



MX3D brug

Symposium fiets- en voetbruggen

Stijn Joosten - 11 November 2021





De eerste 3D-geprinte brug ter wereld, op de straten in Amsterdam.

Foto: Gertjan Oudejans / de Persgroep

'Stalen baarmoeder, verkleed als brug', of wereldontwerp: 3D-brug houdt Amsterdammers danig bezig

REPORTAGE

DE GEPRINTE BRUG

De net geopende 3D-brug in Amsterdam wordt door

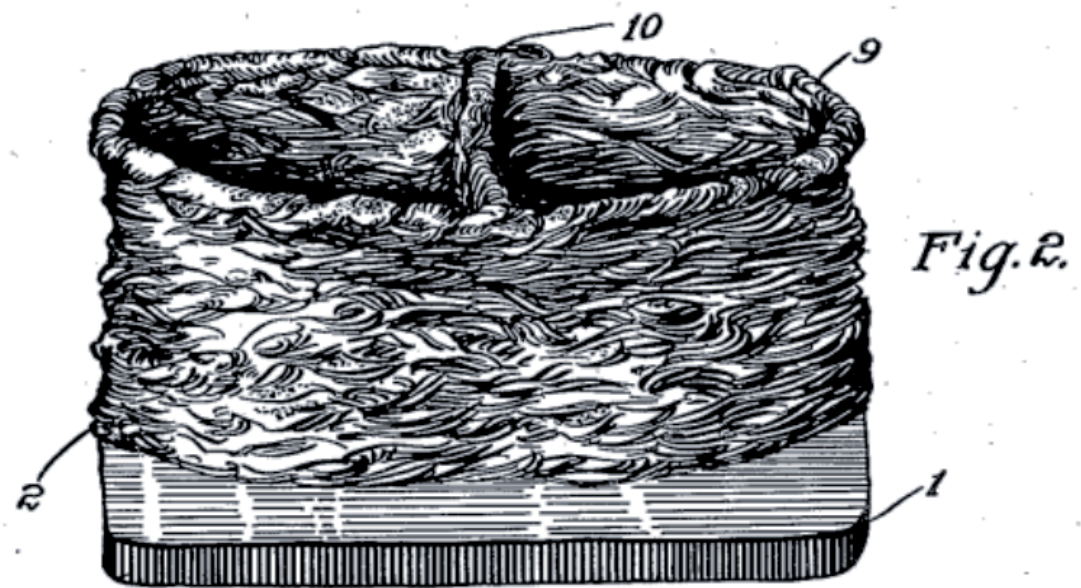
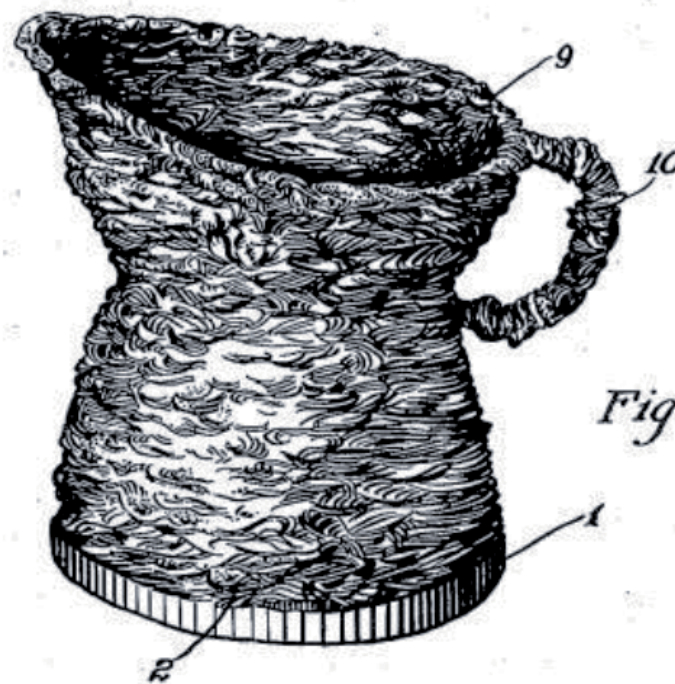
Joris Laarman, de ontwerper van de brug, kan wel lachen om 'de creativiteit' van sommige reacties. 'Blijkbaar maakt het veel los bij de mensen', zegt hij monter. Zelf ontvangt hij overwegend positieve reacties.

Laarman spreekt van 'een mega futuristisch project', dat diverse nationale en internationale prijzen heeft gewonnen.

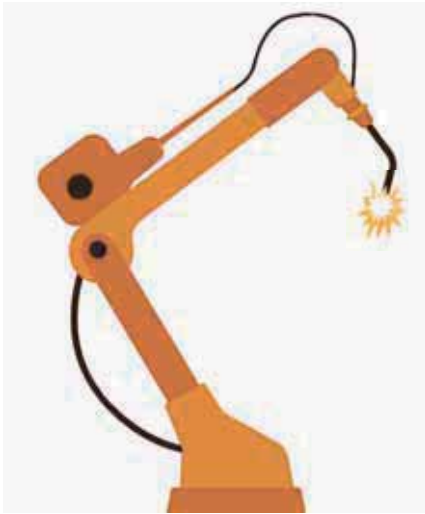
der van het stadsdeel Centrum wer
'Er wordt met alle partijen ha
werkt aan een juiste oplossing
vorm van een helling, zo
alsnog op de kade aanst
Om struikelpartij
is er tot die tijd een
schuwingssyst
ders van de
rood-wit
naar



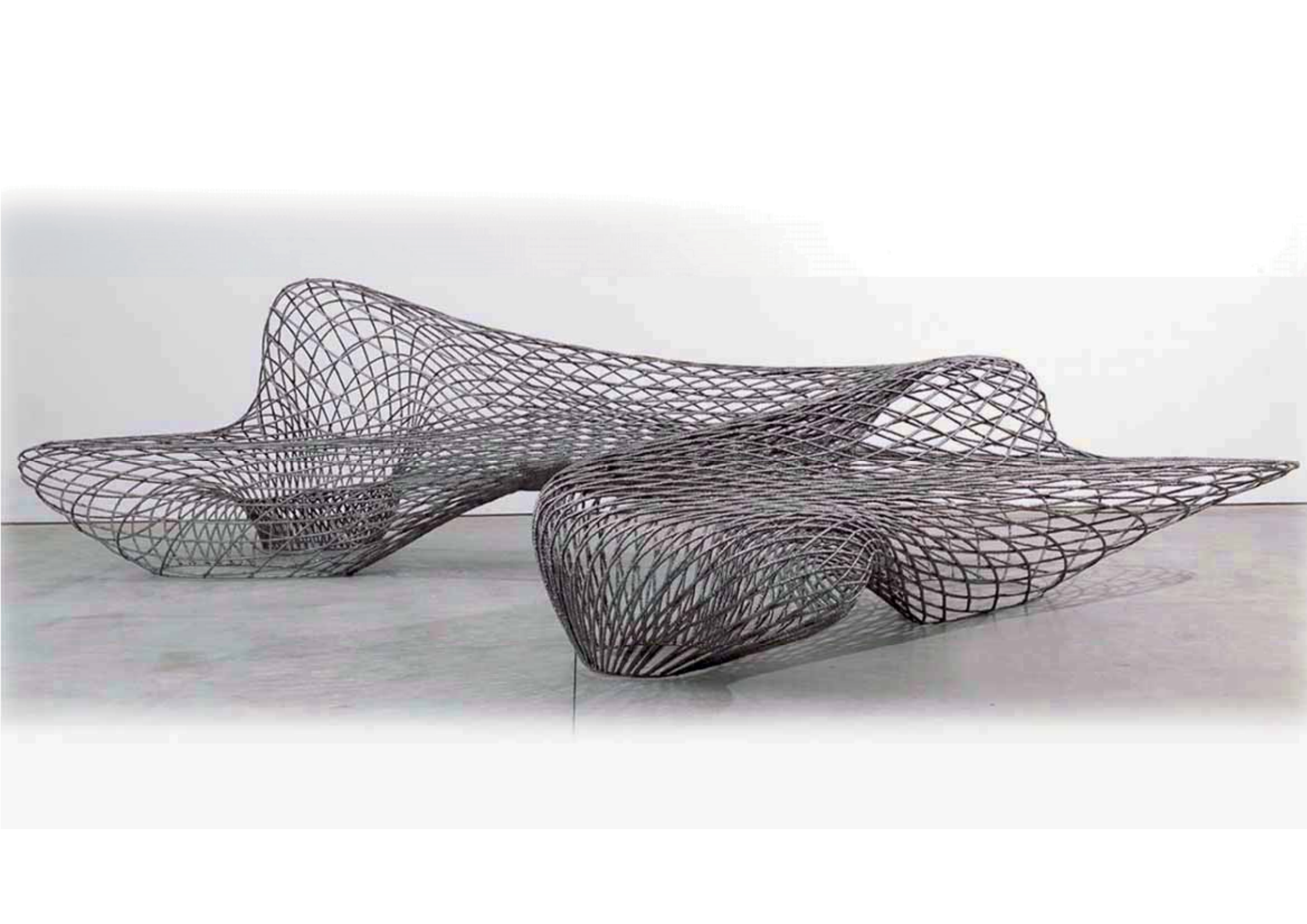
ARUP



Patent by Baker (1926)



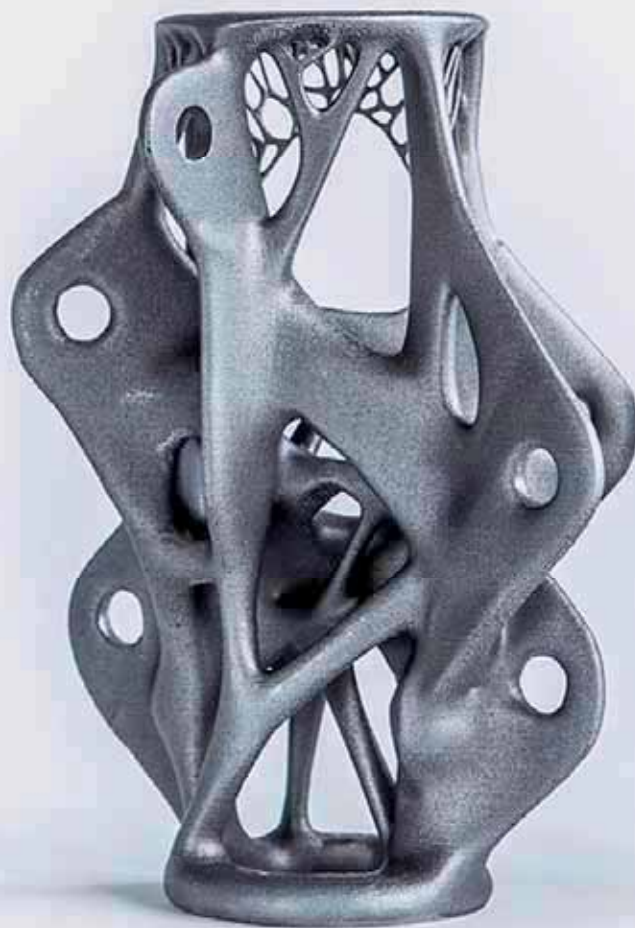
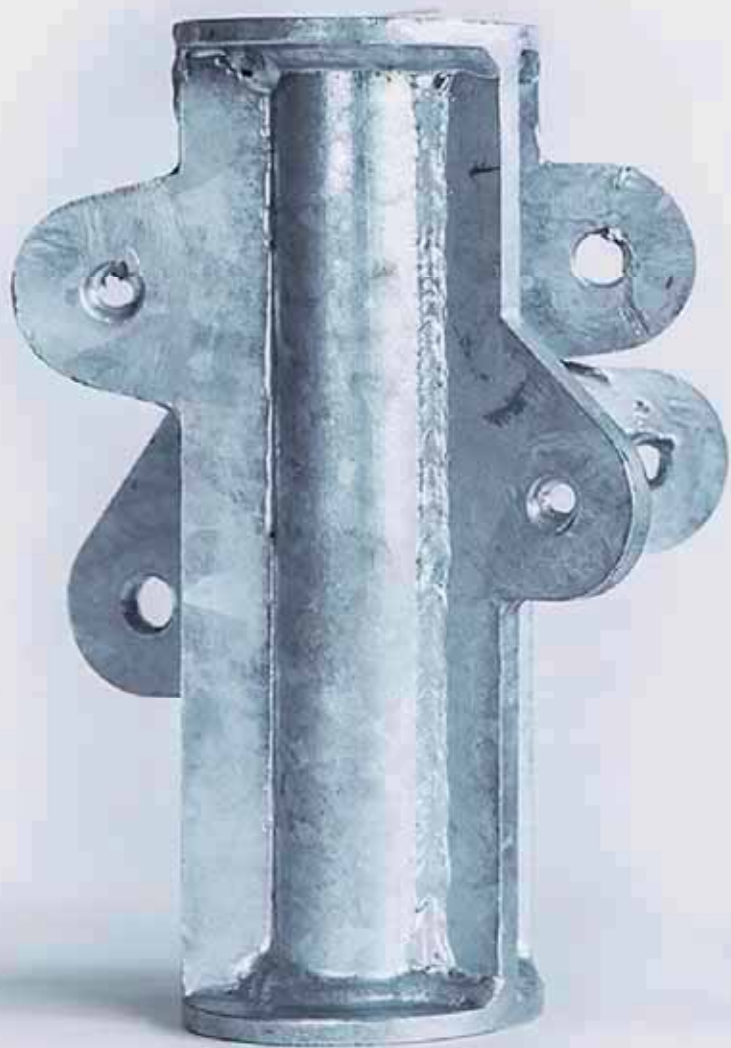




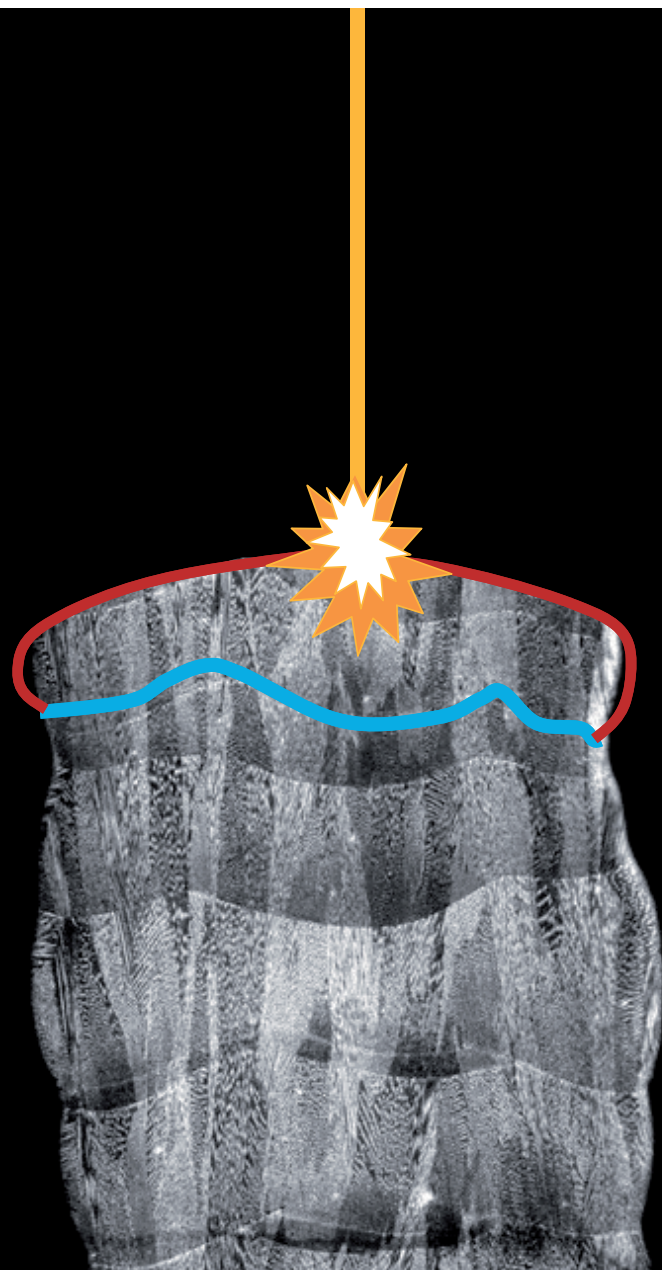


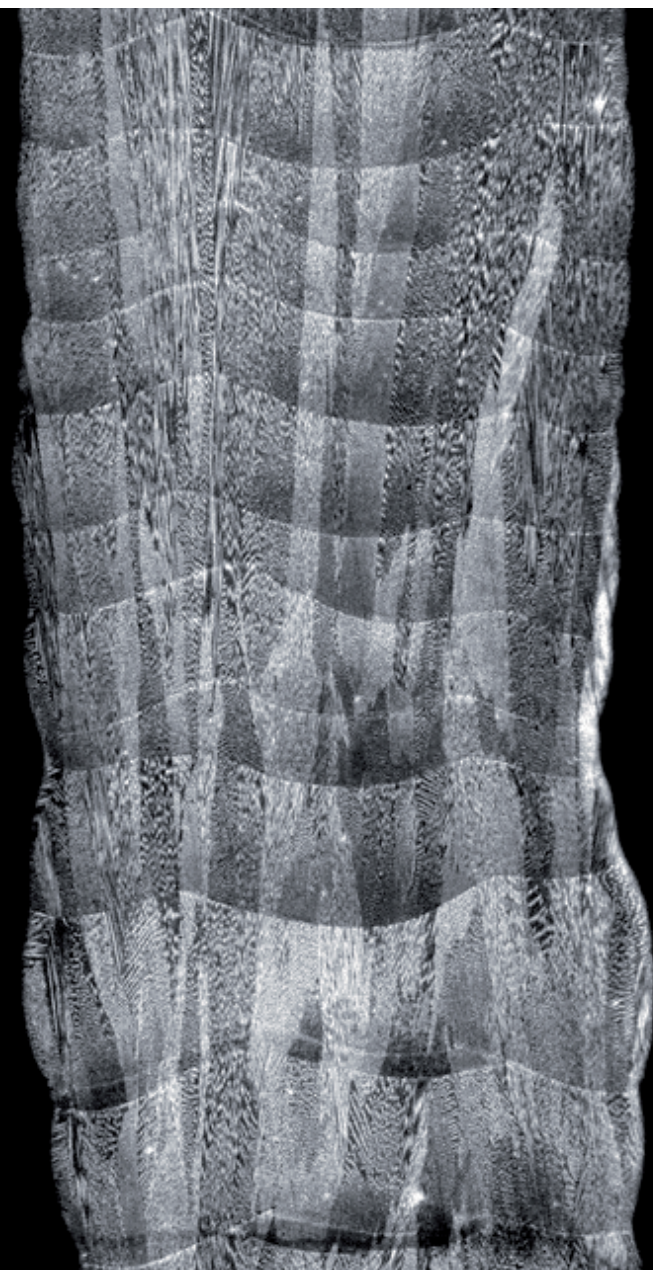


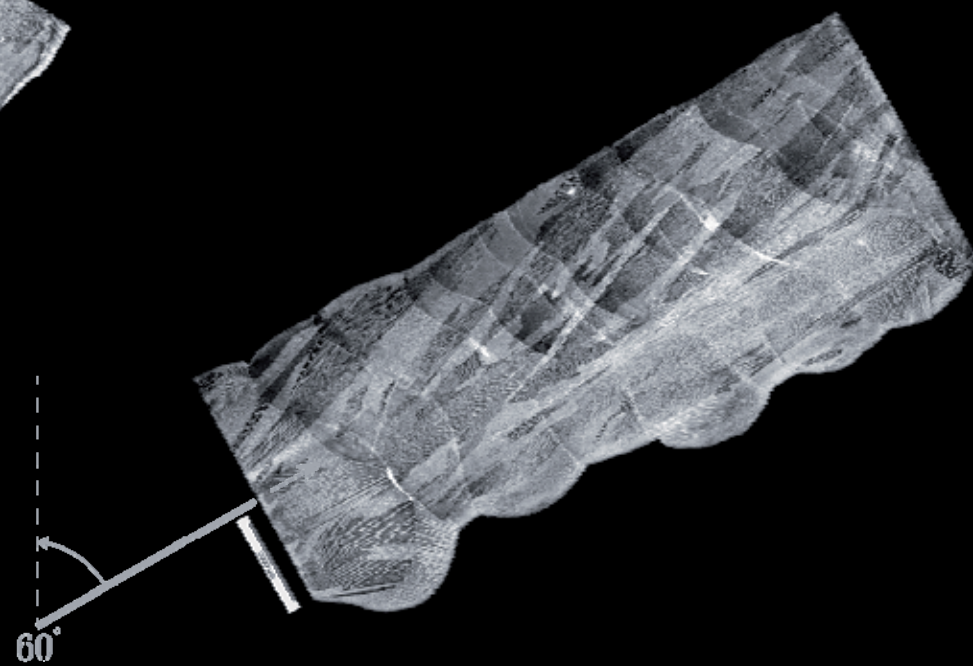
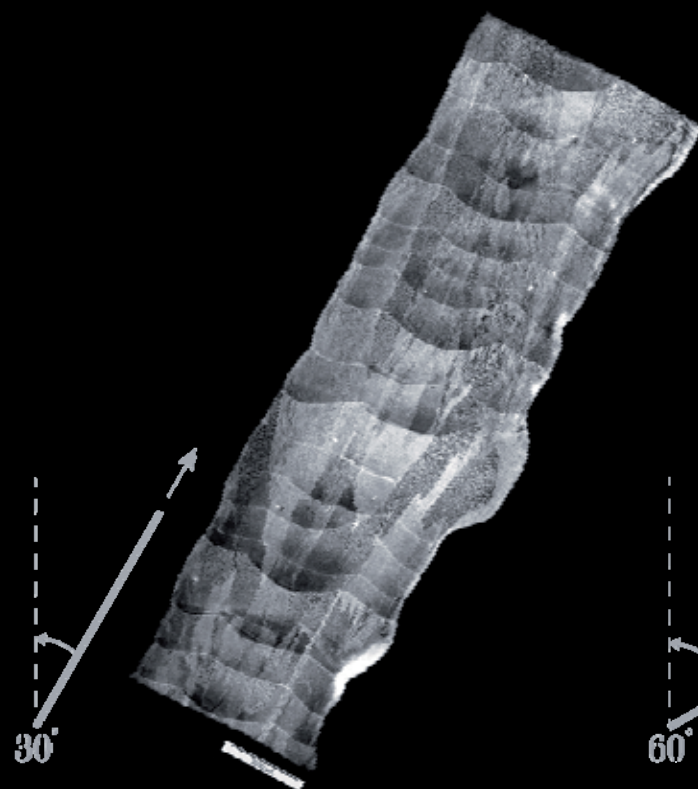
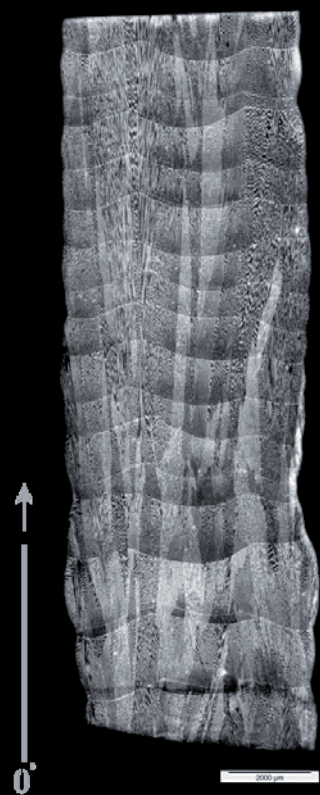


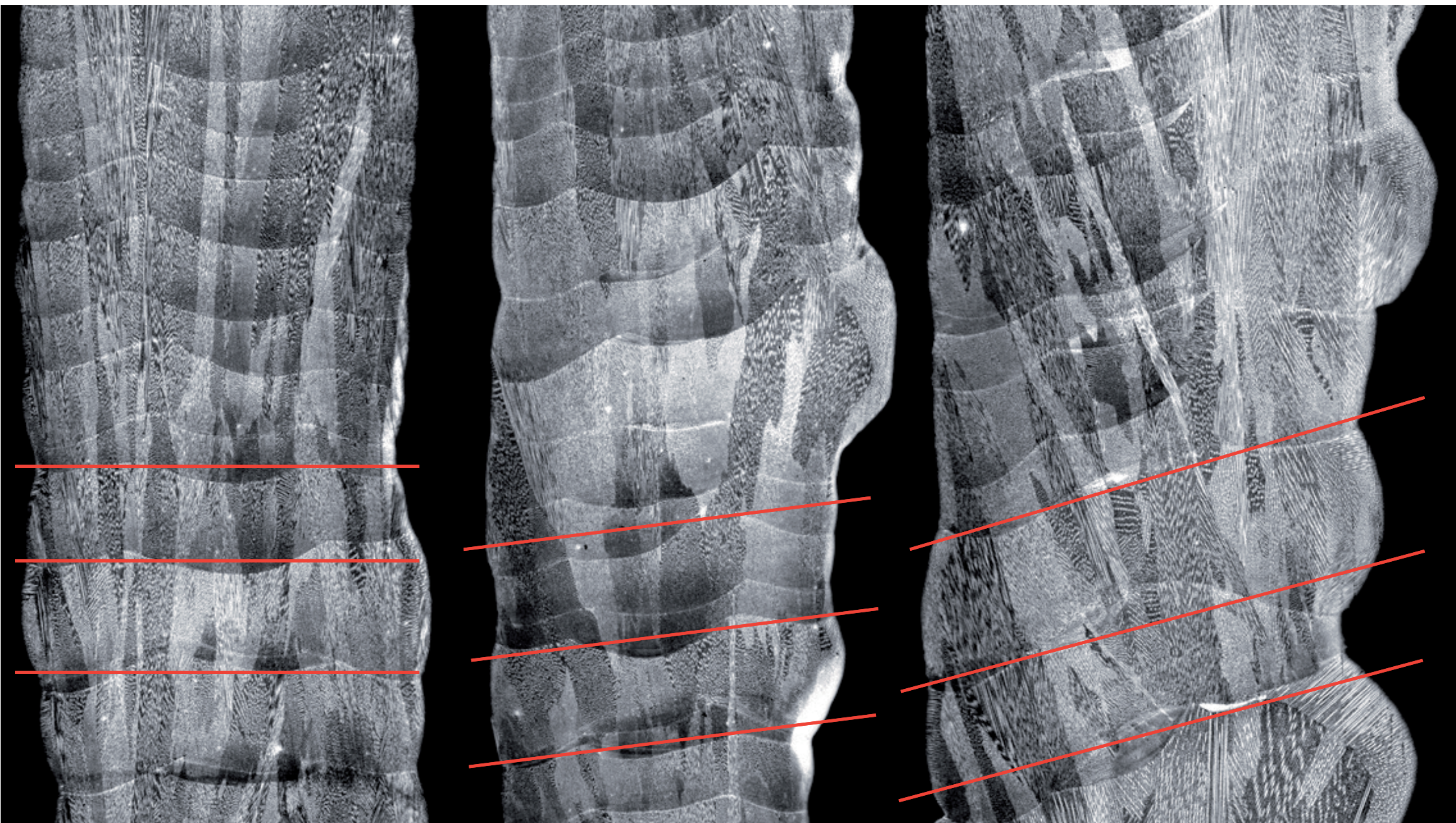


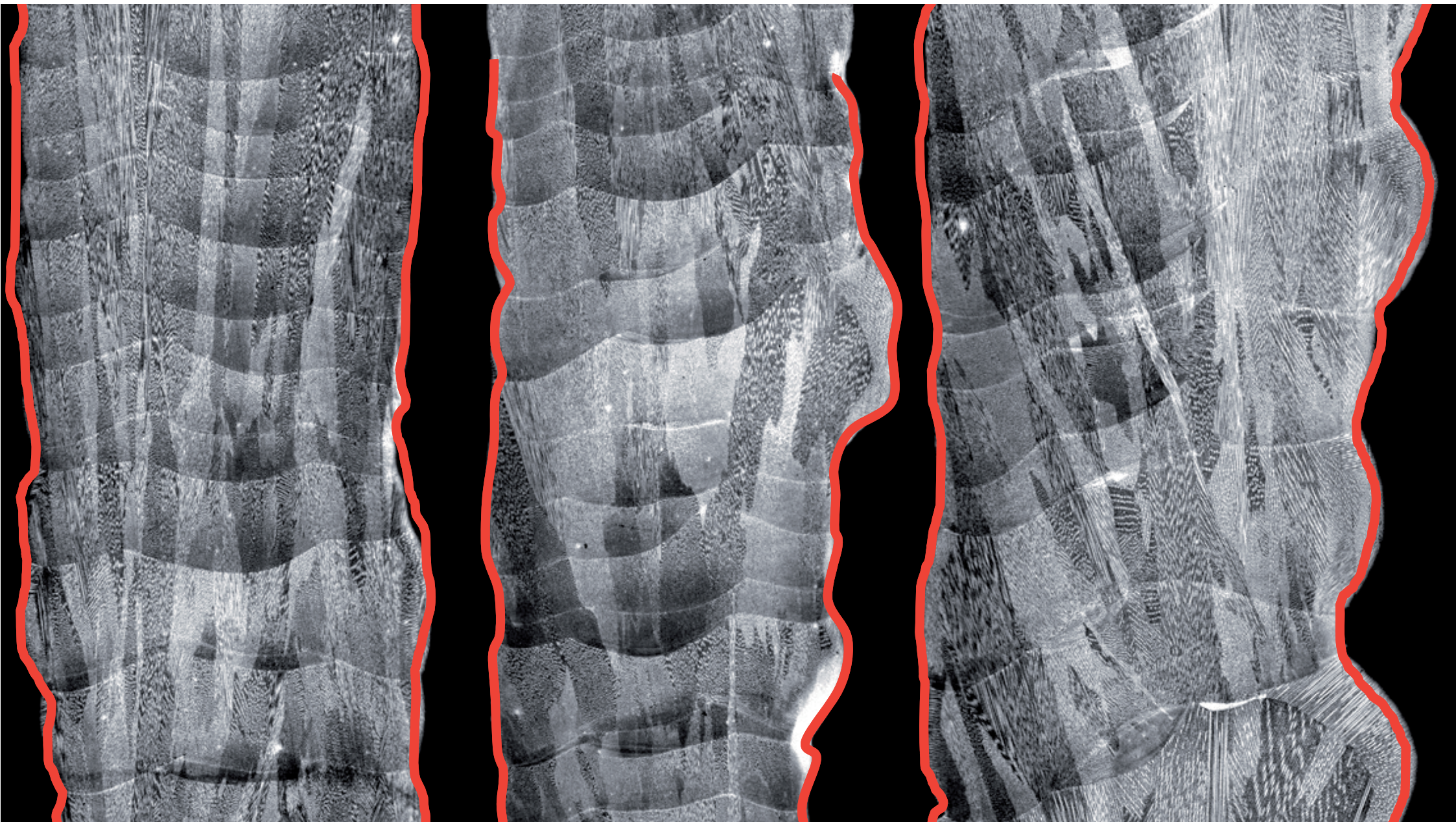




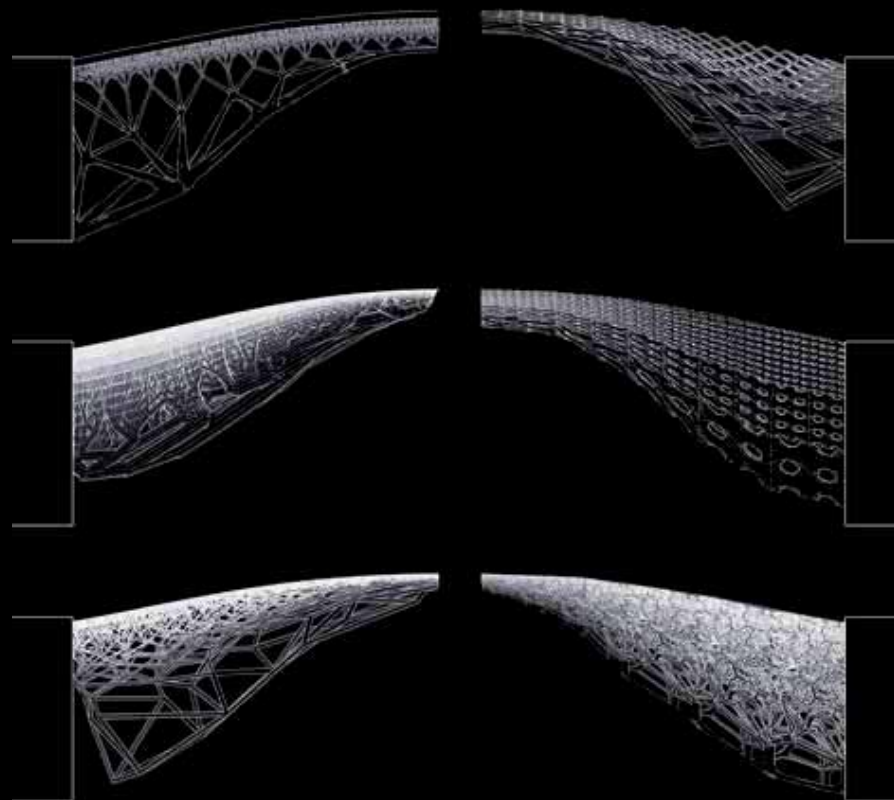


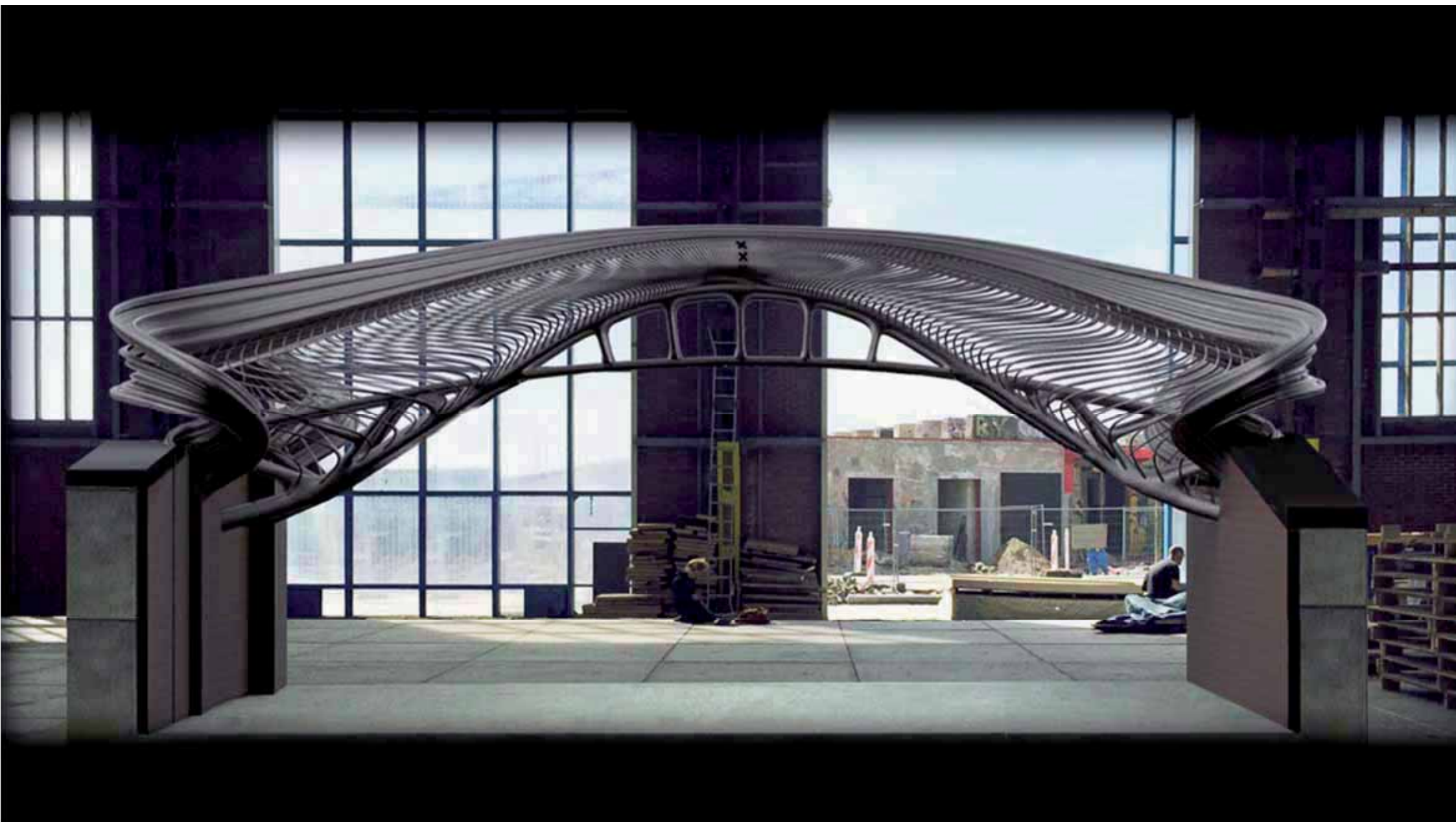


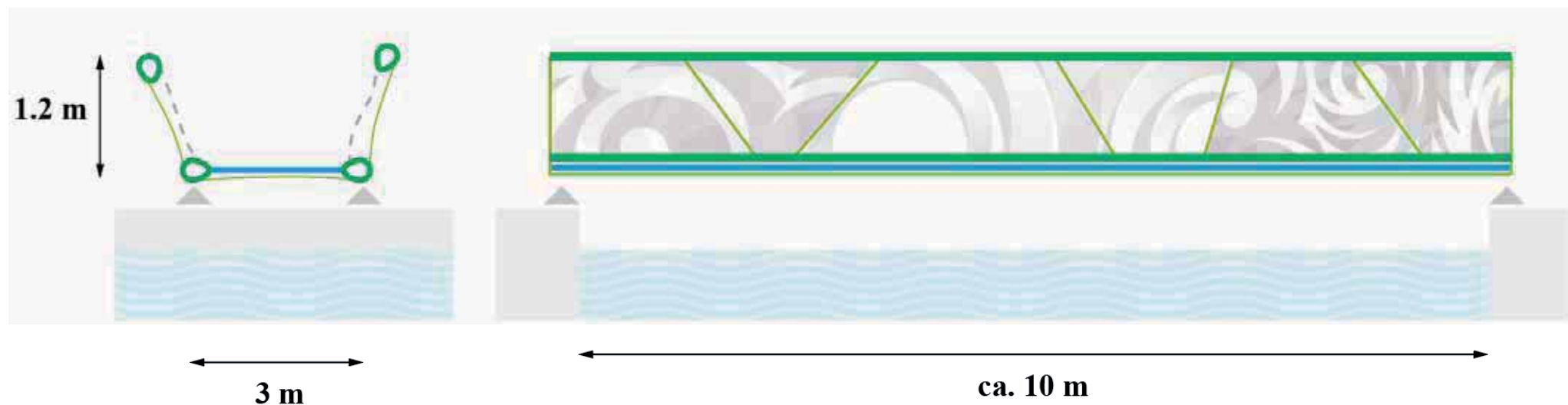




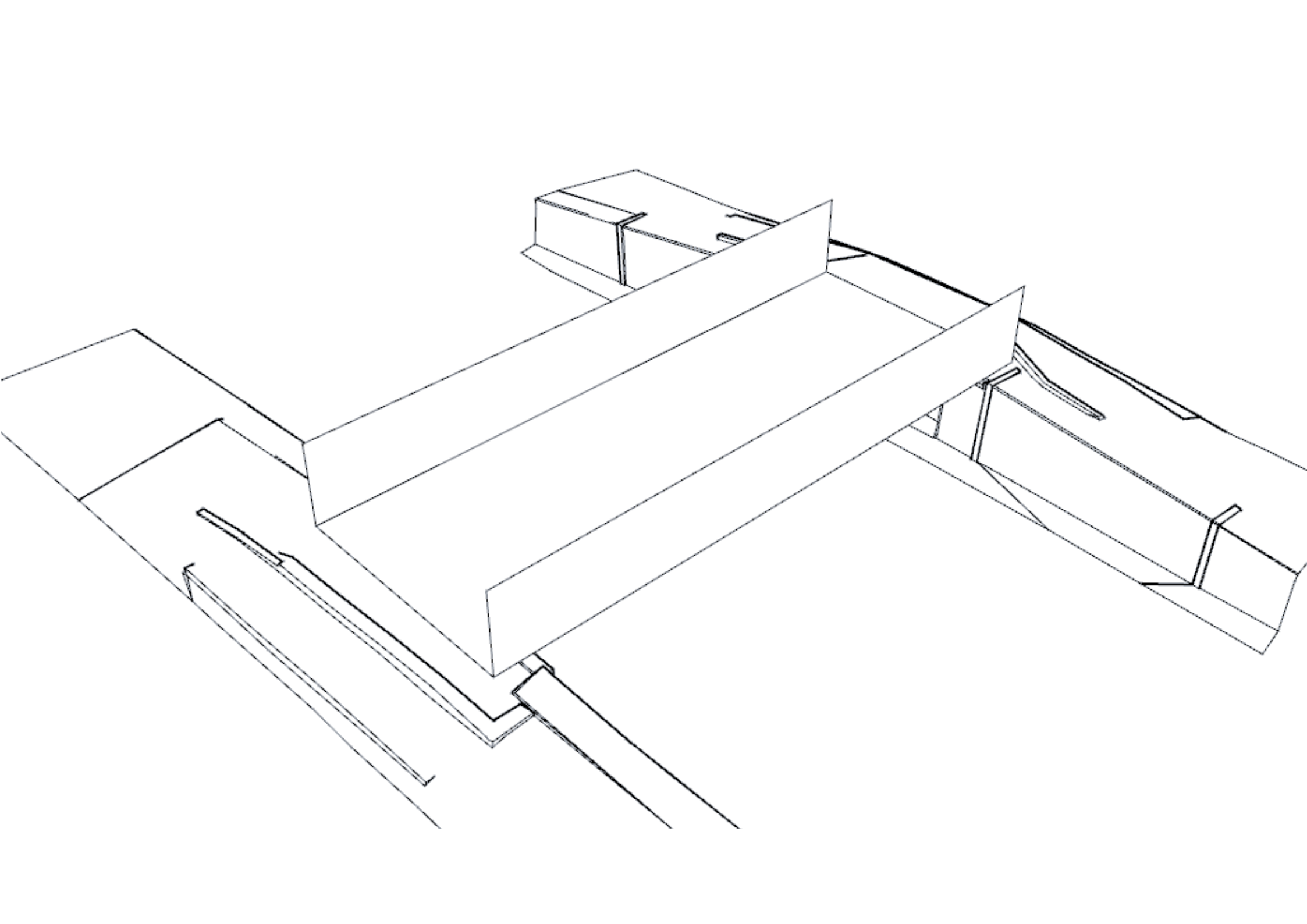


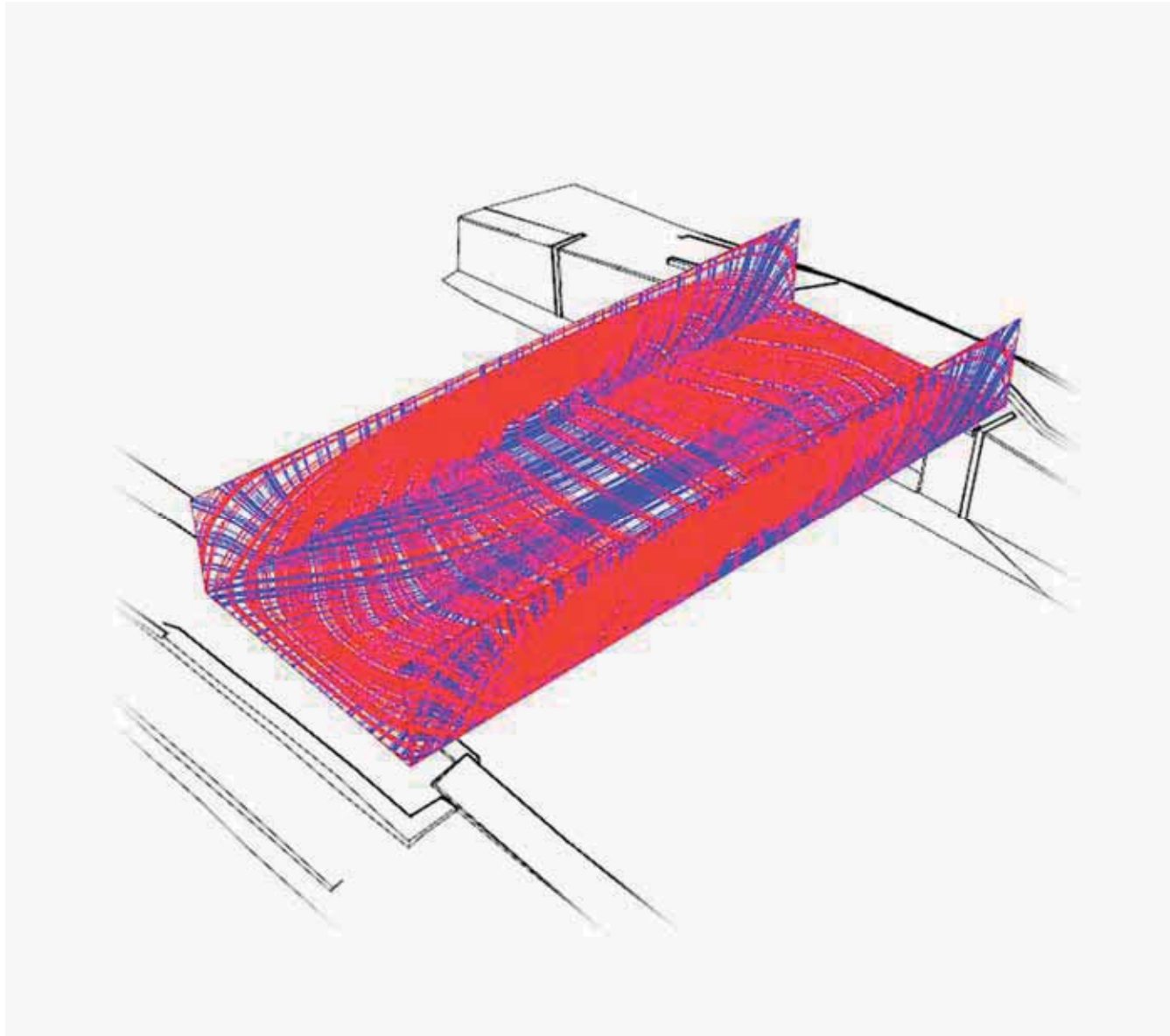


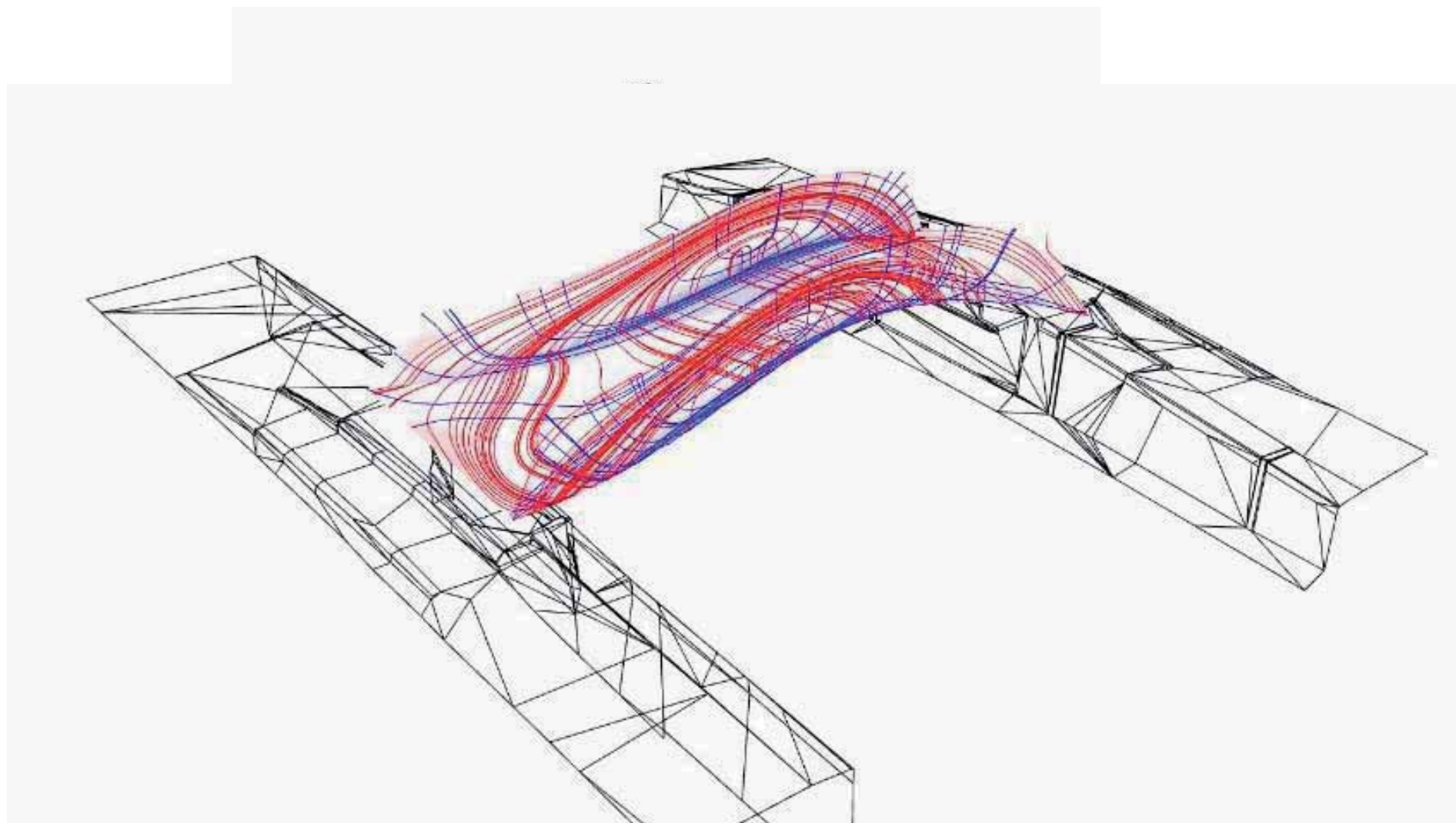


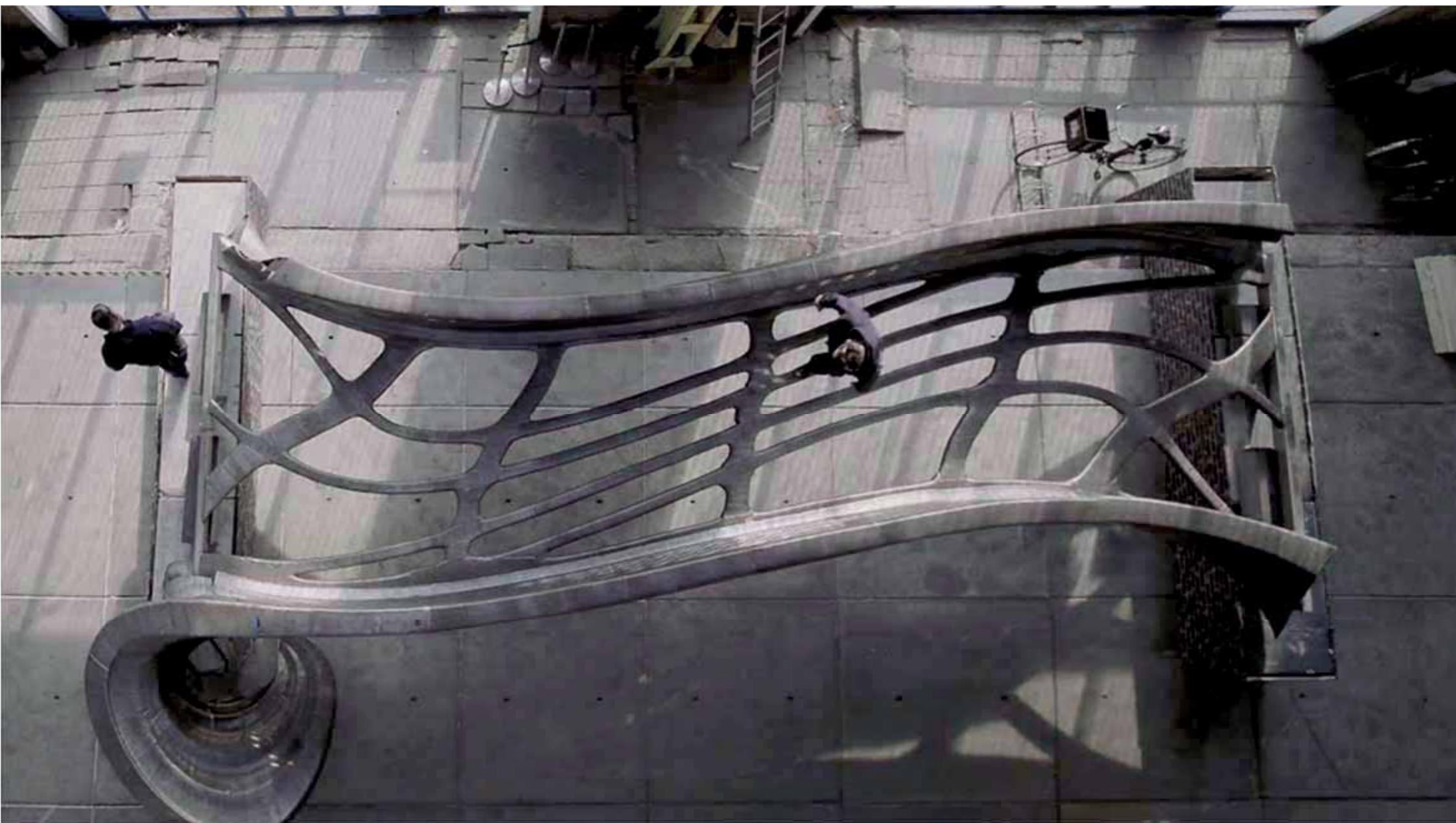


- Main structural
- Secondary structural
- Deck
- Parapet





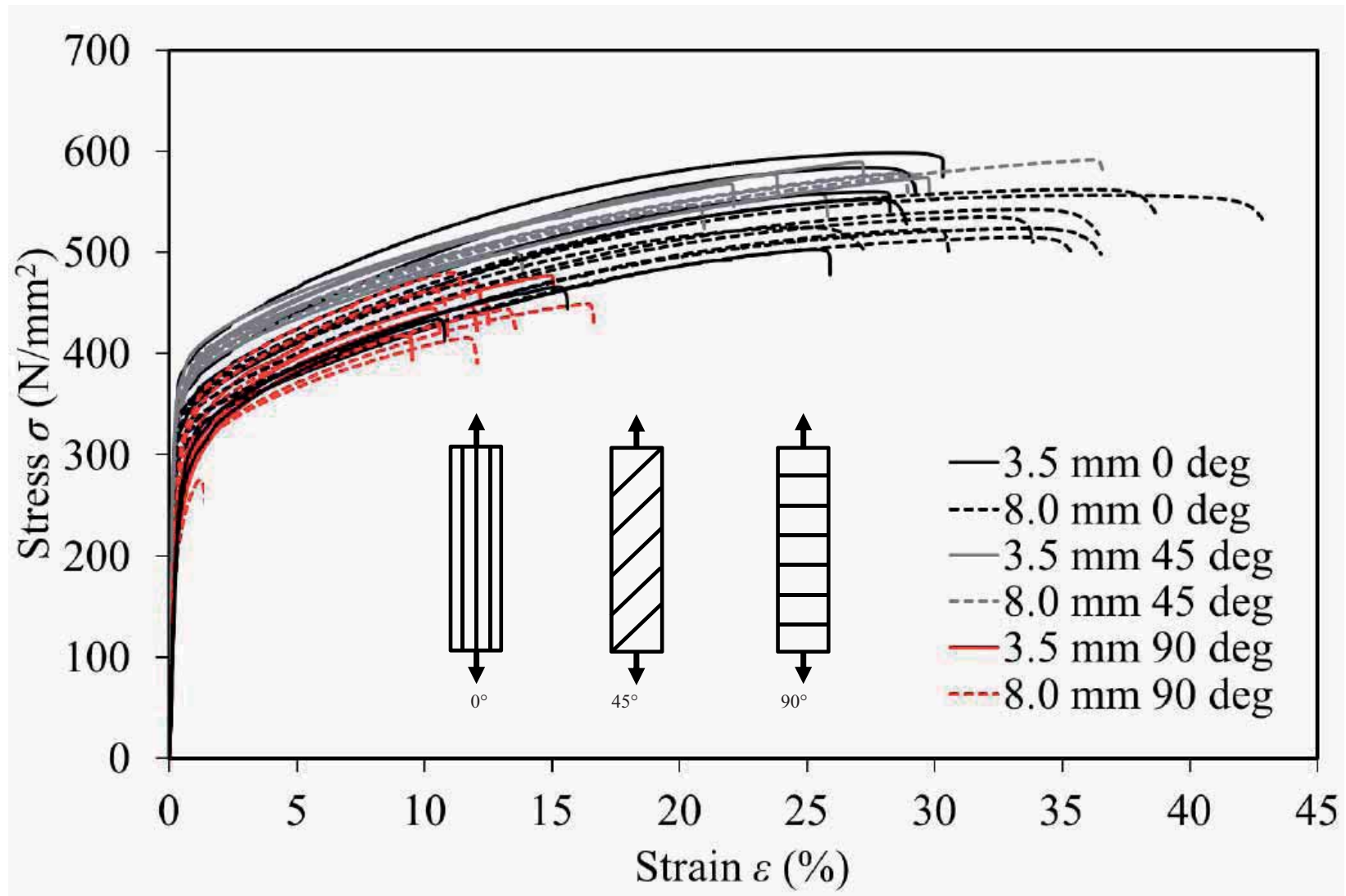




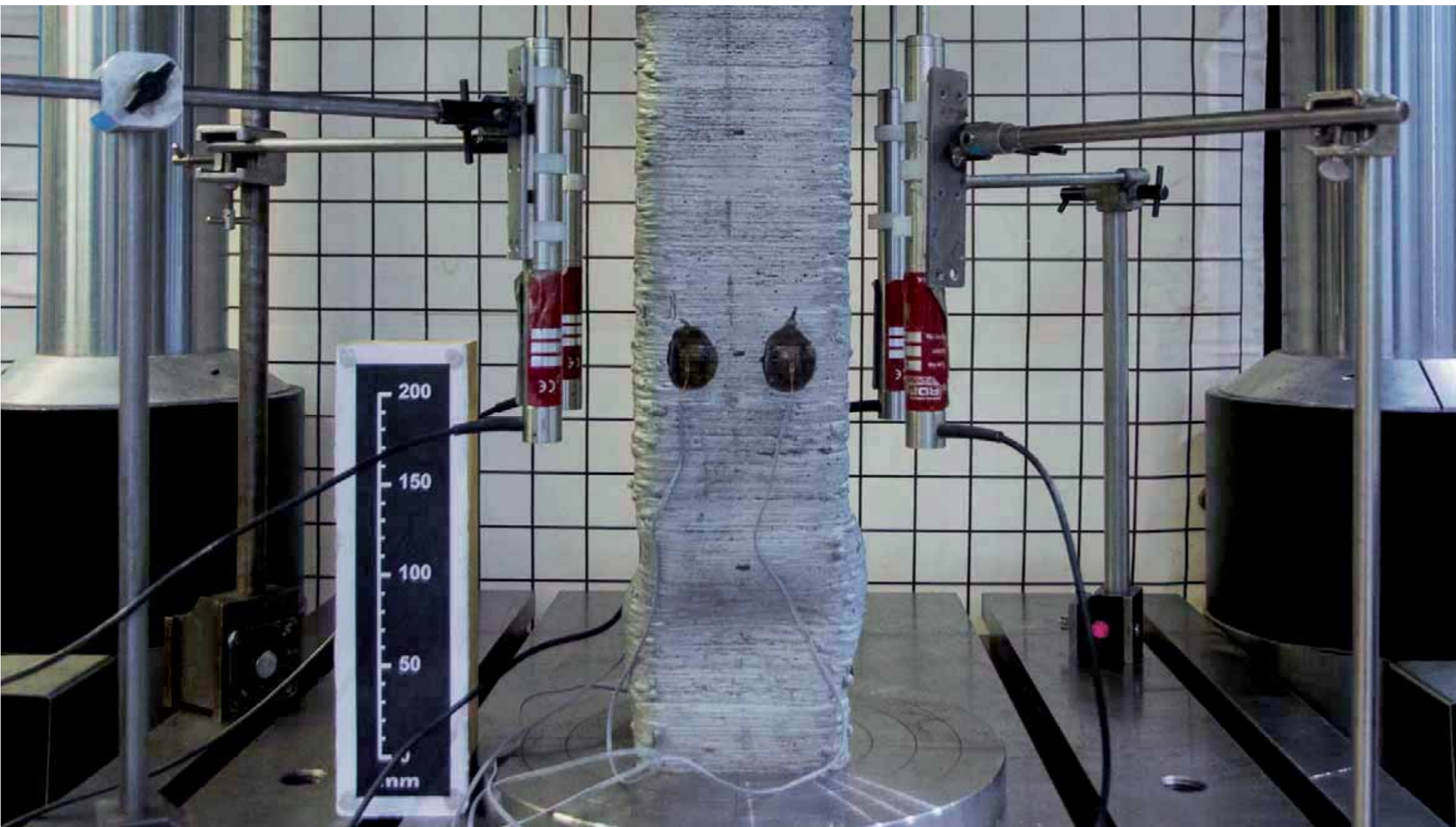


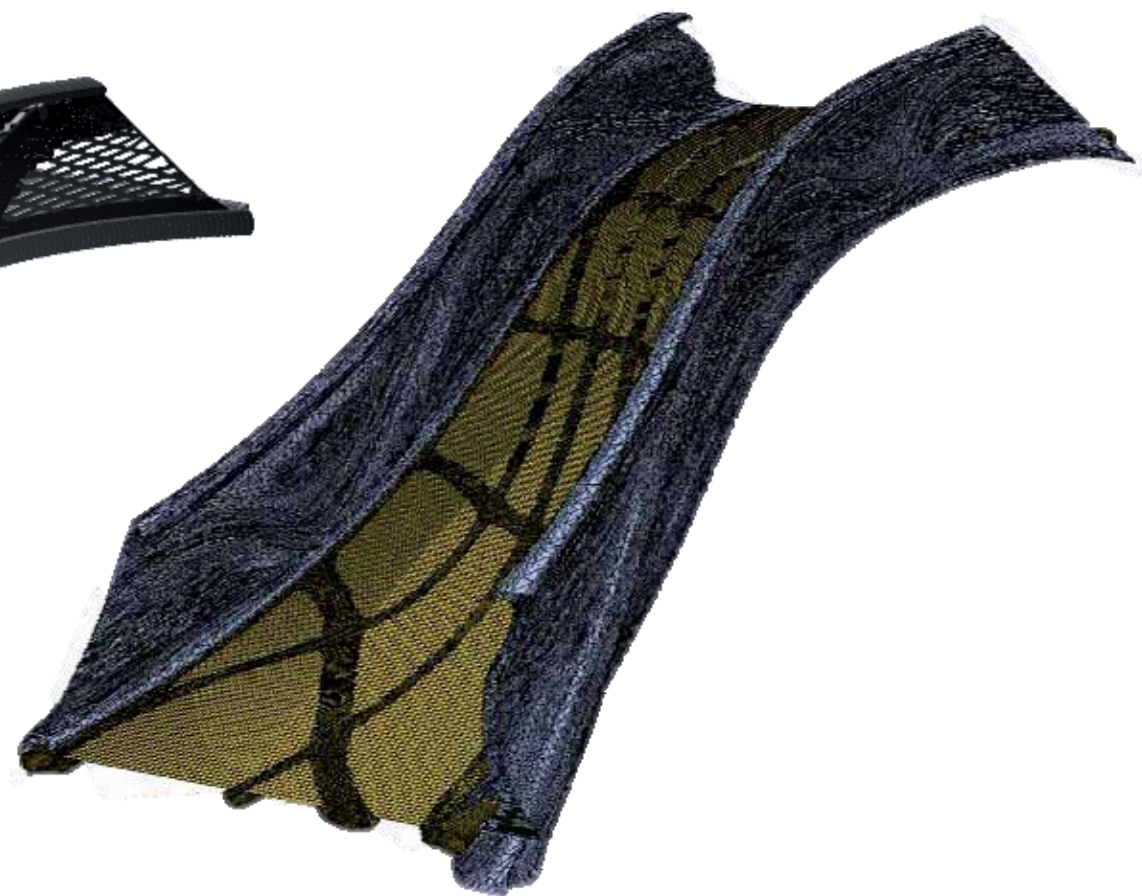


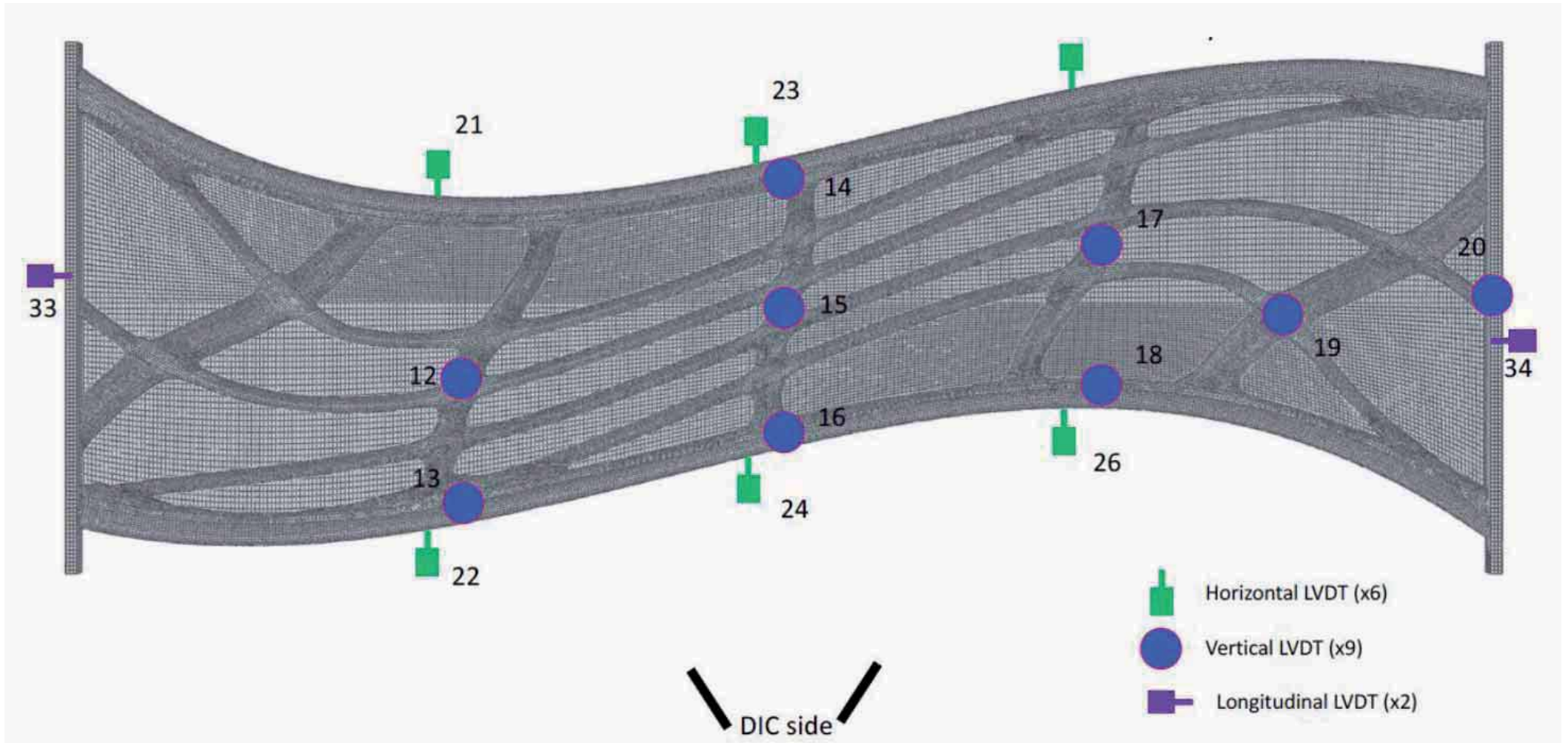




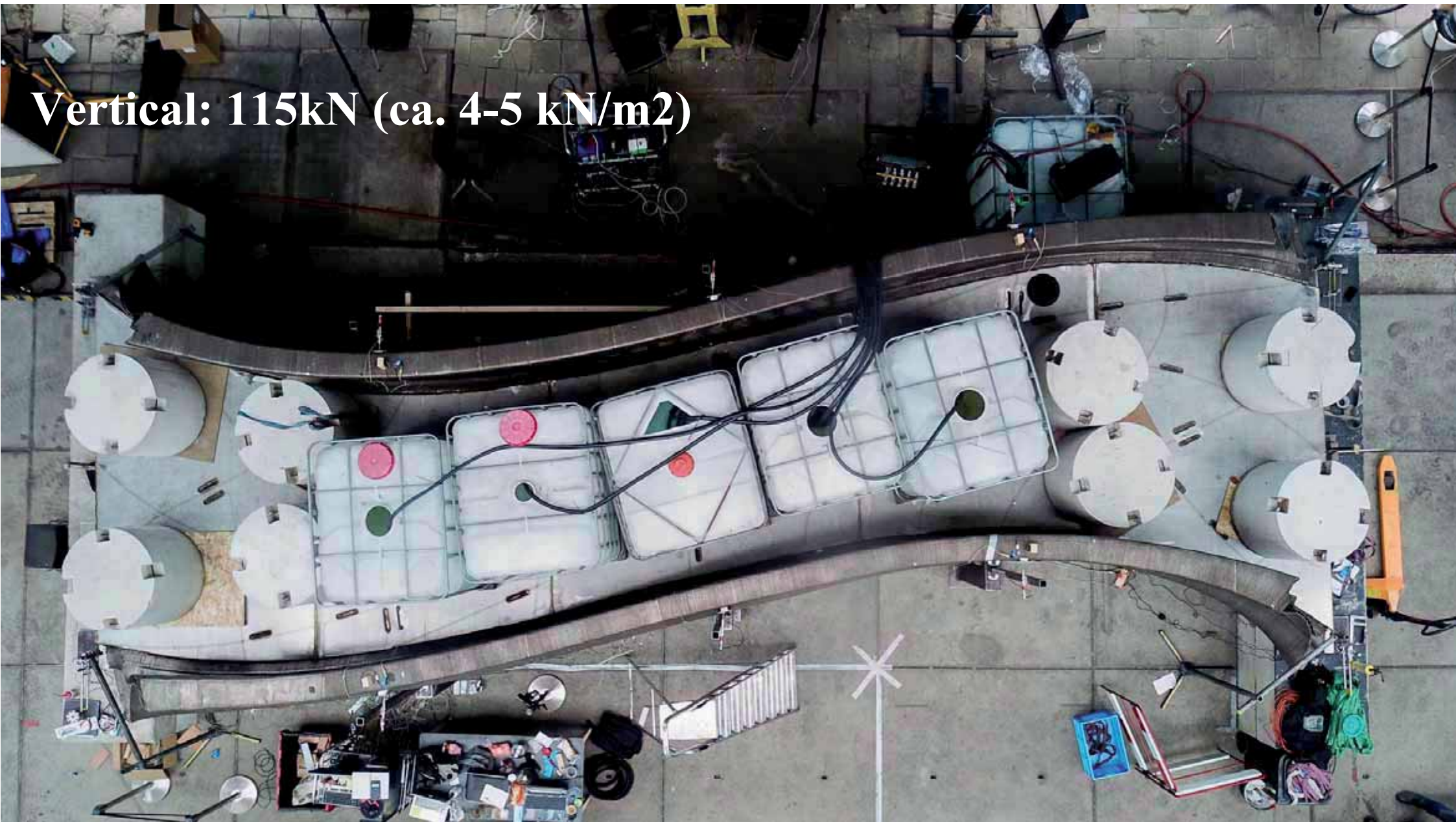






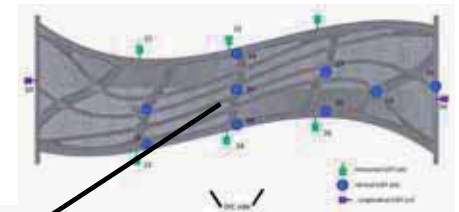
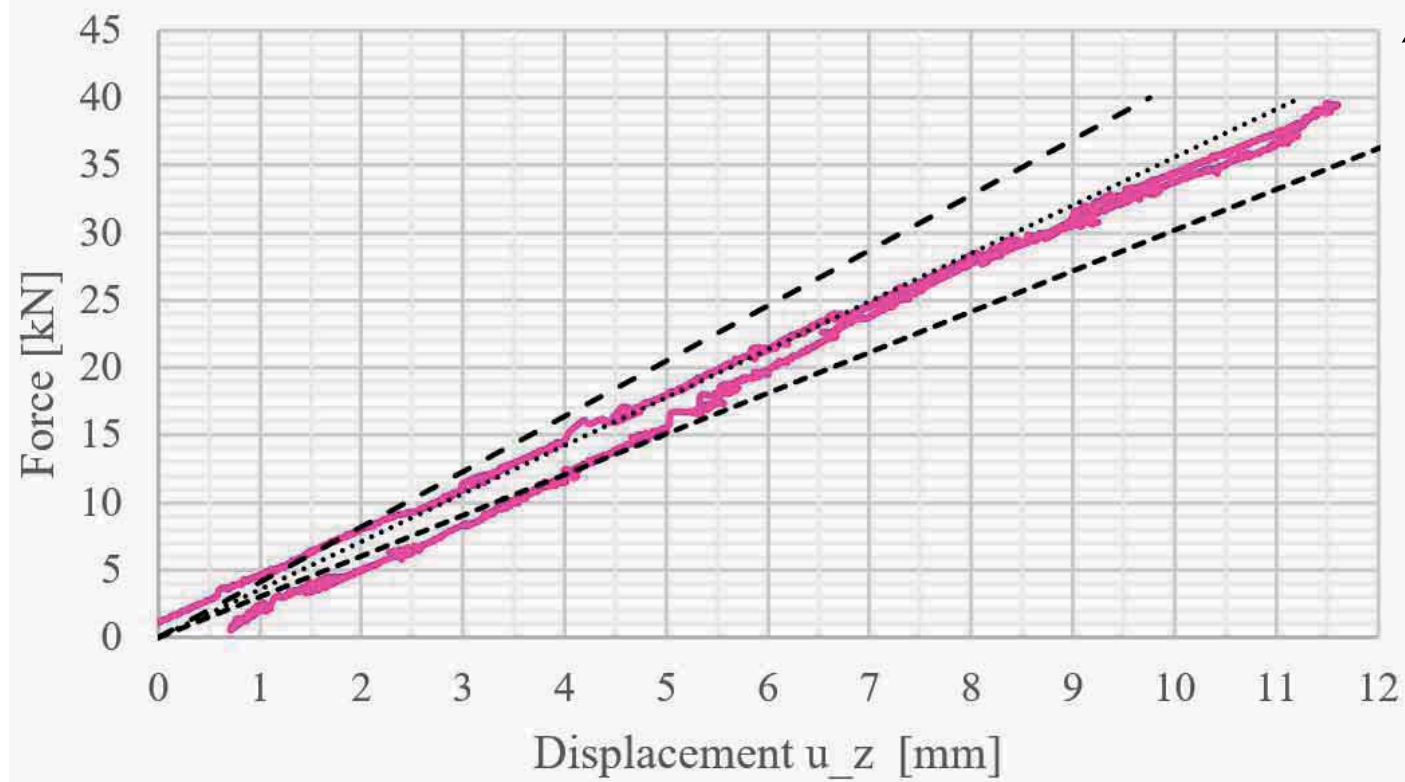


Vertical: 115kN (ca. 4-5 kN/m²)

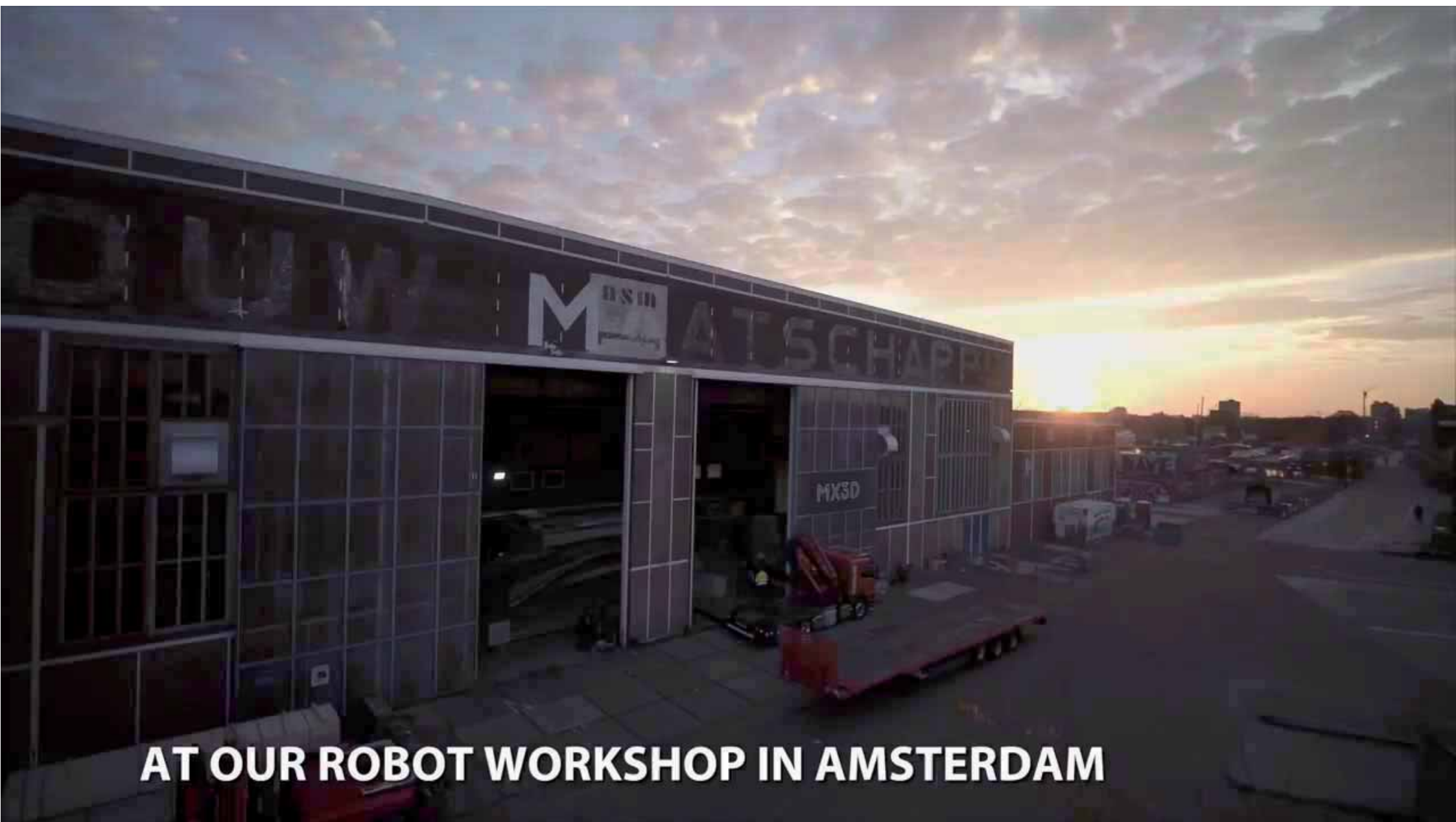


Horizontal: $3 \times 7,5 \text{ kN}$ (ca. 2 kN/m)









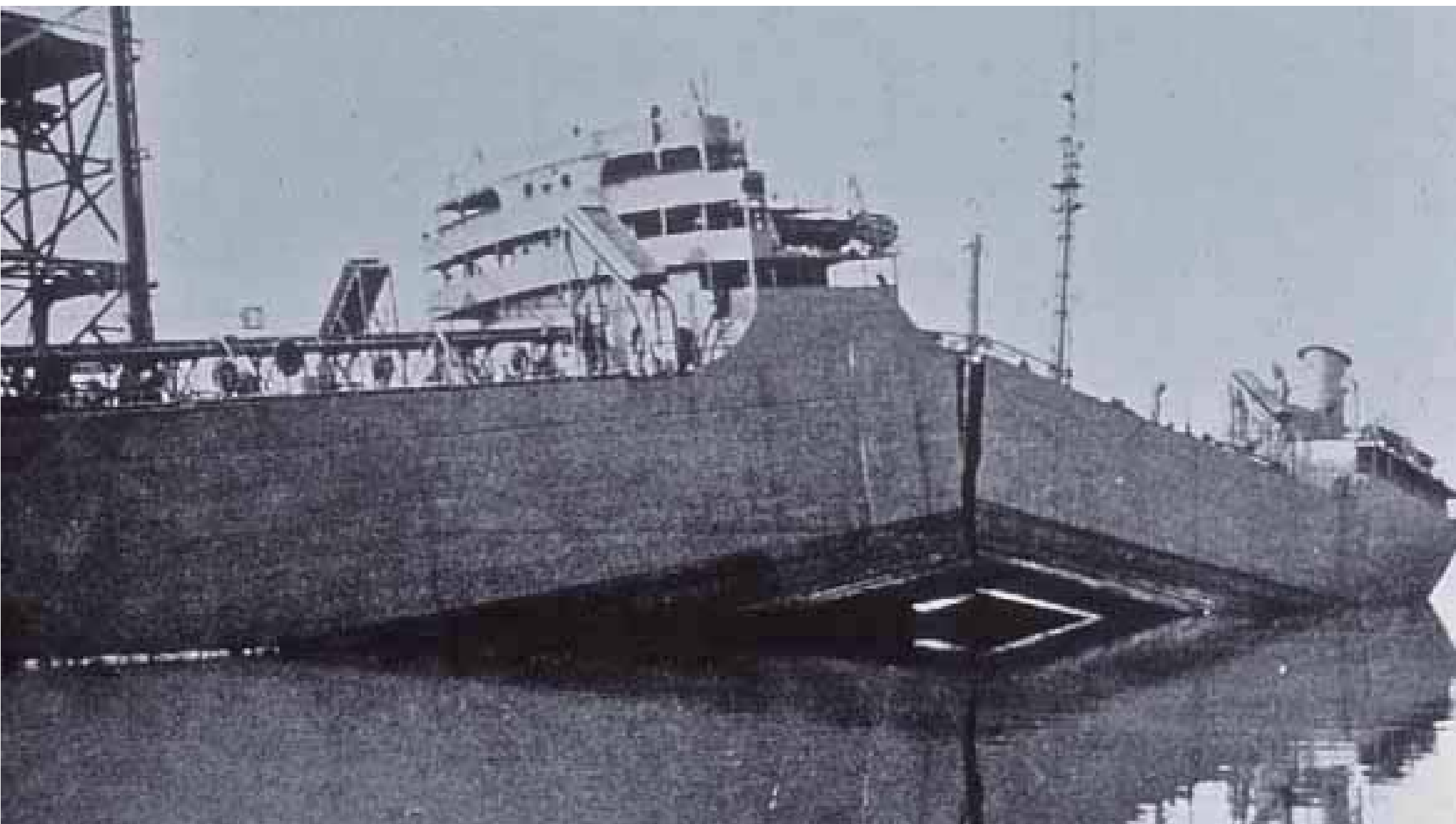
AT OUR ROBOT WORKSHOP IN AMSTERDAM



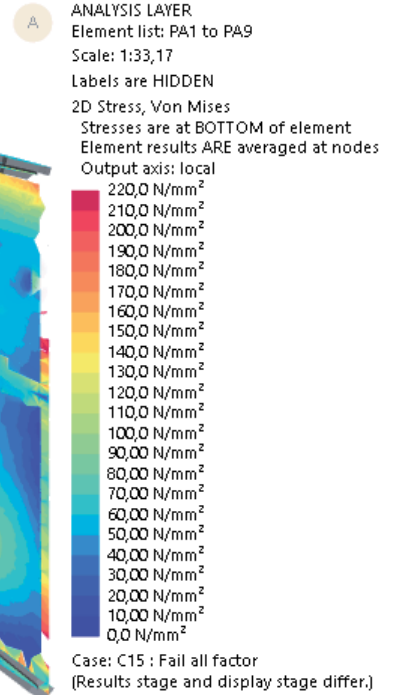
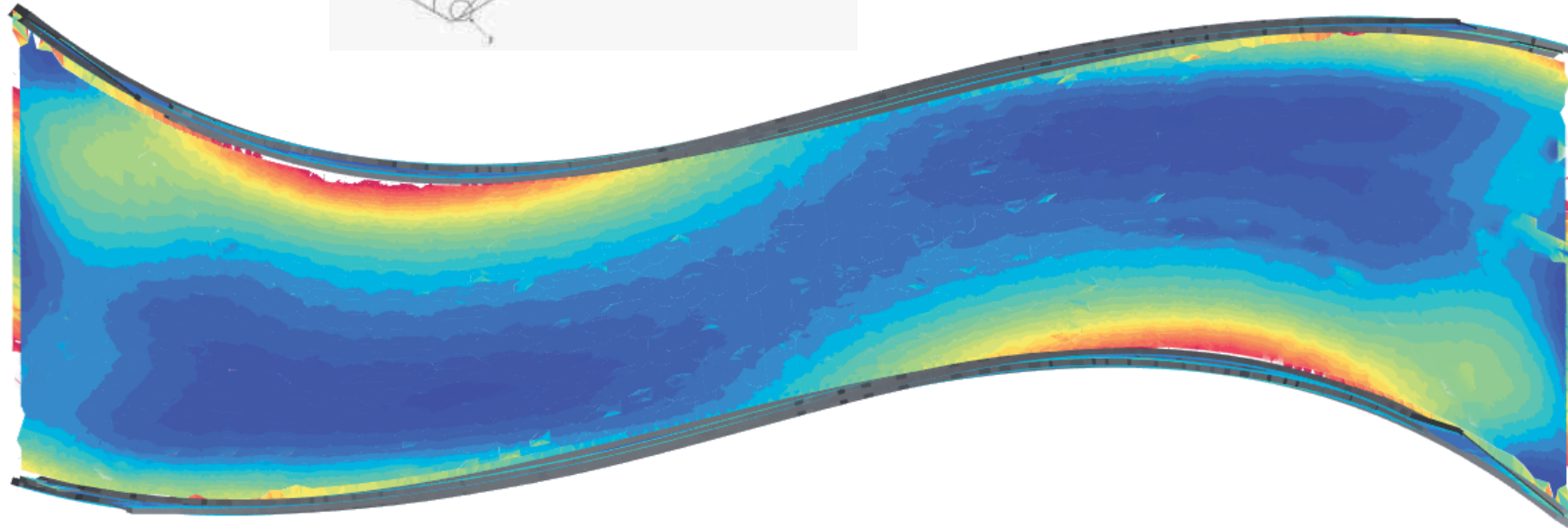
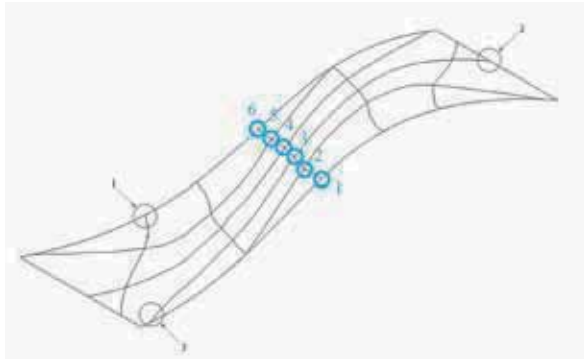
Full-scale ULS test

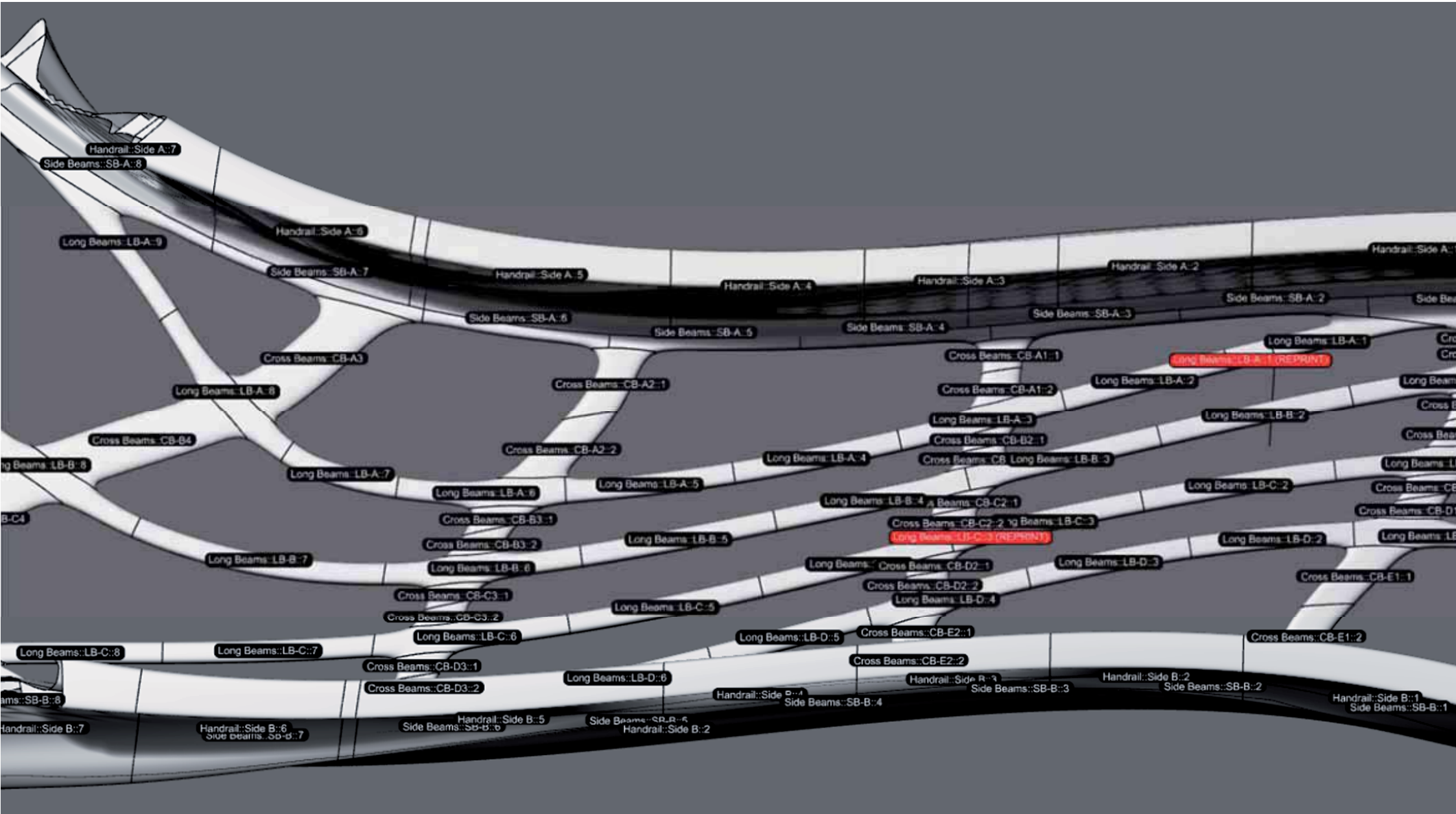


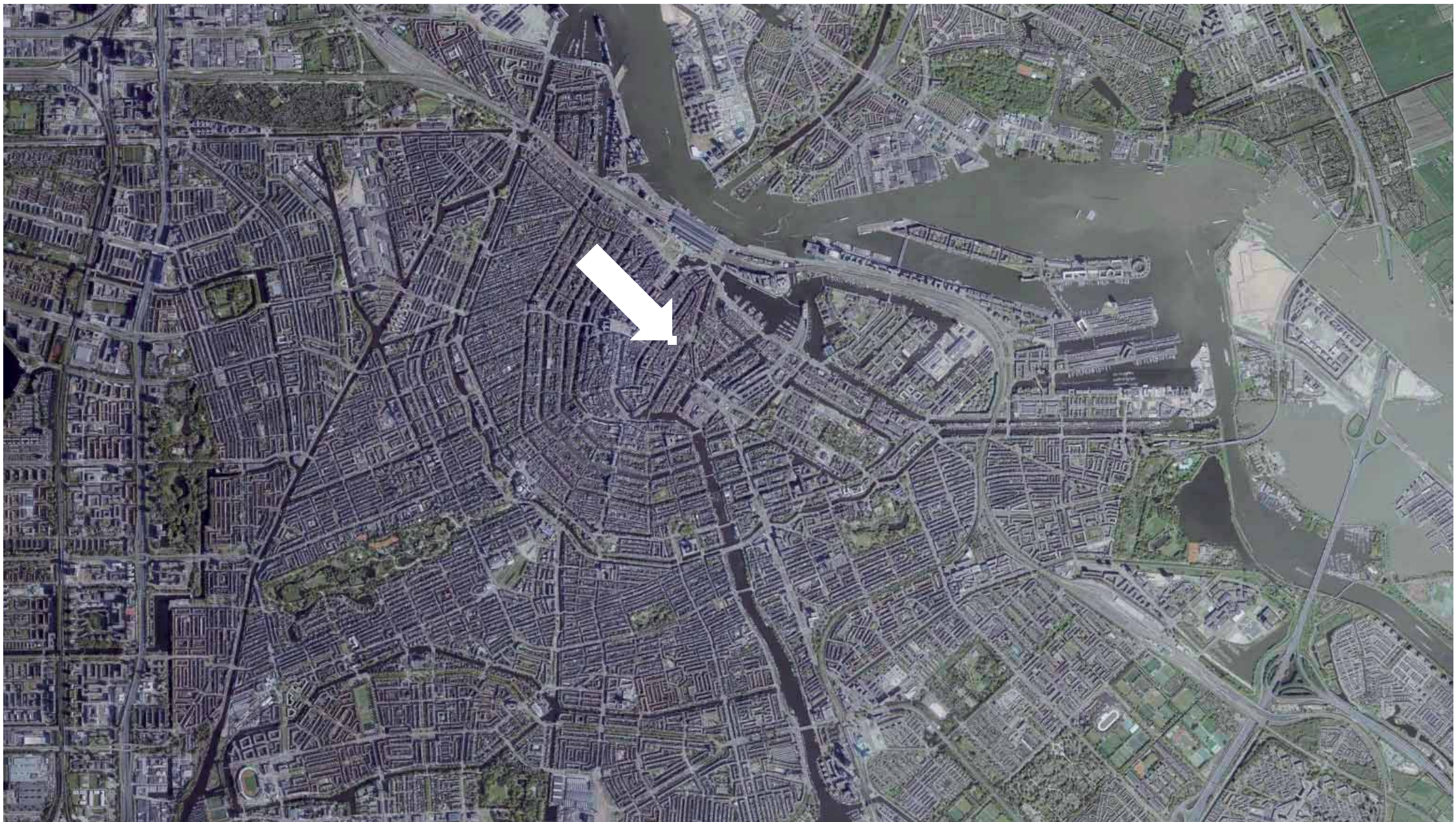


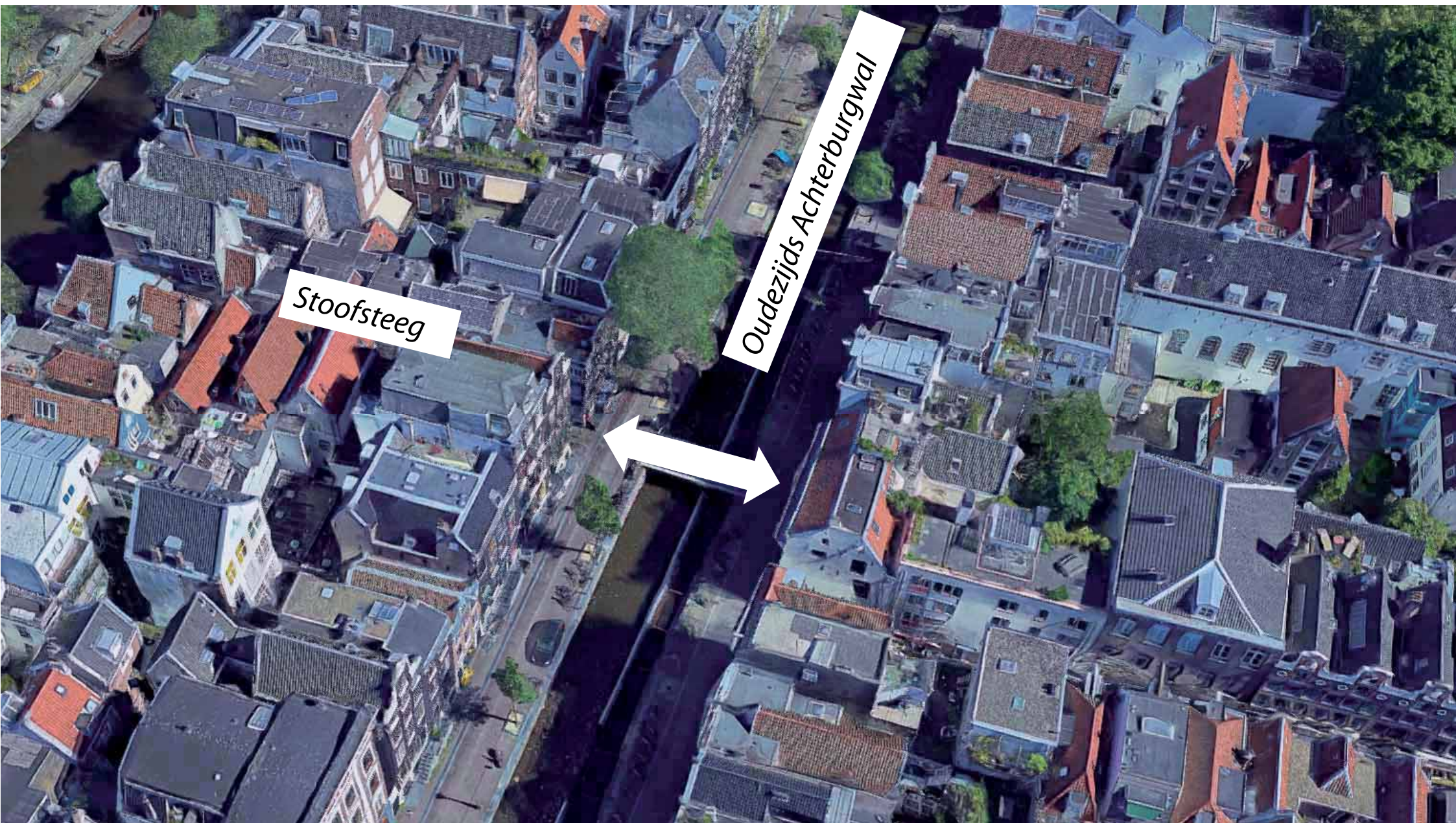












Stoofsteeg

Oudezijds Achterburgwal



Stoofsteeg

Tijdelijke brug

oude kade/
even zijde

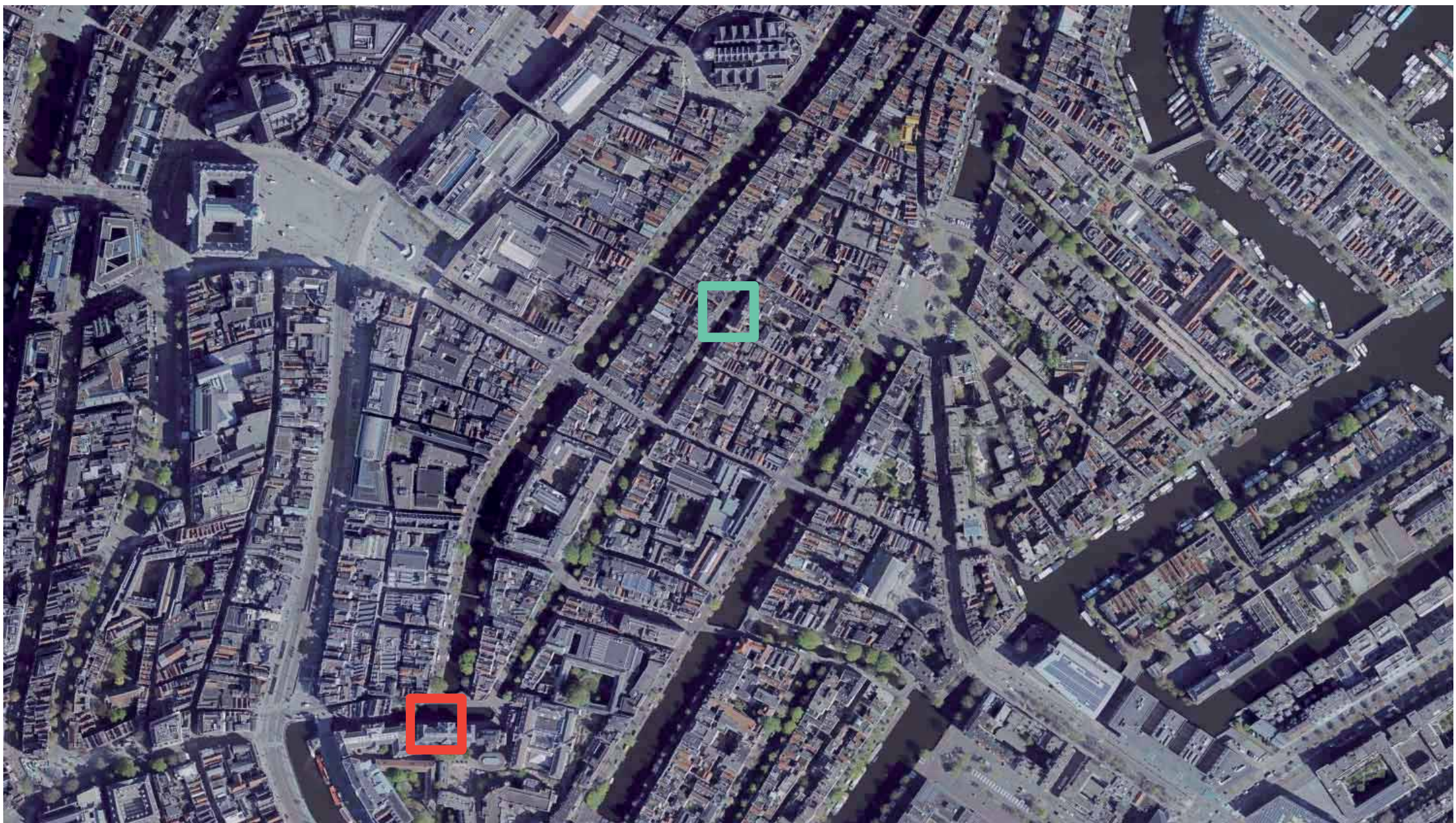
Oudezijds Achterburgwal

nieuwe kade/
oneven zijde





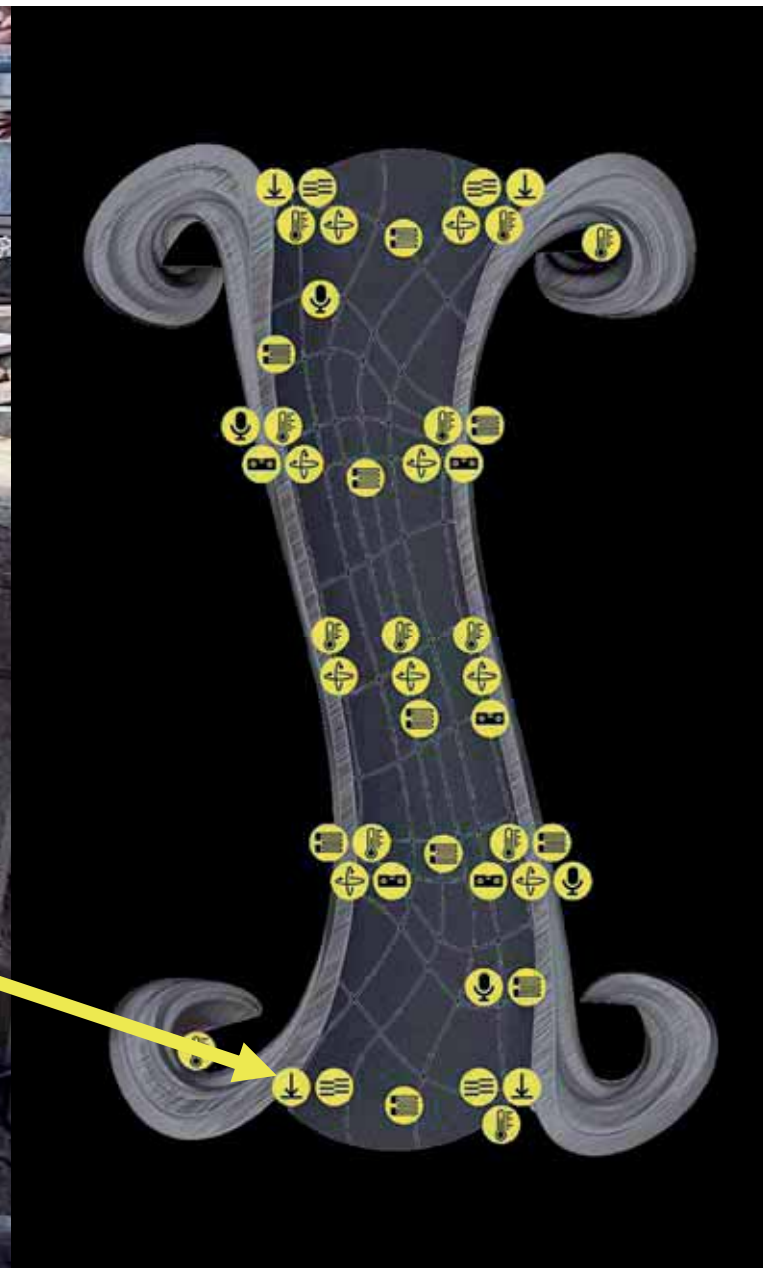










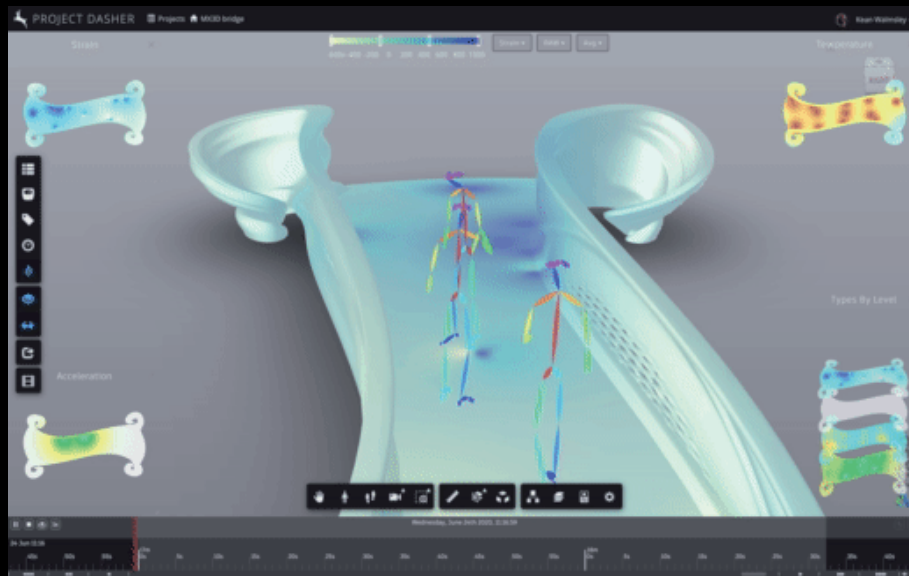




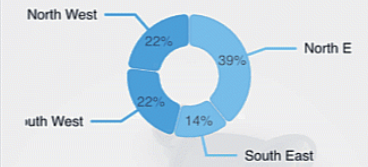








Load Distribution



Strain Gauge 7



Inclinometer 5



