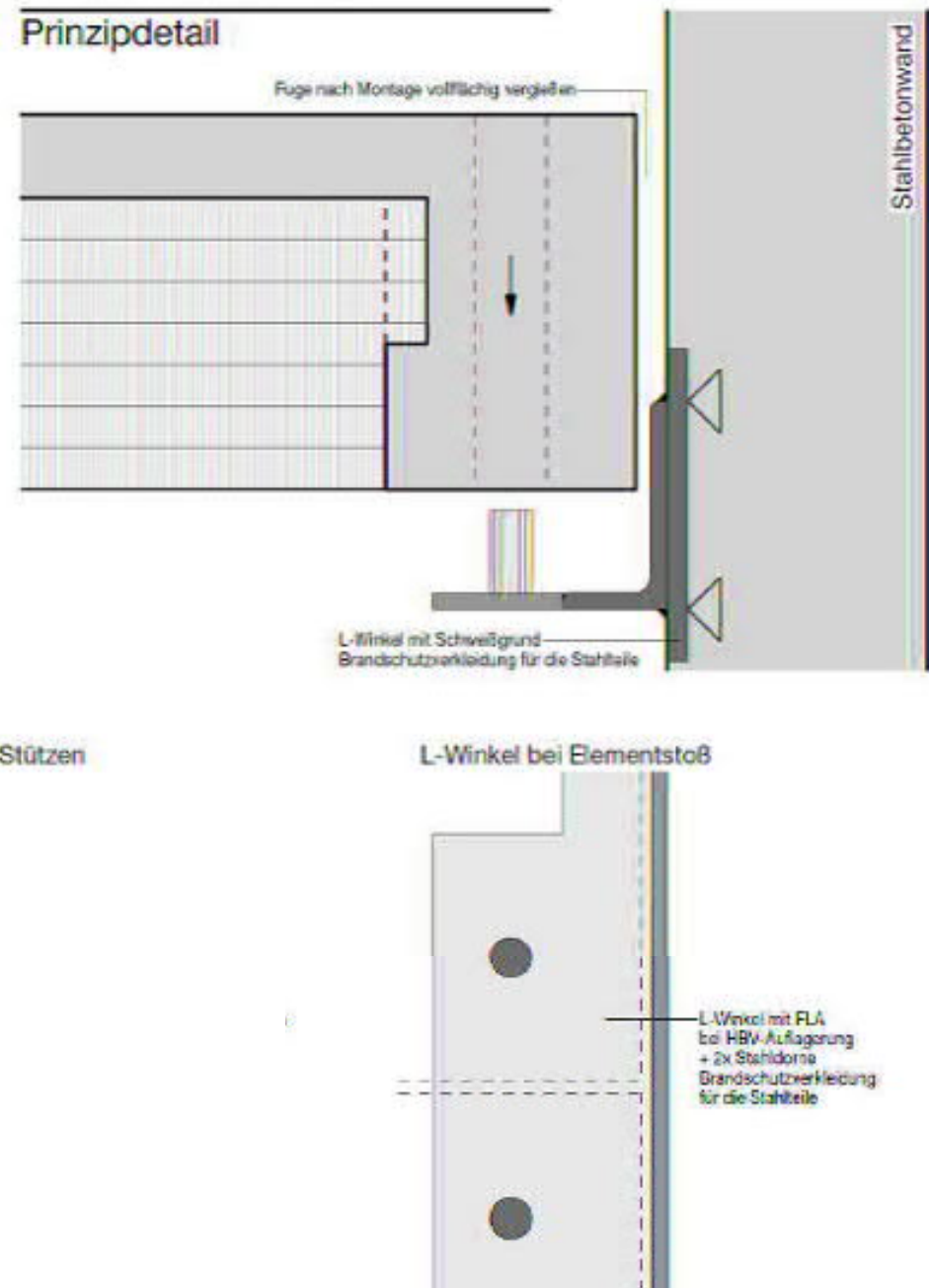
# Anschluss Holzstütze

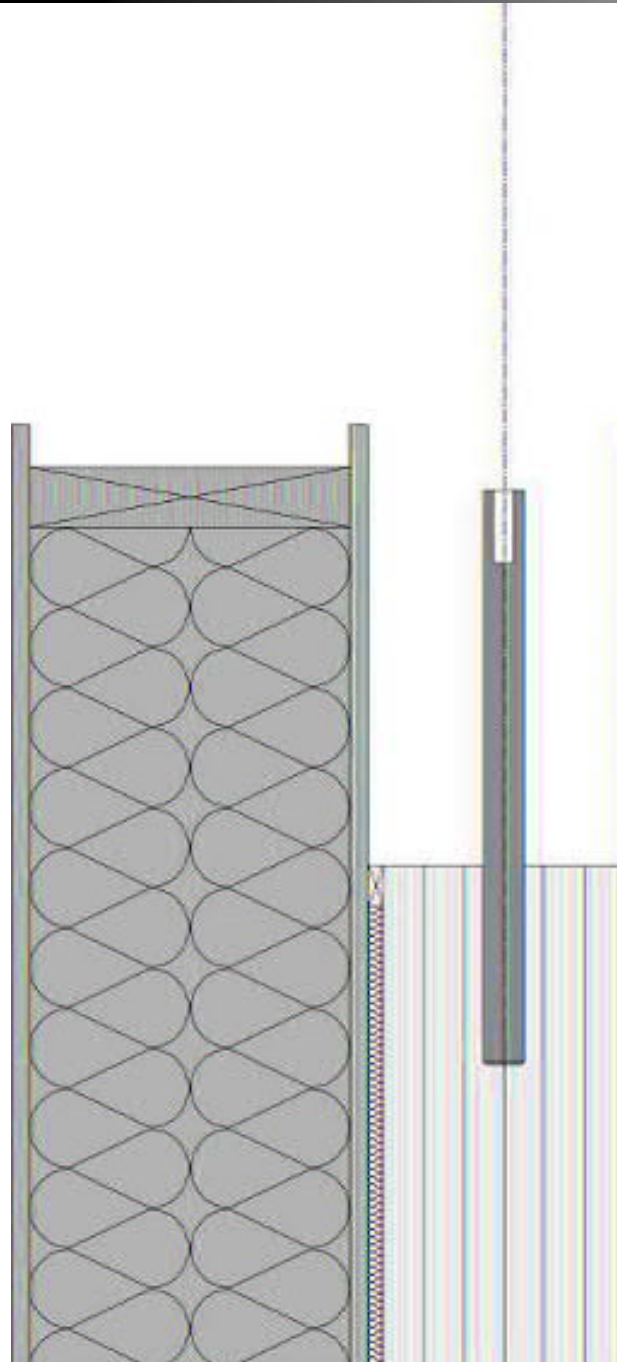
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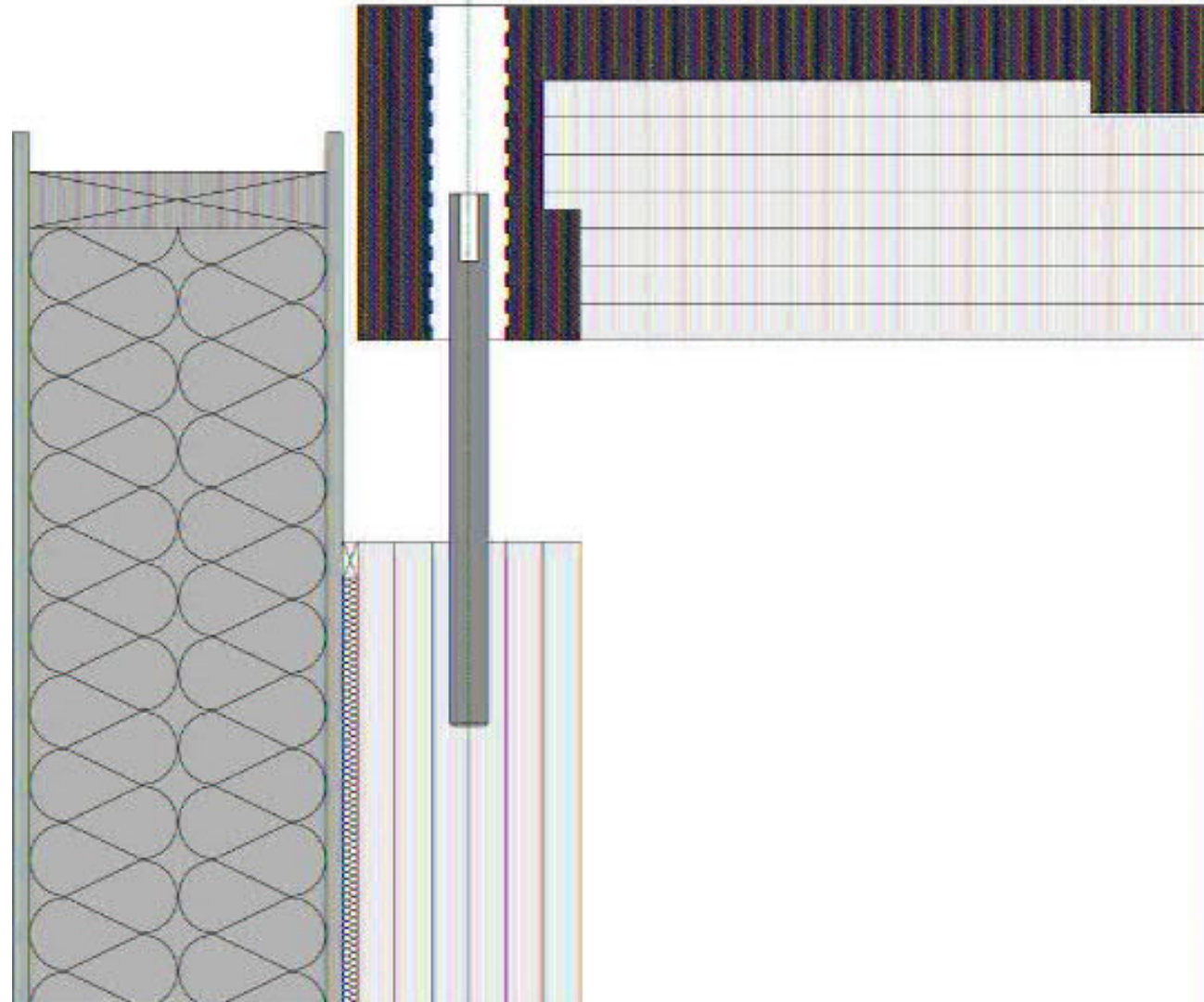


# Anschluss Kern

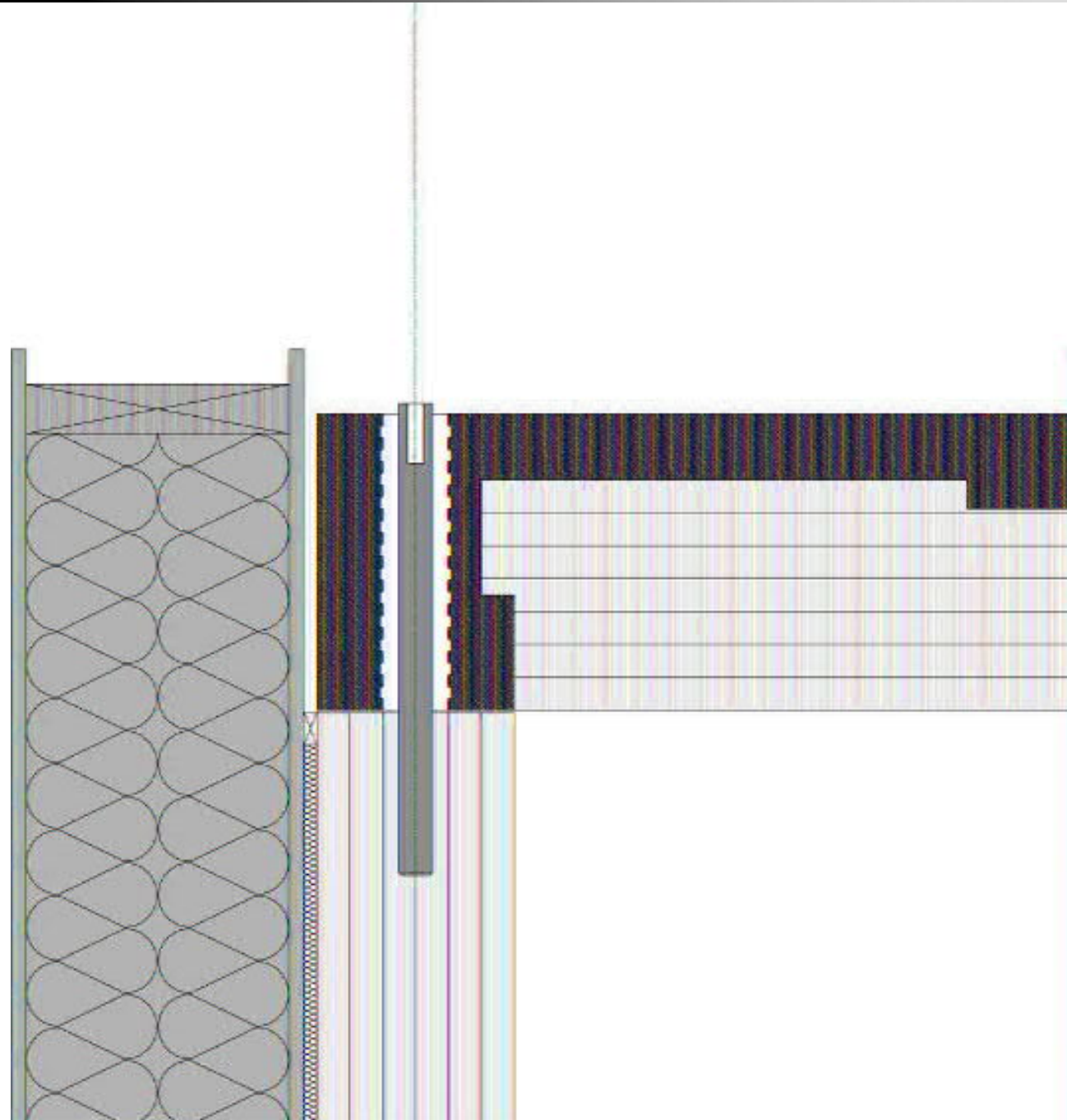
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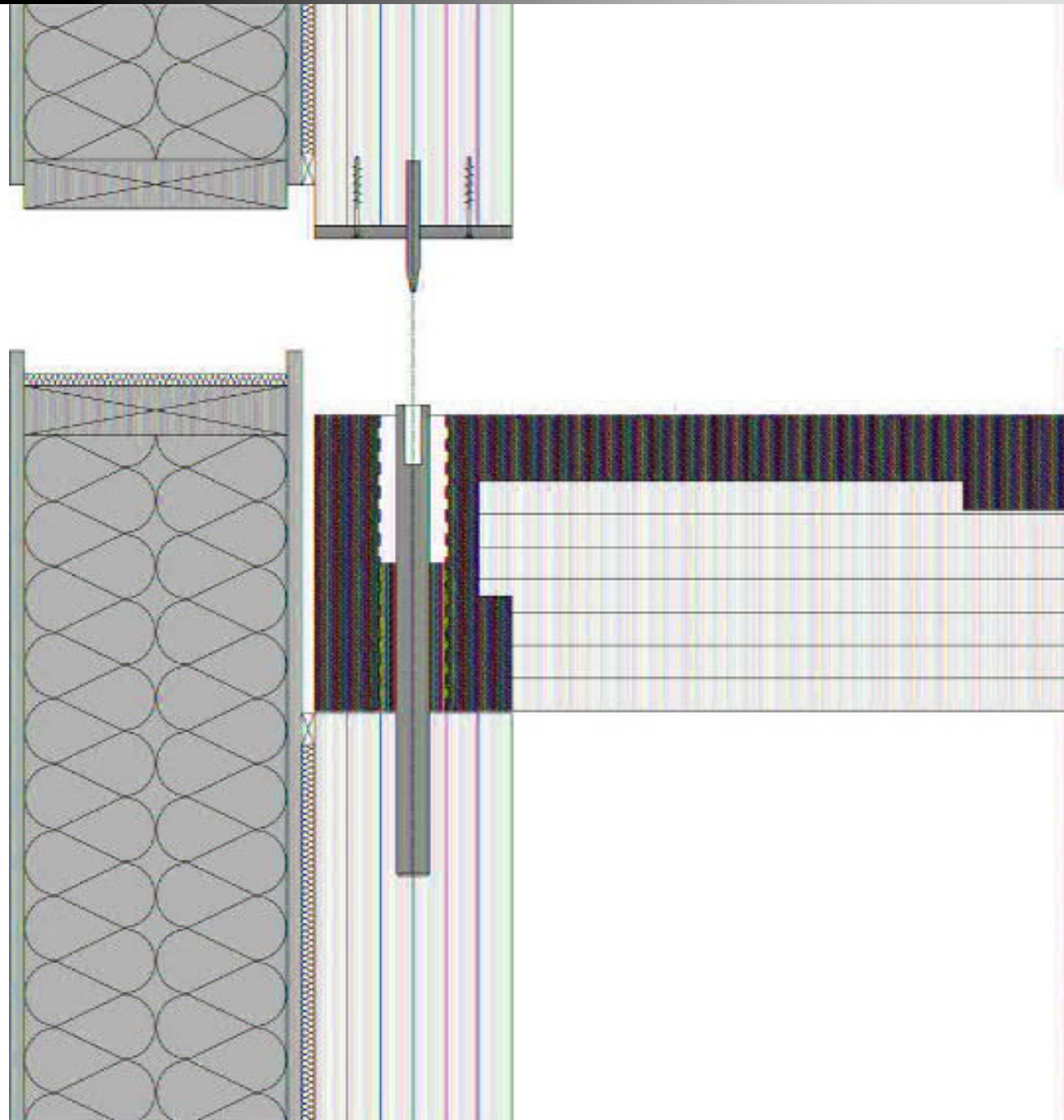


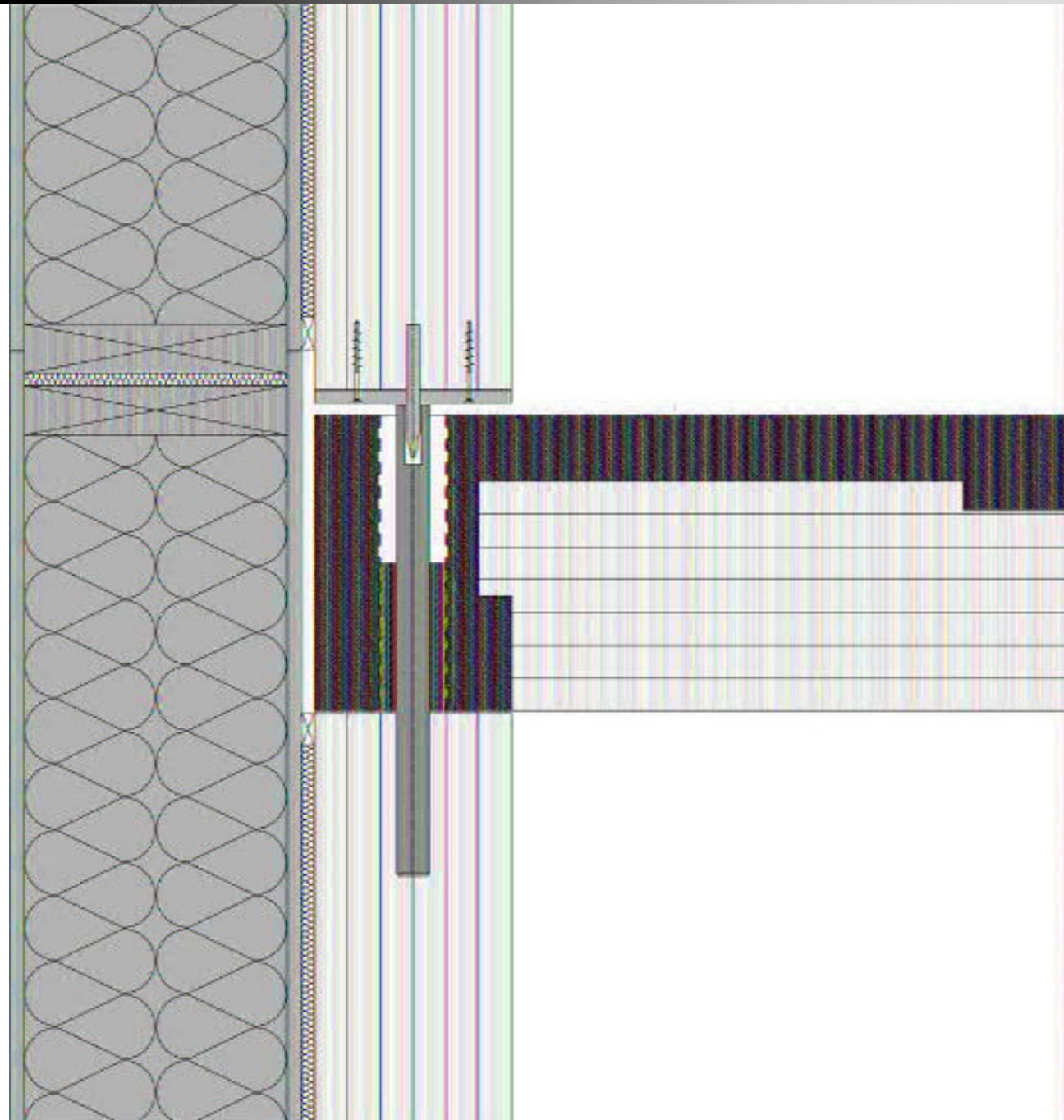




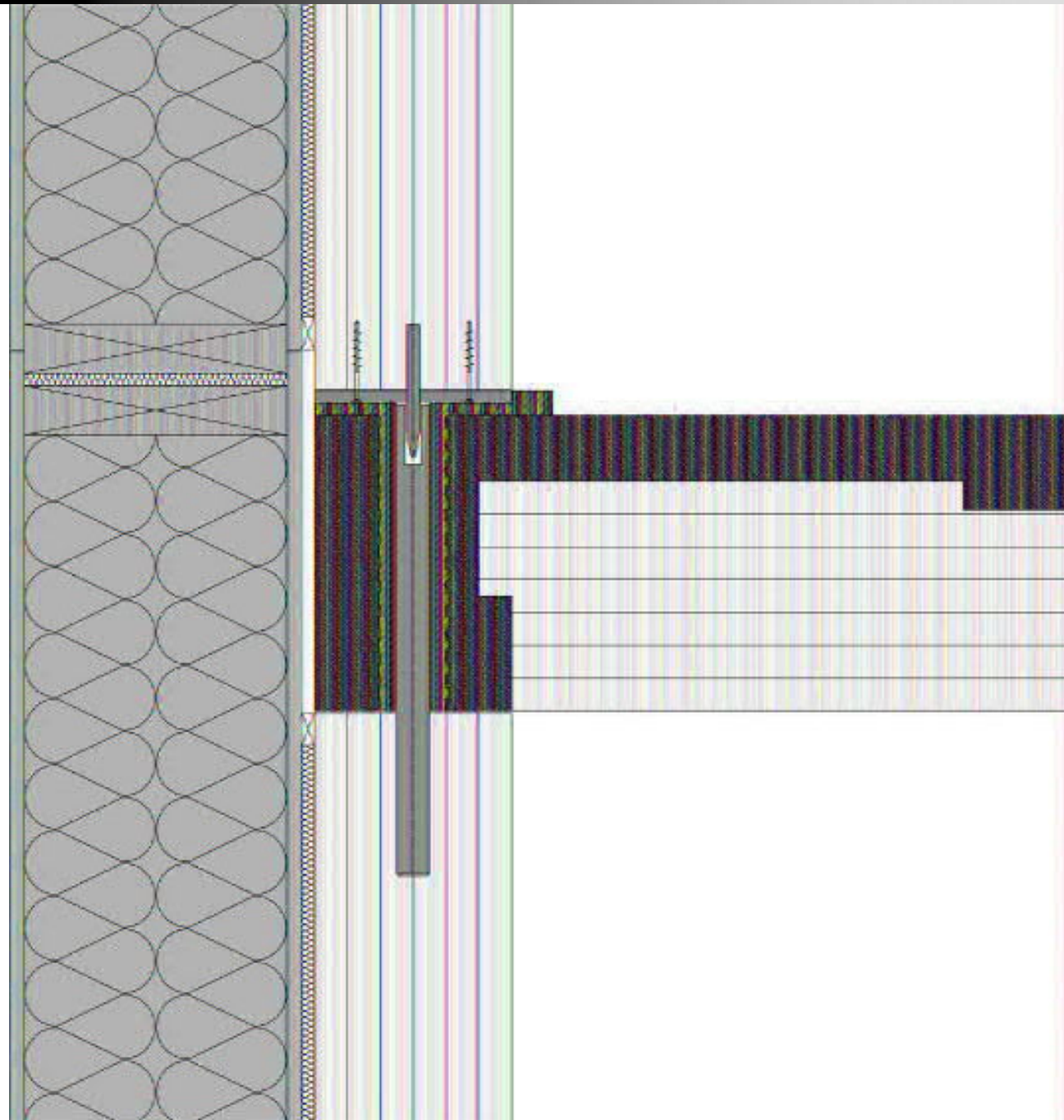


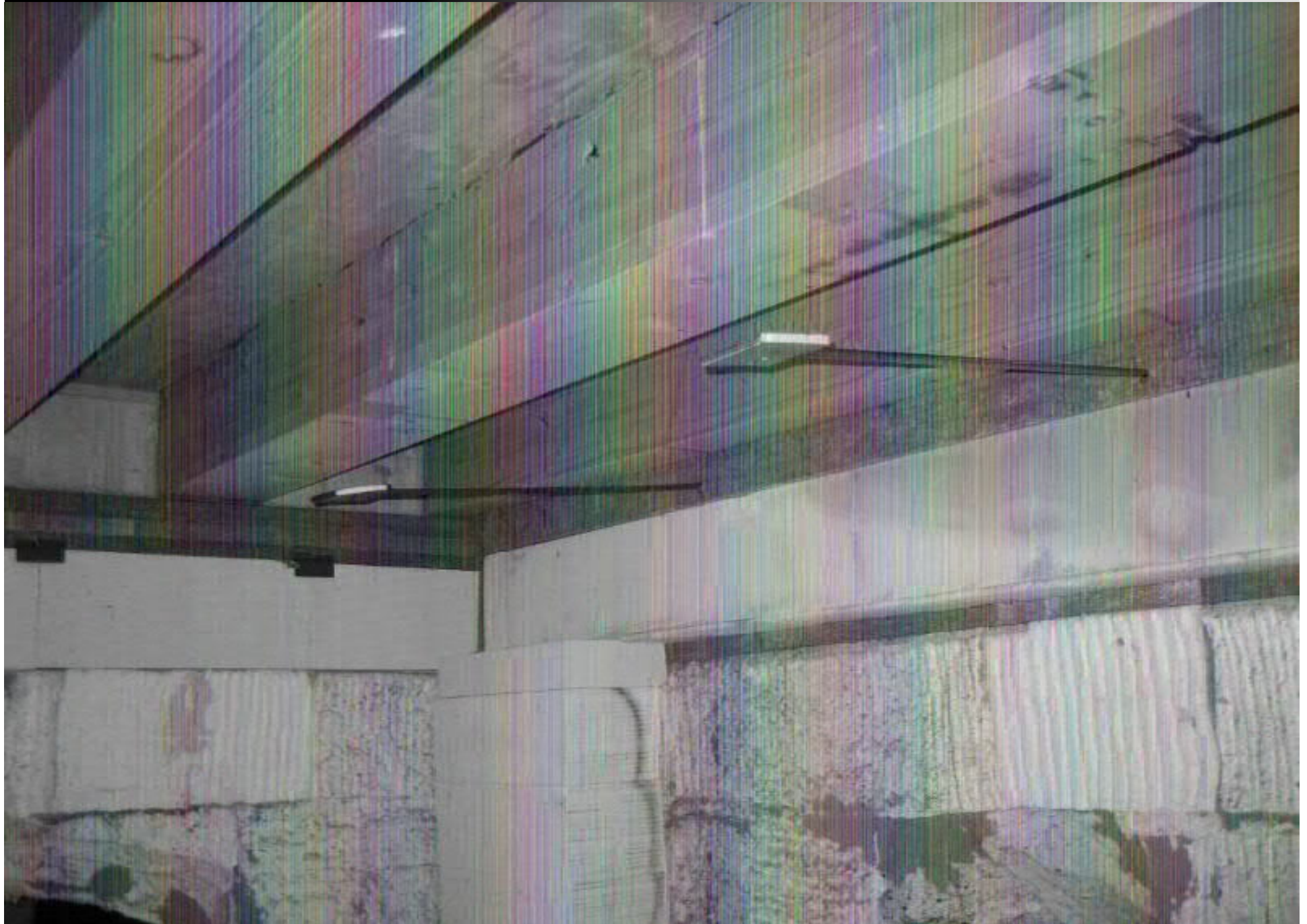




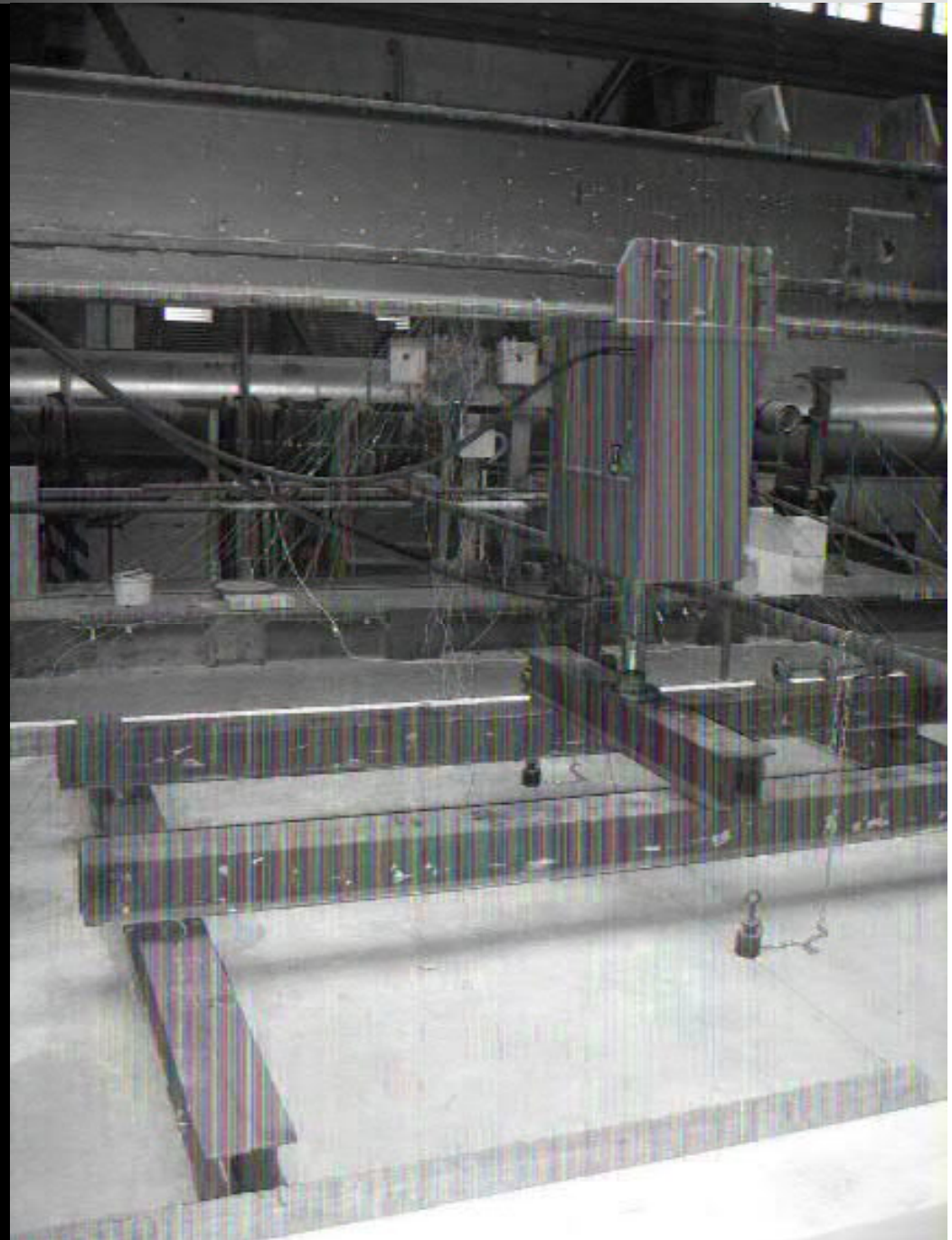














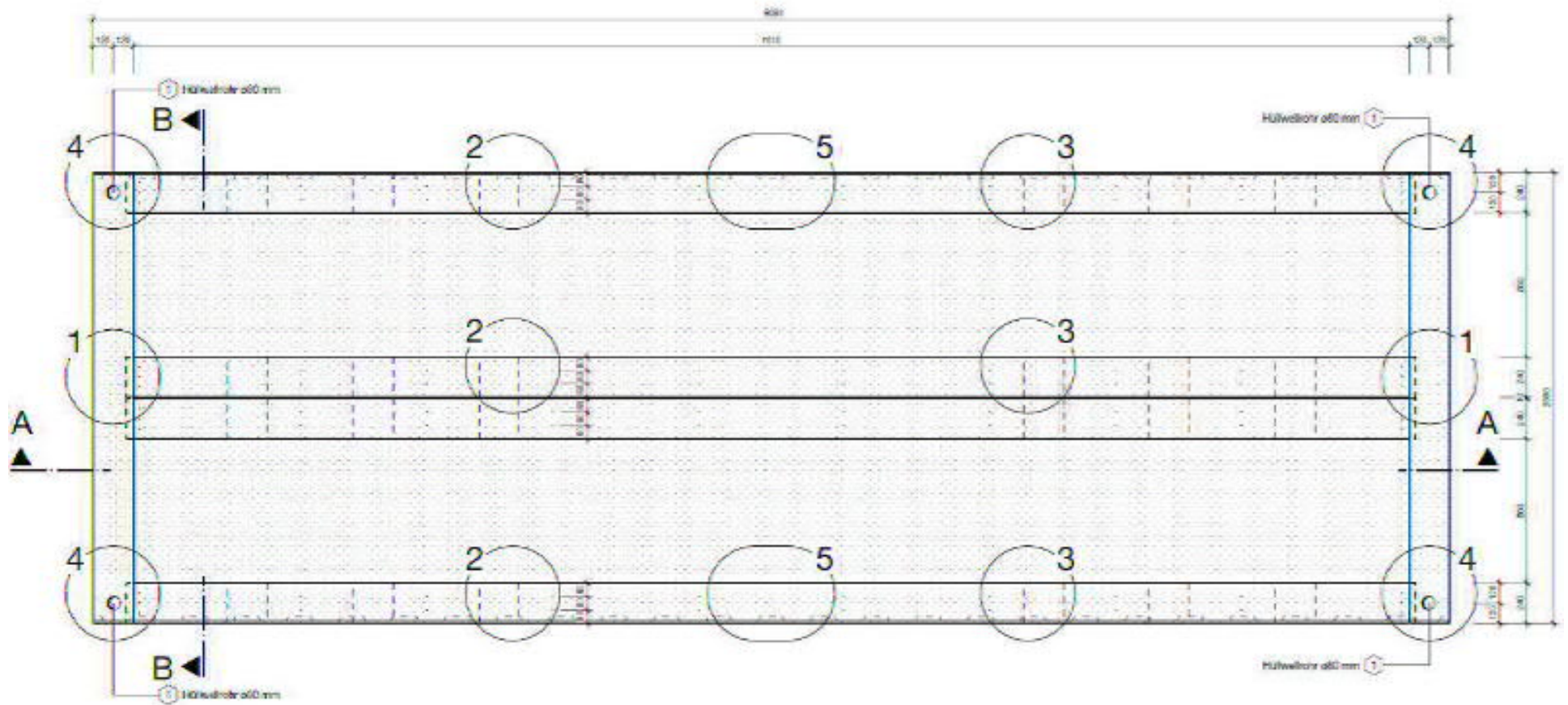




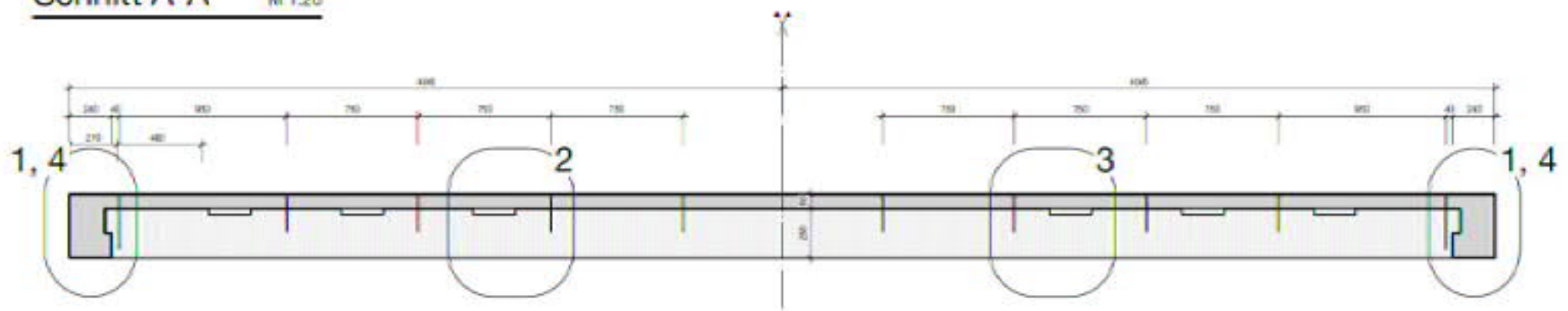








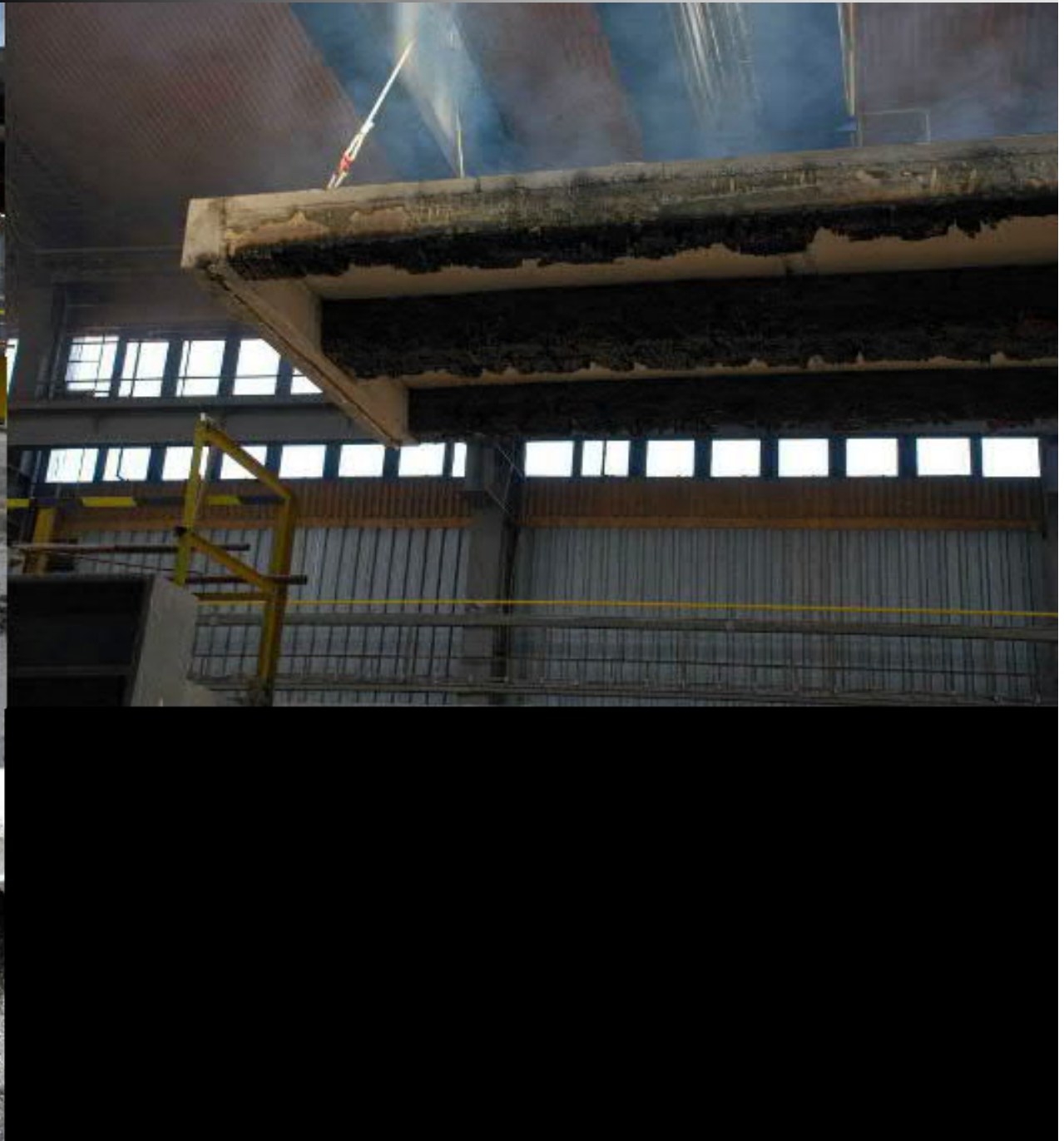
**Schnitt A-A** M 1:20











## SERIES PRODUCTION







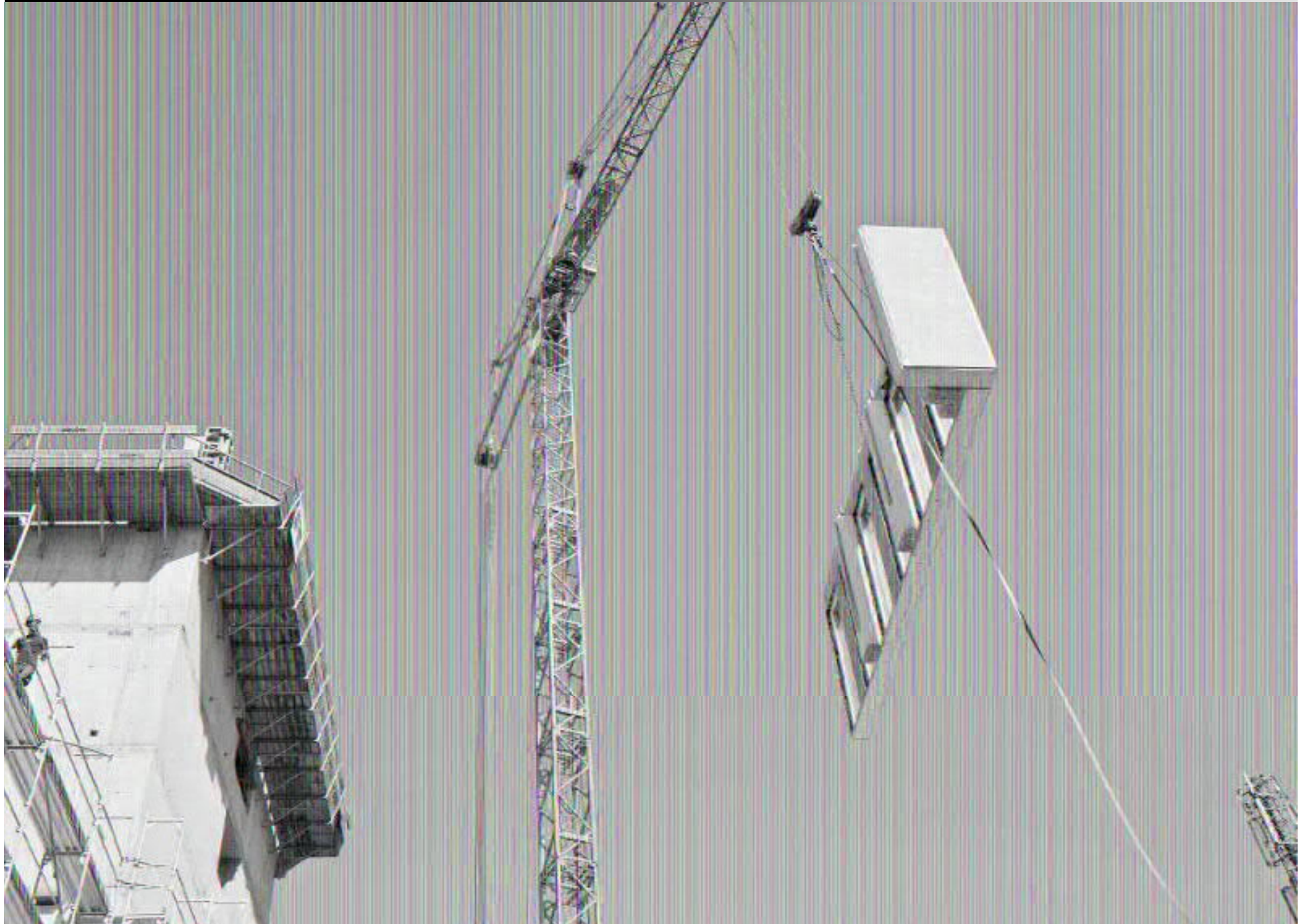








# ASSEMBLY













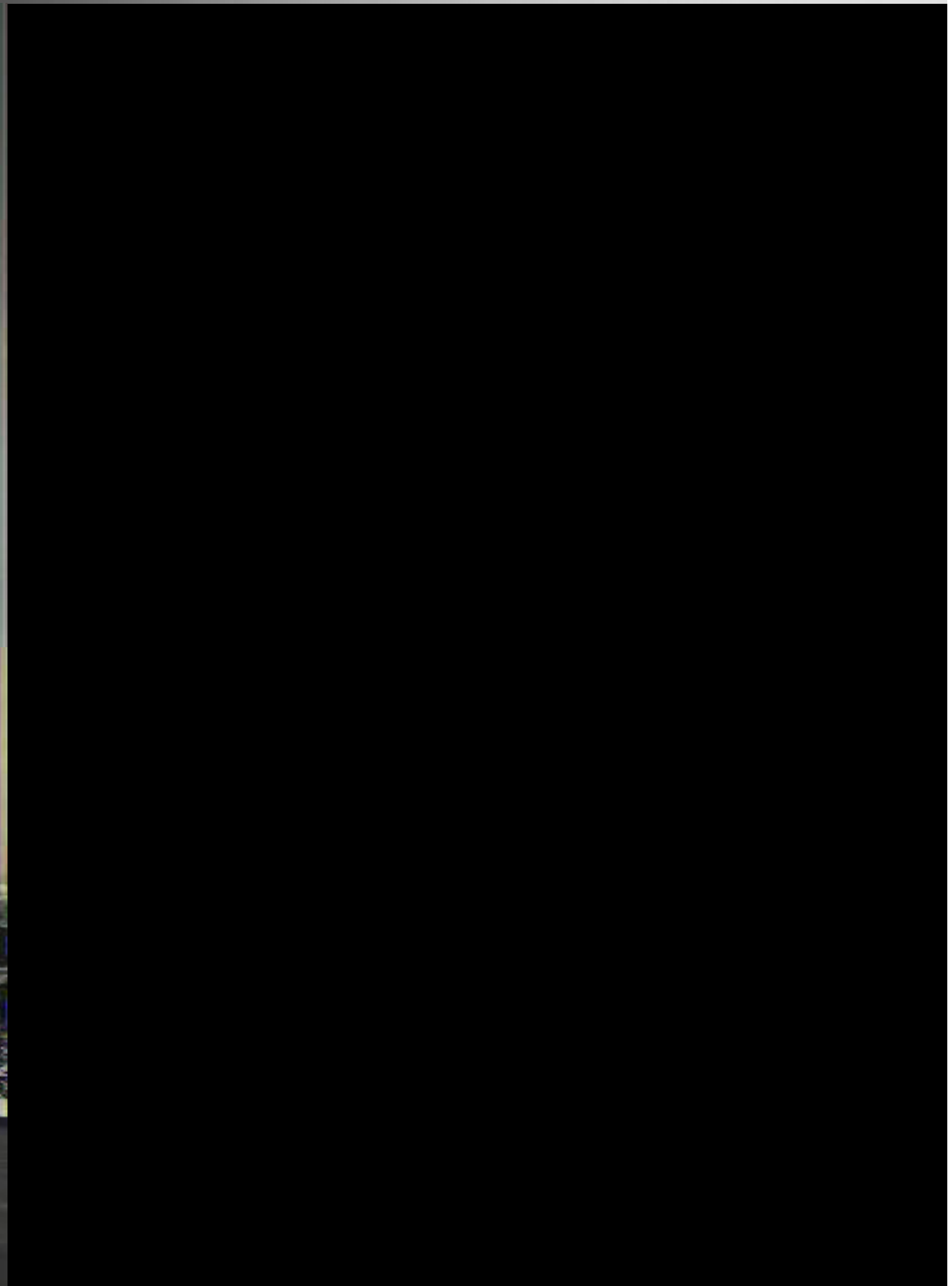
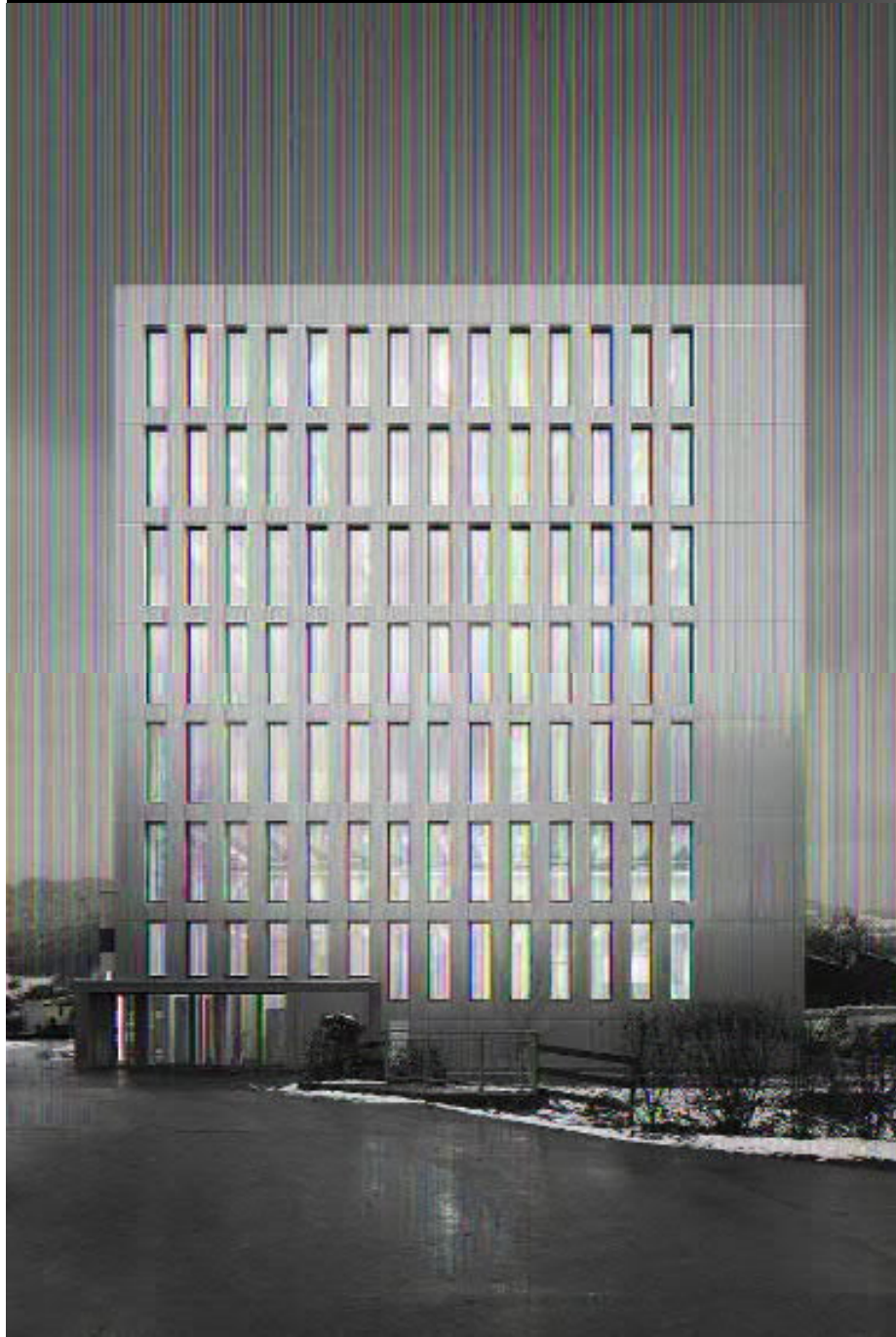




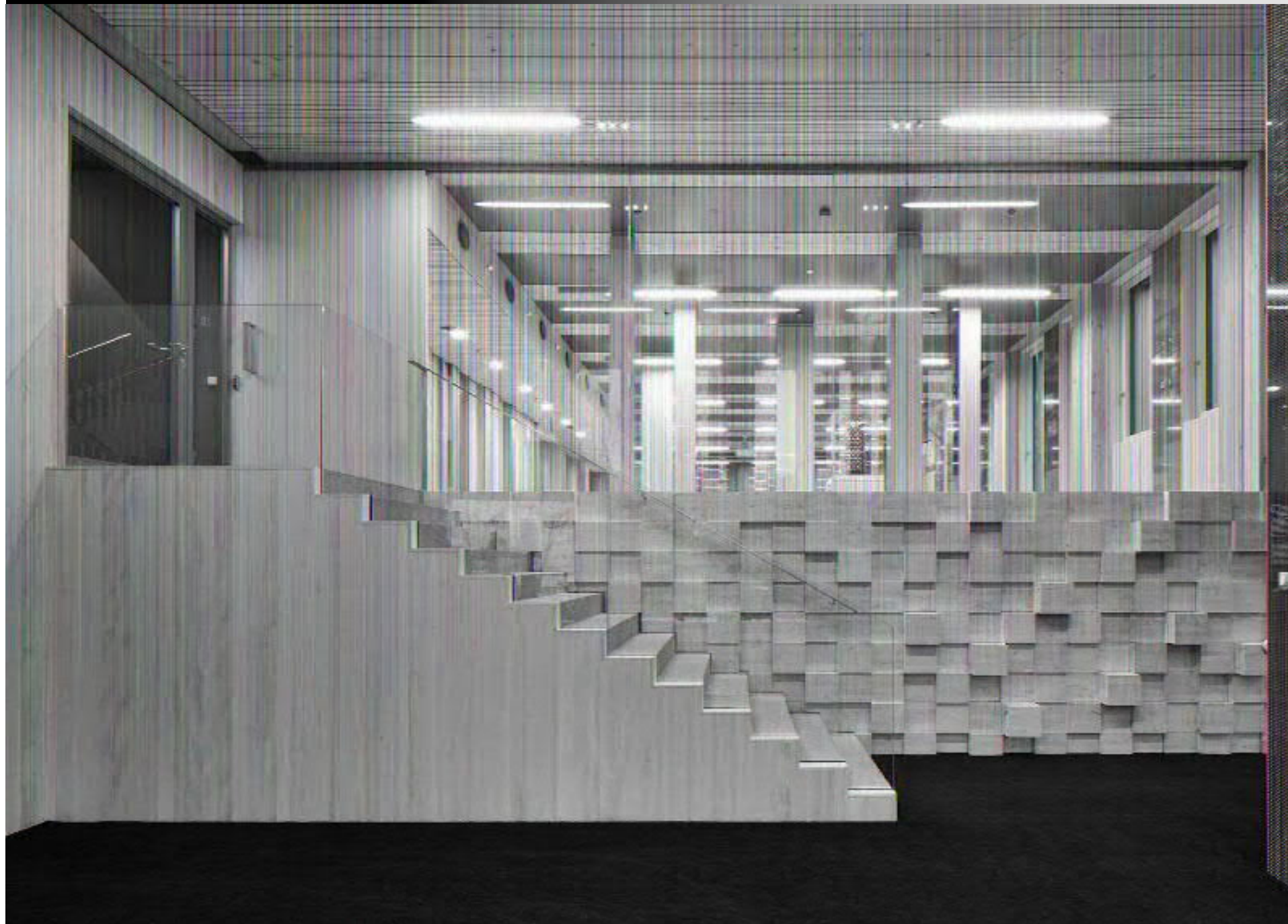






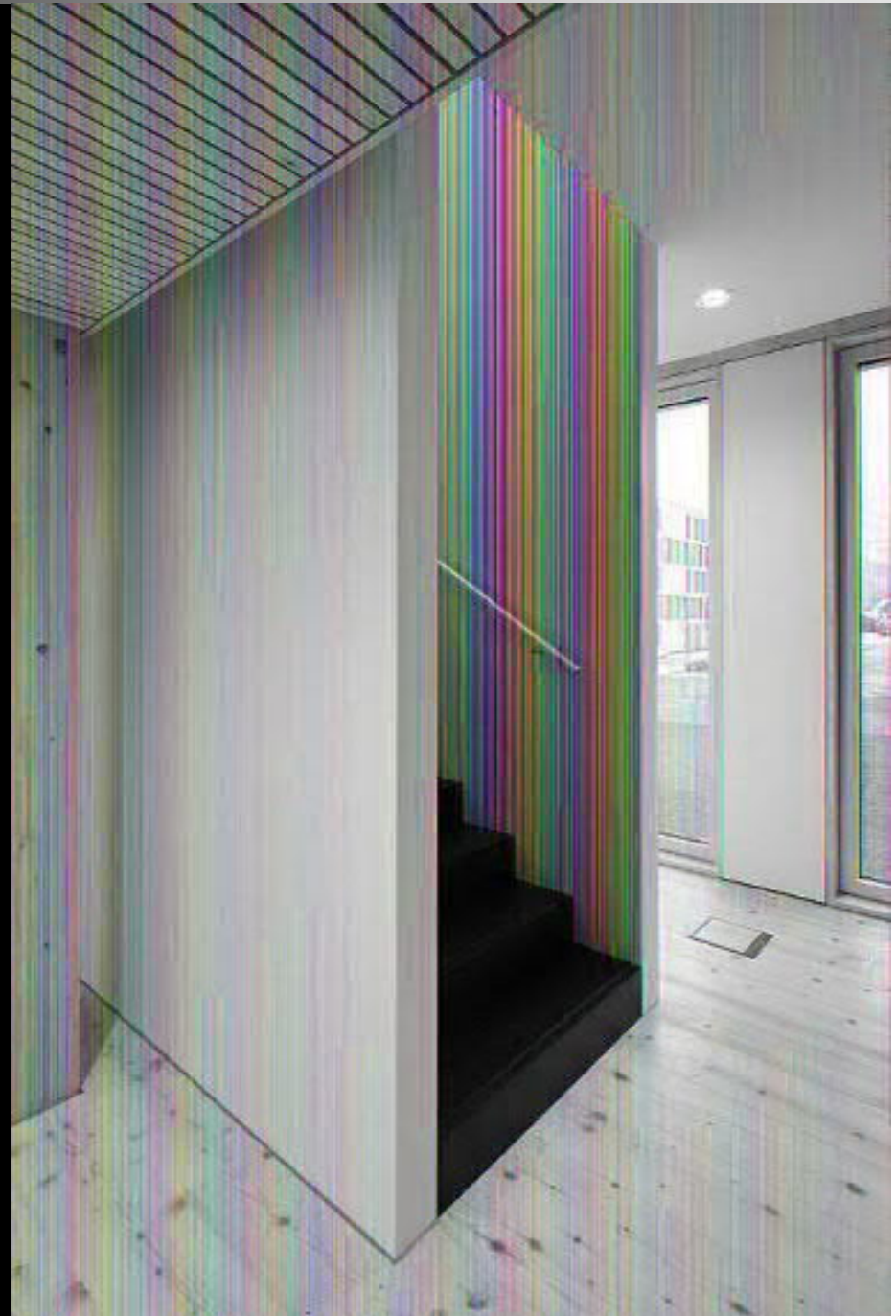
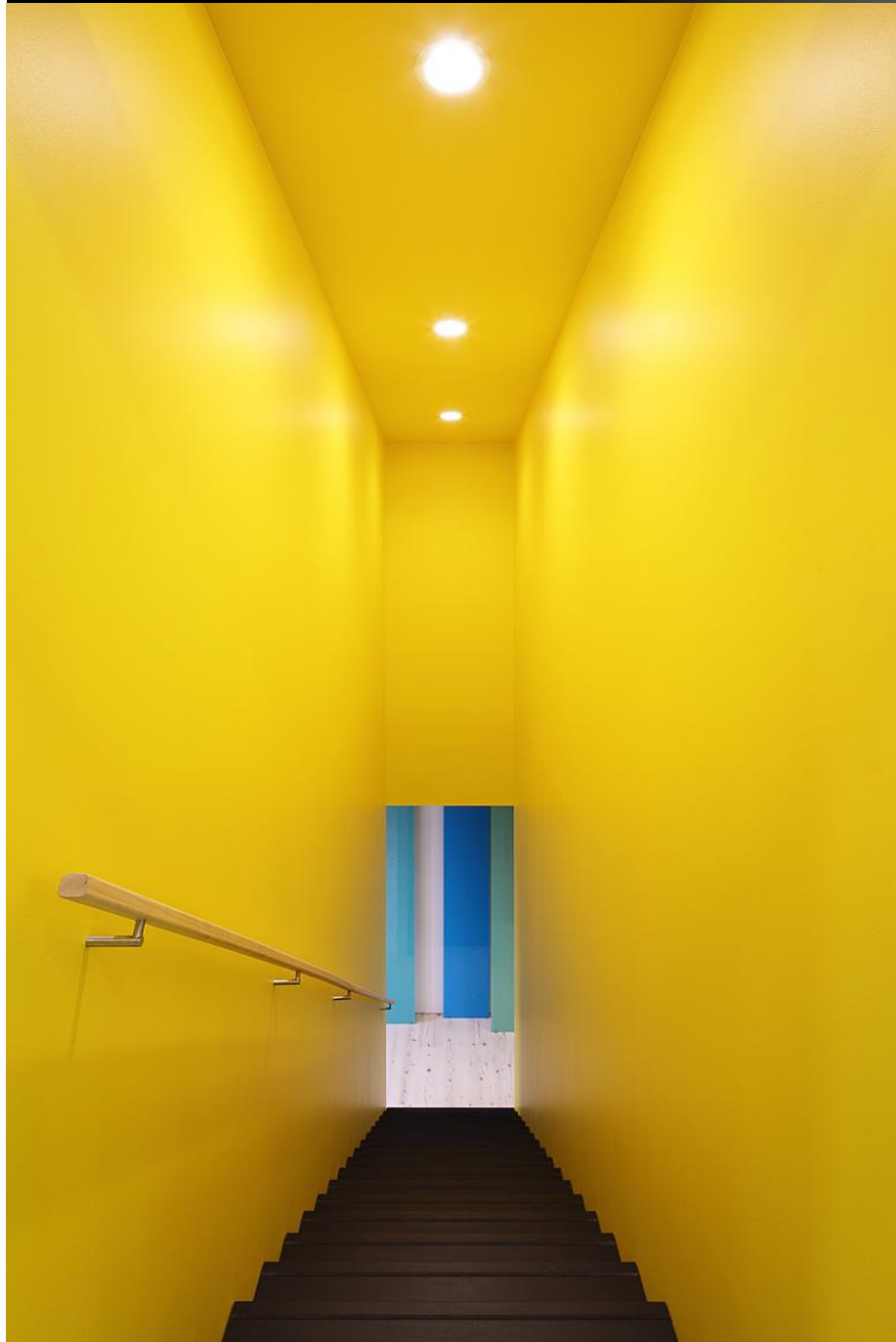














## PROOF OF CONCEPT: IZM – ILLWERKE ZENTRUM MONTAFON

### TEAM

Architekten Hermann Kaufmann ZT GmbH,  
Merz- Kley & Partner, Structure  
E-PLUS, HVAC  
EL-PLAN, E  
IBS Linz, Fire Safety  
Remm, Lighting  
Keller Damm Roser, Landscape  
Cree (General Contractor)



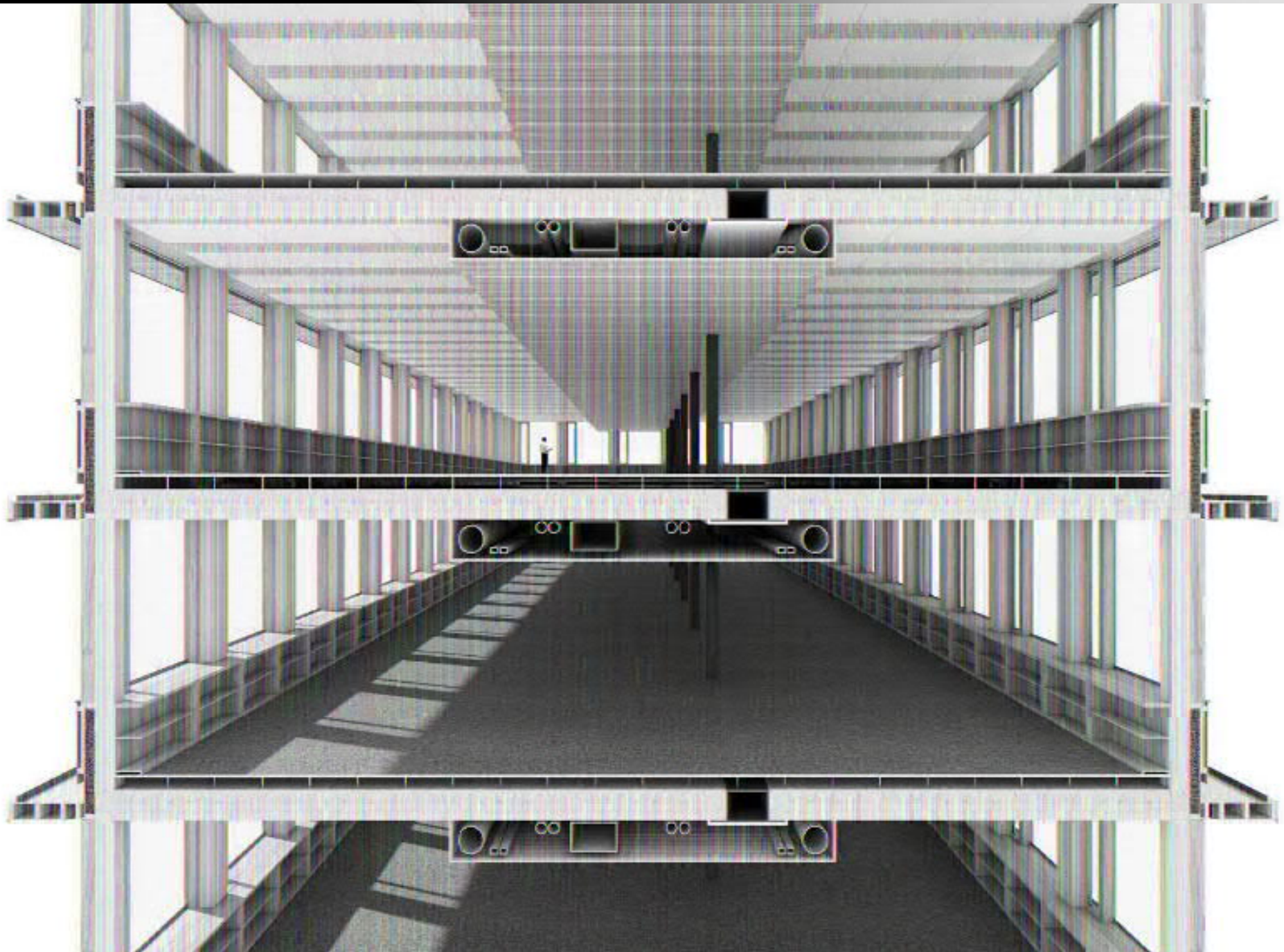




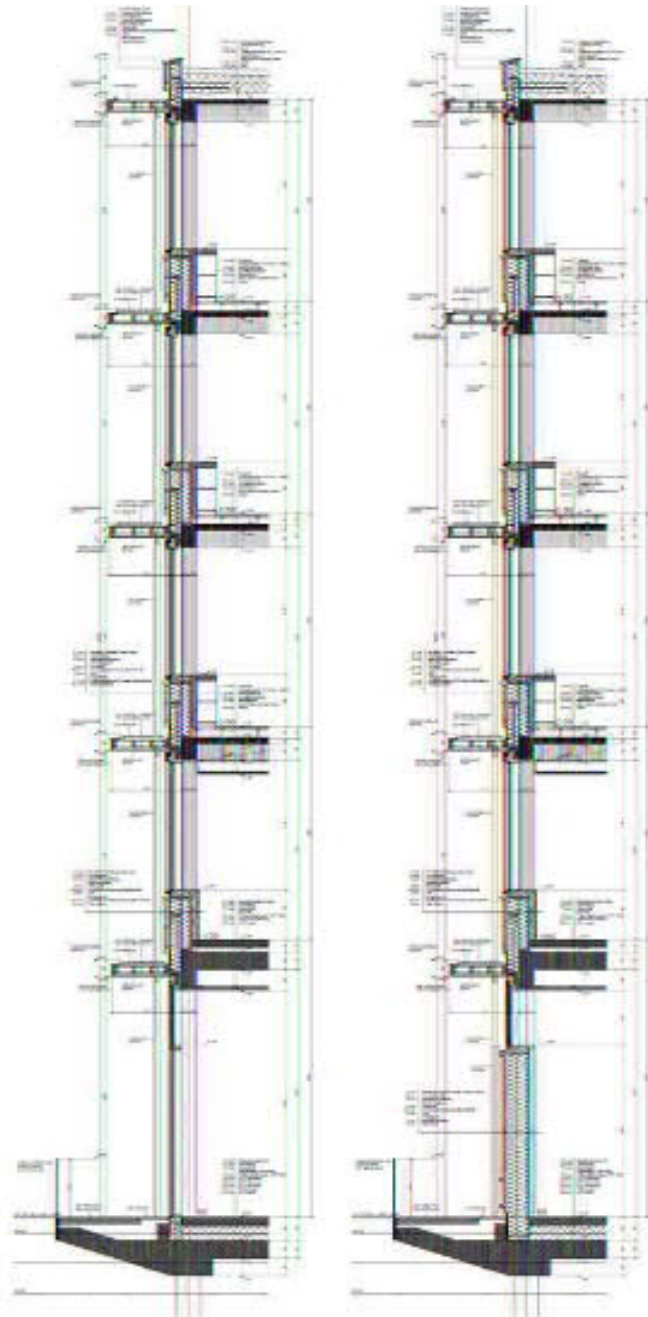






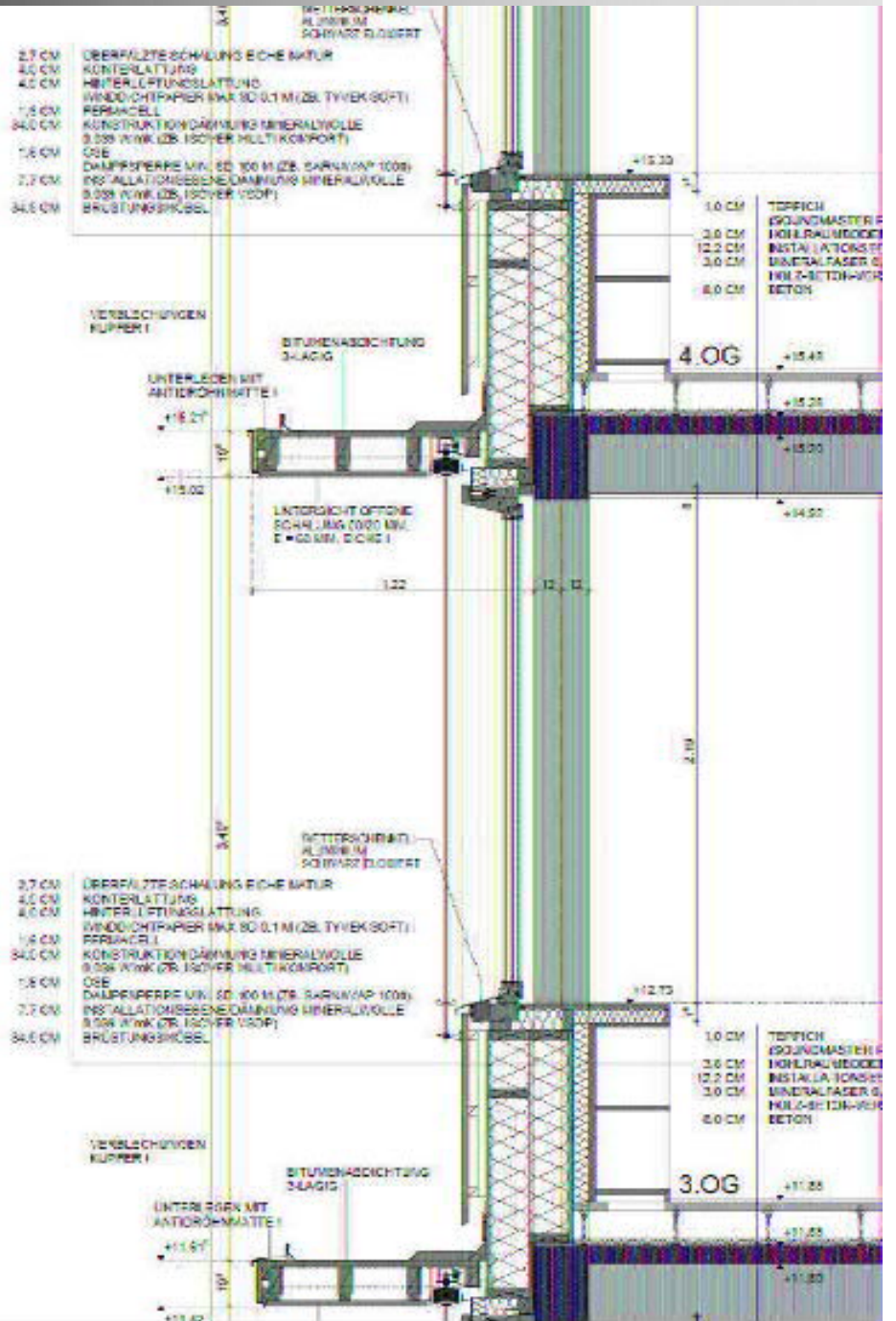






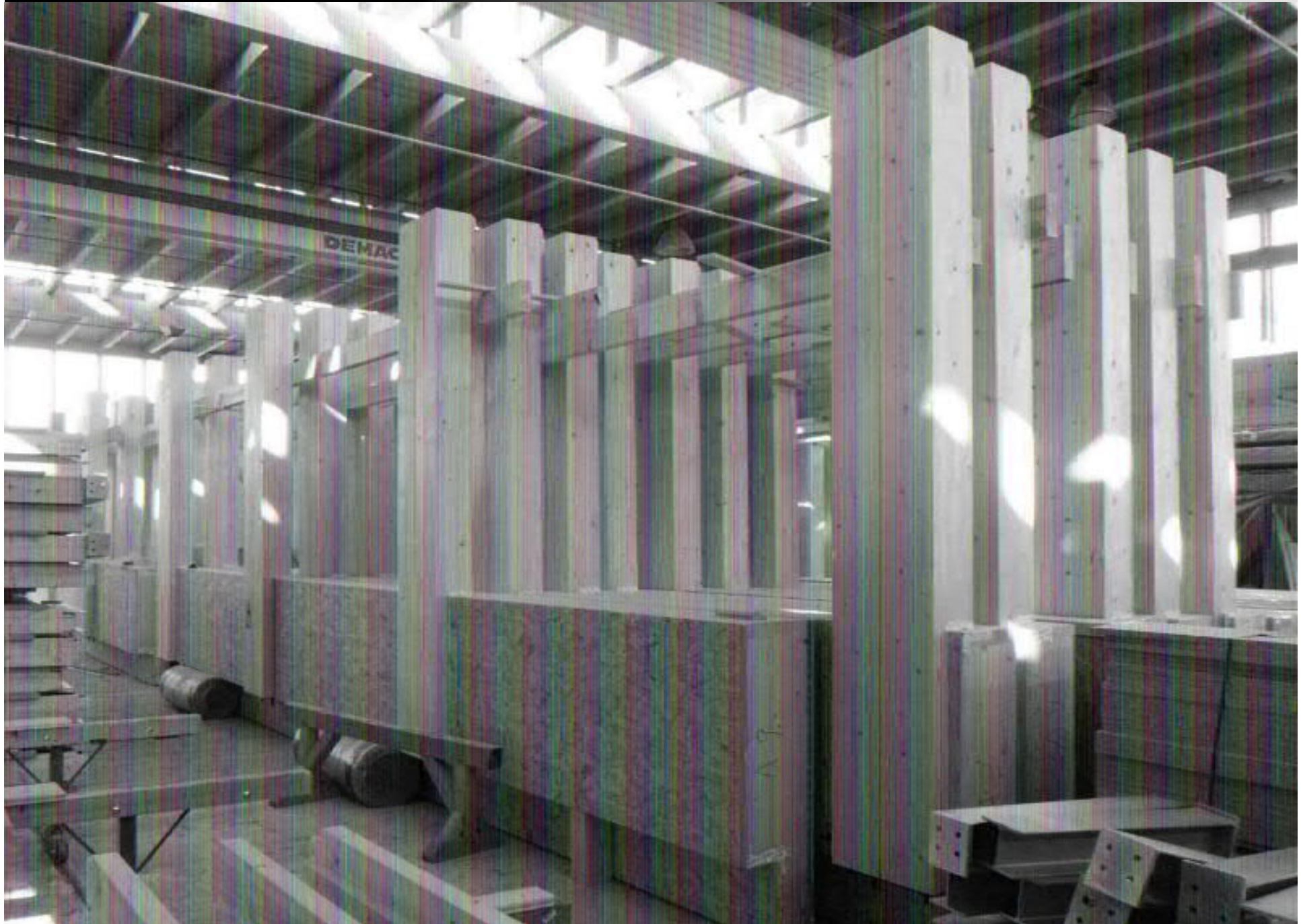
2)

2)

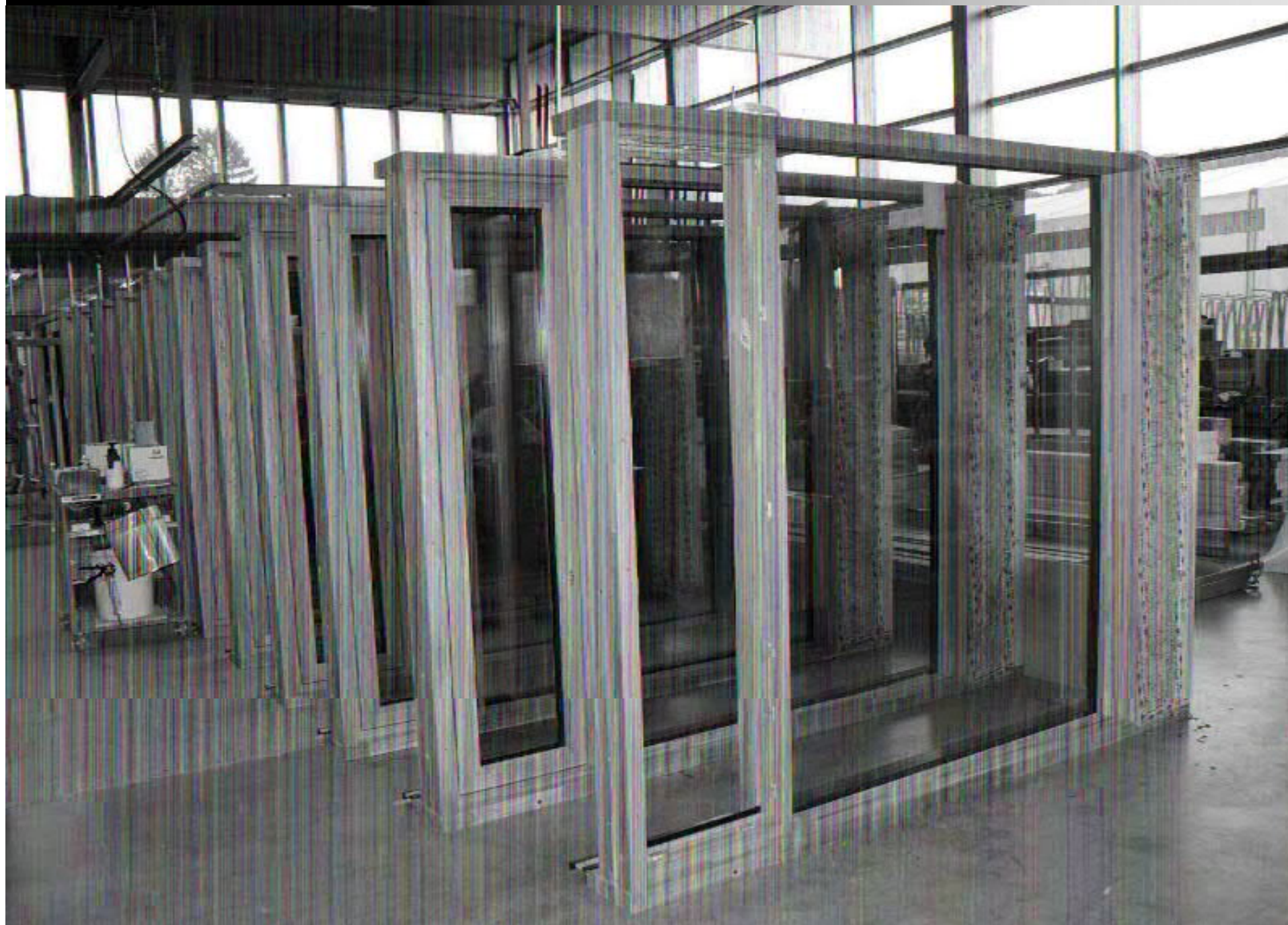










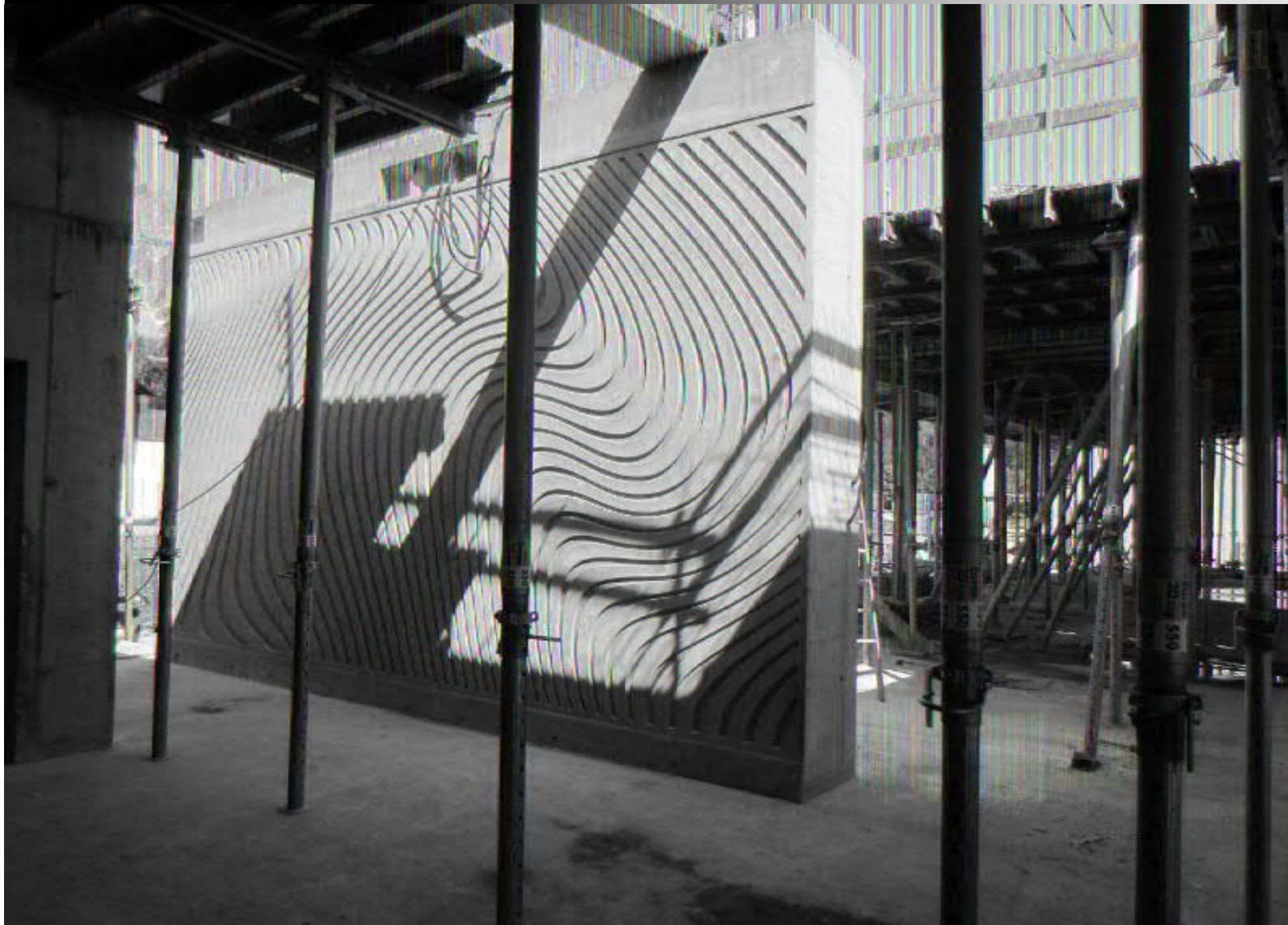




## CONSTRUCTION (ASSEMBLING) SITE



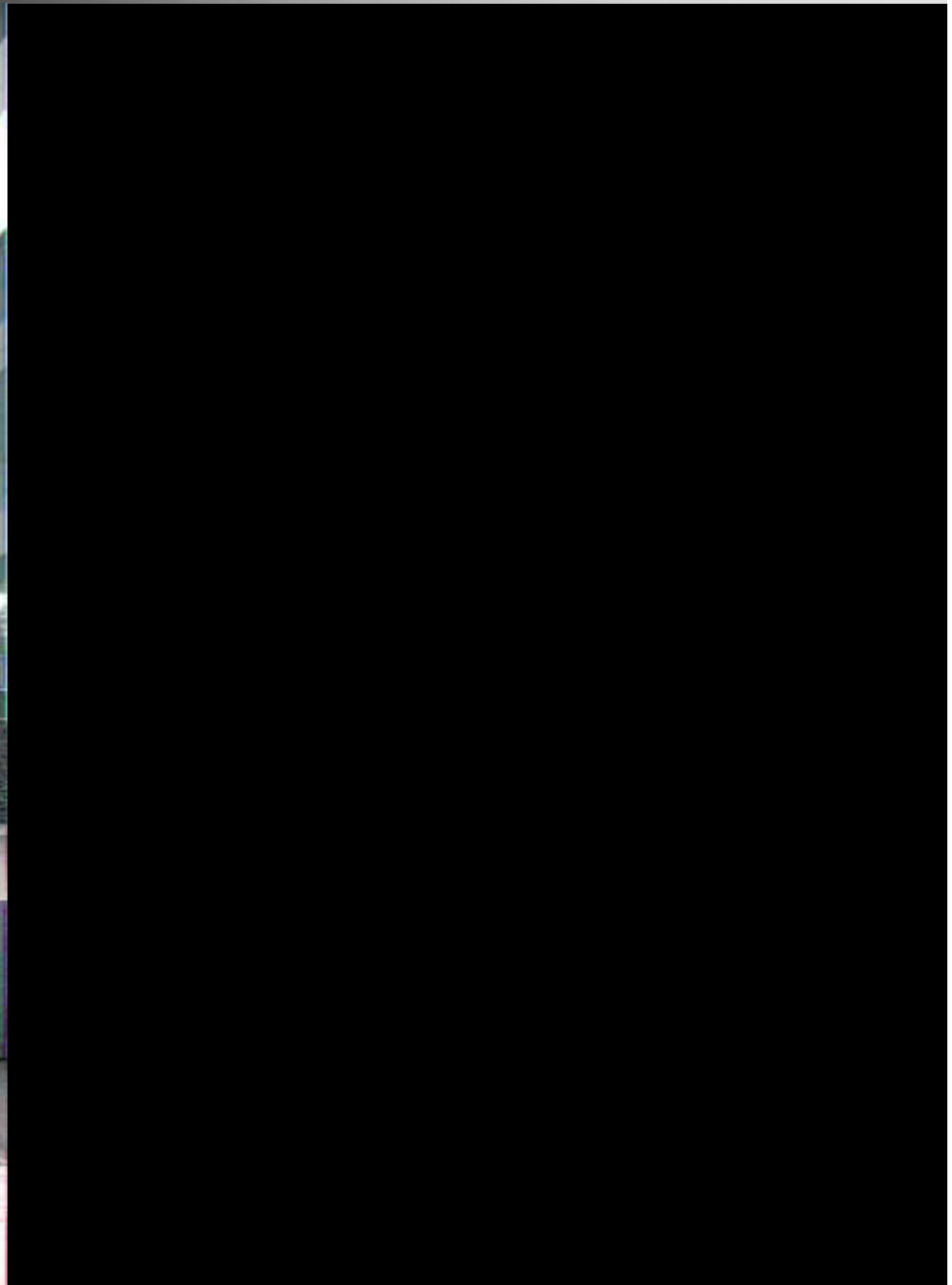








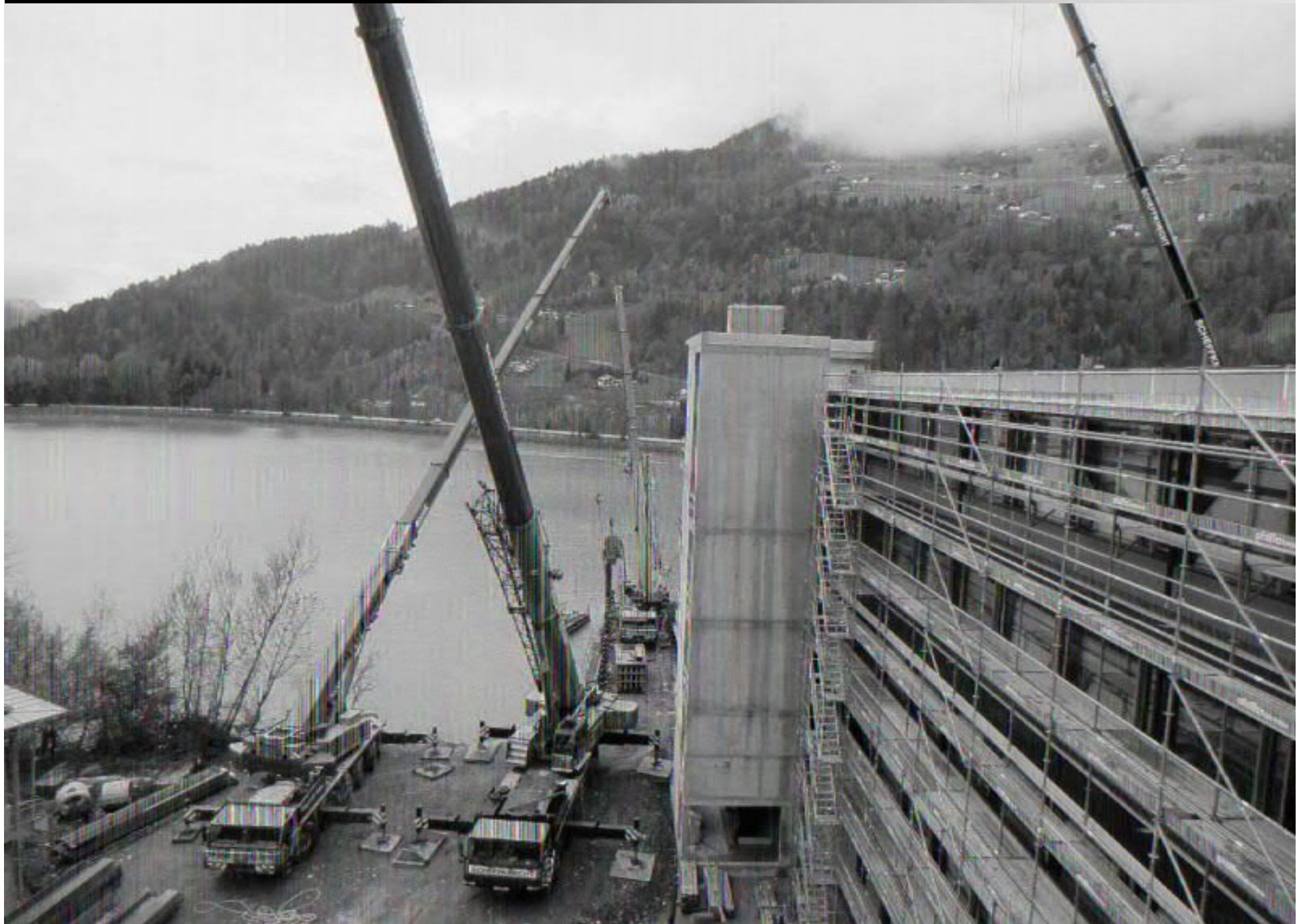














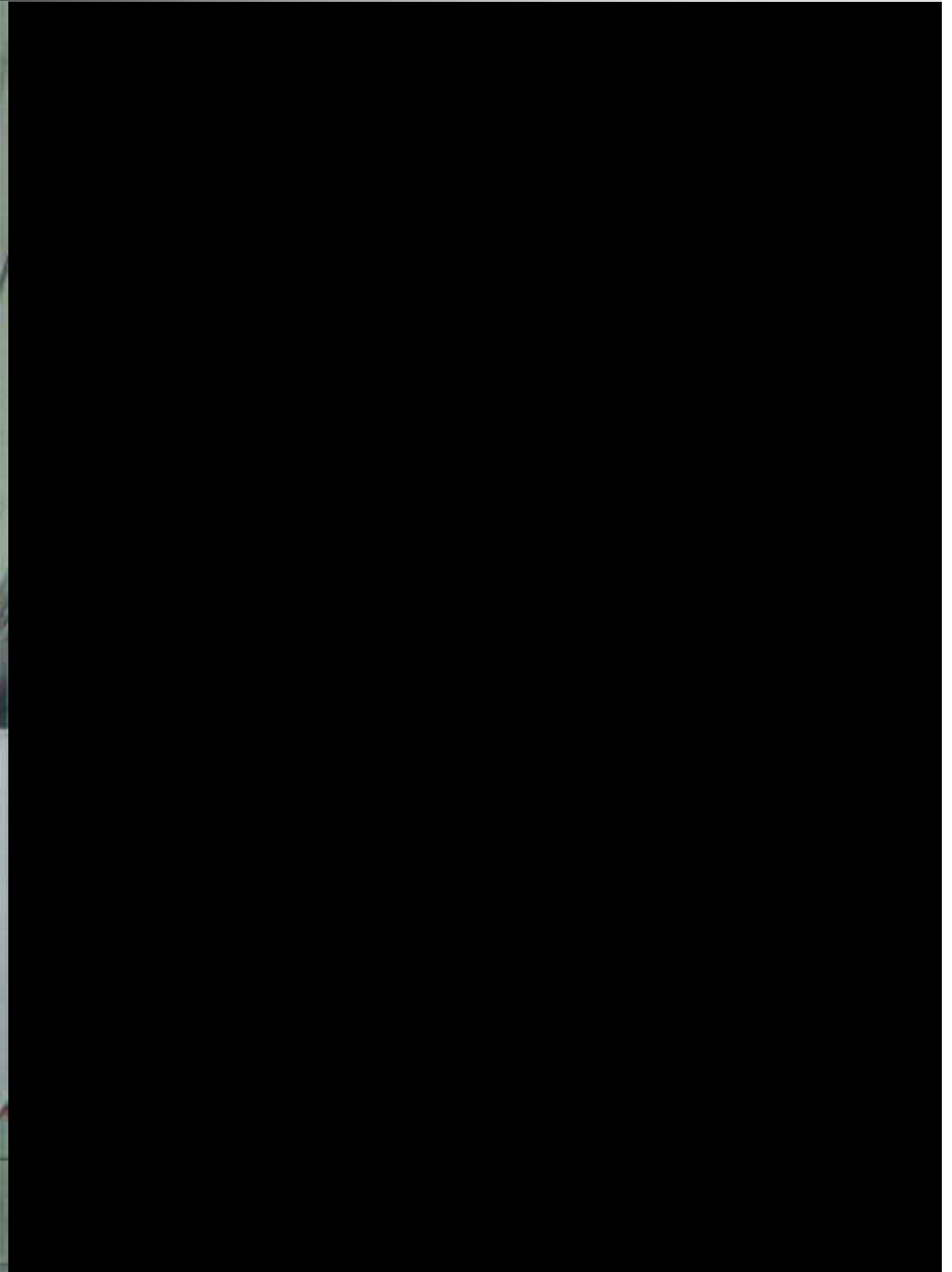
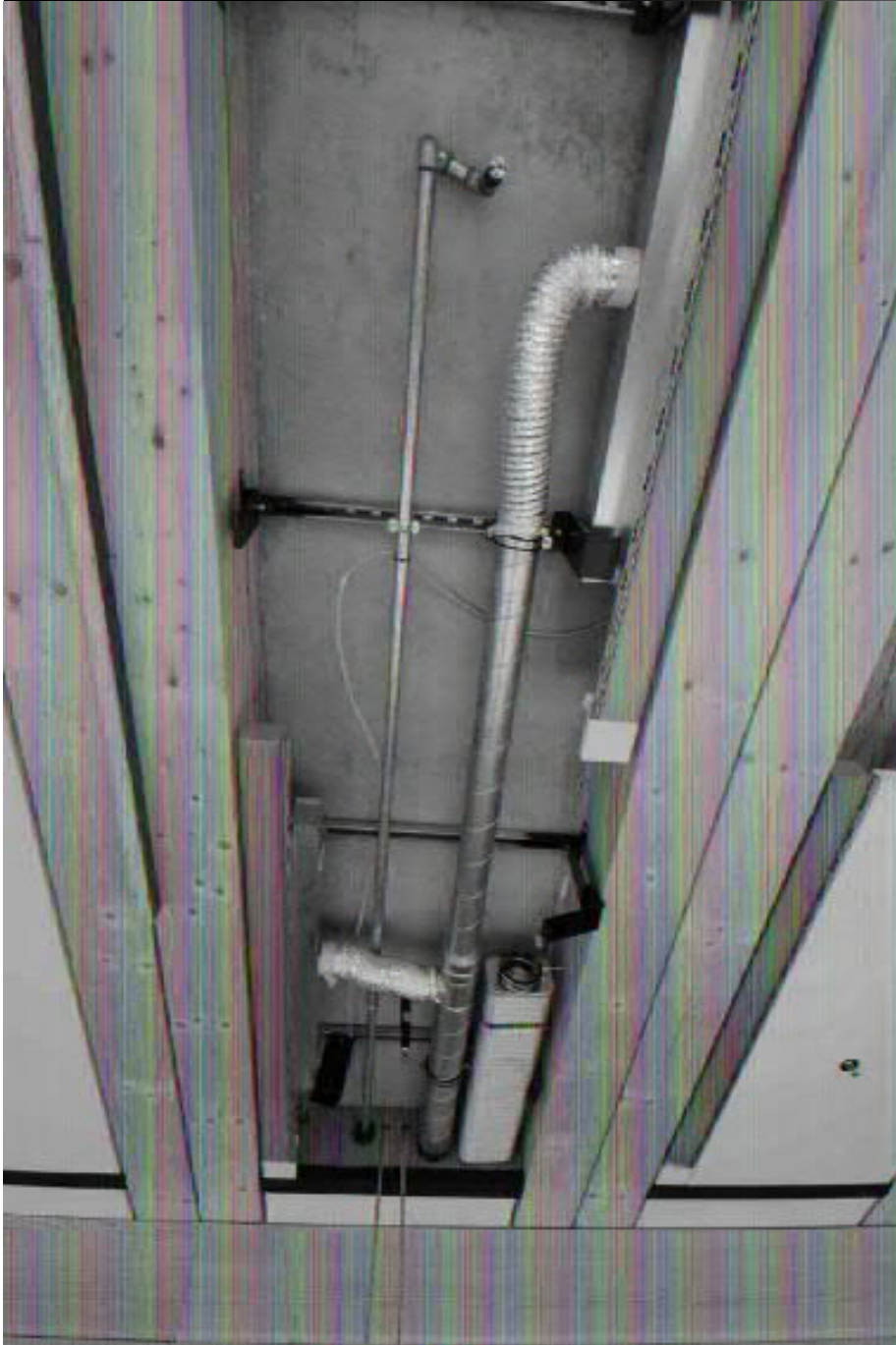




## INTERIOR EXTENSION



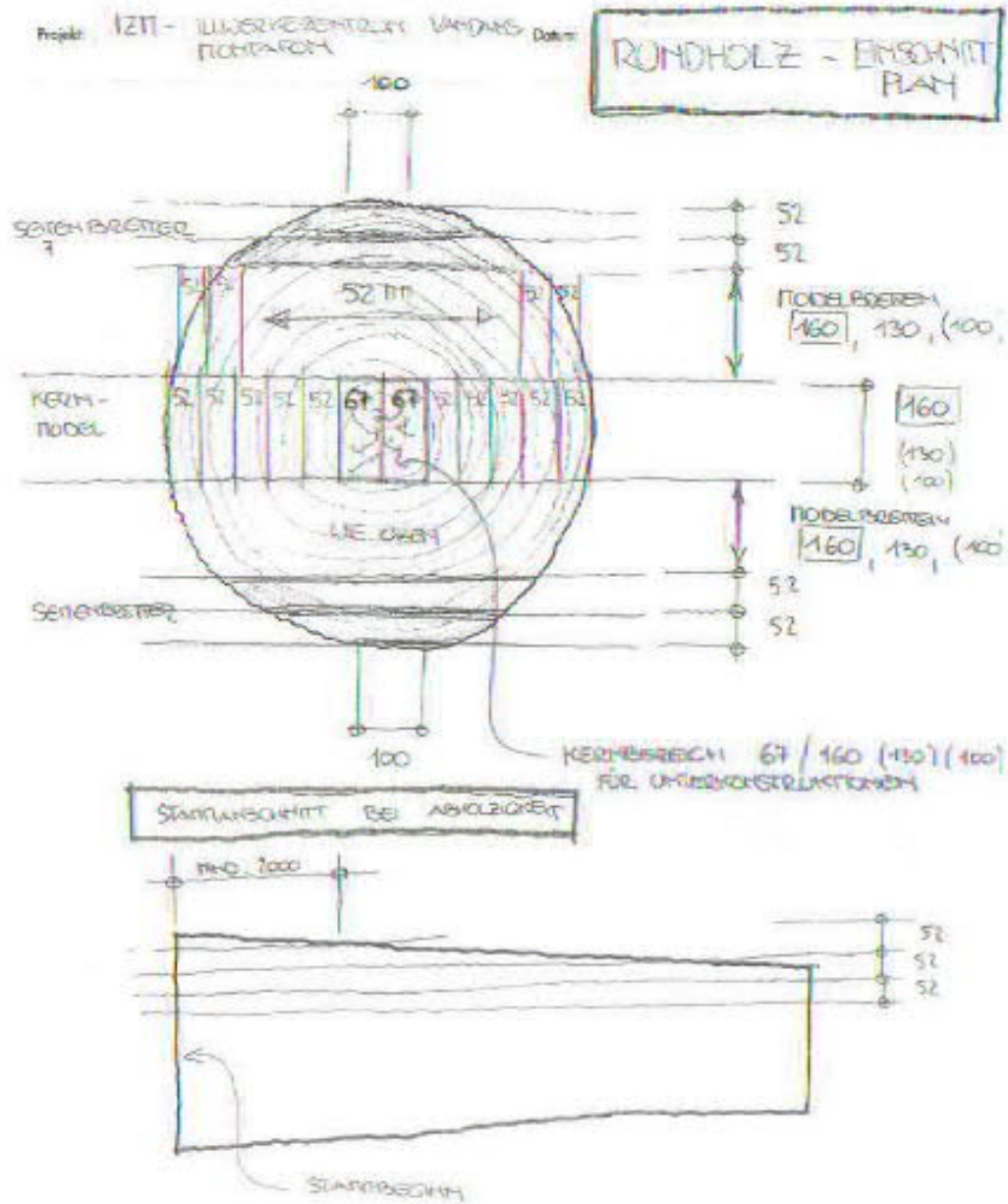








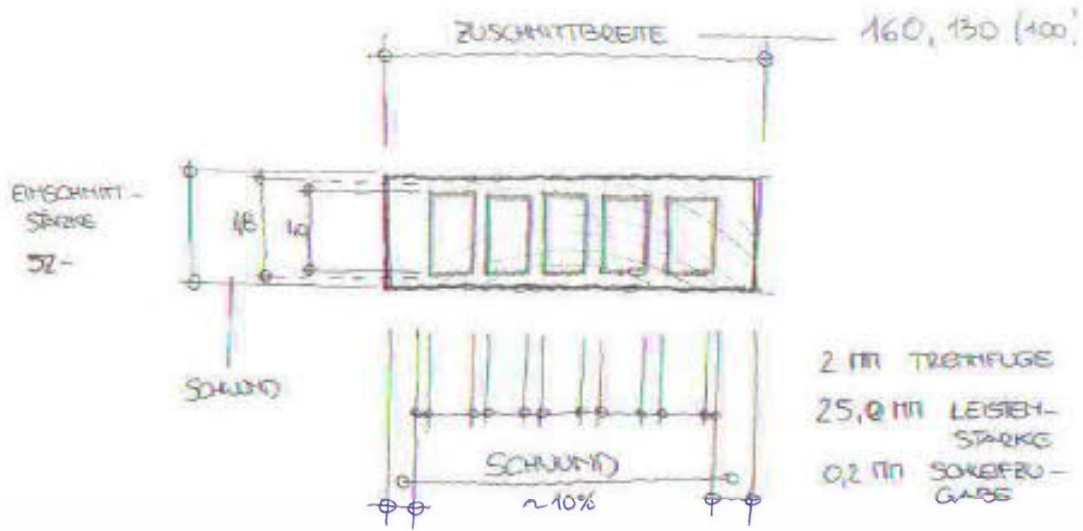






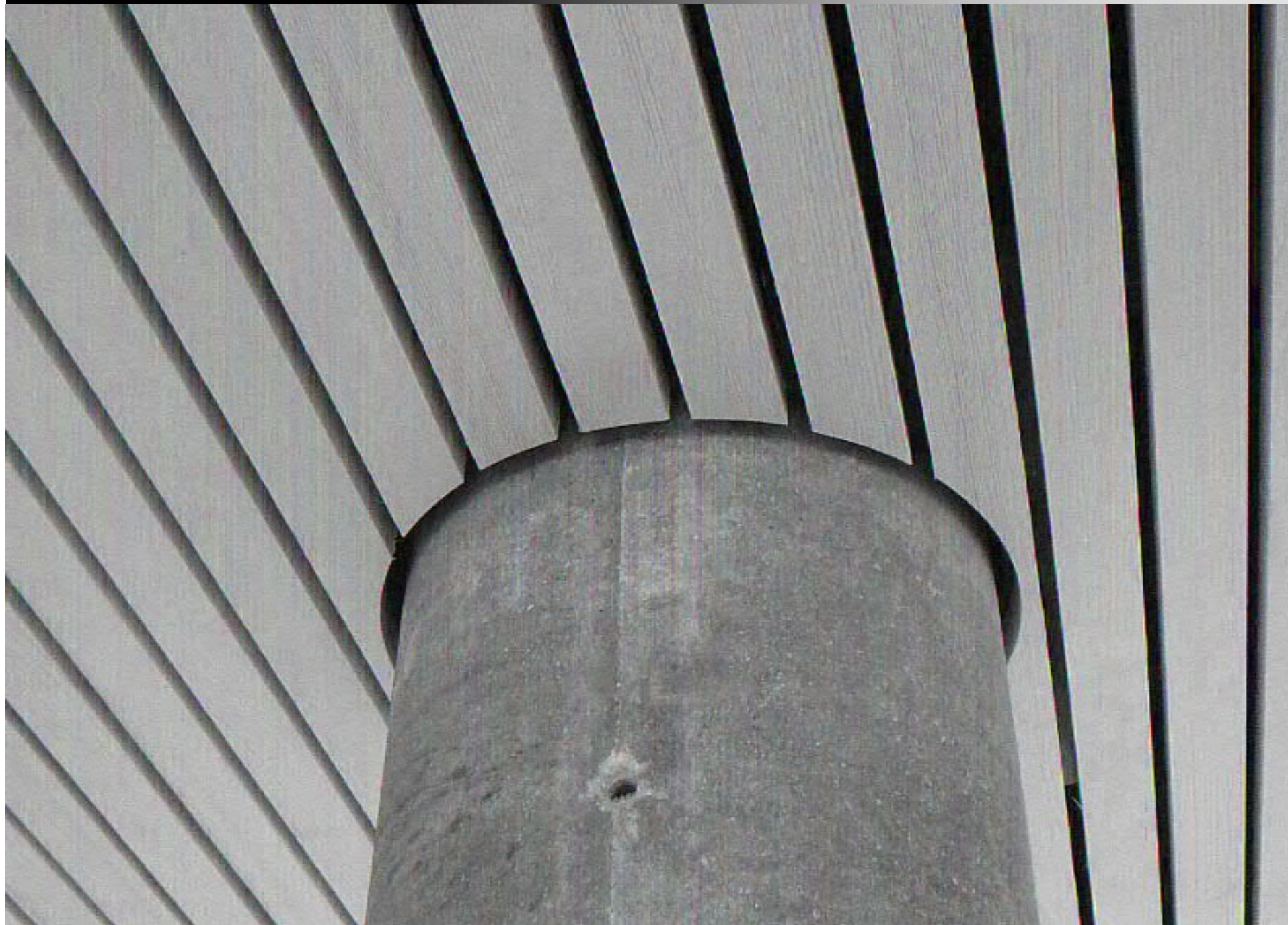
Projekt: 1211- ILLUSTRATIONEN VANDANS Datum: \_\_\_\_\_  
 HOFNACH

WEITERVERARBEITUNG SCHNITTHOLZ





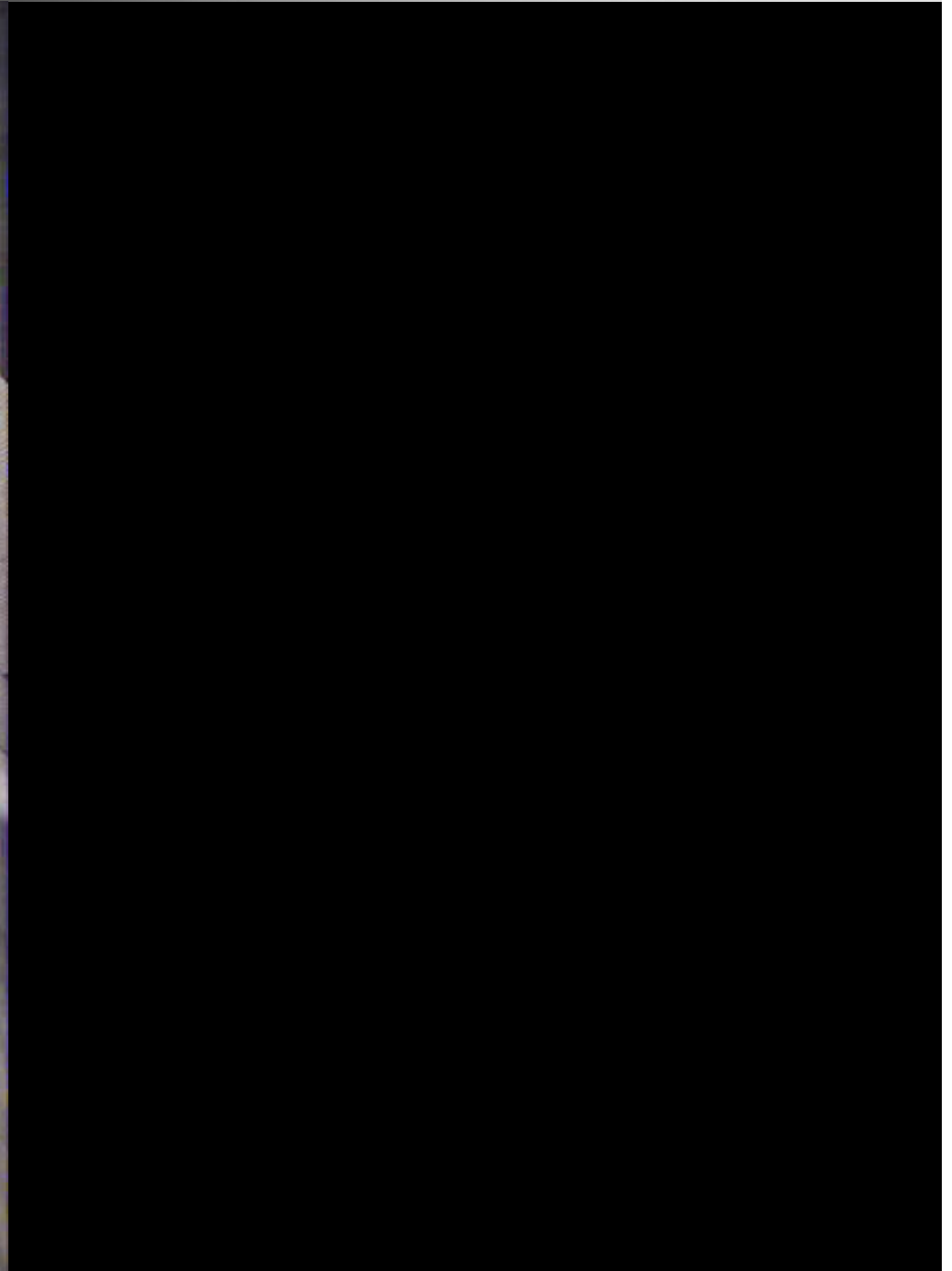




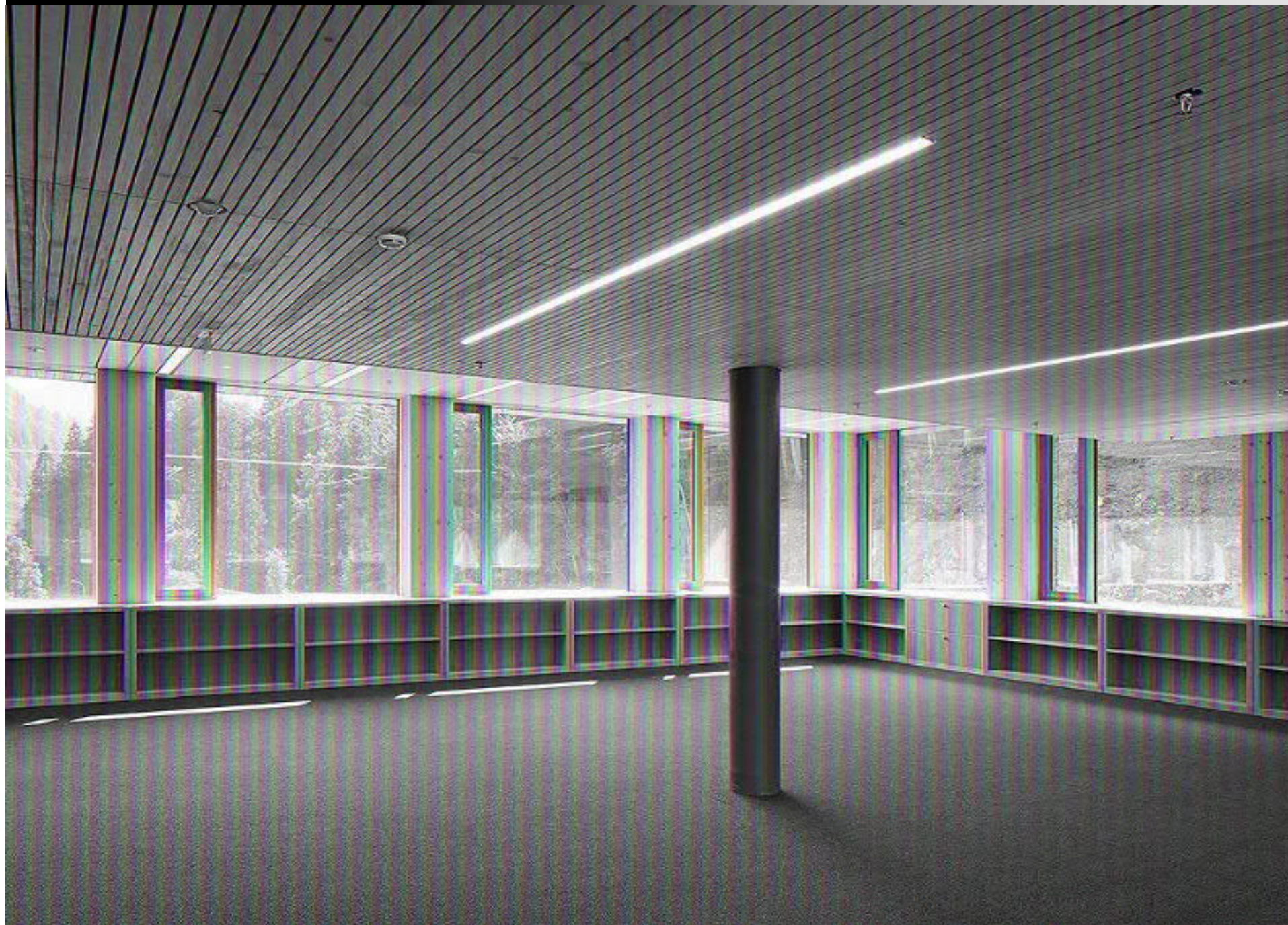
































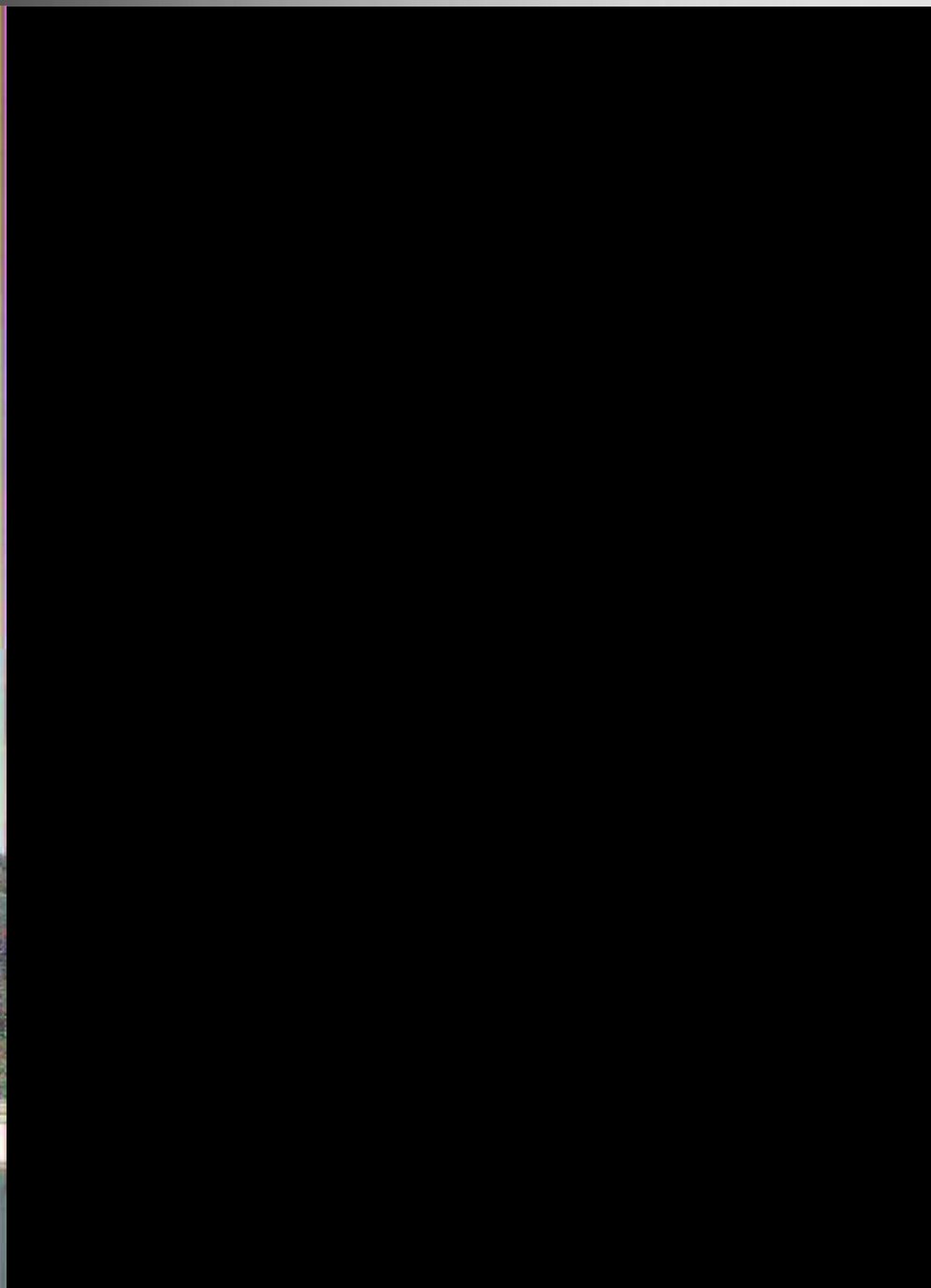




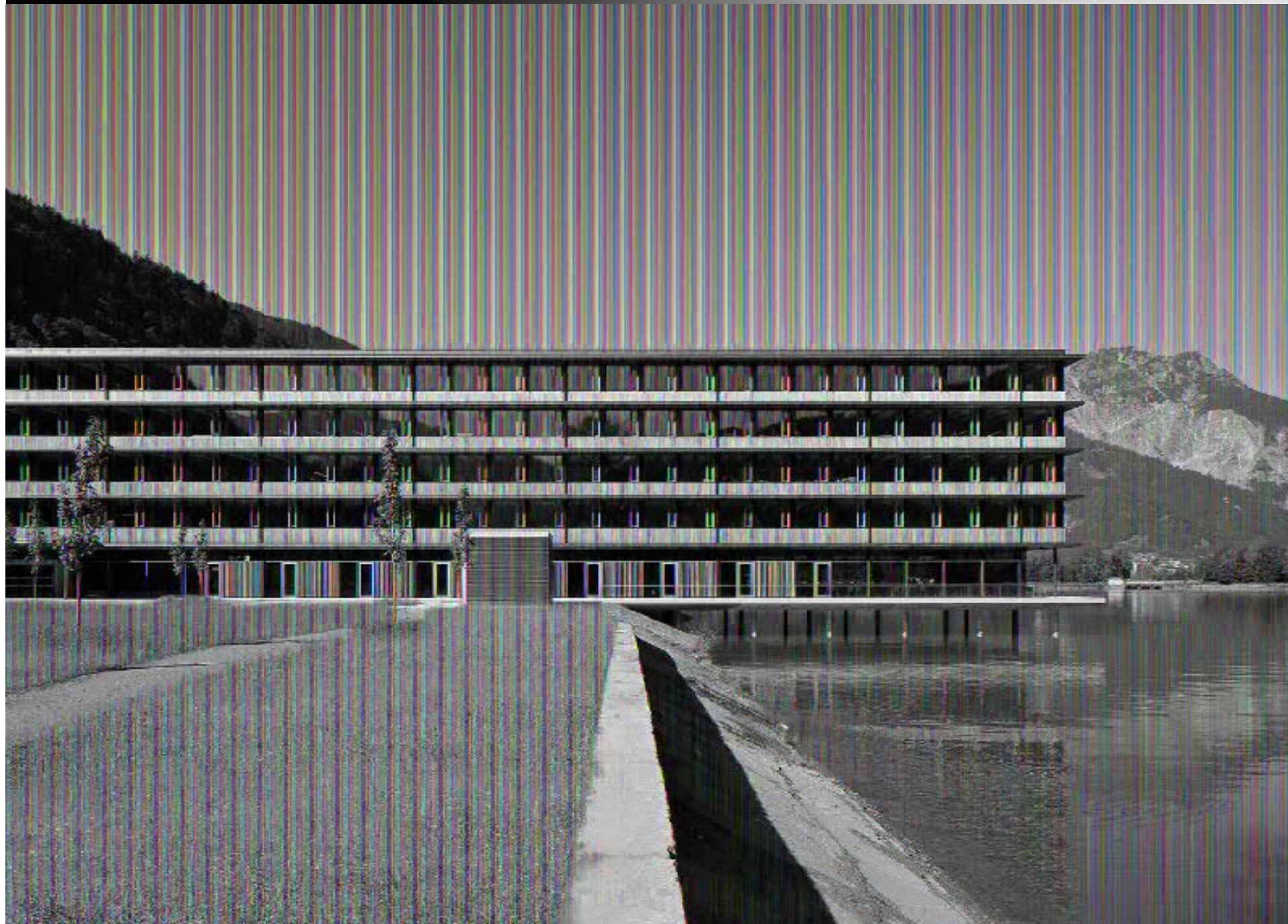


















## EVOLUTION:

-FLEXIBILITY

-THERMAL COMPONENT ACTIVATION

-SCREWED WOOD – CONCRETE COMPOSITE FLOOR

## SLAB 2.0

## TEAM

Architekten Hermann Kaufmann, Architecture,

SWG + Christian Gantner, Structure

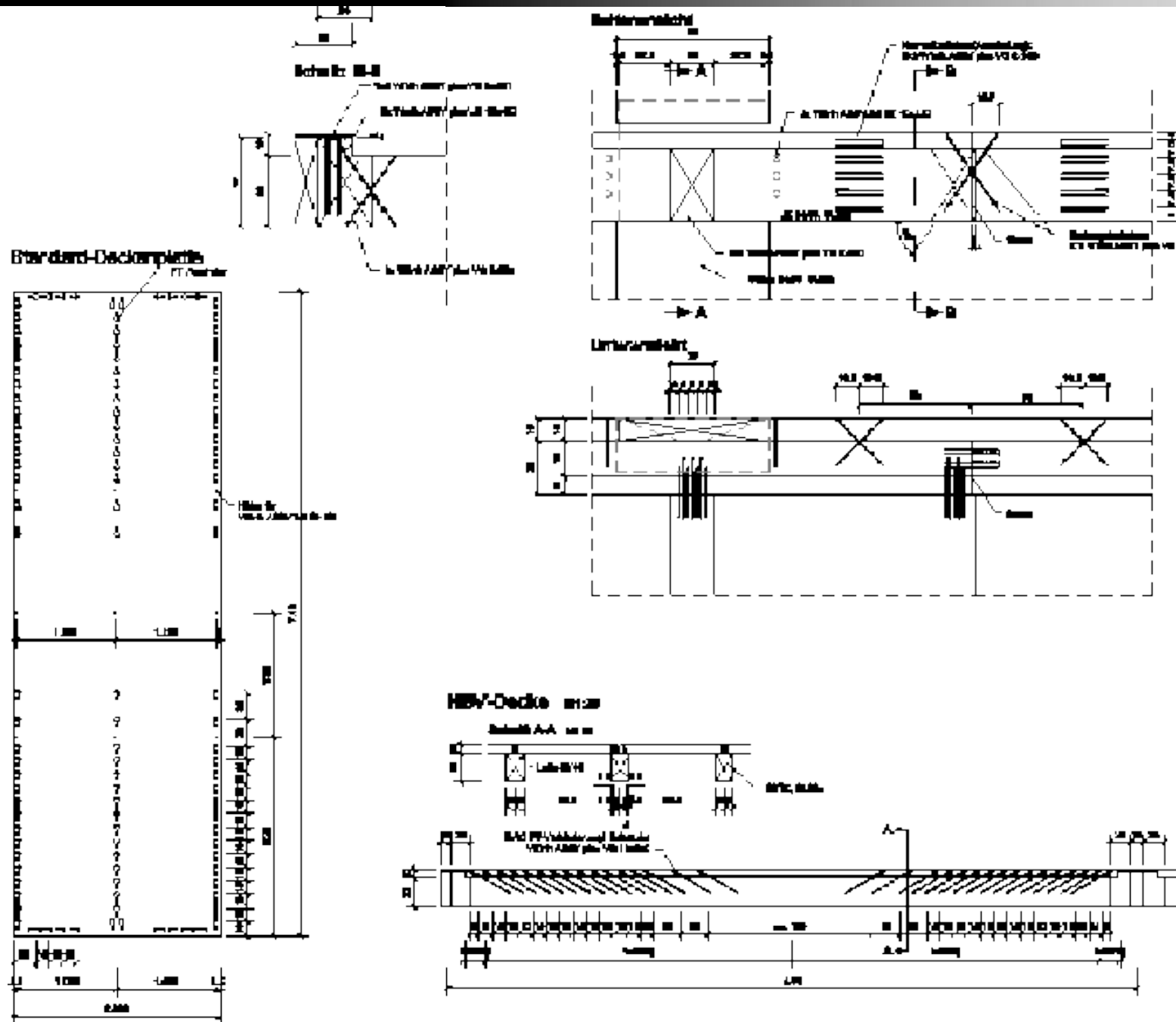
Wagnertec + Ender, HVAC

Cree, Thermal Component Activation

EL-PLAN, E

Köhldorfer, Fire Safety

Remm, Lighting



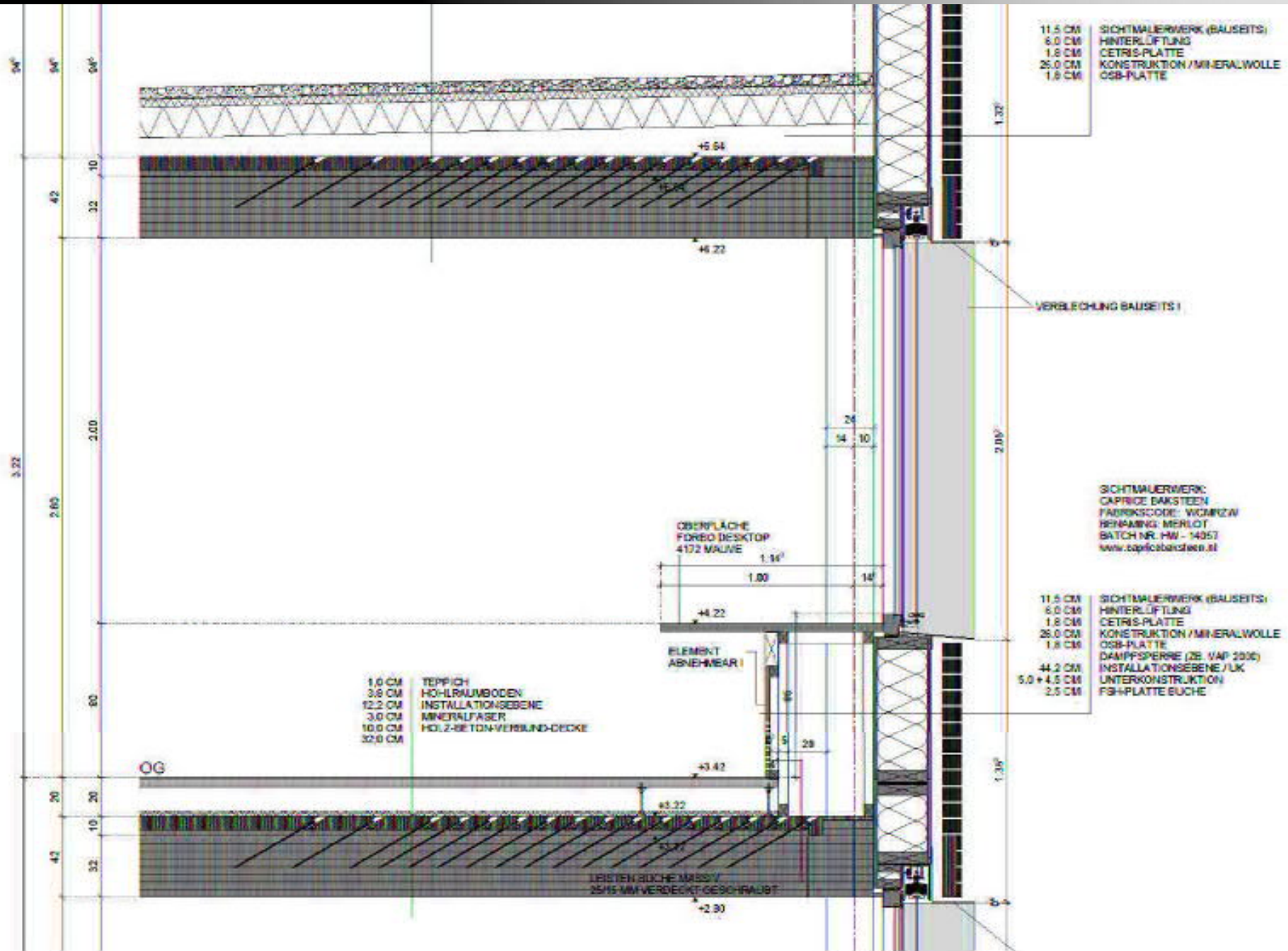


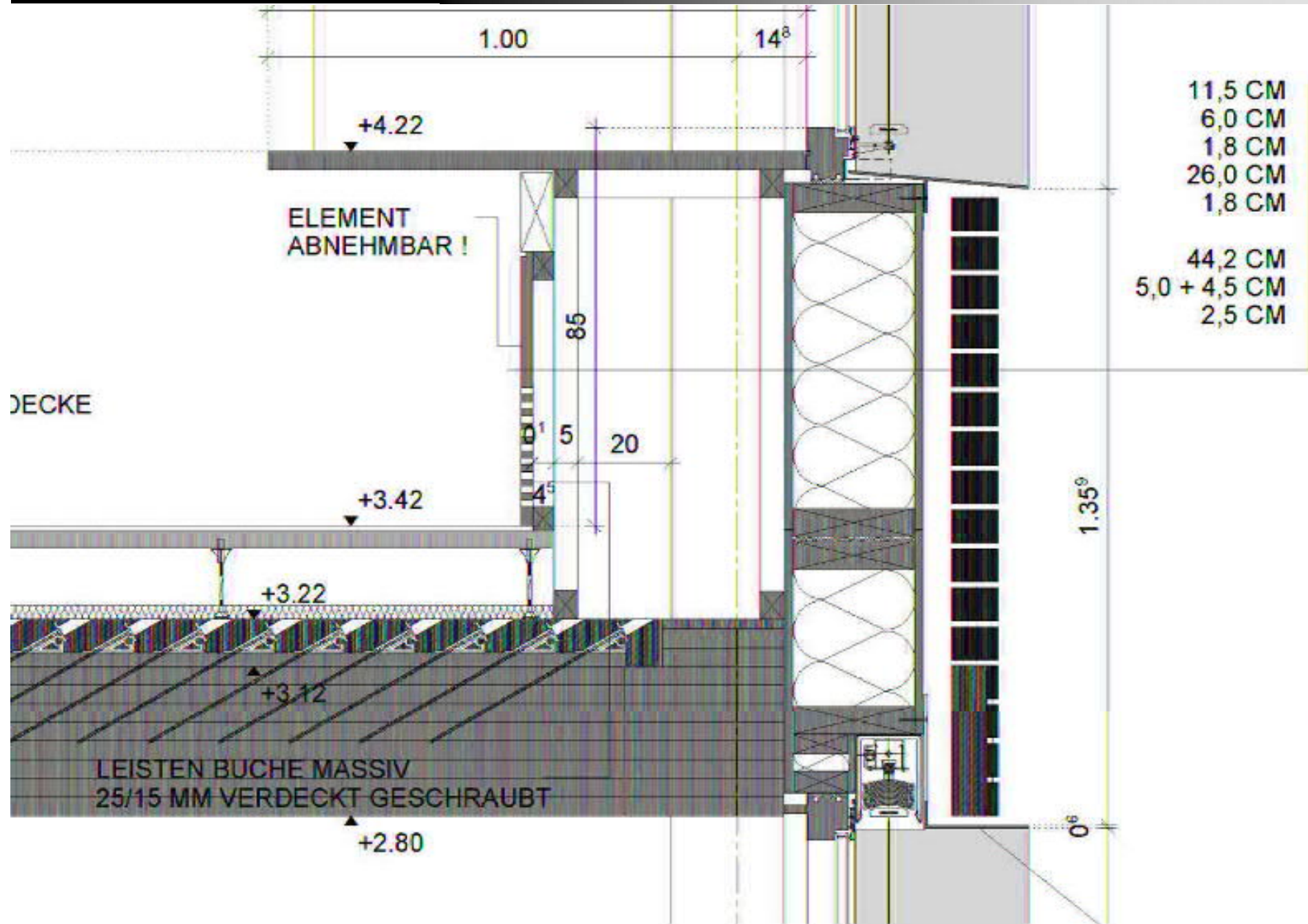
























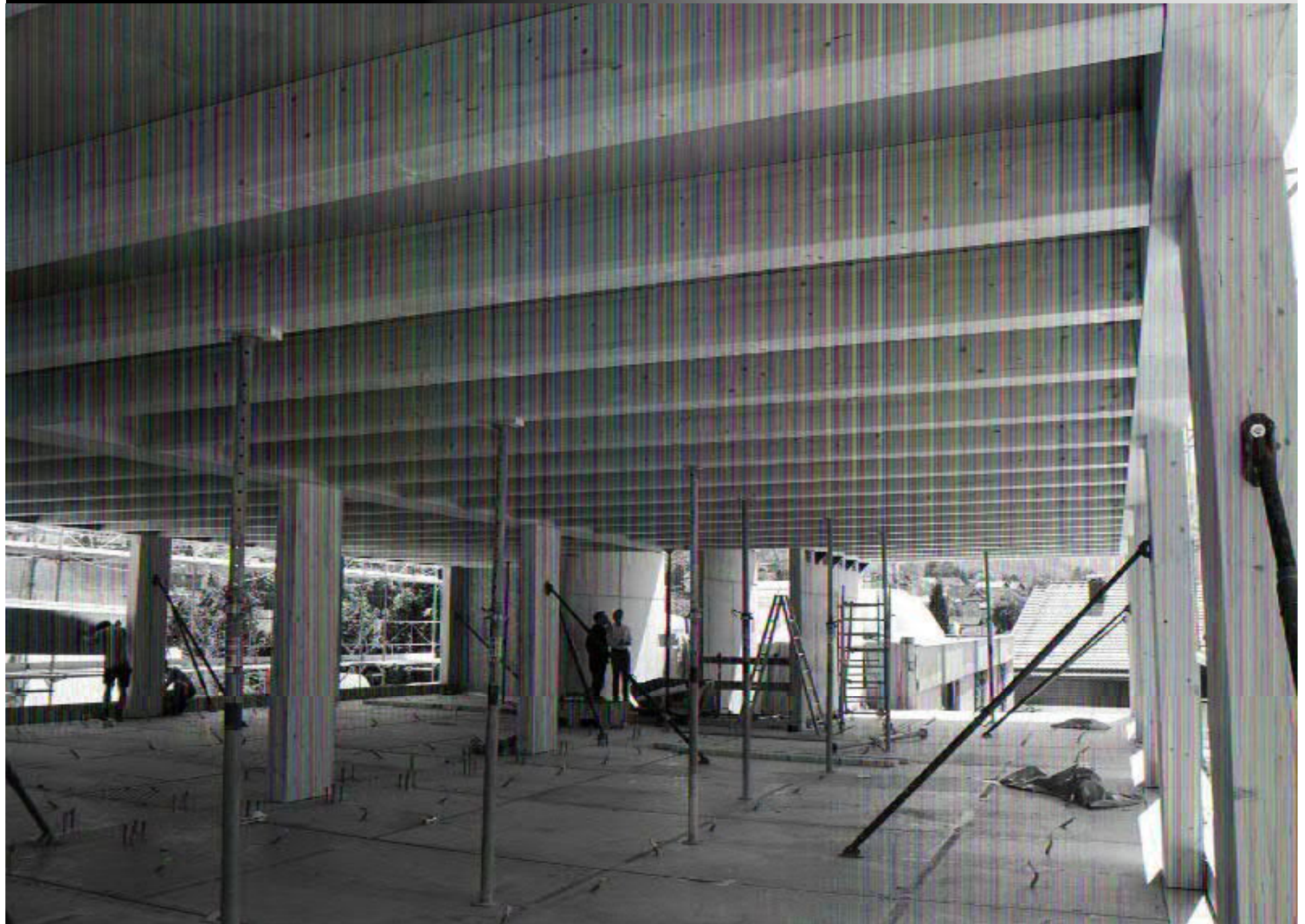




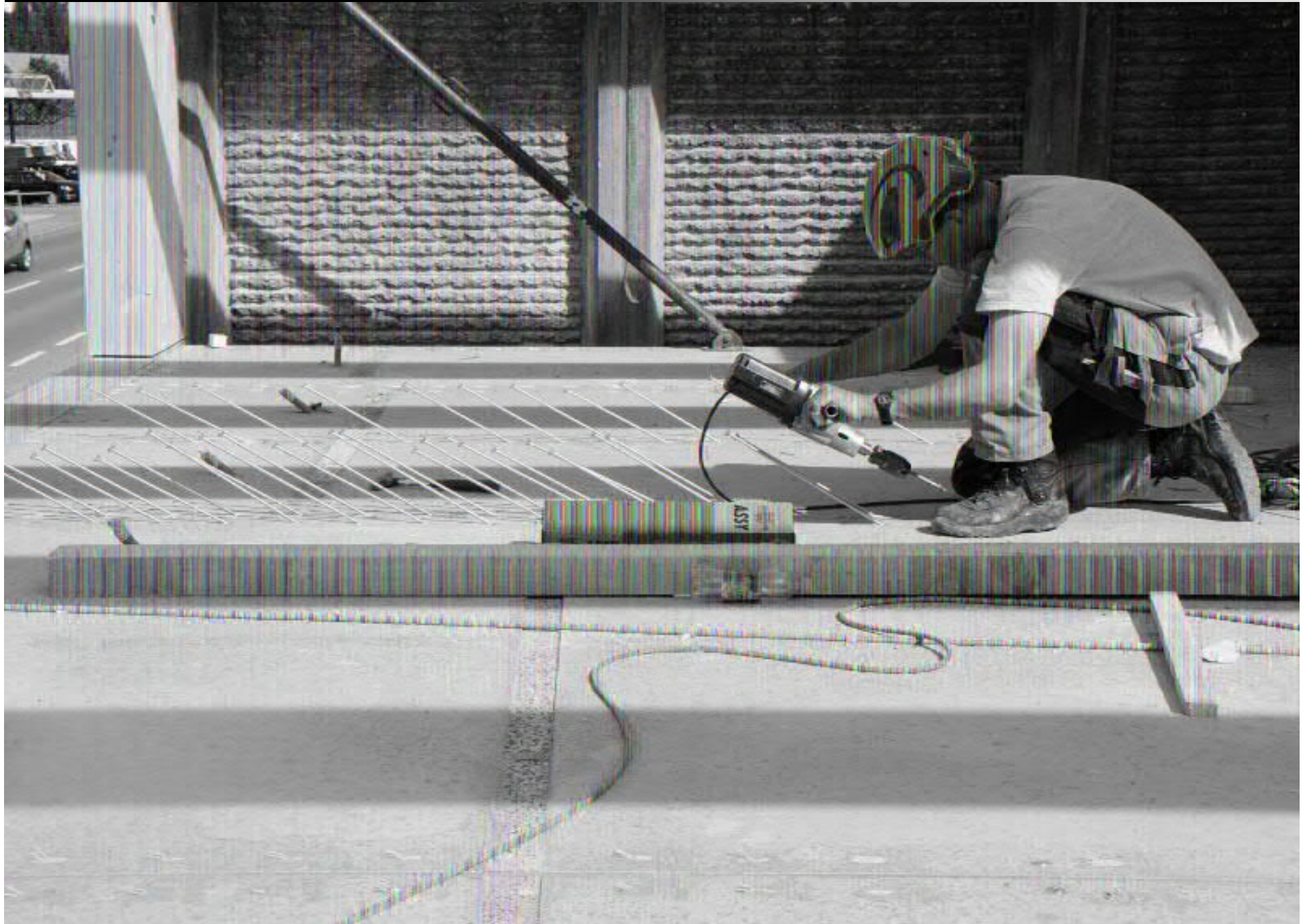








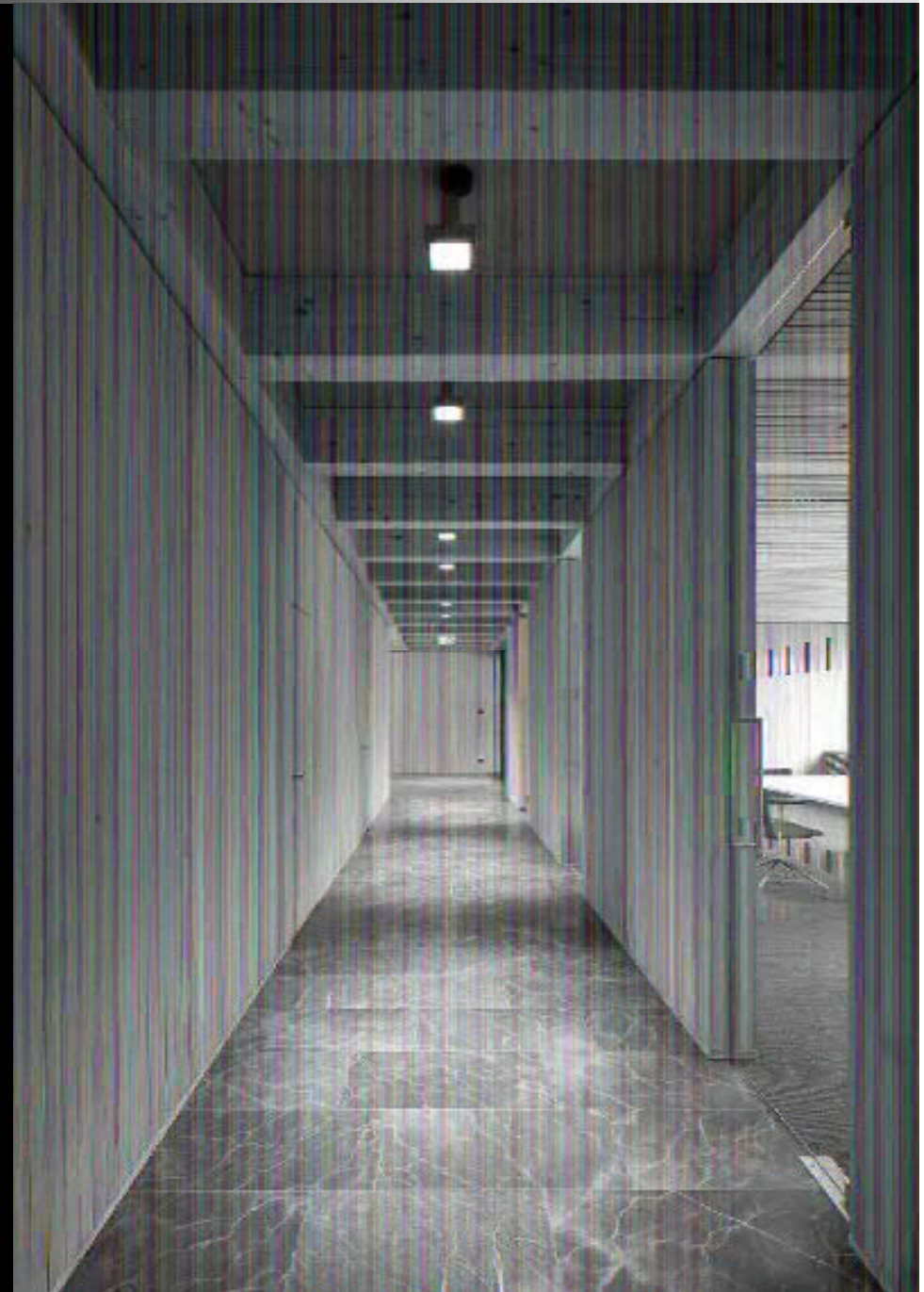


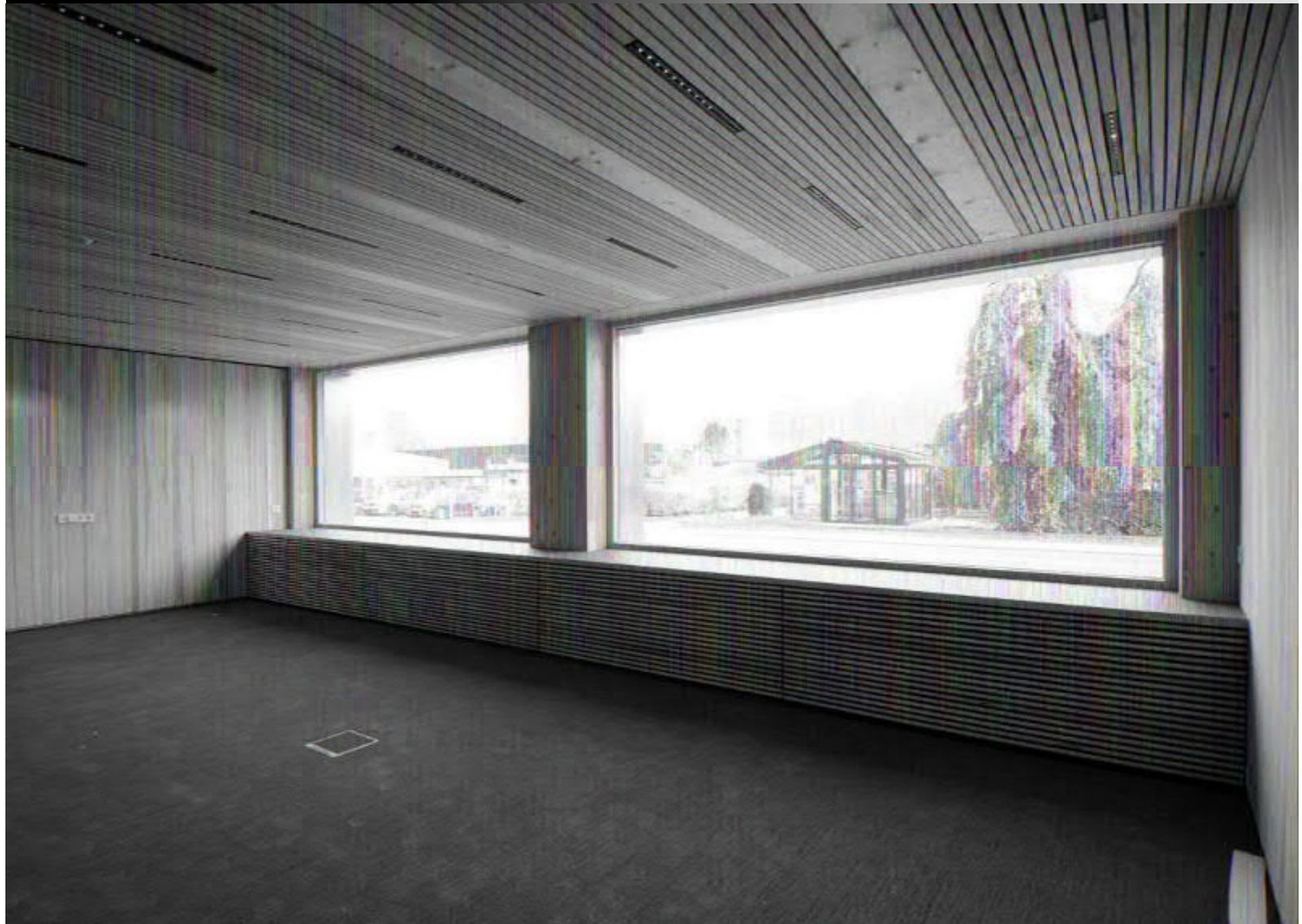






















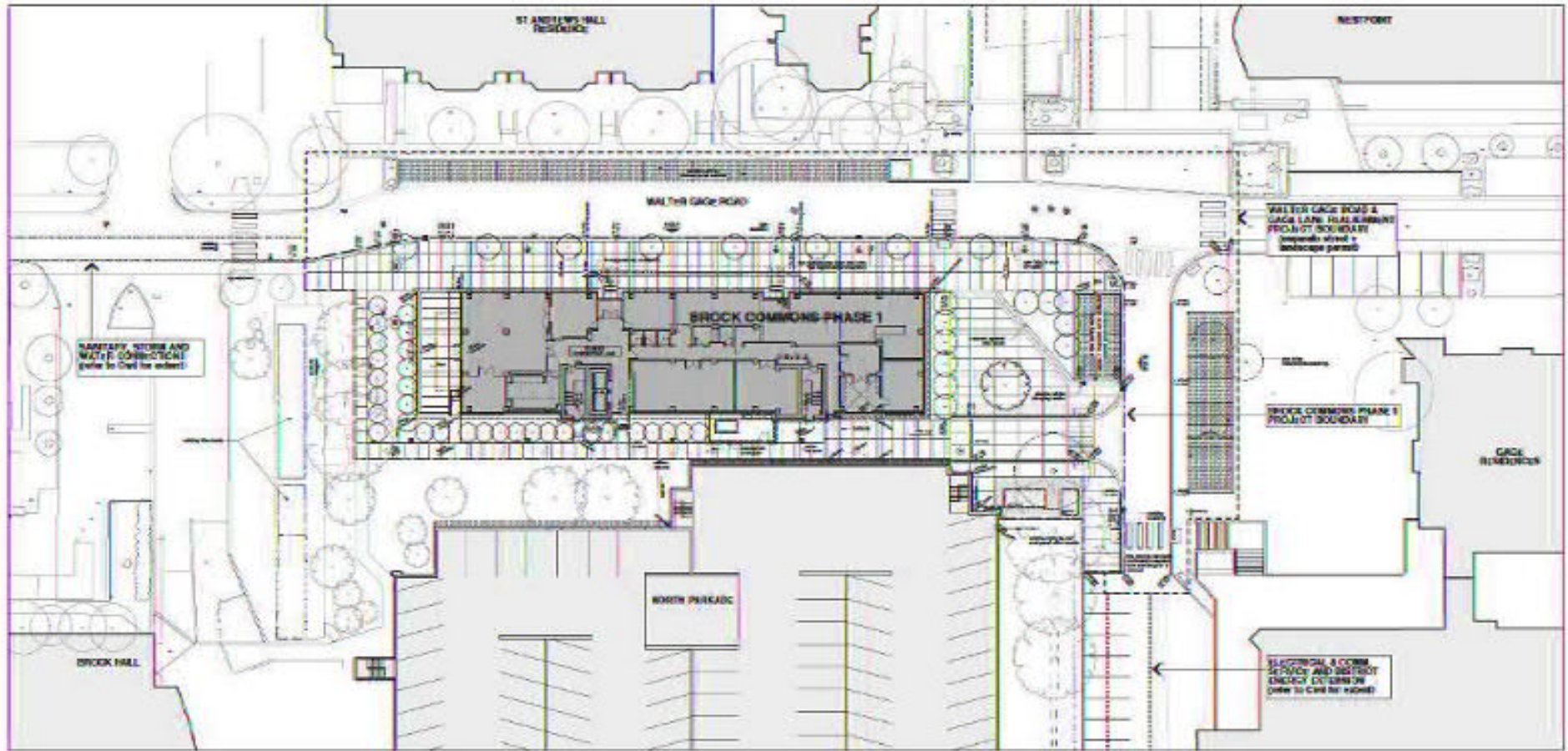


## BROCK COMMONS PHASE 1 – UBC, VANCOUVER 12/2014

### TEAM

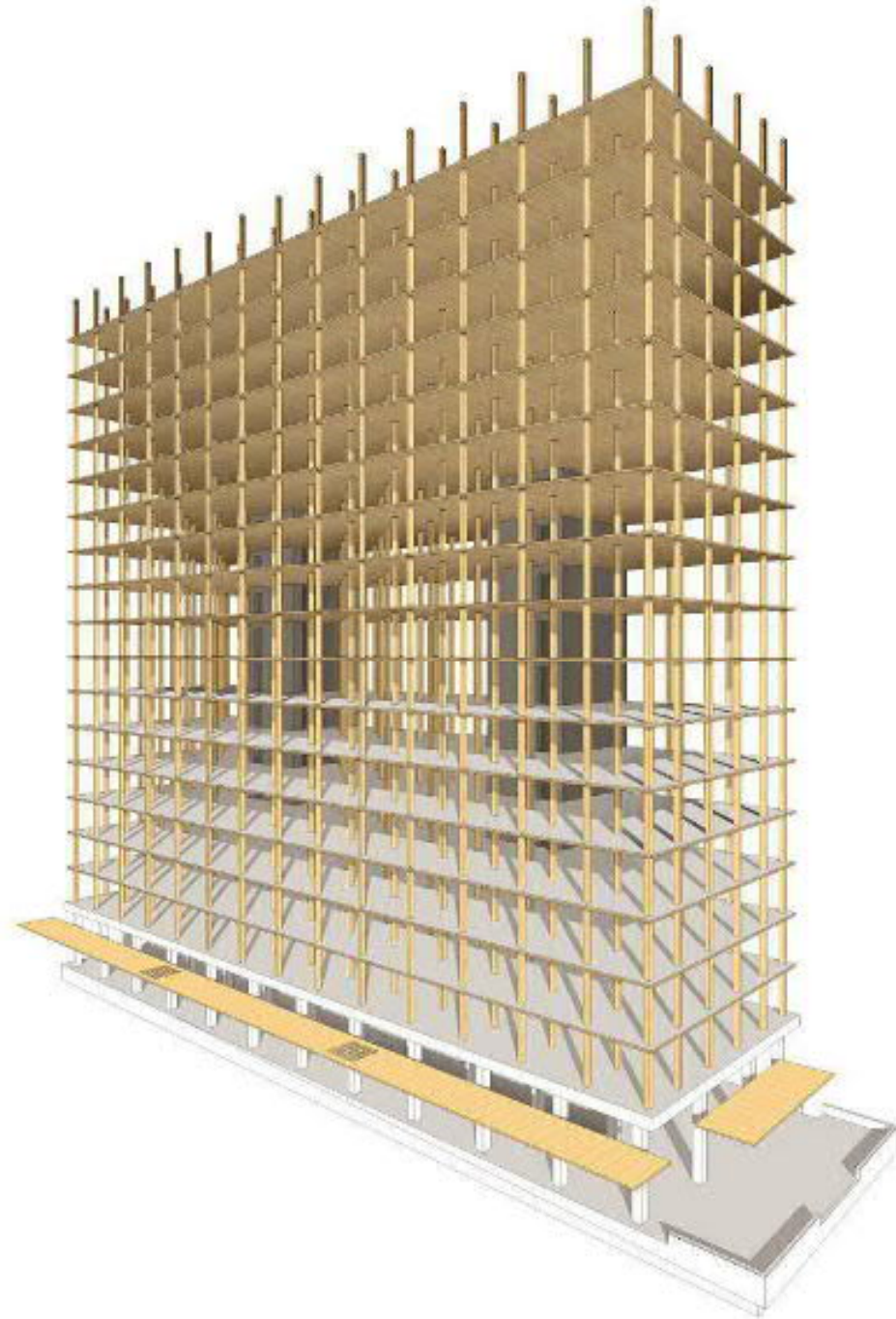
Acton Ostry Architects  
Hermann Kaufmann Architekten  
Fast + Epp, Structure  
Stantec, HVAC  
GHL, Fire Safety  
RDH, Facade

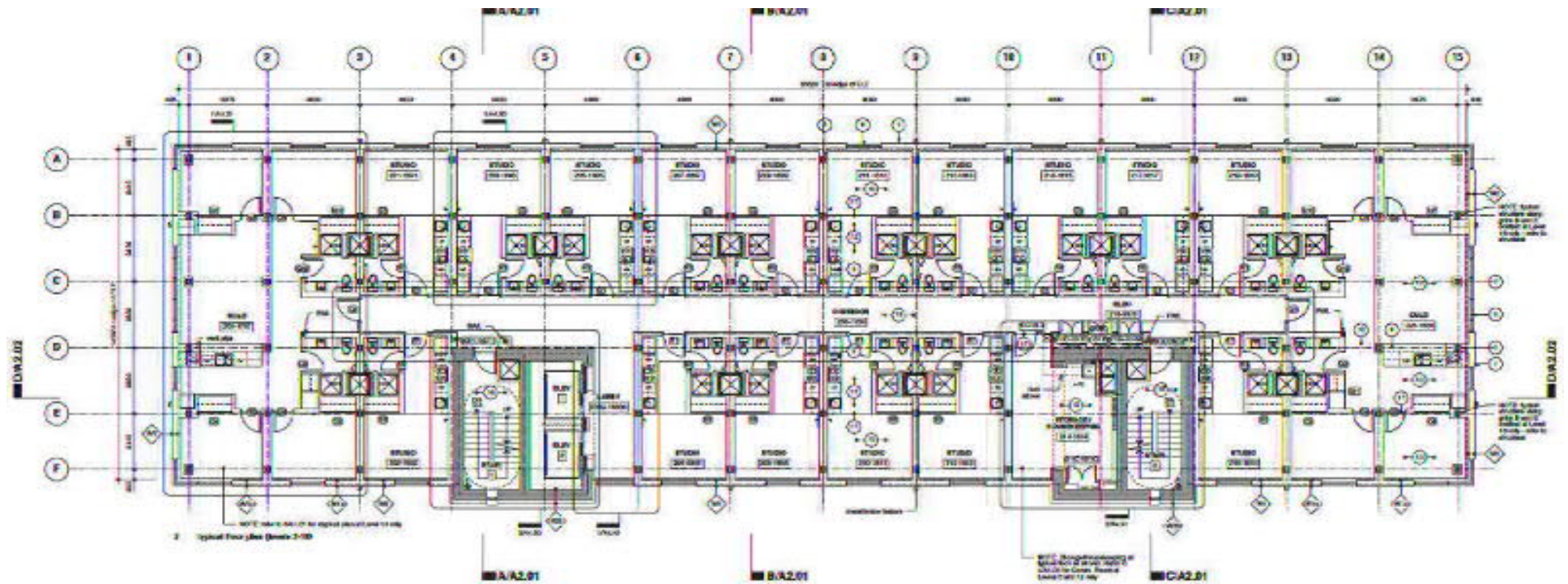






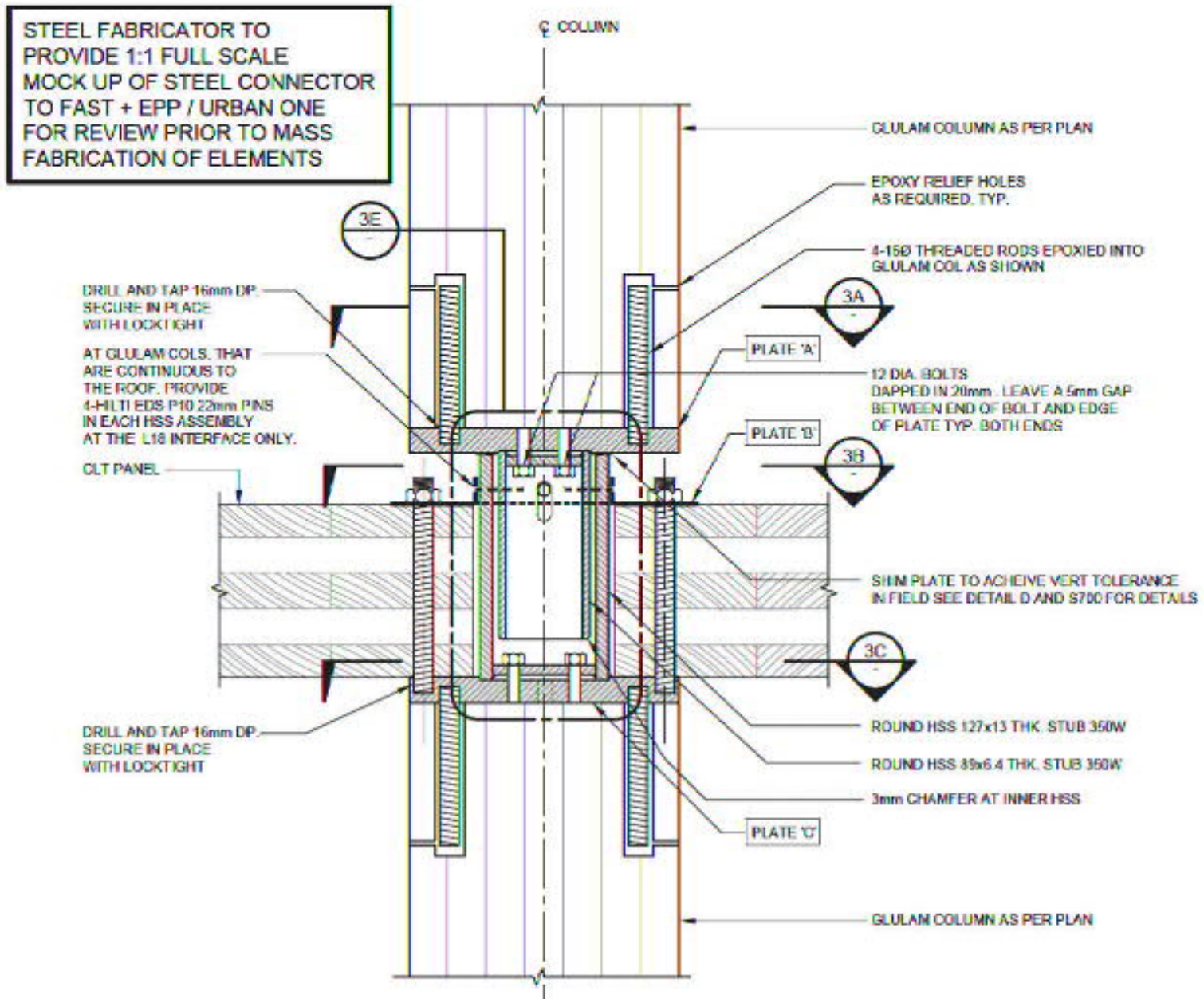




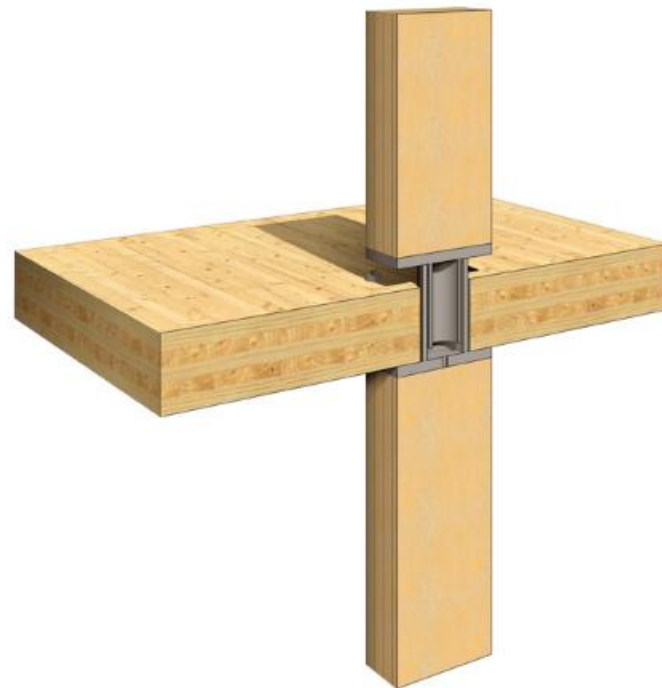


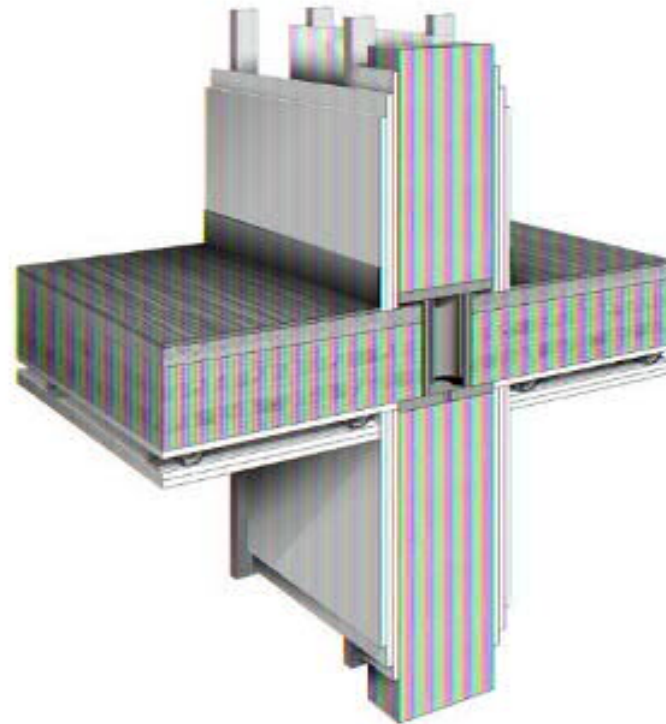














## STRESS TEST: ROLLING SHEAR







## TEST OF CONCEPT - PROTOTYP











UNDER CONSTRUCTION!



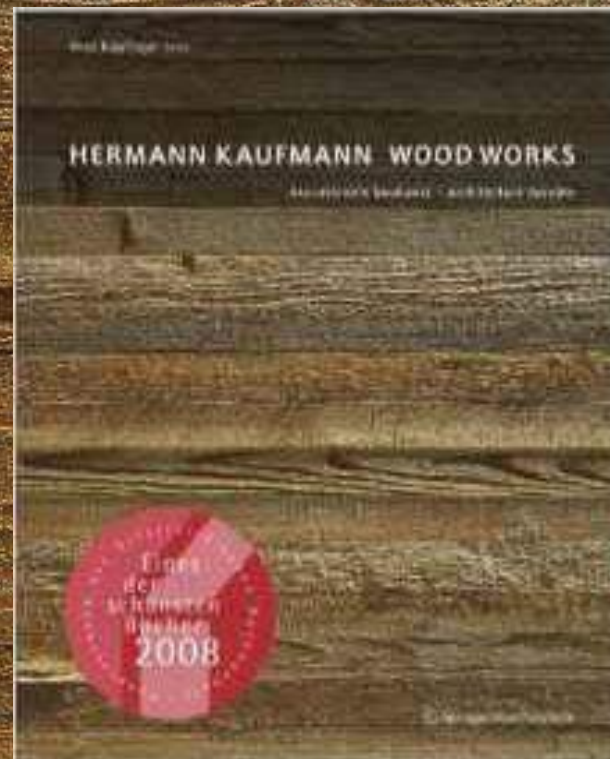


THANK YOU FOR YOUR ATTENTION





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ISBN: 978-3-211-79175-2



ISBN: 978-3-95553-245-1