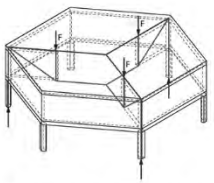


Tragwerksentwurf IV

Joseph Schwartz · Philippe Block



Von 2D zu 3D



1. Stahl



2. Stahlbeton



3. Holz



4. Mauerwerk



5. Konstruktionsdetails

Tragwerksentwurf III

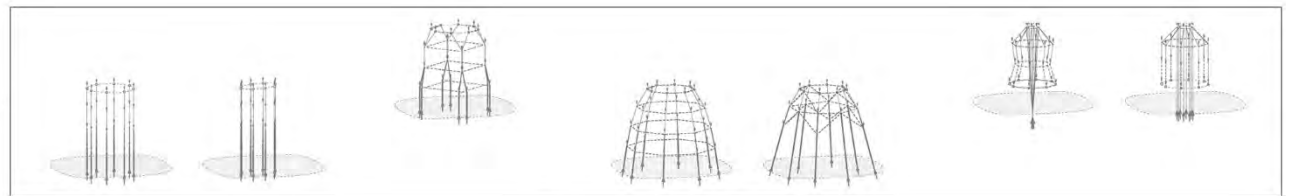
Tragwerksentwurf IV



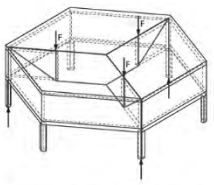
1. Von 2D zu 3D



2. Architektur
und Tragwerk



Entwurfsprojekt



Von 2D zu 3D



1. Stahl



2. Stahlbeton



3. Holz



4. Mauerwerk



5. Konstruktionsdetails

Tragwerksentwurf III

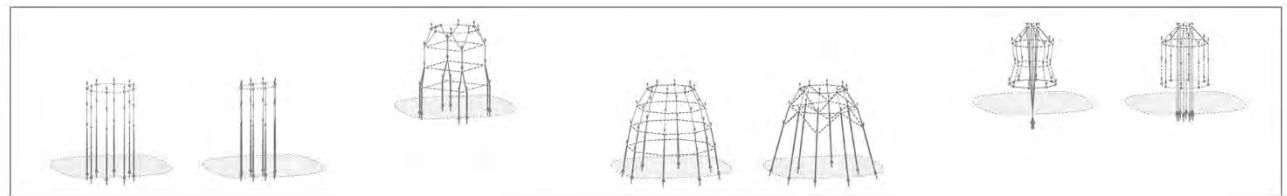
Tragwerksentwurf IV



1. Von 2D zu 3D



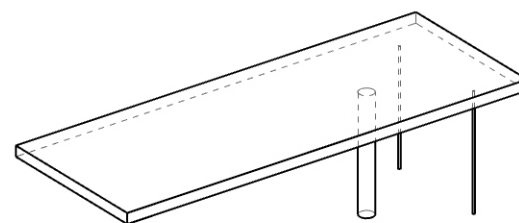
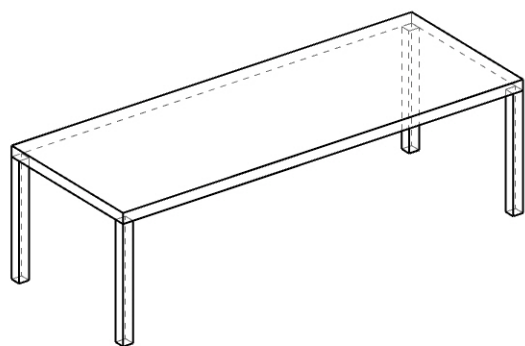
2. Architektur
und Tragwerk



Entwurfsprojekt

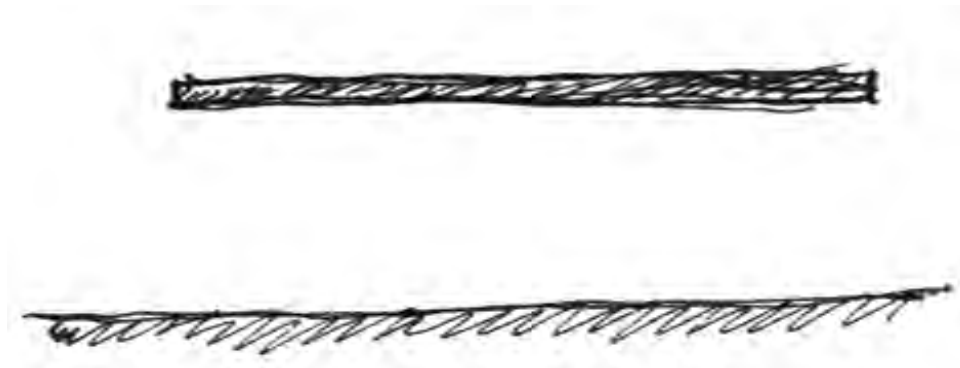
Architektur und Tragwerk



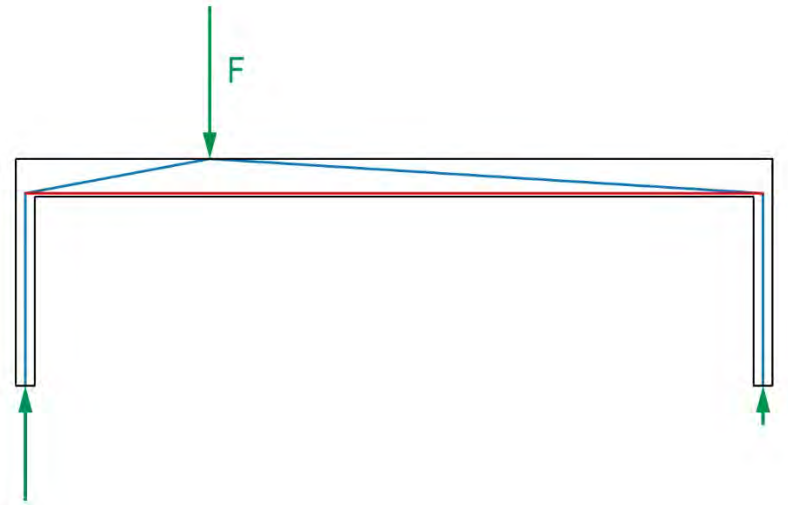
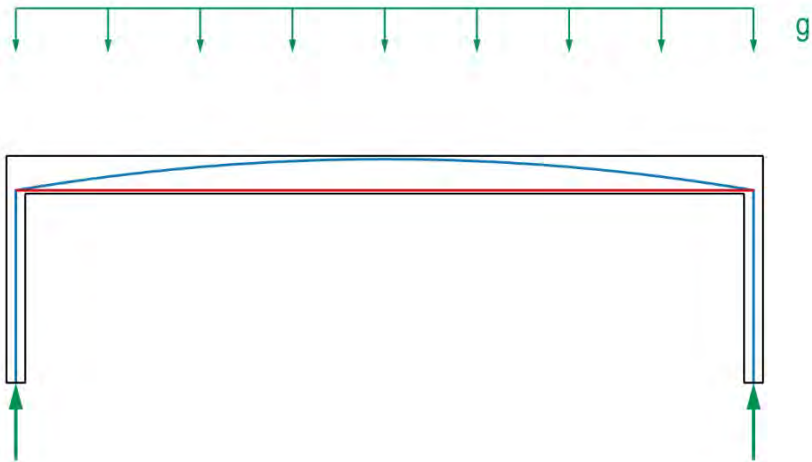


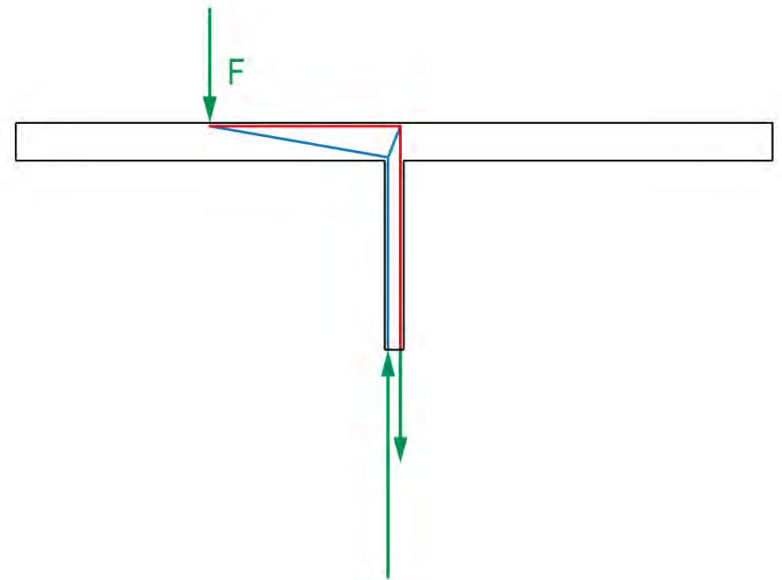
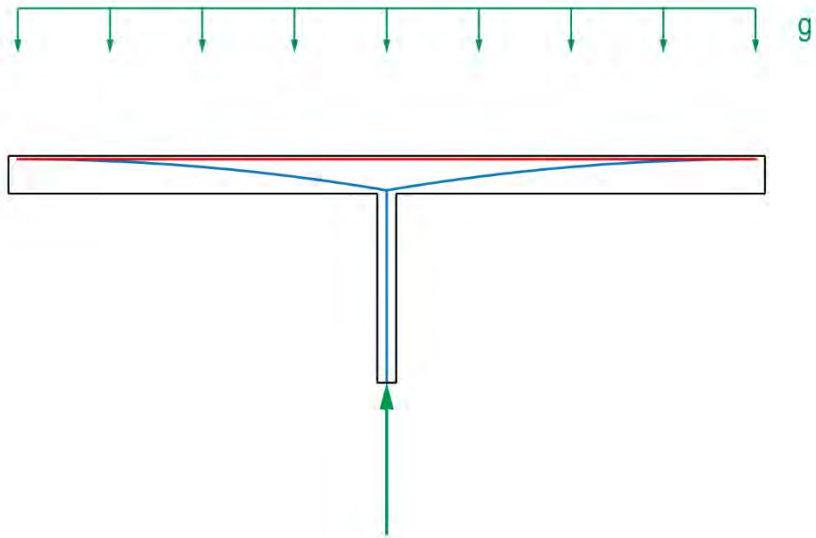


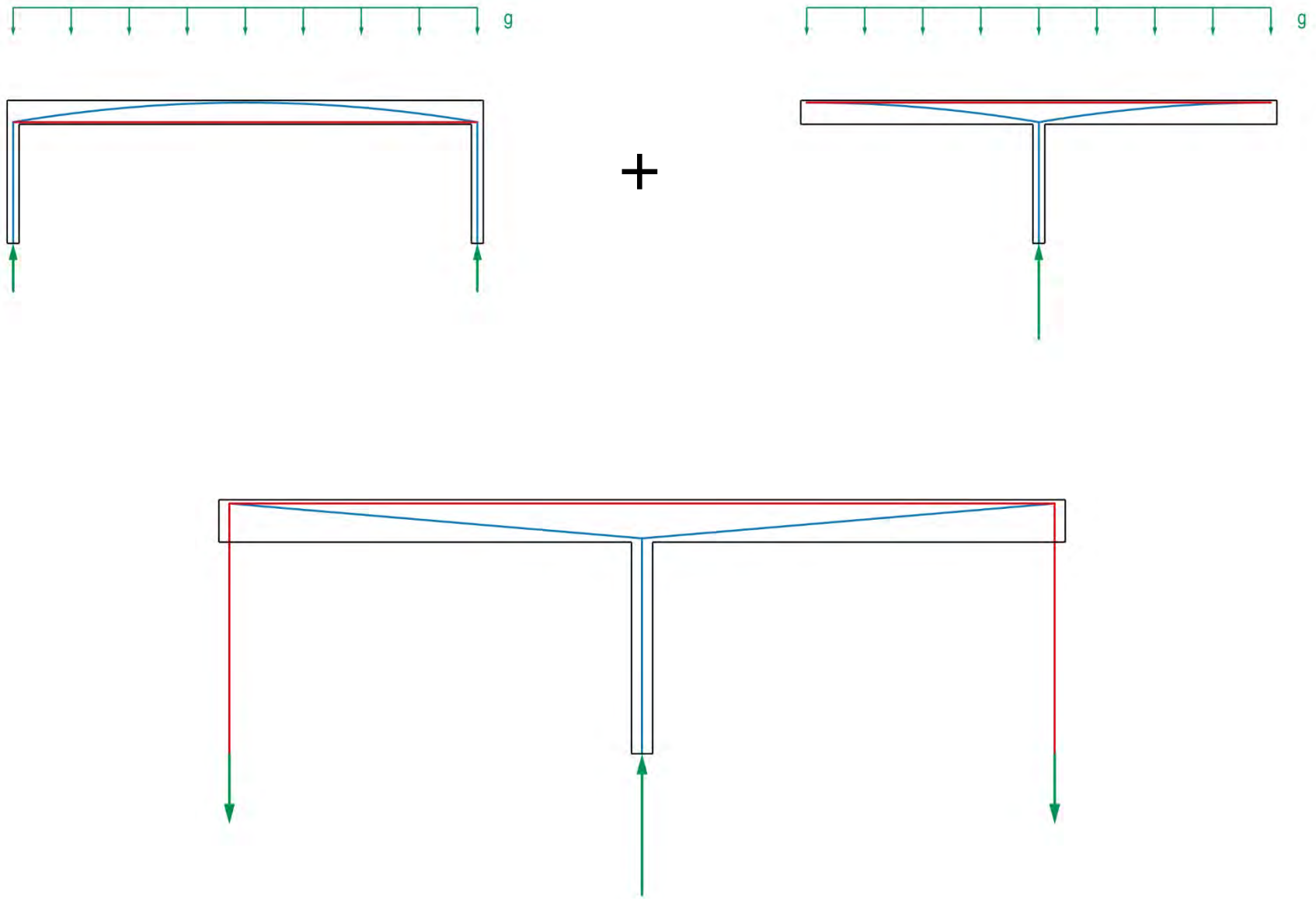
Counterpoise, Zürich, 2008, Professur für Tragwerksentwurf

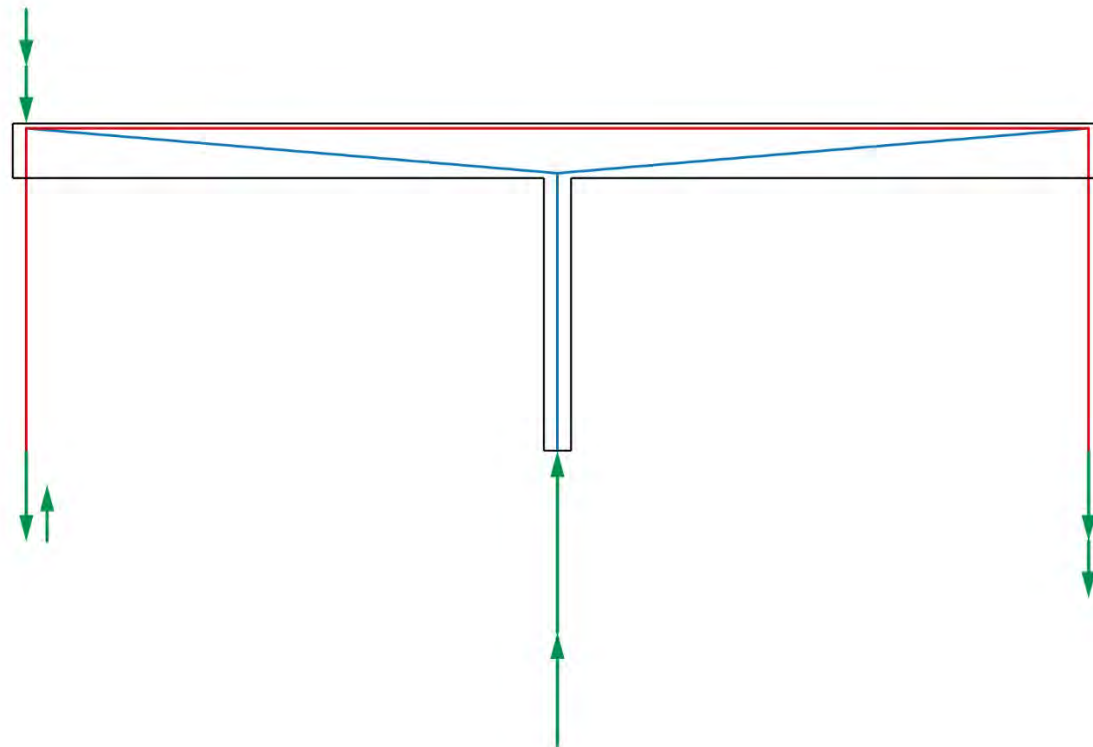


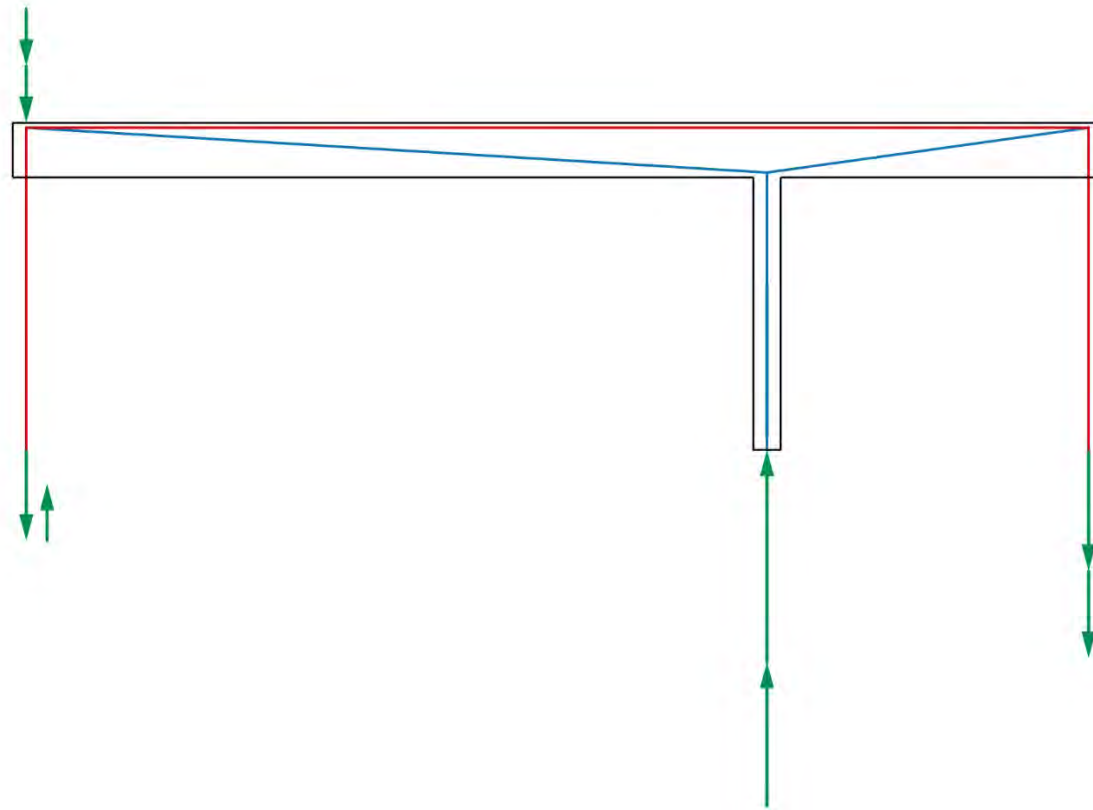
Der Begriff ‚Tisch‘ hat seine etymologischen Wurzeln im griechischen dishos, die Scheibe, und beschreibt ein Möbel welches charakterisiert ist durch die Horizontalität der Tischplatte. Das Projekt Counterpoise ist der Versuch einer Betonung dieser Horizontalität durch die Erzeugung eines Ausdrucks von Schweben mittels kombinatorischer Variation von typischem Tragverhalten.

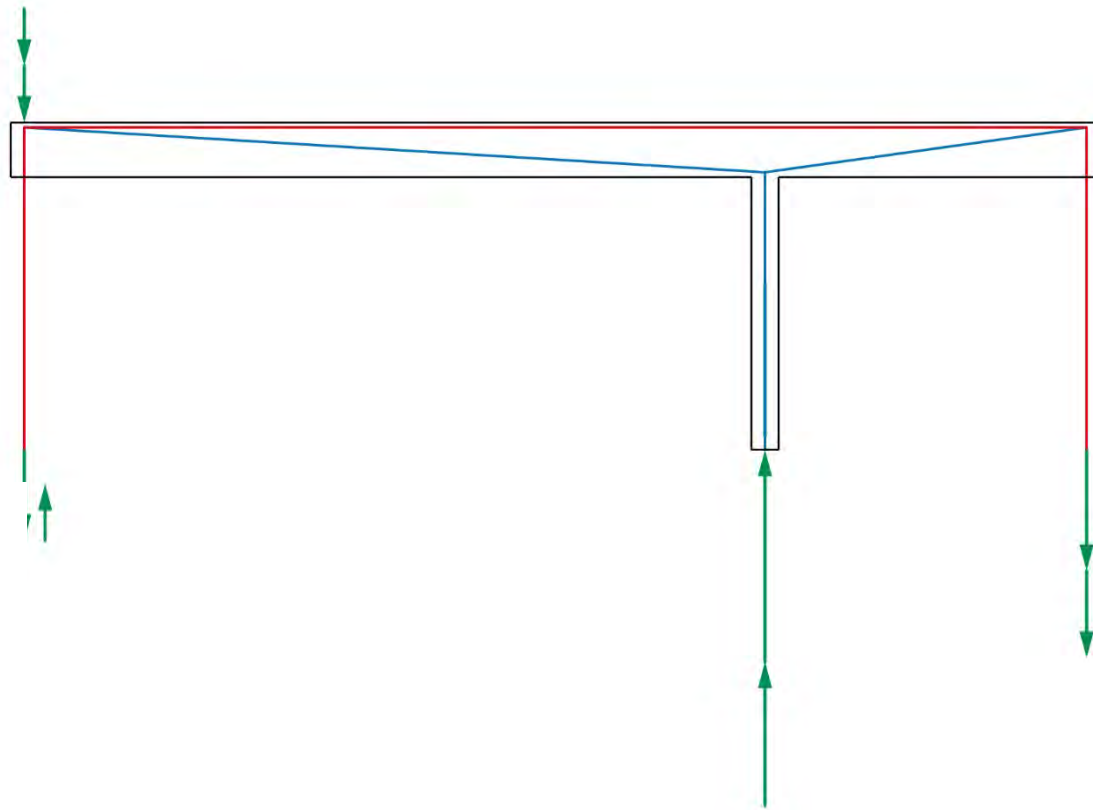


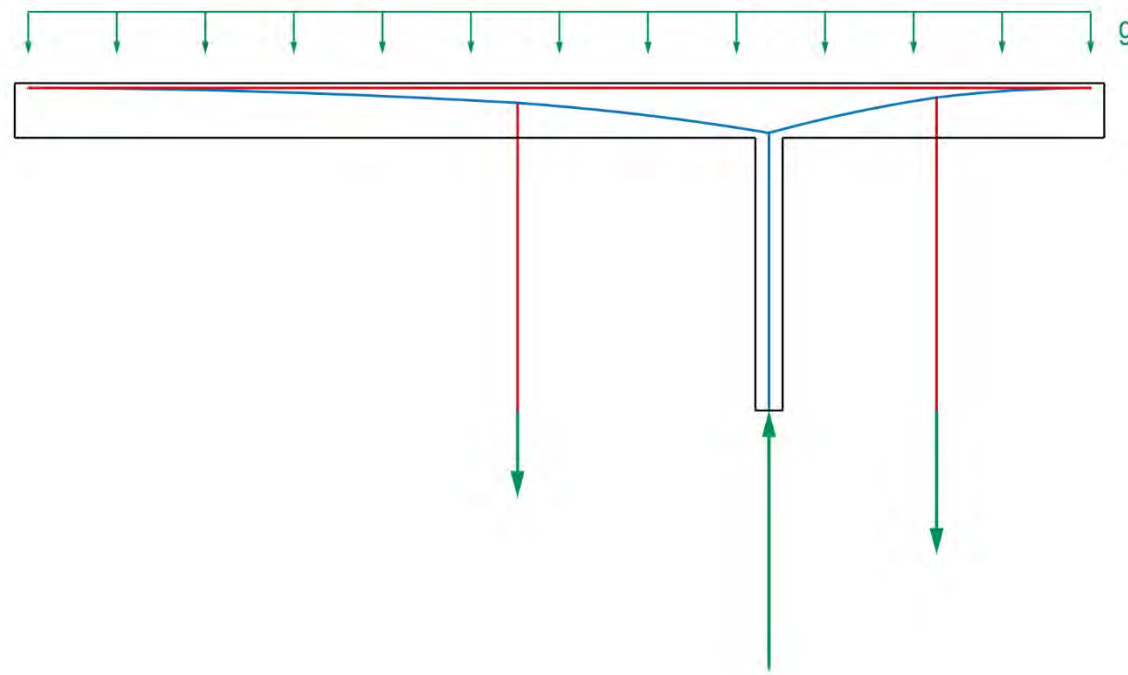
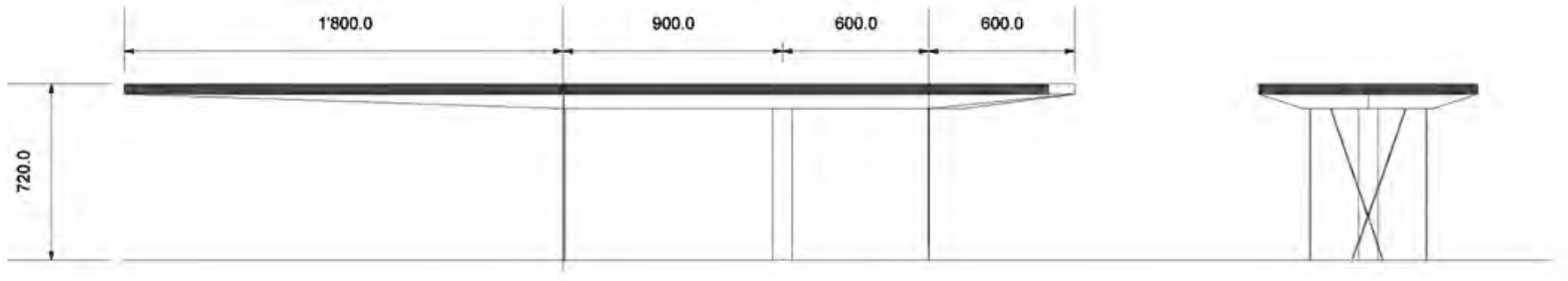










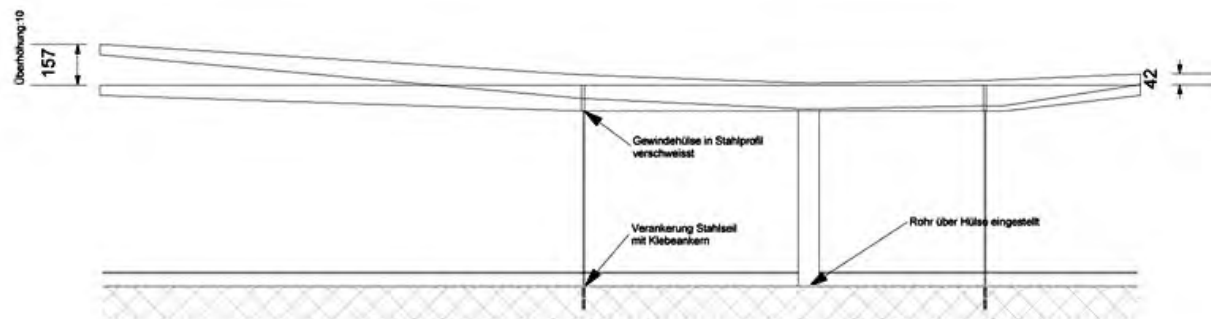


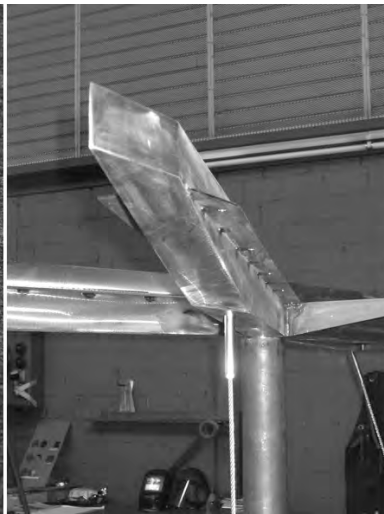
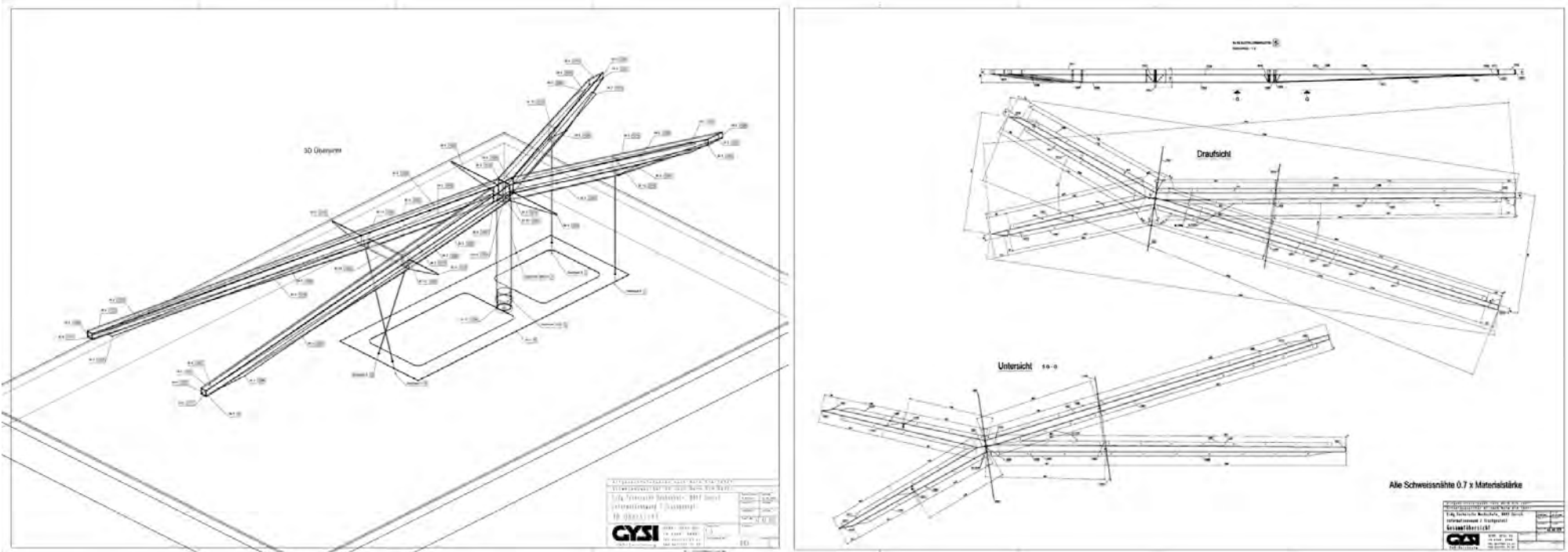


Counterpoise, Zürich, 2008, Professur für Tragwerksentwurf

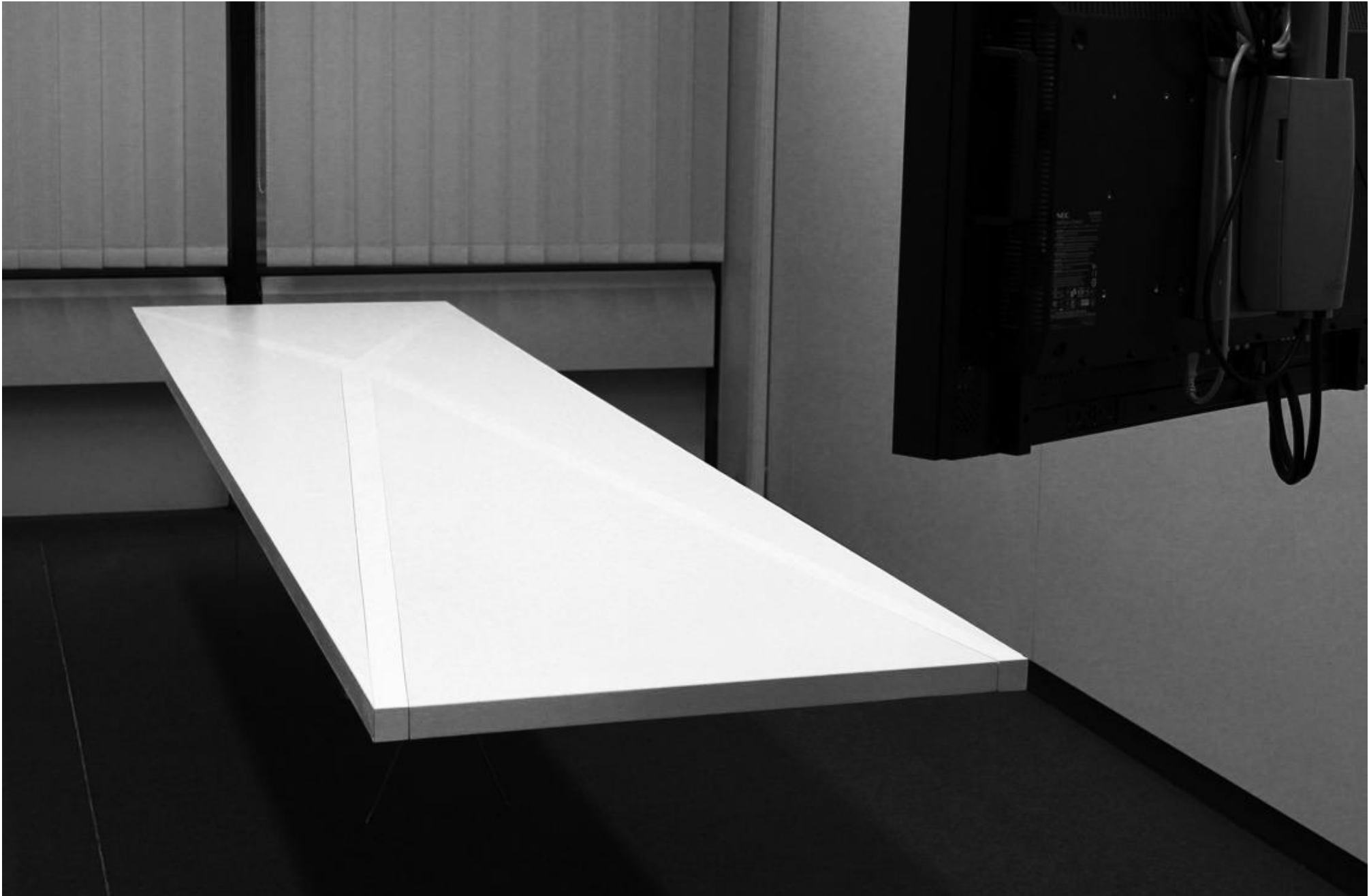


Counterpoise, Zürich, 2008, Professur für Tragwerksentwurf

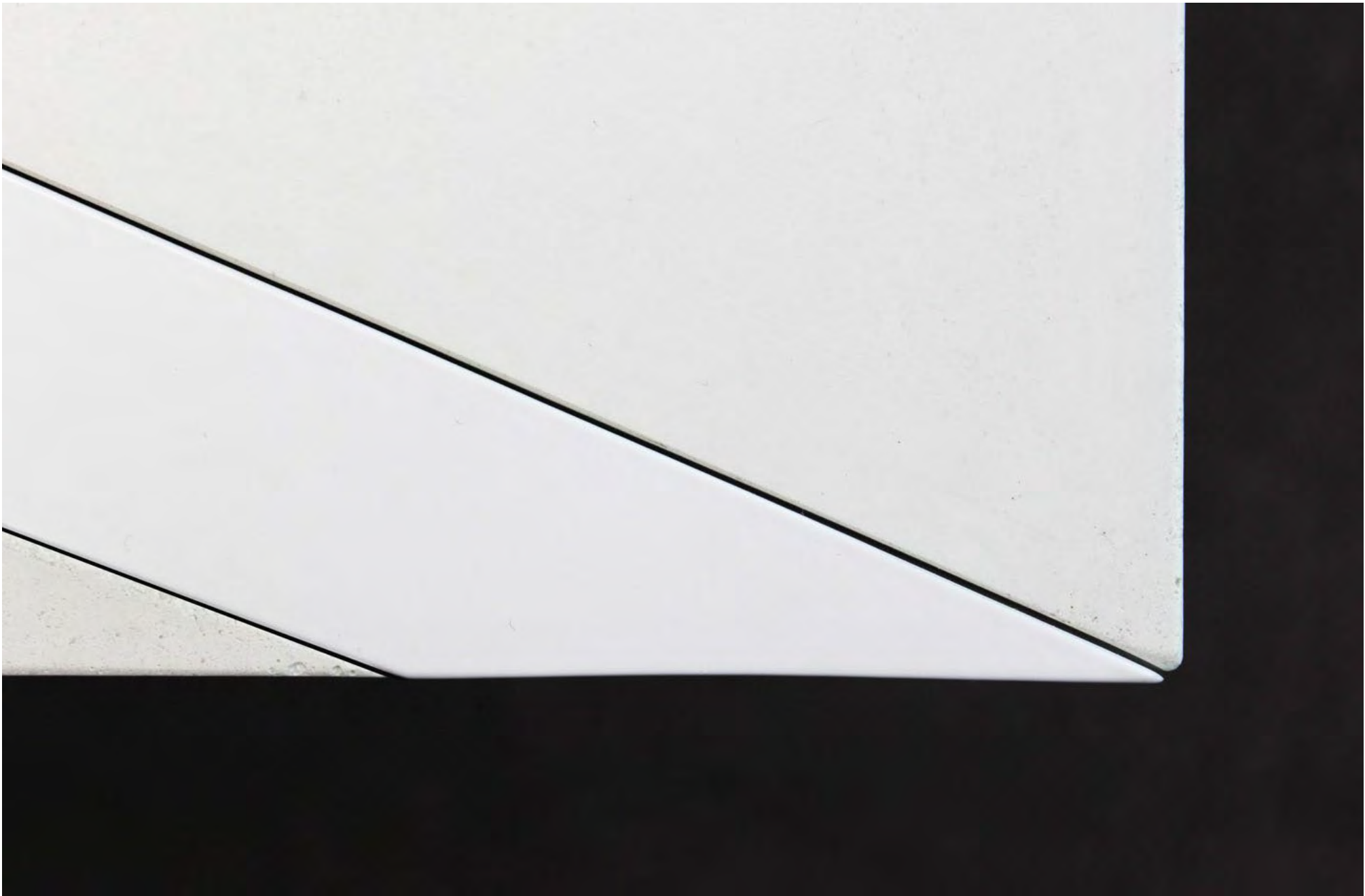


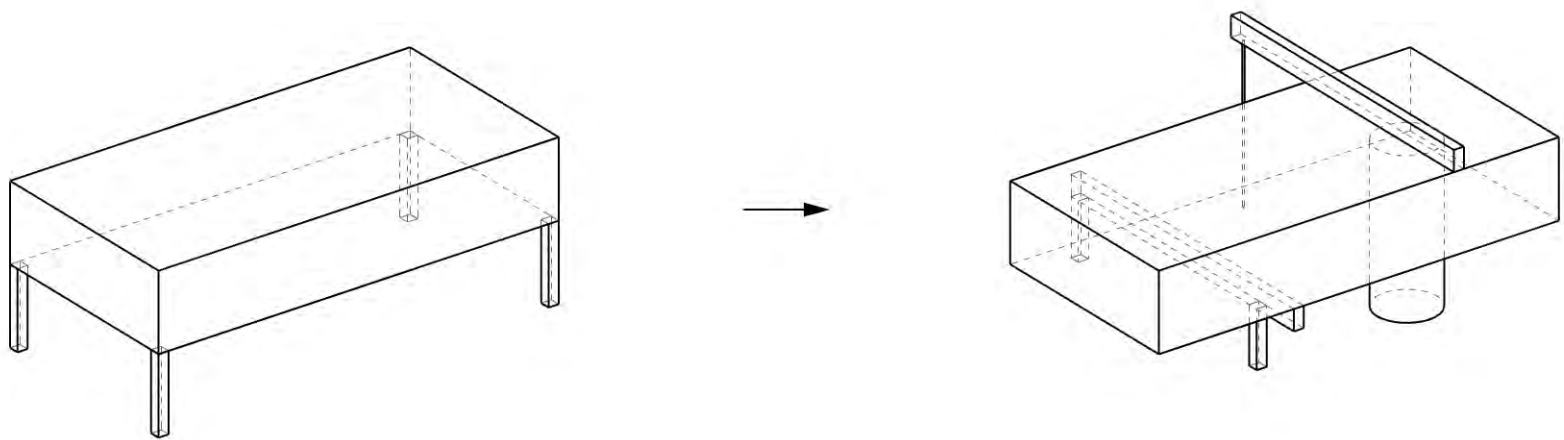


Counterpoise, Zürich, 2008, Professur für Tragwerksentwurf



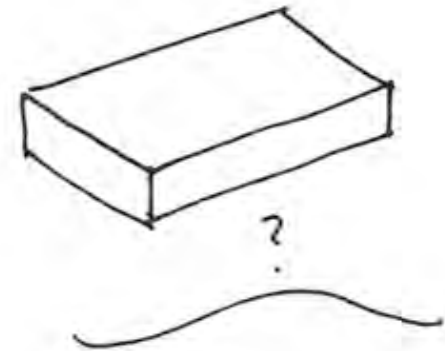
Counterpoise, Zürich, 2008, Professur für Tragwerksentwurf





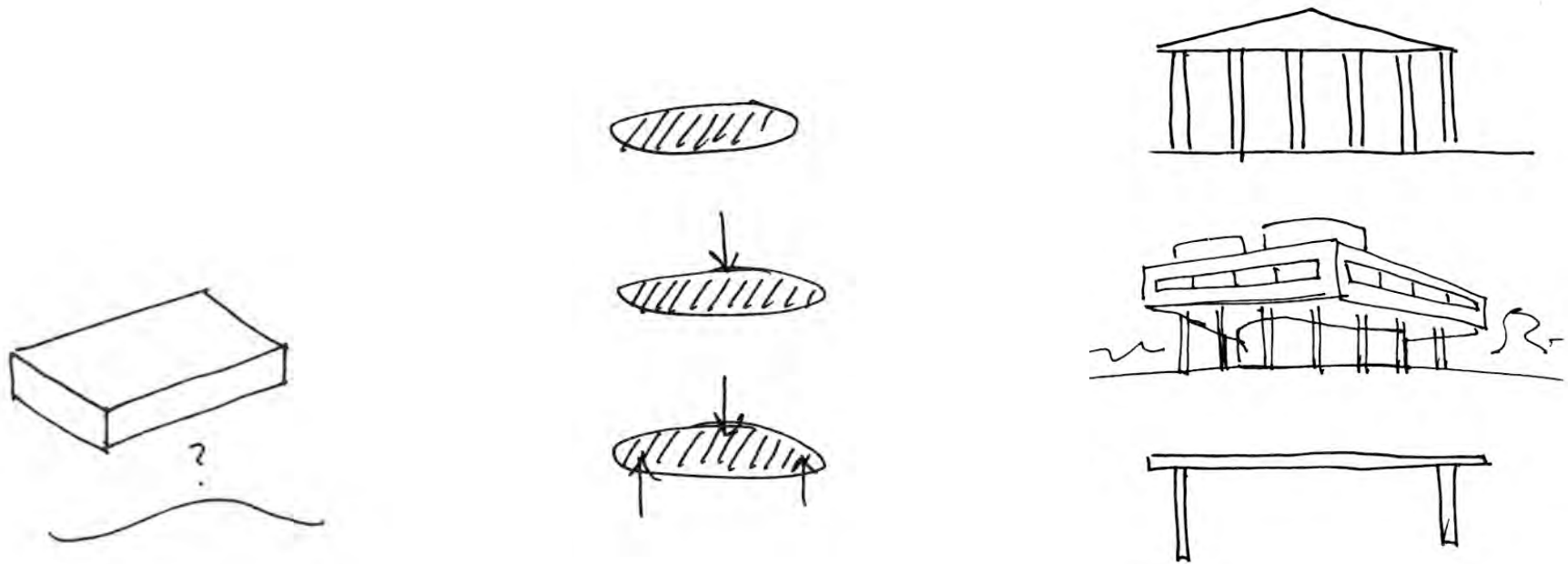


Maison à Floirac, Bordeaux, 1994-1998, Arch.: Rem Koolhaas, Ing: Cecil Balmond.



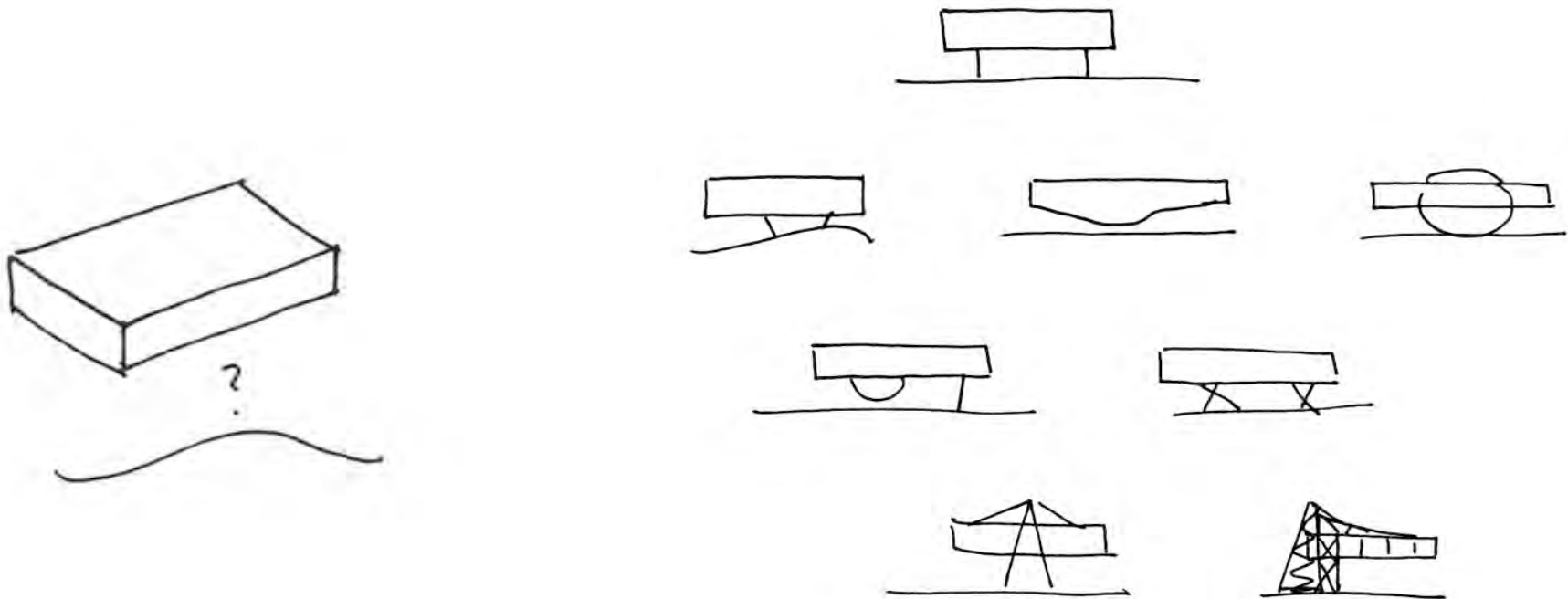
“Rem Koolhaas phones me. As usual the voice is urgent, full of convictions and ambitions, the language poised beautifully on extreme polarities. He has an unusual request, to make a villa in Bordeaux ‘fly’. The project is on a fantastic site with panoramic views over the rich, wine-laden city stretching along the river.”

Cecil Balmond

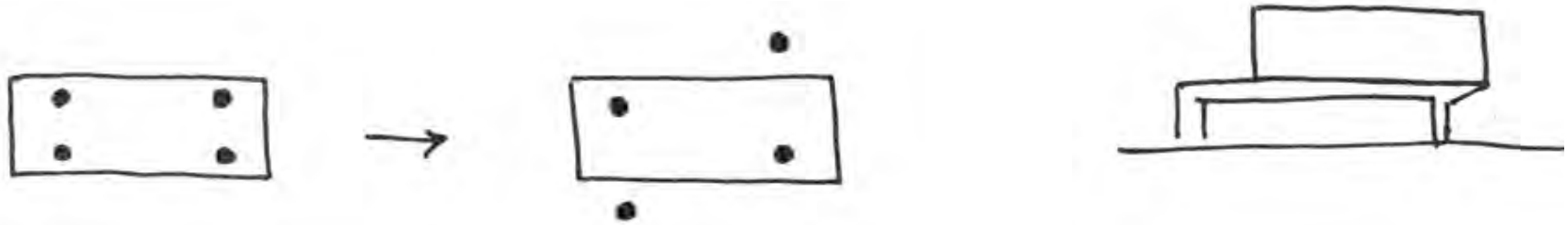


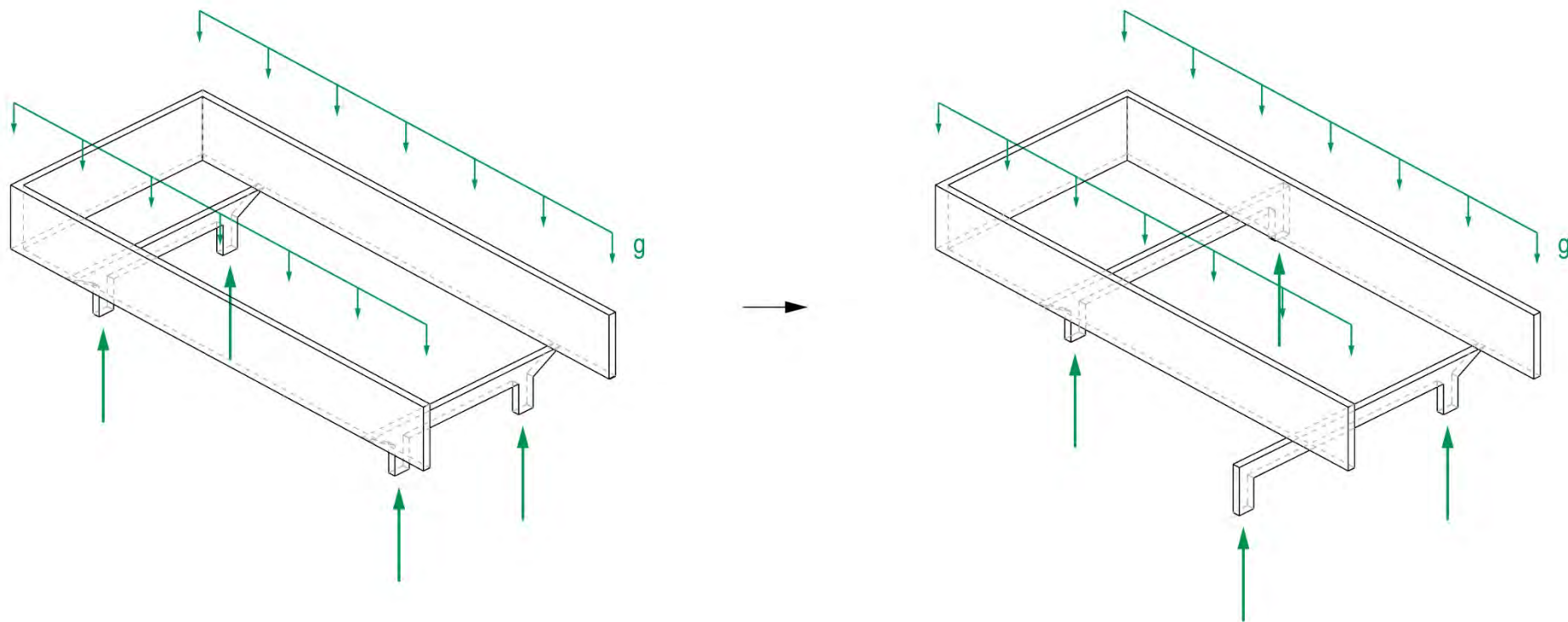
“No matter how the columns were placed beneath the load the generic concept of table came back, and with it the imprint of an ‘anchor’ killing off the ambition.”

Cecil Balmond

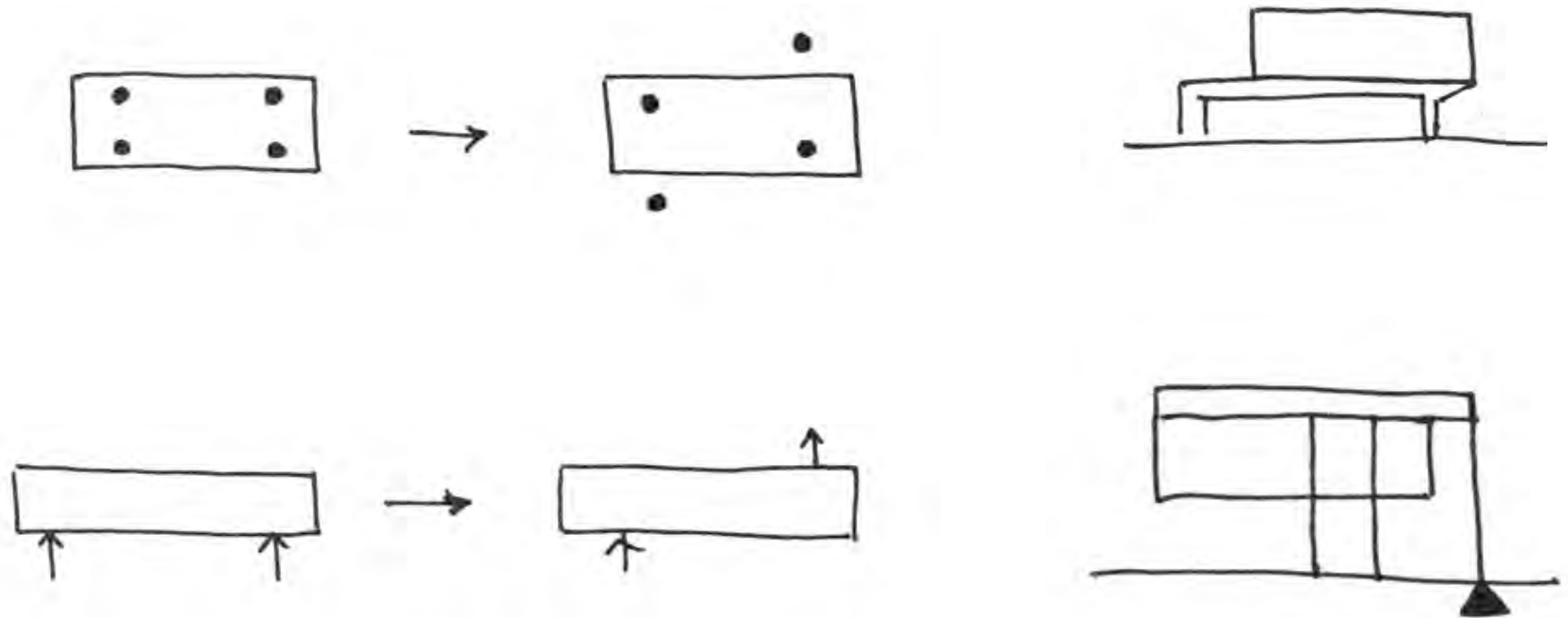


Maison à Floirac, Bordeaux, 1994-1998, Arch.: Rem Koolhaas, Ing: Cecil Balmond.

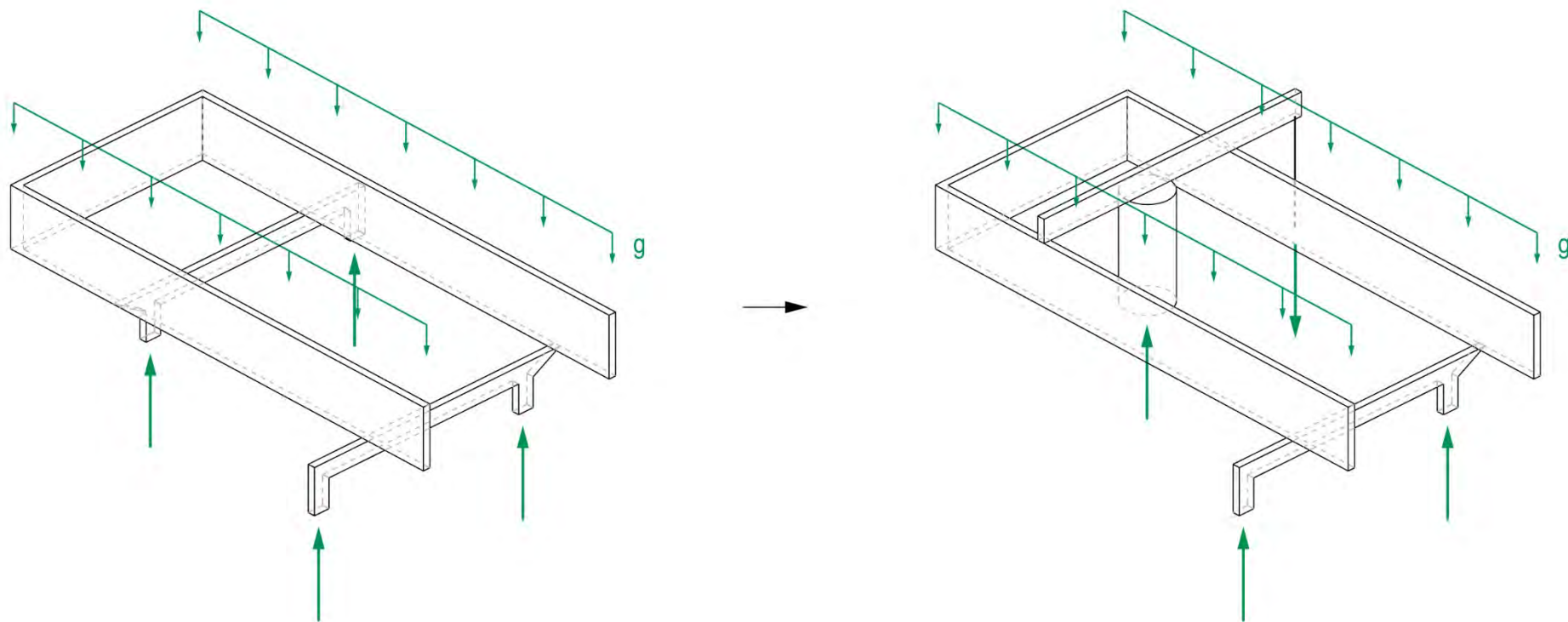


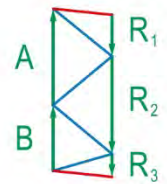
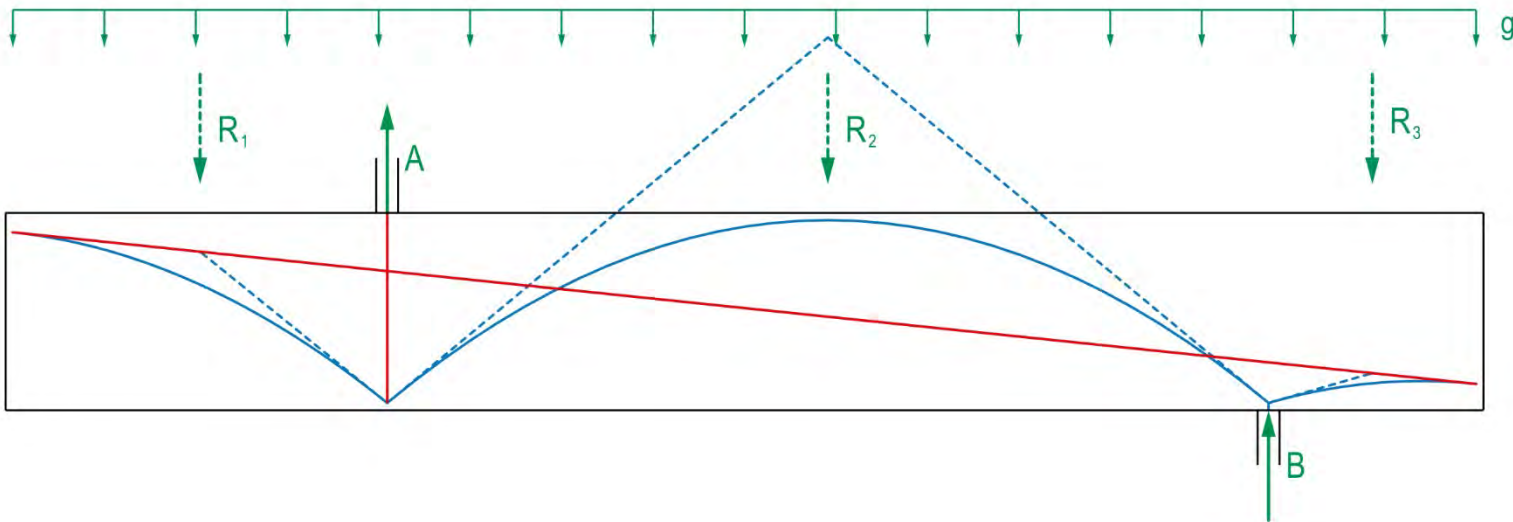
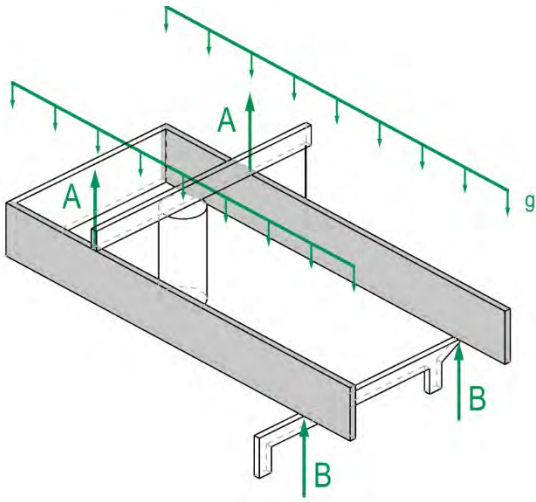


Maison à Floirac, Bordeaux, 1994-1998, Arch.: Rem Koolhaas, Ing: Cecil Balmond.

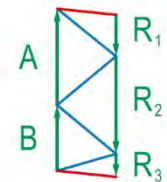
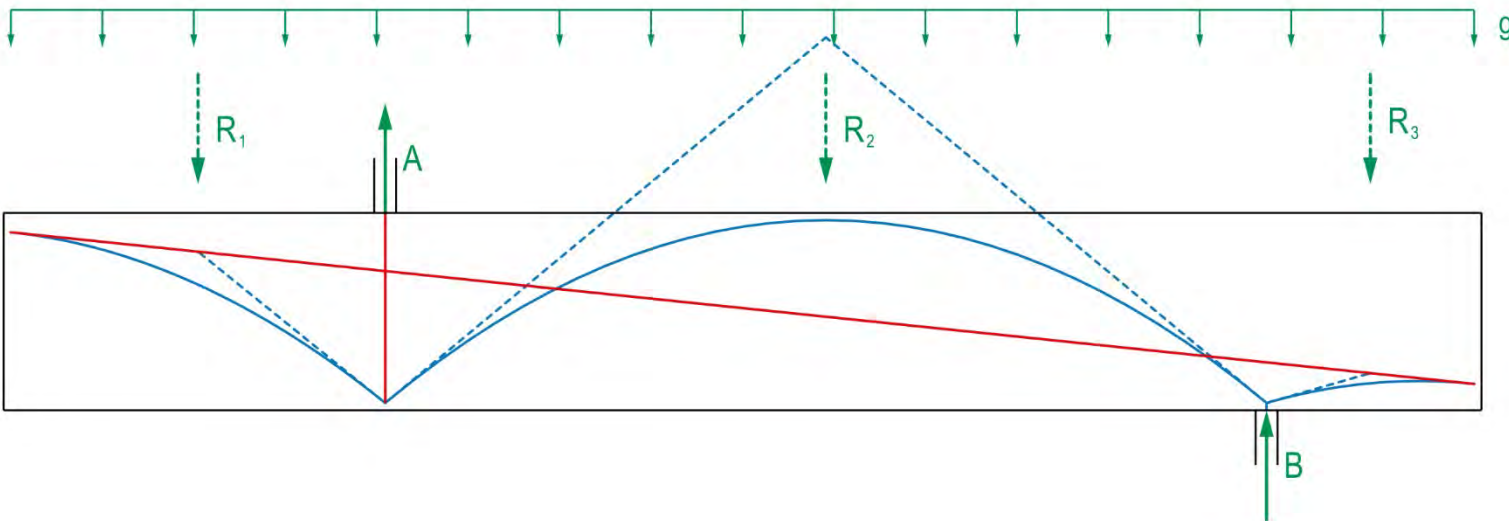
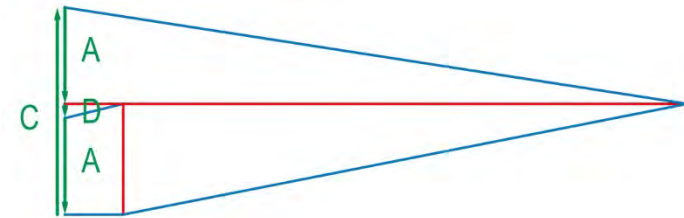
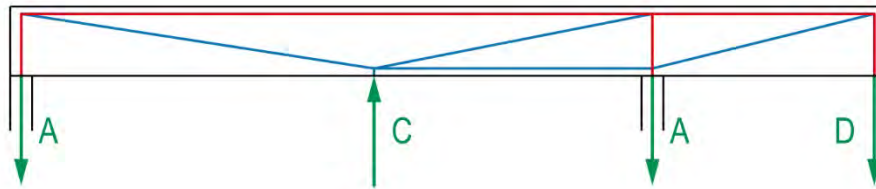
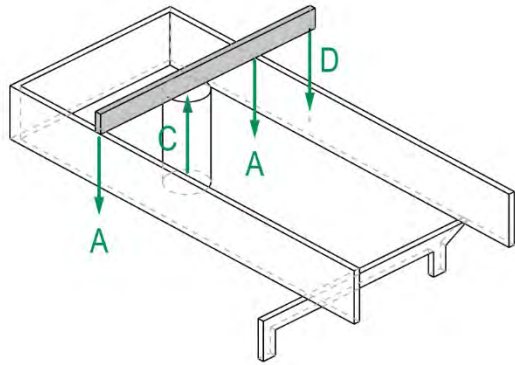


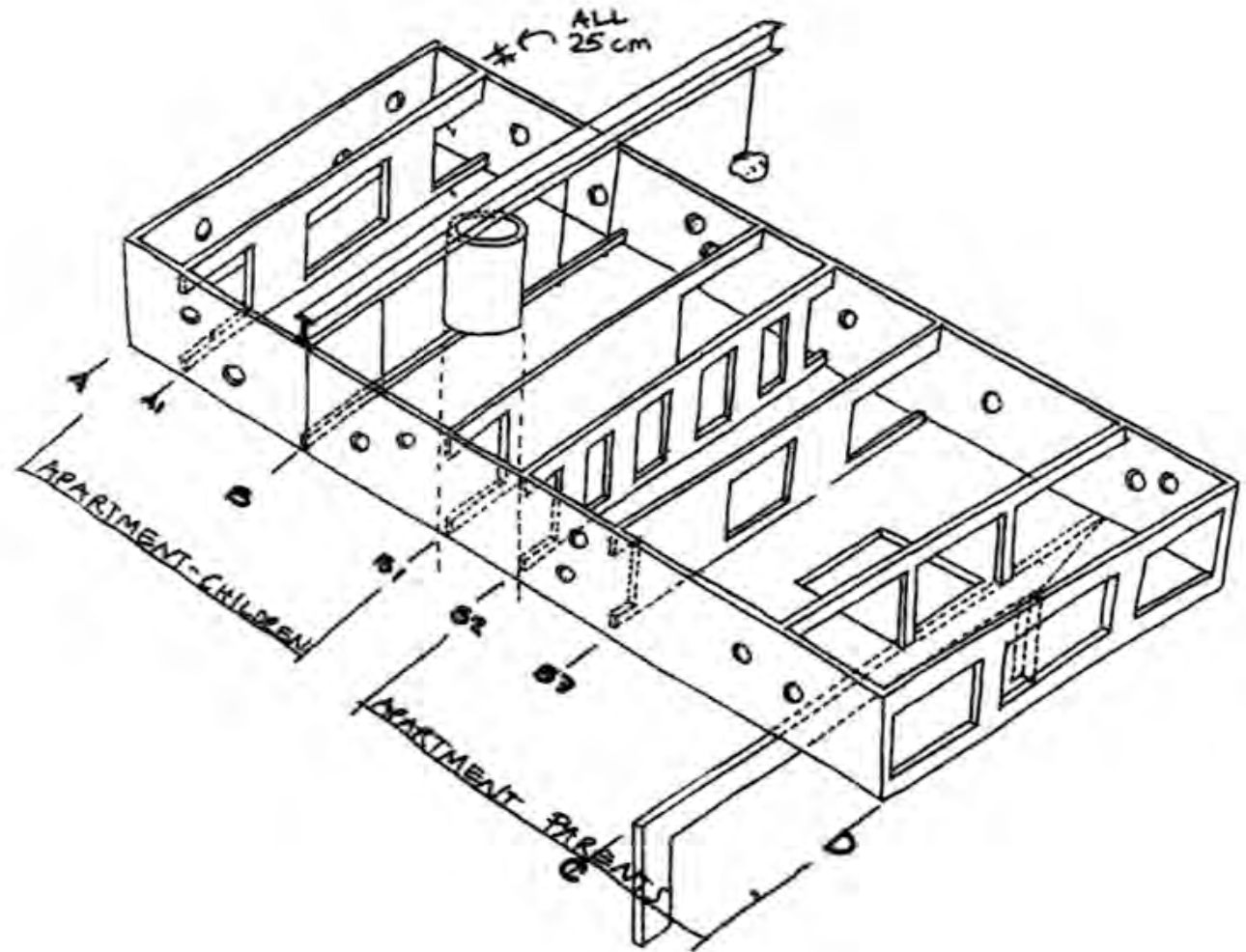
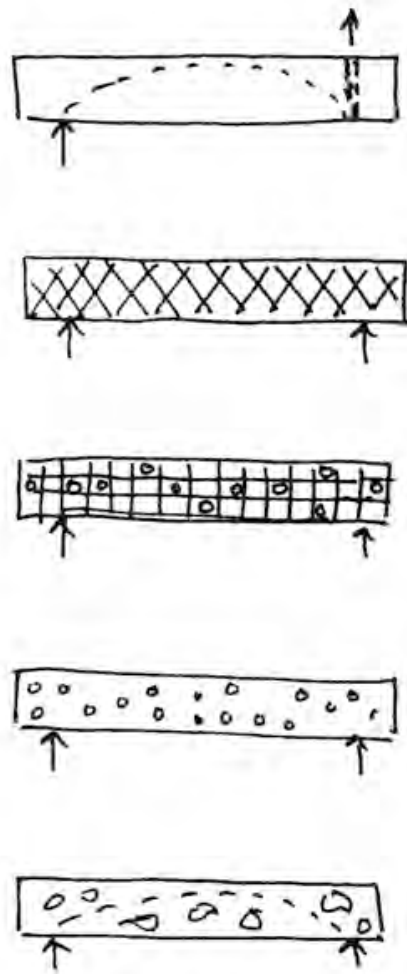
Maison à Floirac, Bordeaux, 1994-1998, Arch.: Rem Koolhaas, Ing: Cecil Balmond.

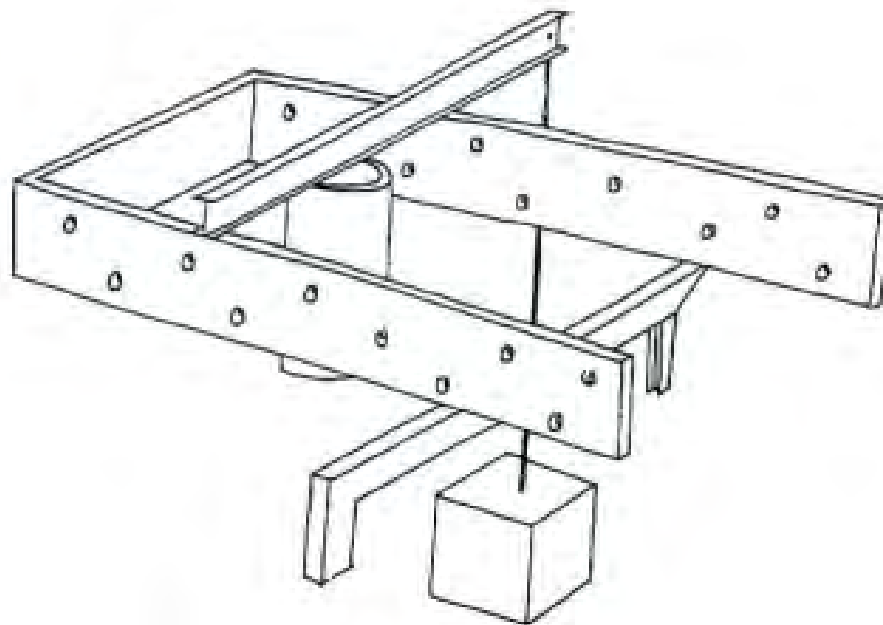




Maison à Floirac, Bordeaux, 1994-1998, Arch.: Rem Koolhaas, Ing: Cecil Balmond.







Maison à Floirac, Bordeaux, 1994-1998, Arch.: Rem Koolhaas, Ing: Cecil Balmond.



Maison à Floirac, Bordeaux, 1994-1998, Arch.: Rem Koolhaas, Ing: Cecil Balmond.



Maison à Floirac, Bordeaux, 1994-1998, Arch.: Rem Koolhaas, Ing: Cecil Balmond.



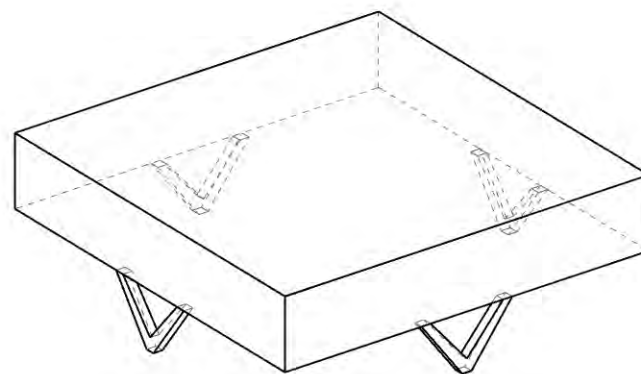
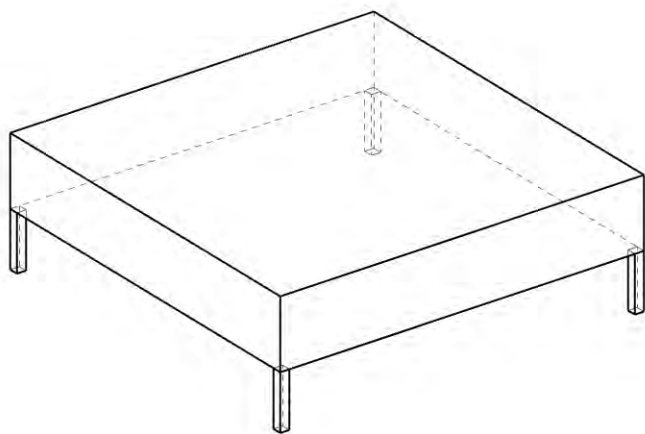
Maison à Floirac, Bordeaux, 1994-1998, Arch.: Rem Koolhaas, Ing: Cecil Balmond.



Maison à Floirac, Bordeaux, 1994-1998, Arch.: Rem Koolhaas, Ing: Cecil Balmond.



Maison à Floirac, Bordeaux, 1994-1998, Arch.: Rem Koolhaas, Ing: Cecil Balmond.

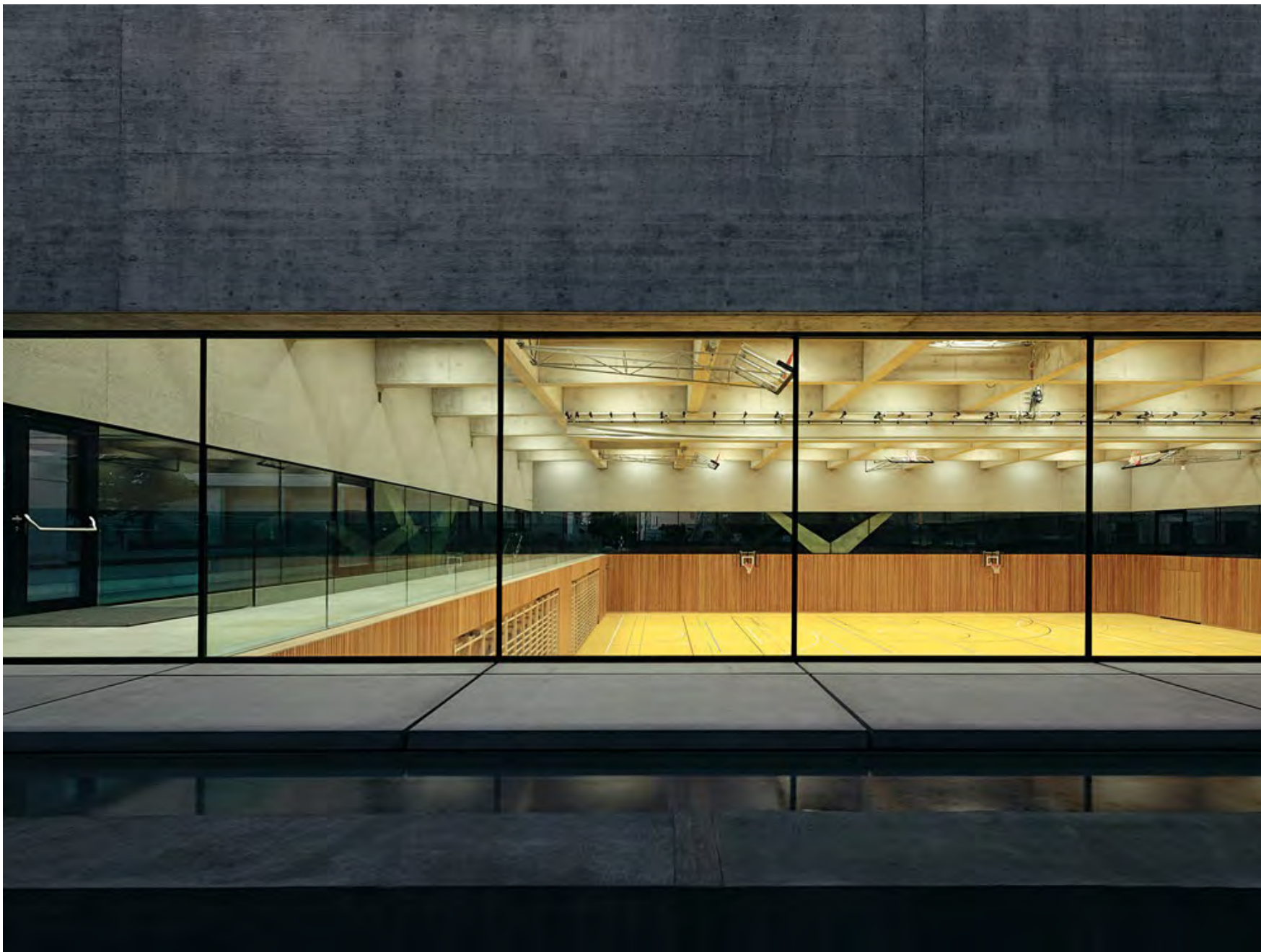




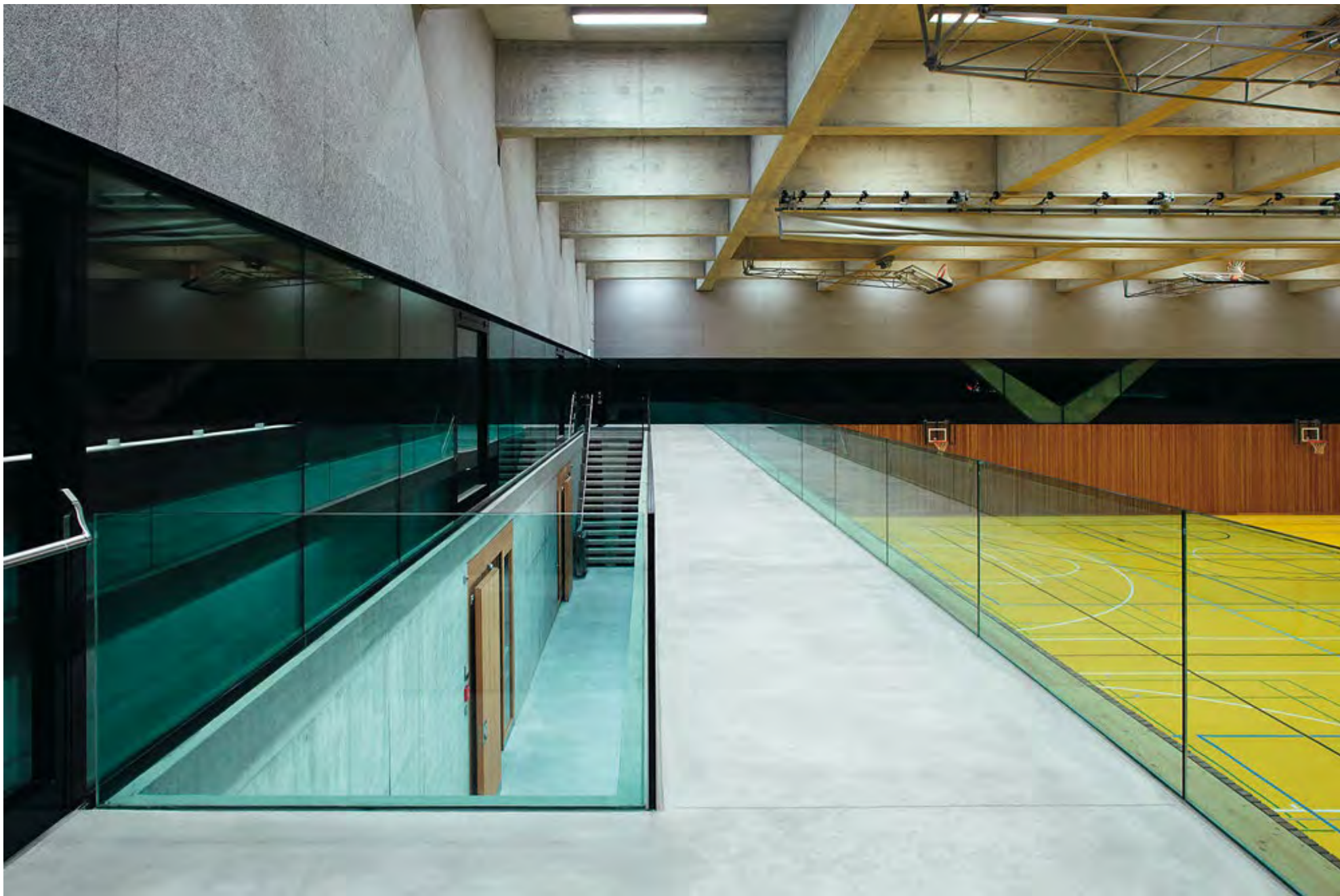
Doppia palestra, Chiasso, 2007-2010, Arch.: Baserga Mozzetti Architetti, Ing.: Ingegneri Pedrazzini Guidotti



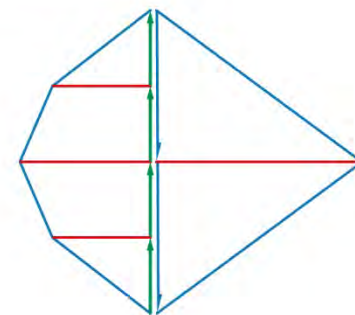
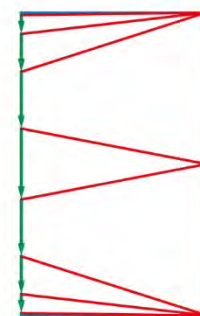
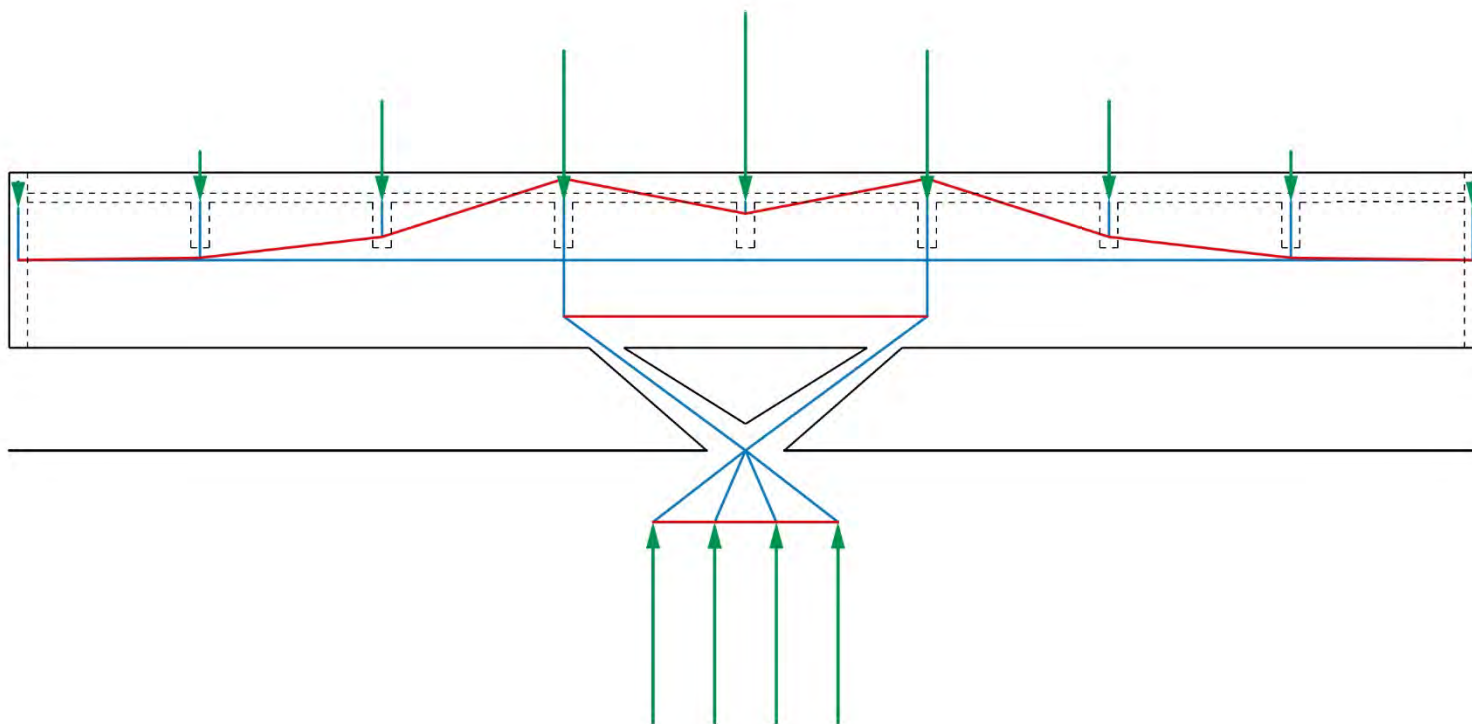
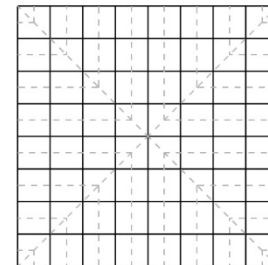
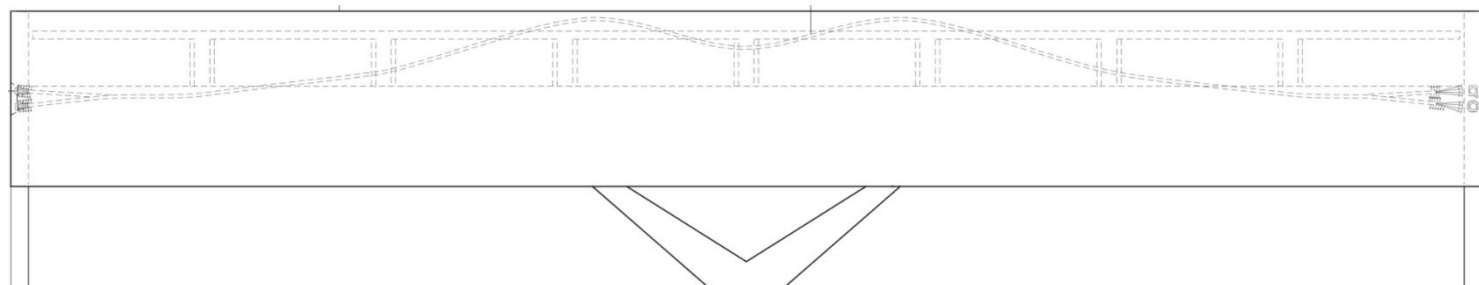
Doppia palestra, Chiasso, 2007-2010, Arch.: Baserga Mozzetti Architetti, Ing.: Ingegneri Pedrazzini Guidotti

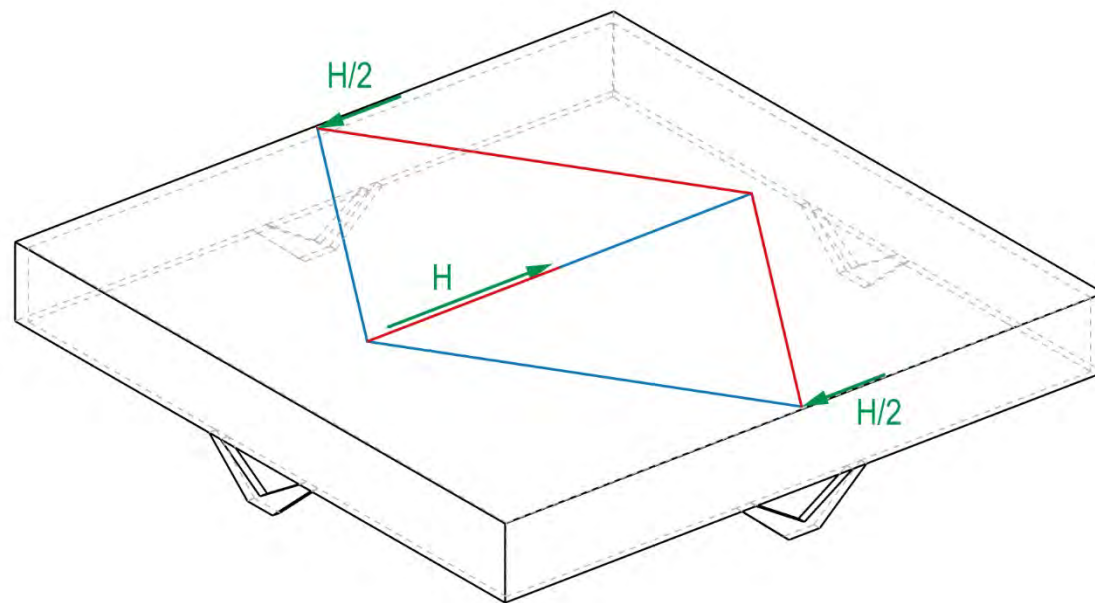


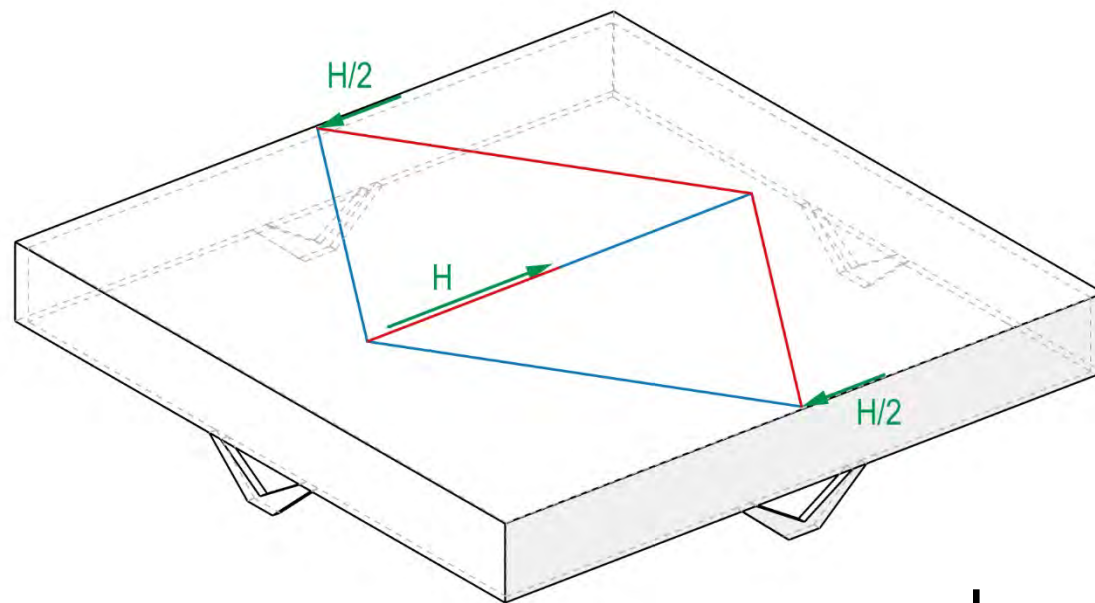
Doppia palestra, Chiasso, 2007-2010, Arch.: Baserga Mozzetti Architetti, Ing.: Ingegneri Pedrazzini Guidotti



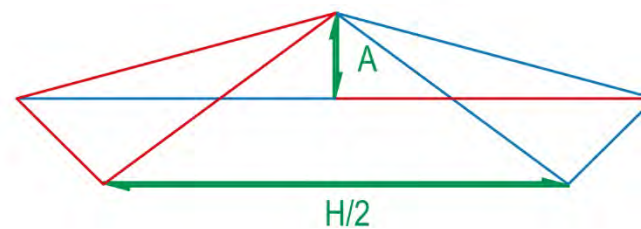
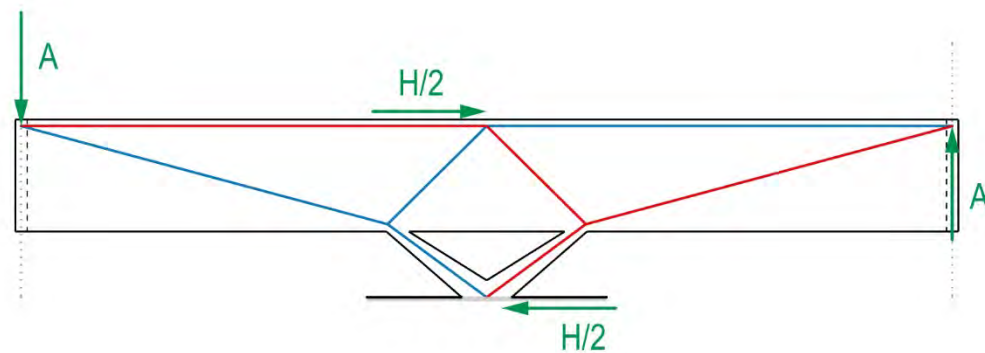
Doppia palestra, Chiasso, 2007-2010, Arch.: Baserga Mozzetti Architetti, Ing.: Ingegneri Pedrazzini Guidotti

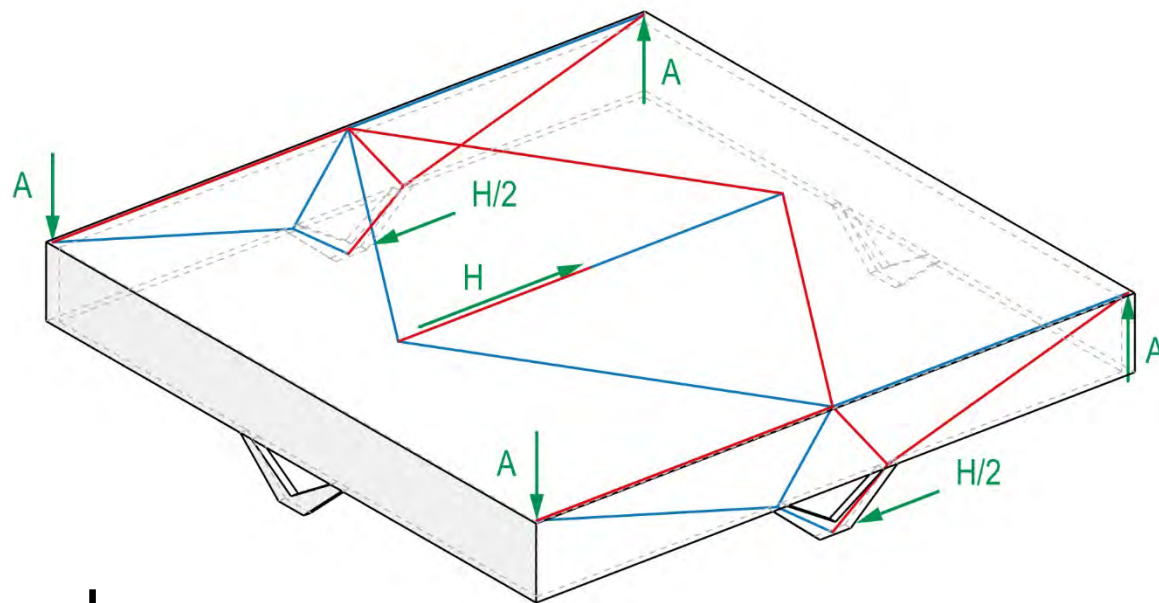




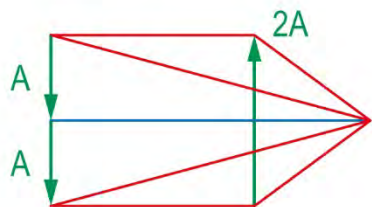
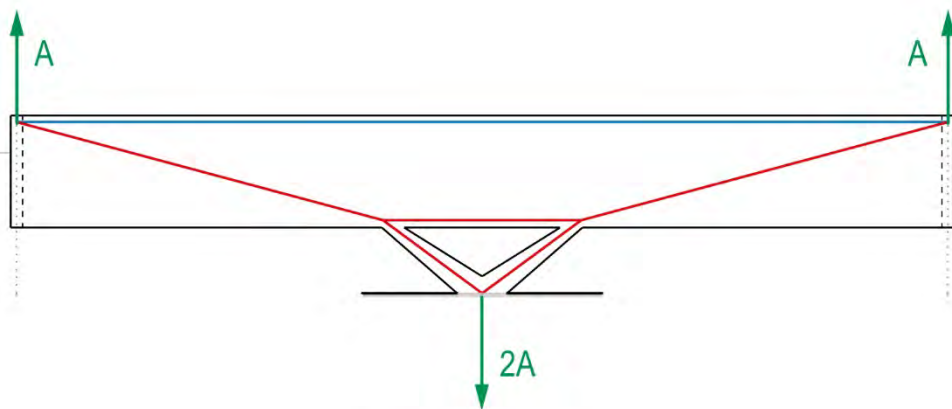


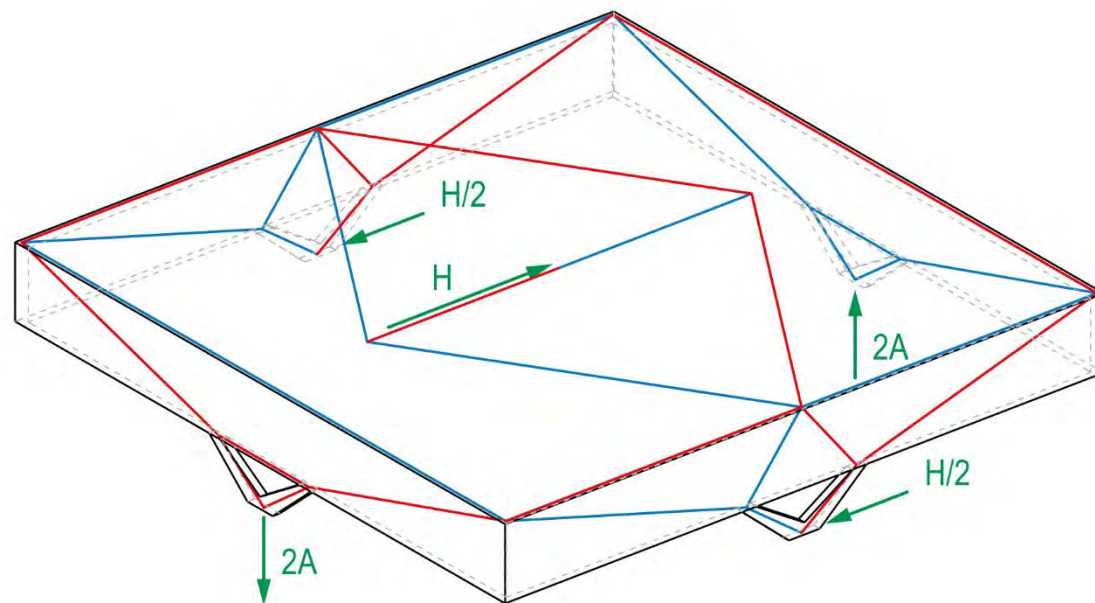
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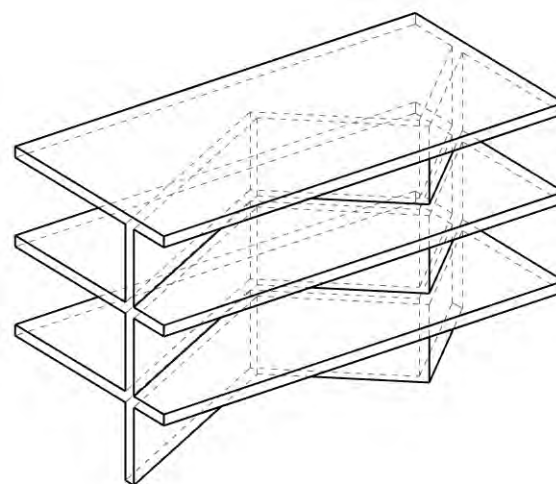
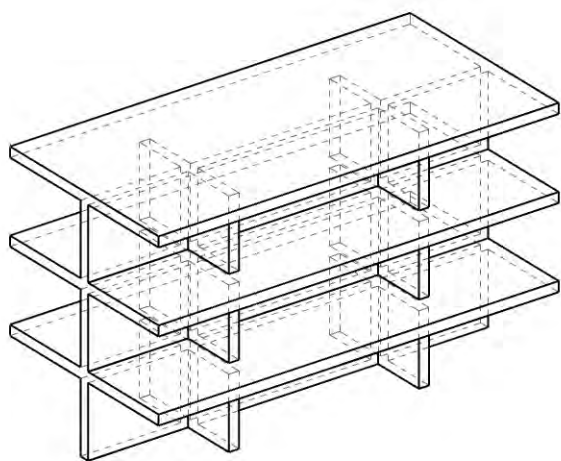
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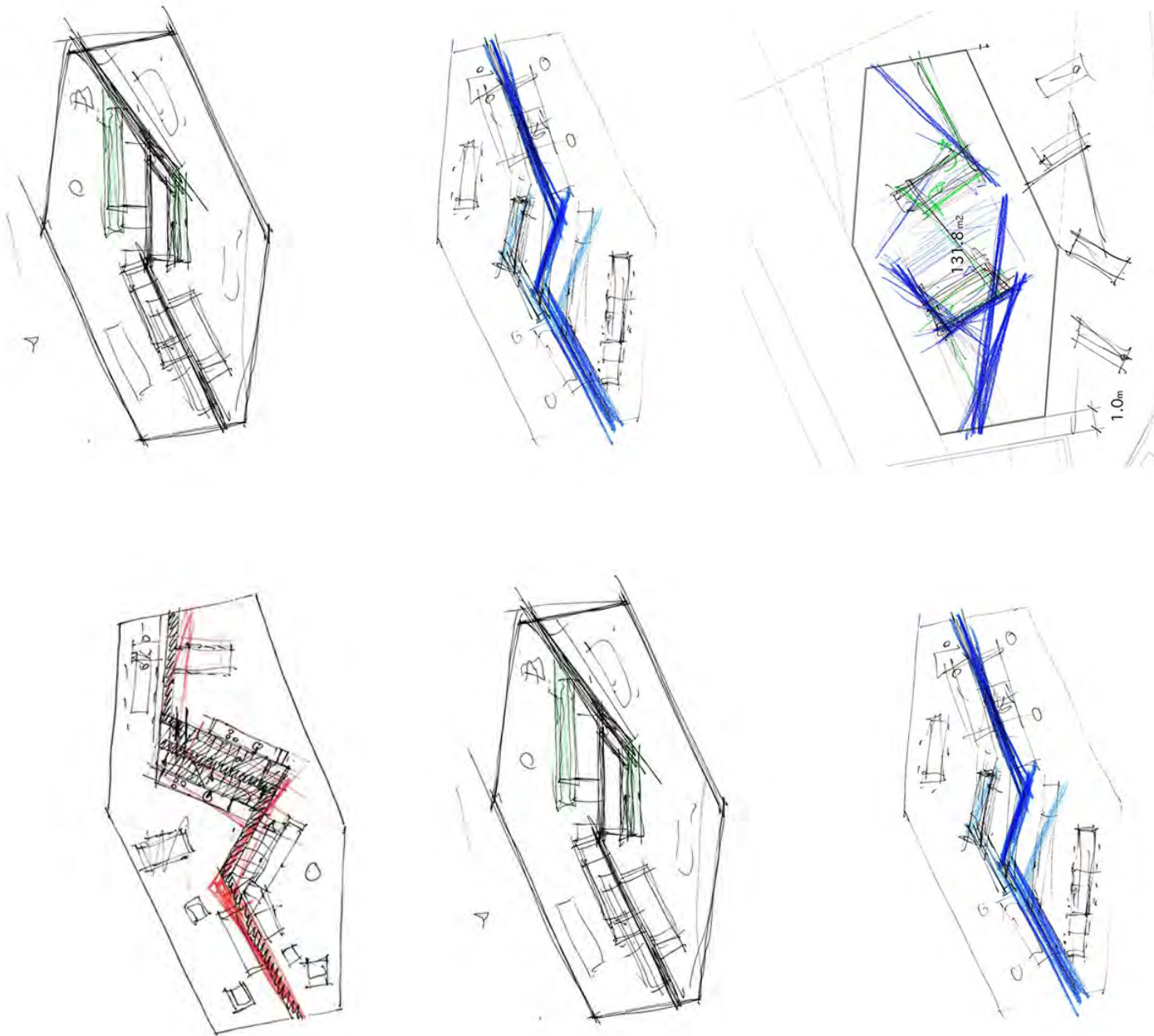


Doppia palestra, Chiasso, 2007-2010, Arch.: Baserga Mozzetti Architetti, Ing.: Ingegneri Pedrazzini Guidotti

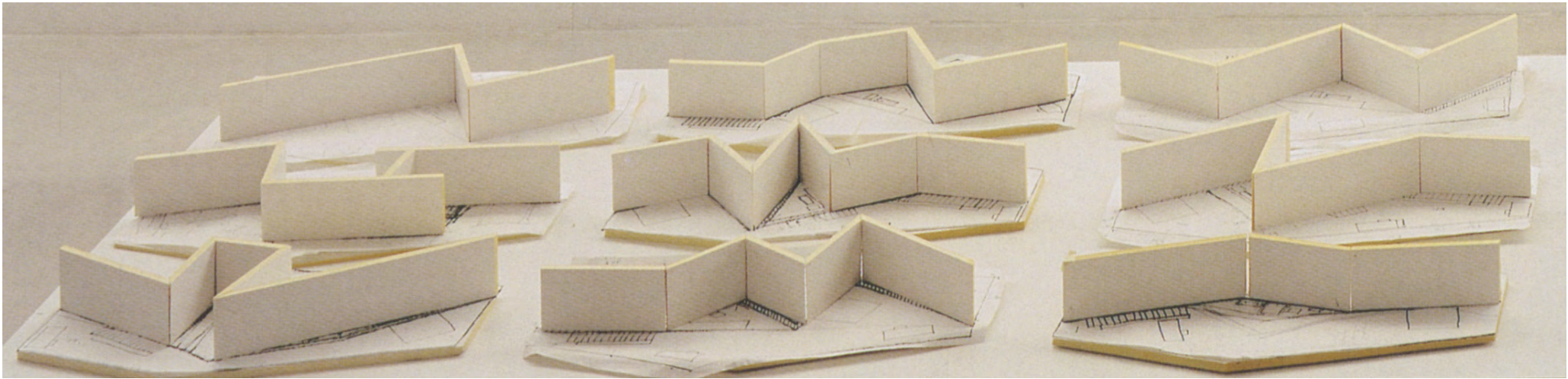




Das Haus mit einer Wand, Zürich, 2007, Arch.: Christian Kerez, Ing.: Joseph Schwartz



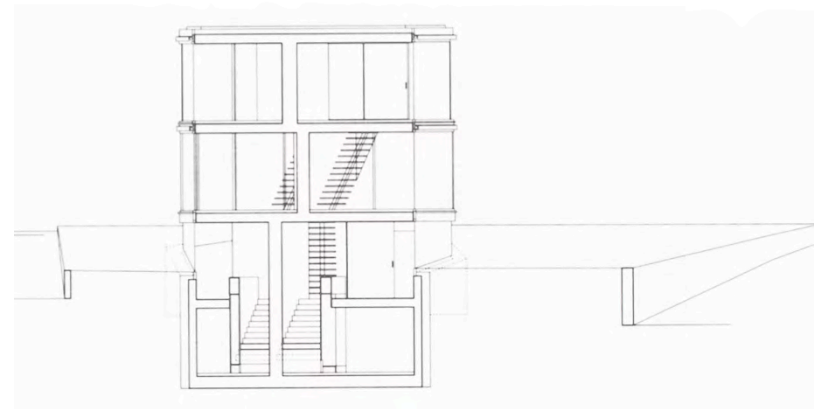
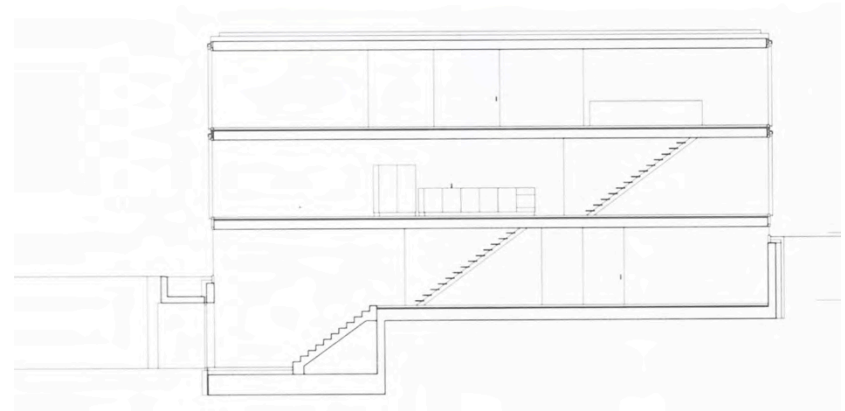
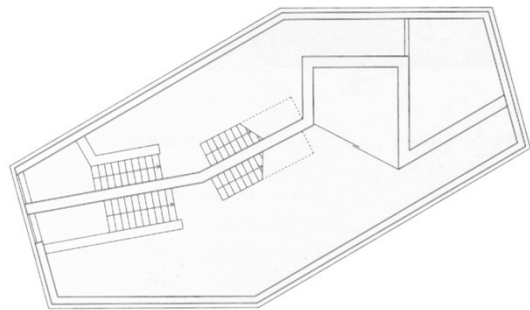
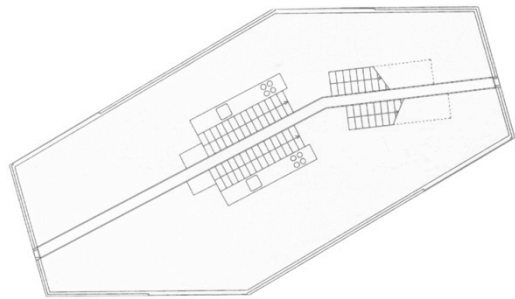
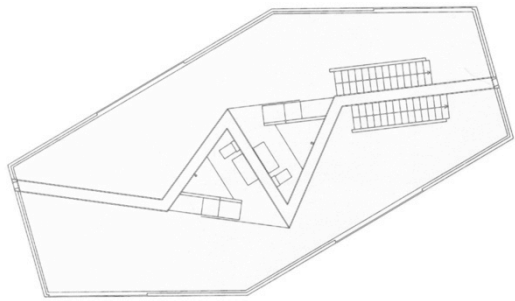
Das Haus mit einer Wand, Zürich, 2007, Arch.: Christian Kerez, Ing.: Joseph Schwartz

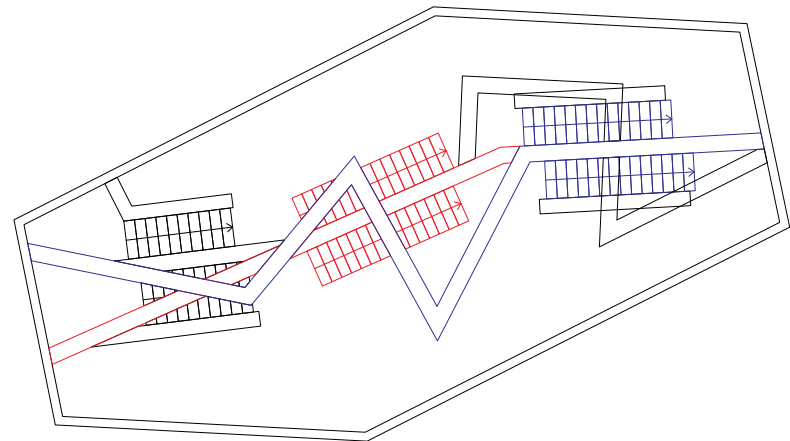
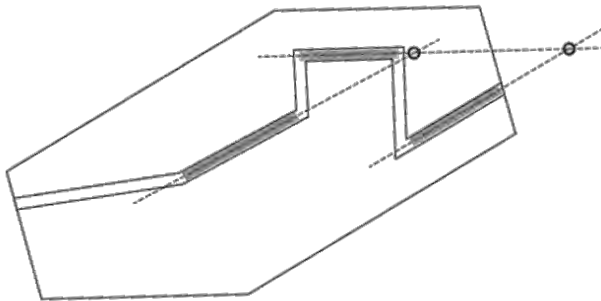
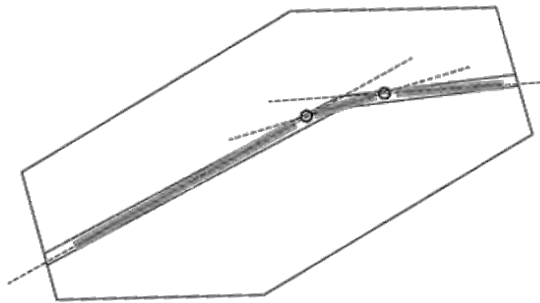
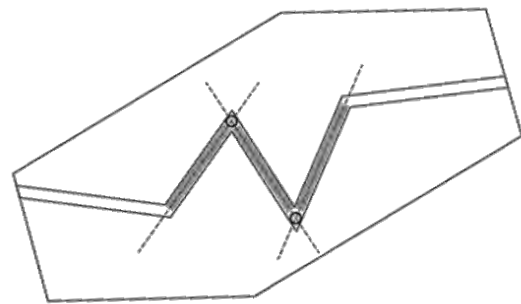


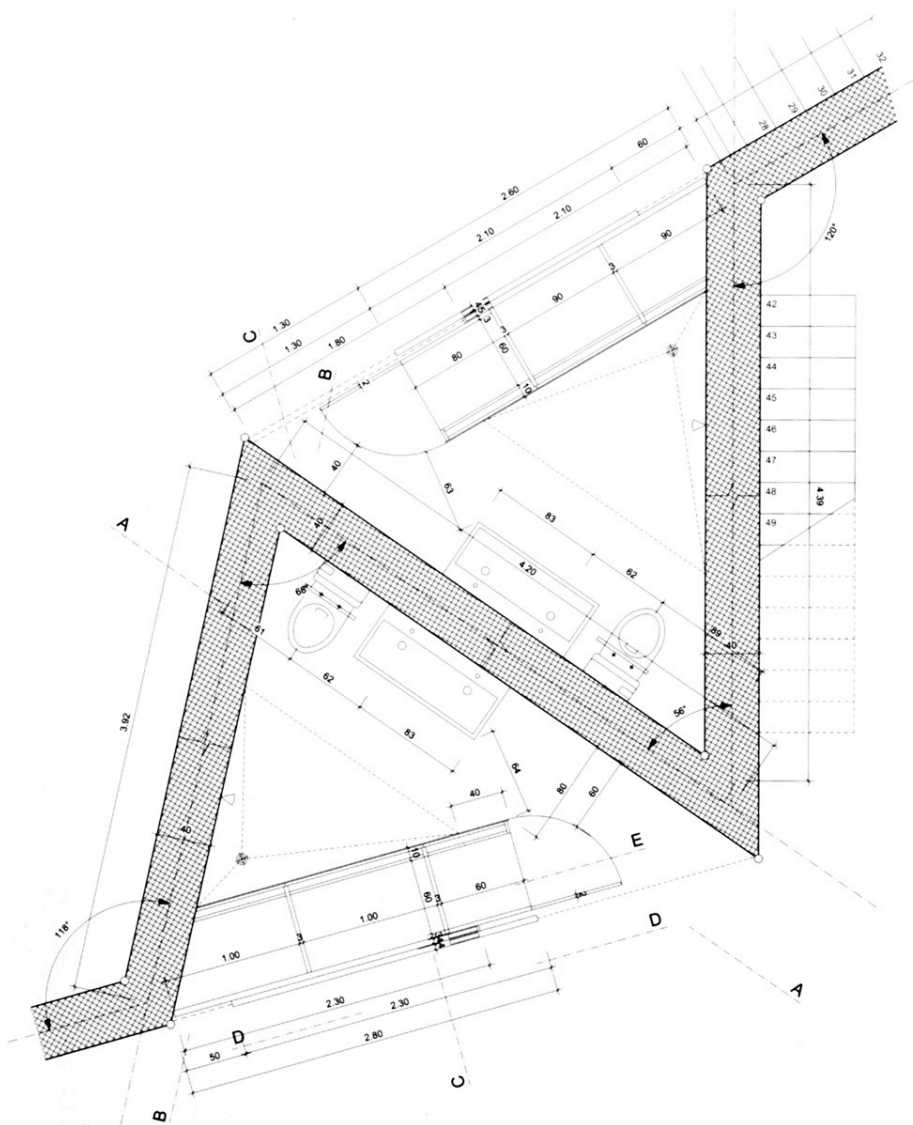
Das Haus mit einer Wand, Zürich, 2007, Arch.: Christian Kerez, Ing.: Joseph Schwartz



Das Haus mit einer Wand, Zürich, 2007, Arch.: Christian Kerez, Ing.: Joseph Schwartz







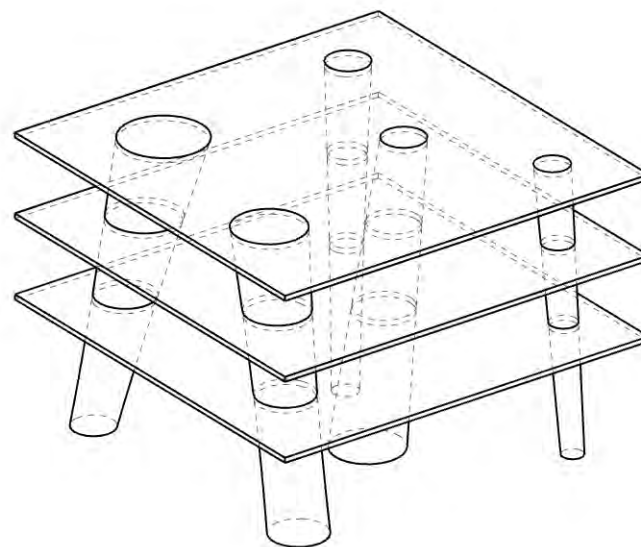
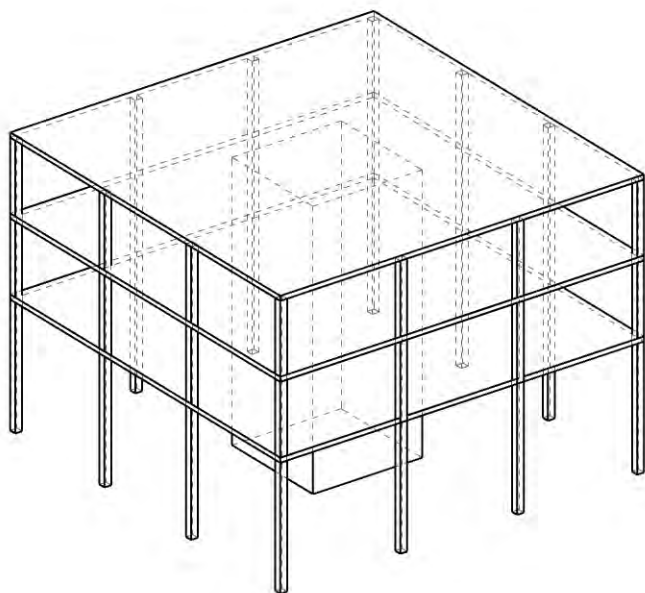
Das Haus mit einer Wand, Zürich, 2007, Arch.: Christian Kerez, Ing.: Joseph Schwartz



Das Haus mit einer Wand, Zürich, 2007, Arch.: Christian Kerez, Ing.: Joseph Schwartz



Das Haus mit einer Wand, Zürich, 2007, Arch.: Christian Kerez, Ing.: Joseph Schwartz





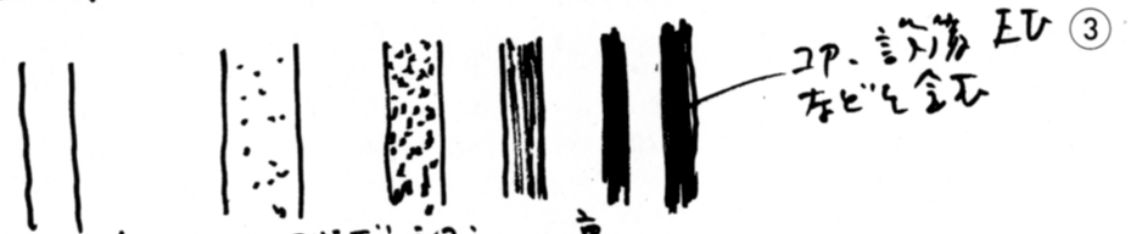
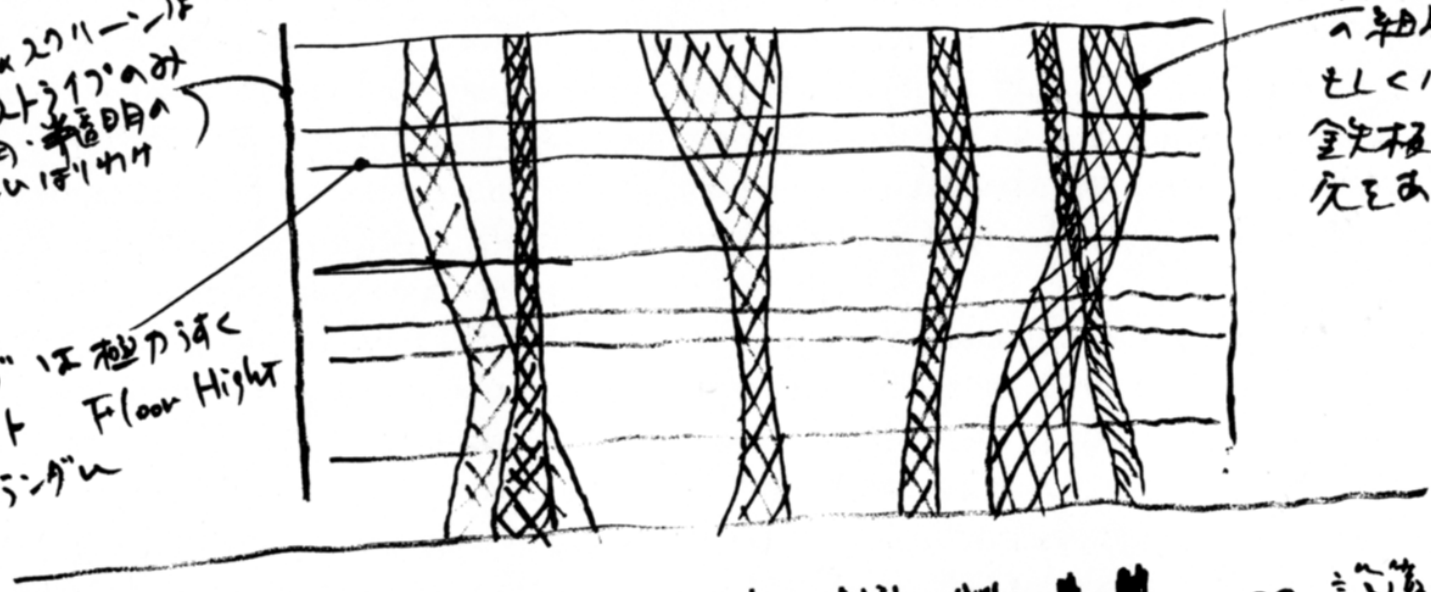
Sendai Mediathek, Sendai, 1995-2001, Arch.: Toyo Ito, Ing.: Mutsuro Sasaki, Sendai

① 徹底的に フラットスラブ、 海草の様な木柱、 フォードのスクリーン
へ要素だけをピクトに表現する。それぞれのエレメントを構造的に
ととん study し シンプルに ~~表現~~ するに 全力をあげる。これ以外はすべて void
にしたい。

⑥ フォードのスクリーン
ヨコのストライプのみ
(透明・半透明の
フィルム張り)

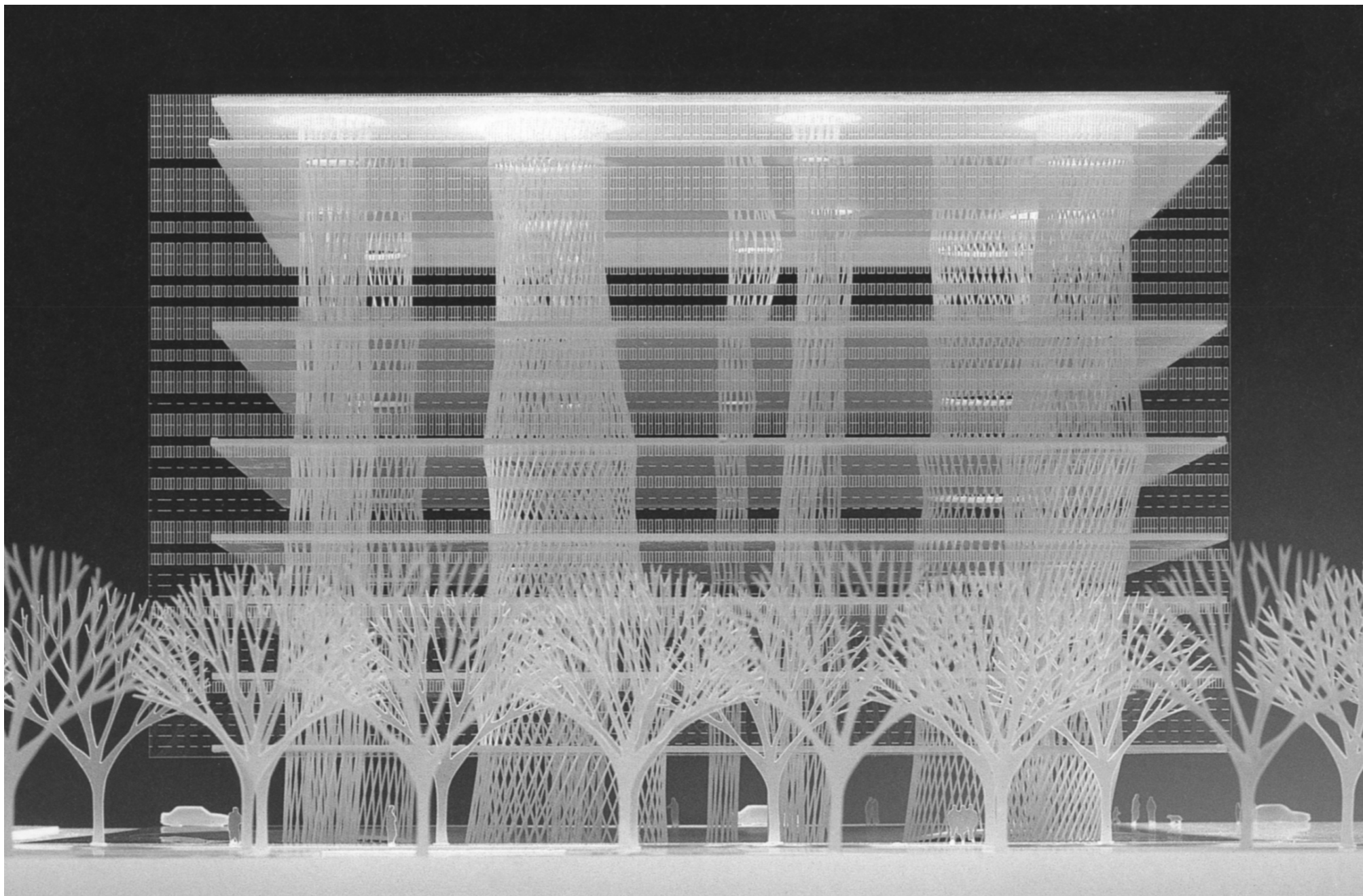
steel pipe ②
へ 軸組み合せ。
もしくは
金太柱に
穴をあけてみる。
?

⑤ スラブは極力高く
フラット Floor Height
はシンプル



23. Jan '95
Toyo Ito

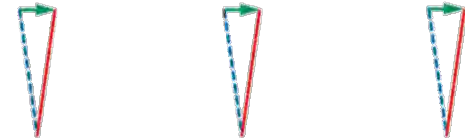
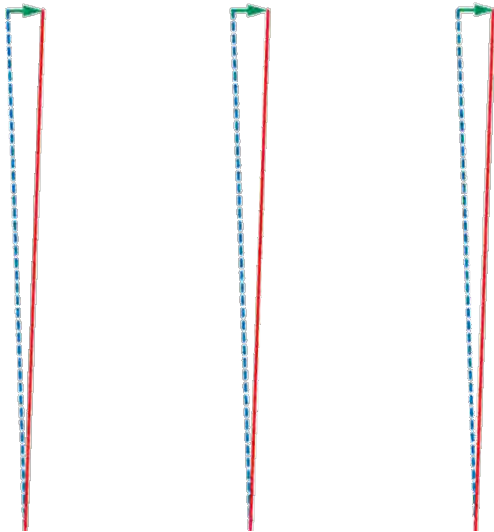
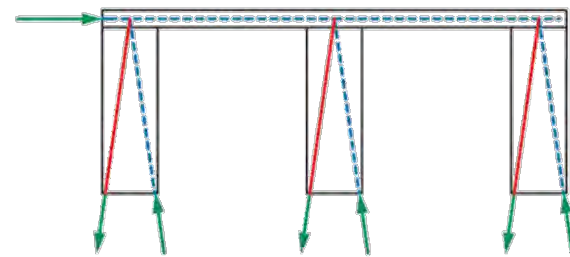
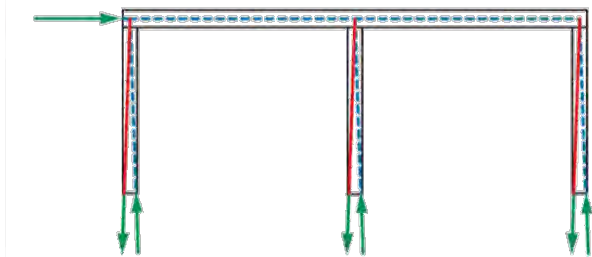
表 ← グラデーション → 裏
不柱のなかから void から 実体のモノへと
④ 変化する

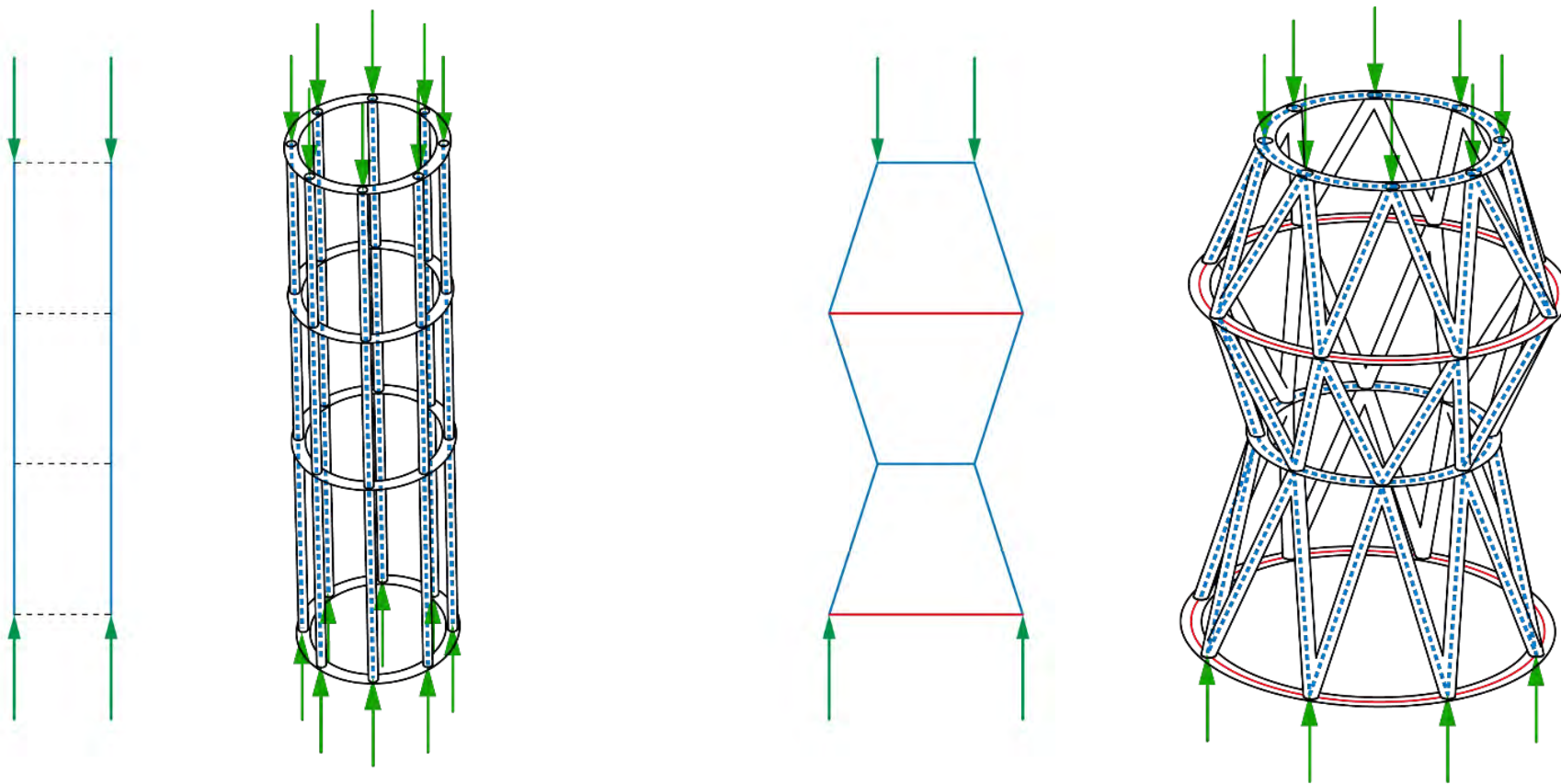


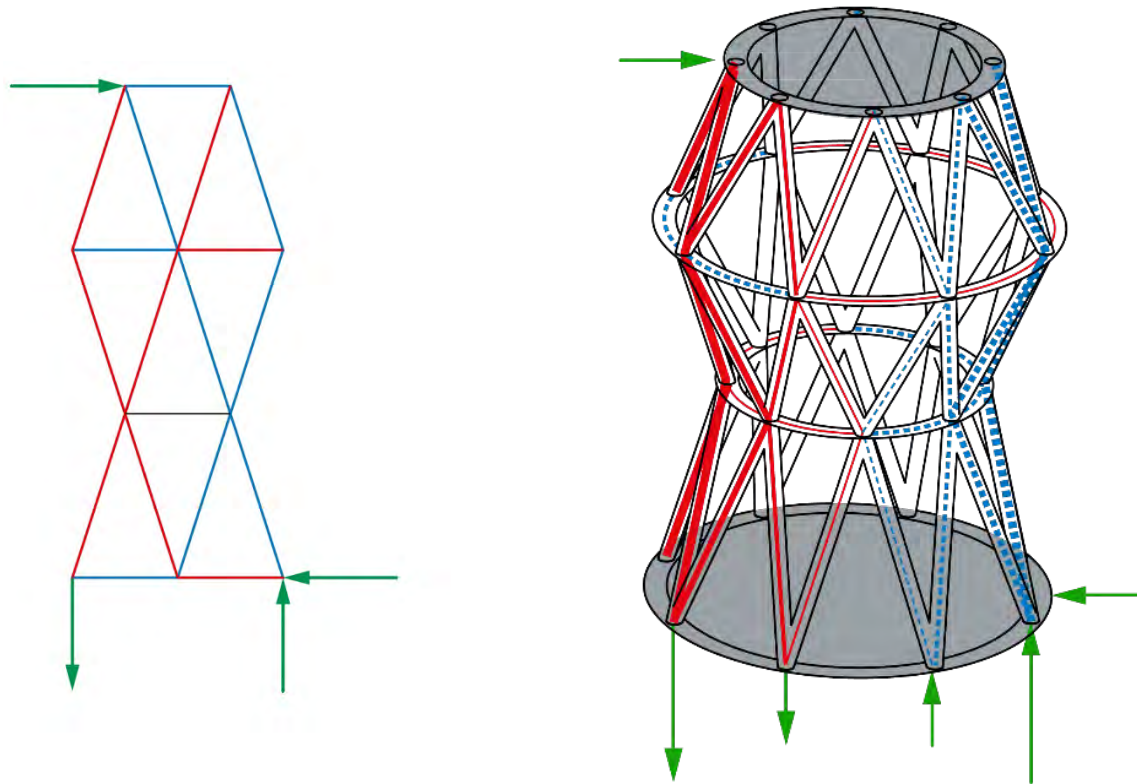
Sendai Mediathek, Sendai, 1995-2001, Arch.: Toyo Ito, Ing.: Mutsuro Sasaki, Sendai

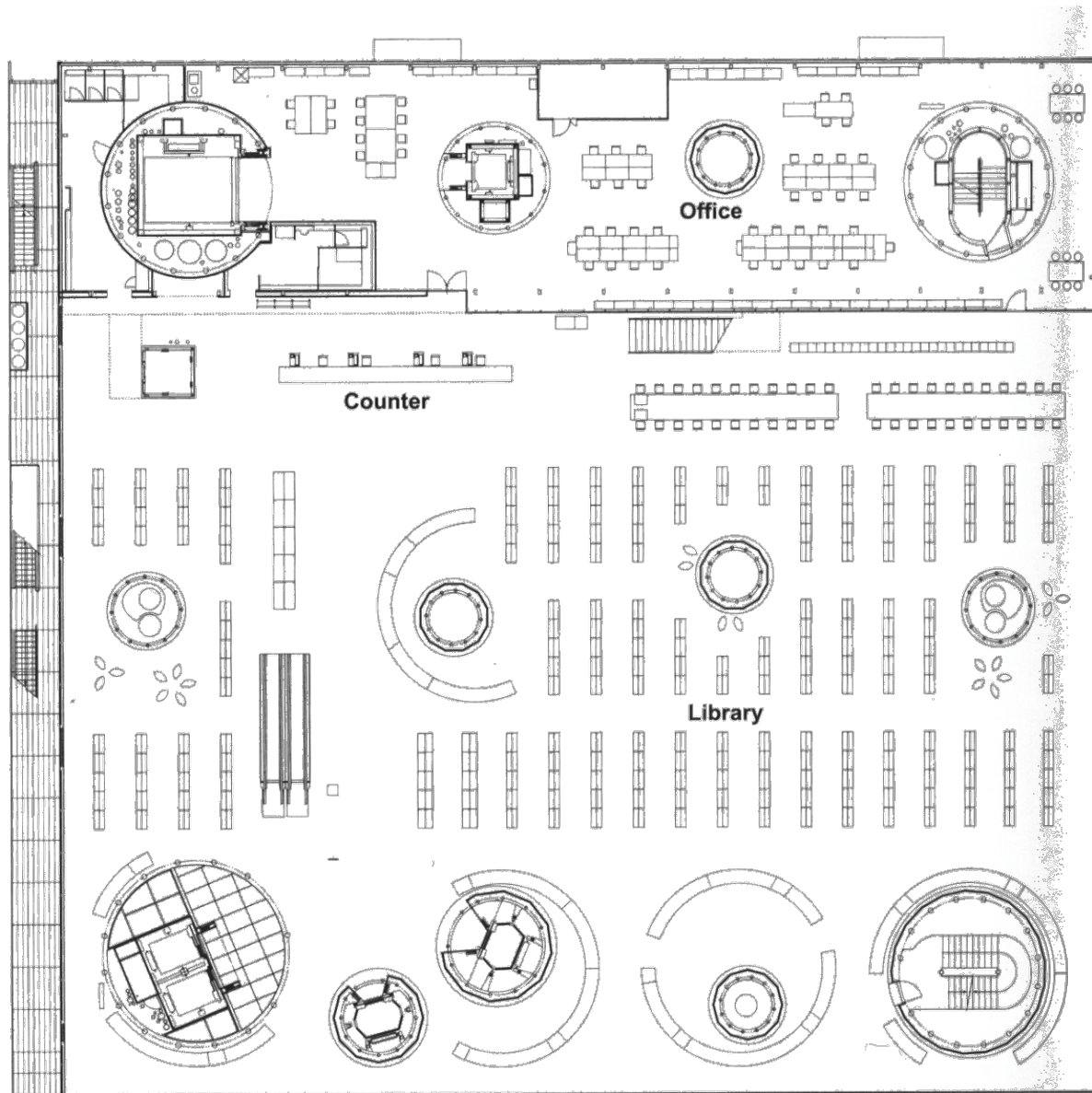
“...the image was poetic, but far from any known reality...”

Mutsuro Sasaki's first reaction to Ito's sketch









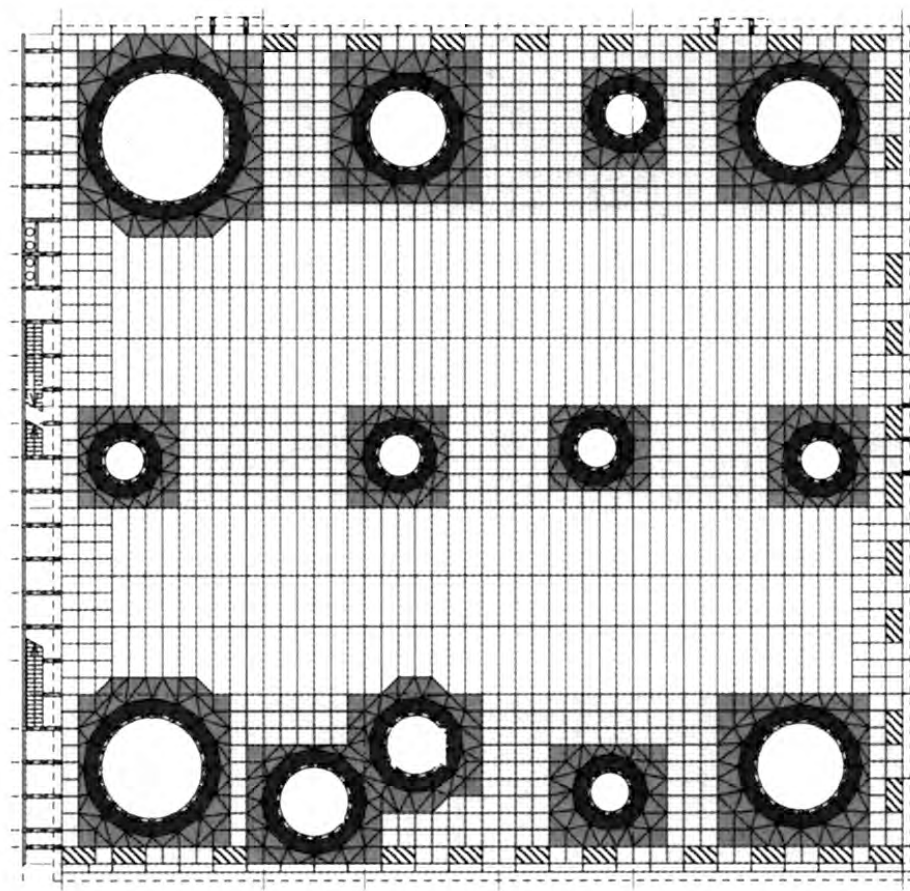
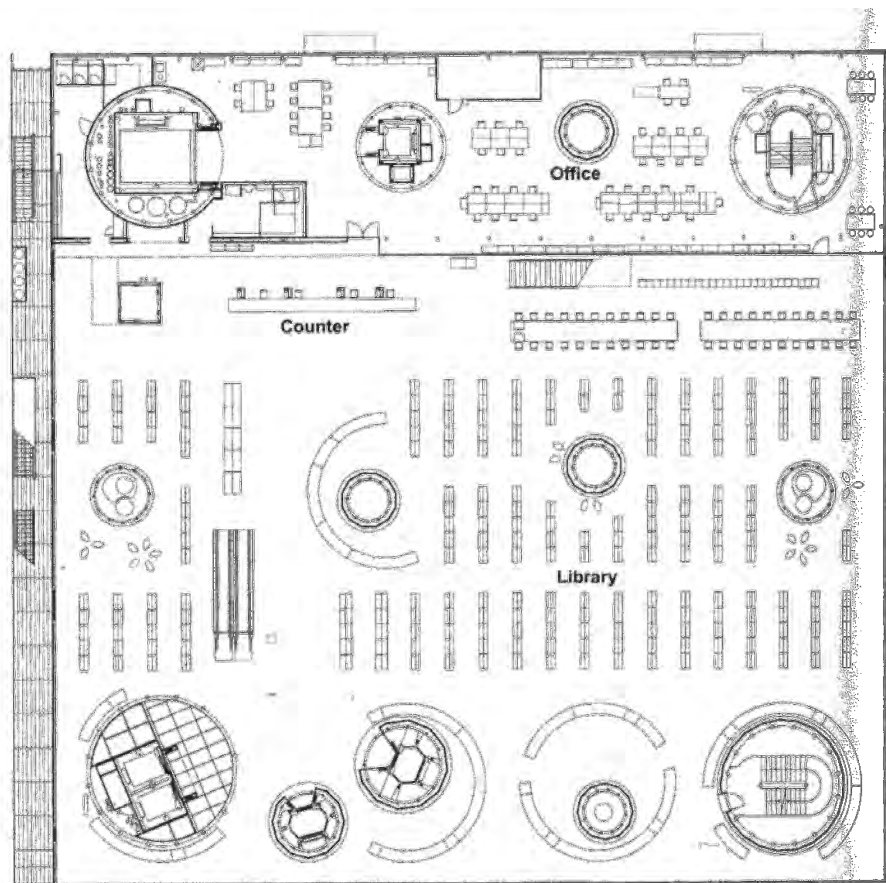
Sendai Mediathek, Sendai, 1995-2001, Arch.: Toyo Ito, Ing.: Mutsuro Sasaki, Sendai



Sendai Mediathek, Sendai, 1995-2001, Arch.: Toyo Ito, Ing.: Mutsuro Sasaki, Sendai



Sendai Mediathek, Sendai, 1995-2001, Arch.: Toyo Ito, Ing.: Mutsuro Sasaki, Sendai





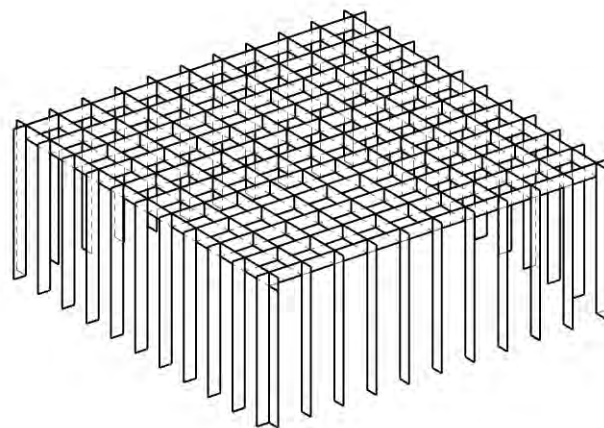
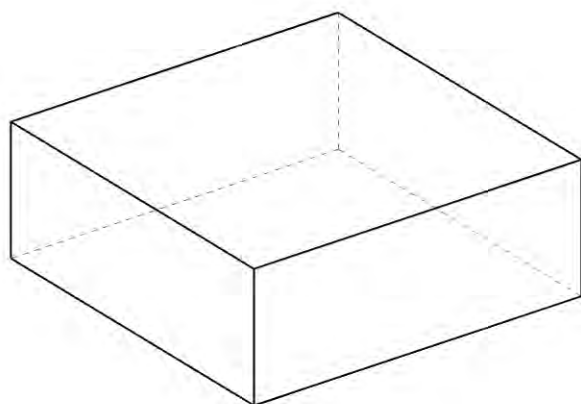
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Sendai Mediathek, Sendai, 1995-2001, Arch.: Toyo Ito, Ing.: Mutsuro Sasaki, Sendai

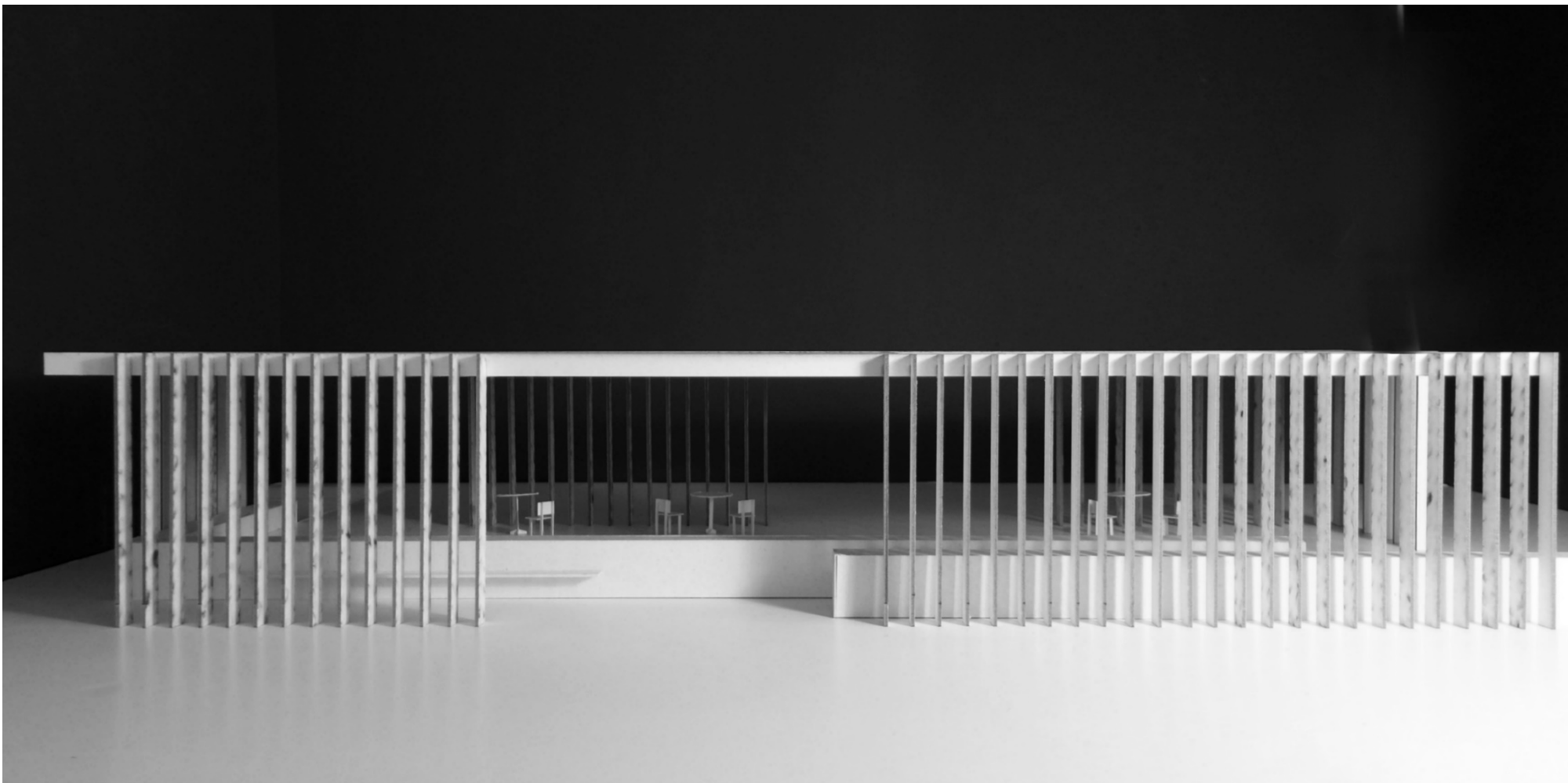


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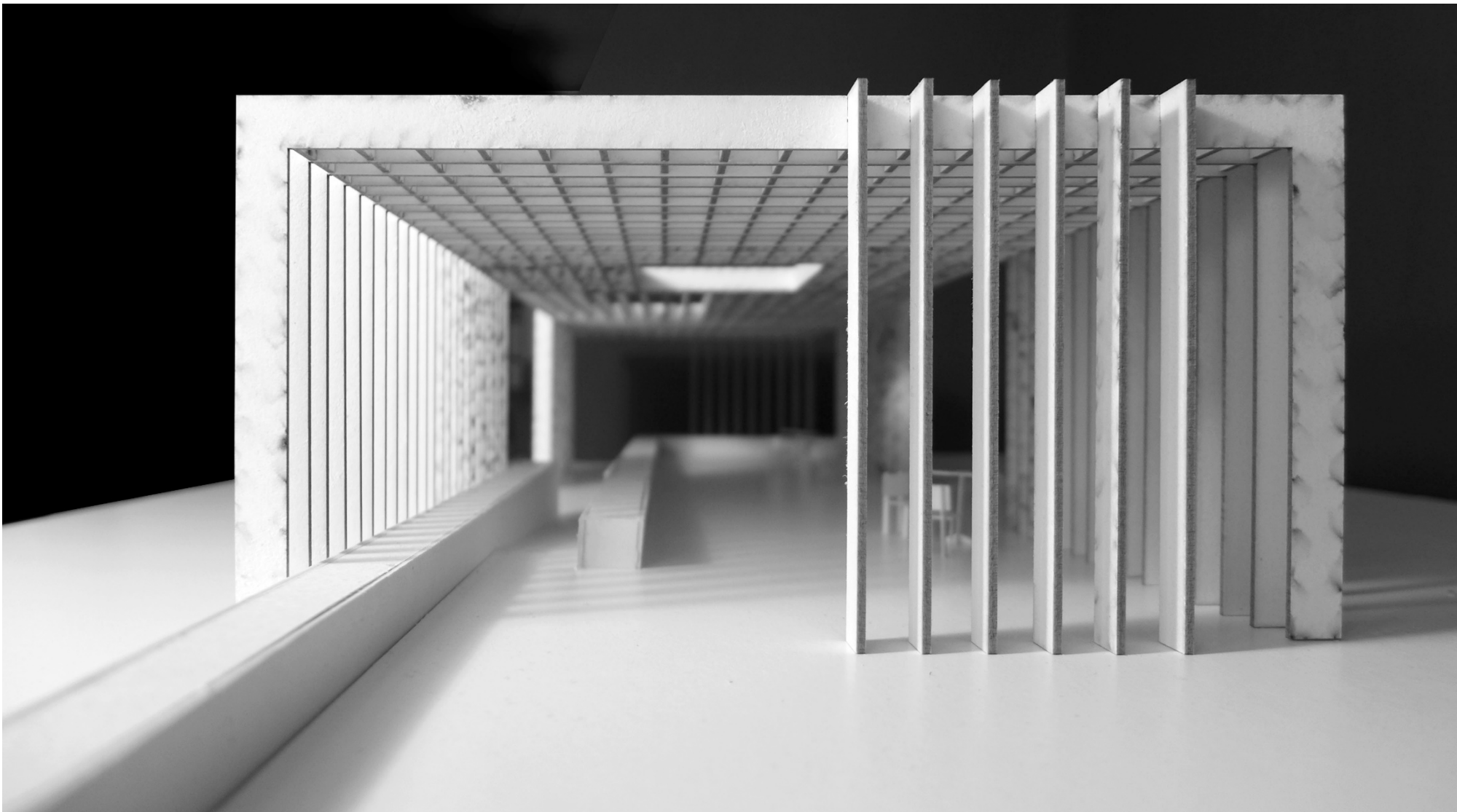




Hilti Pavillon, Schaan, 2016, Arch.: Giuliani Hönger, Ing.: Dr. Schwartz Consulting



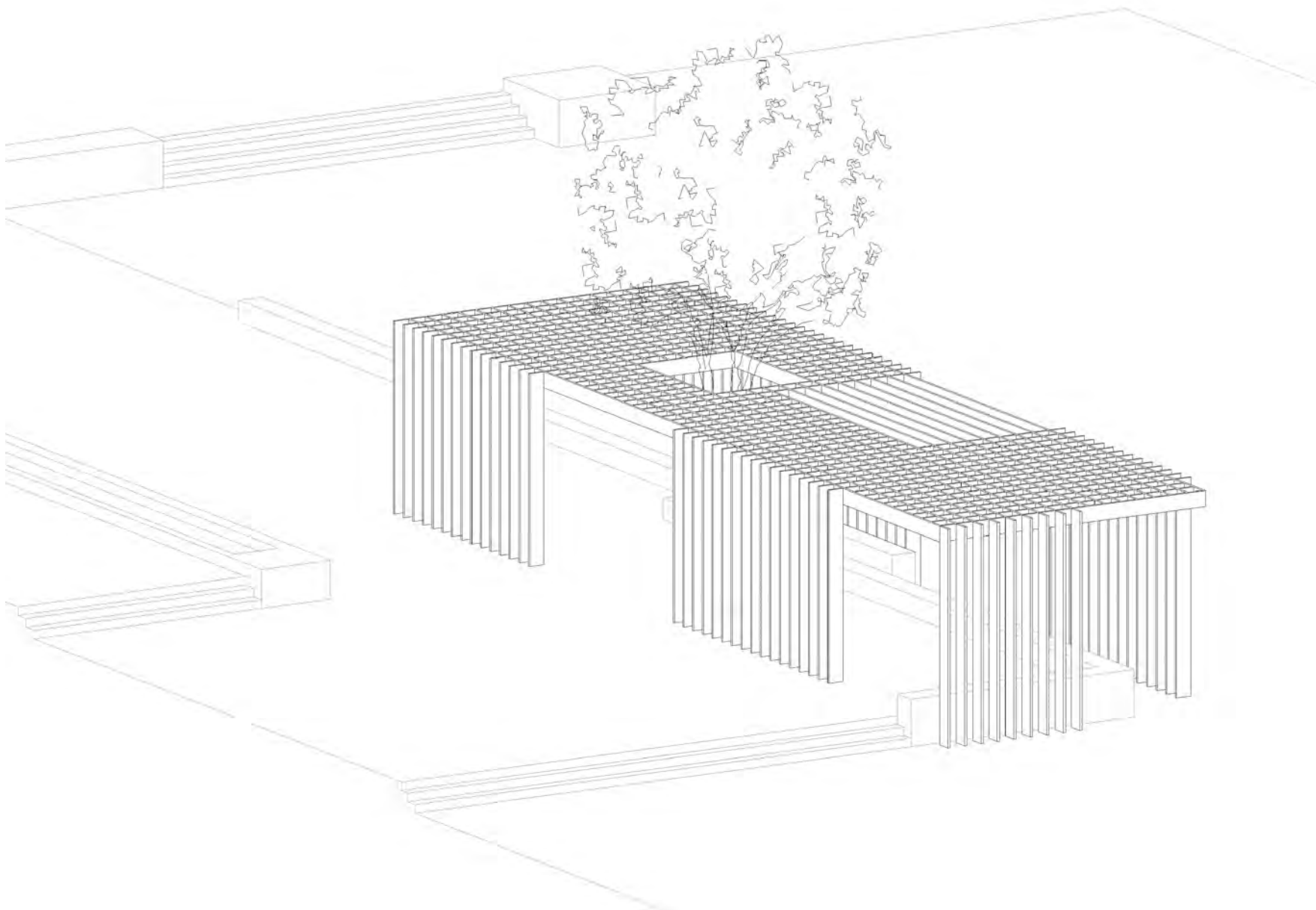
Hilti Pavillon, Schaan, 2016, Arch.: Giuliani Hönger, Ing.: Dr. Schwartz Consulting



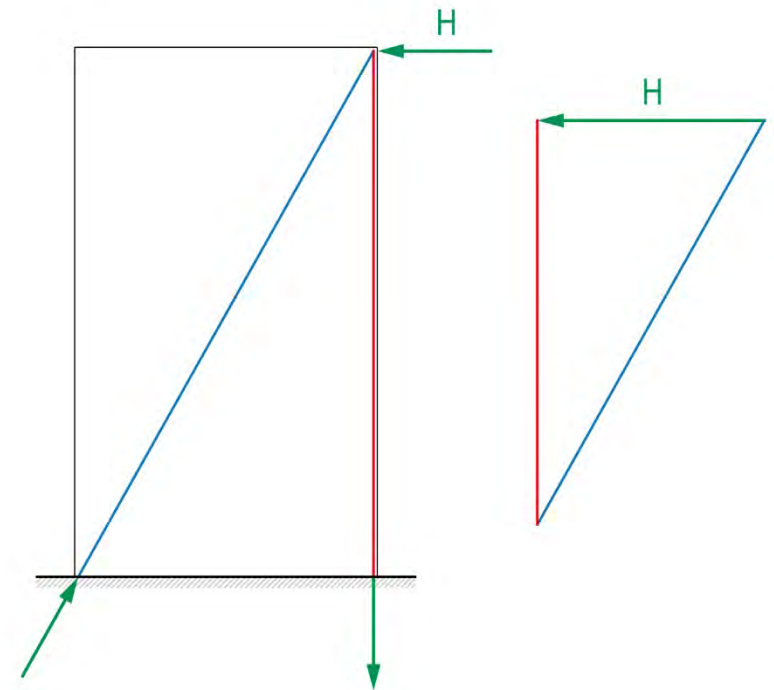
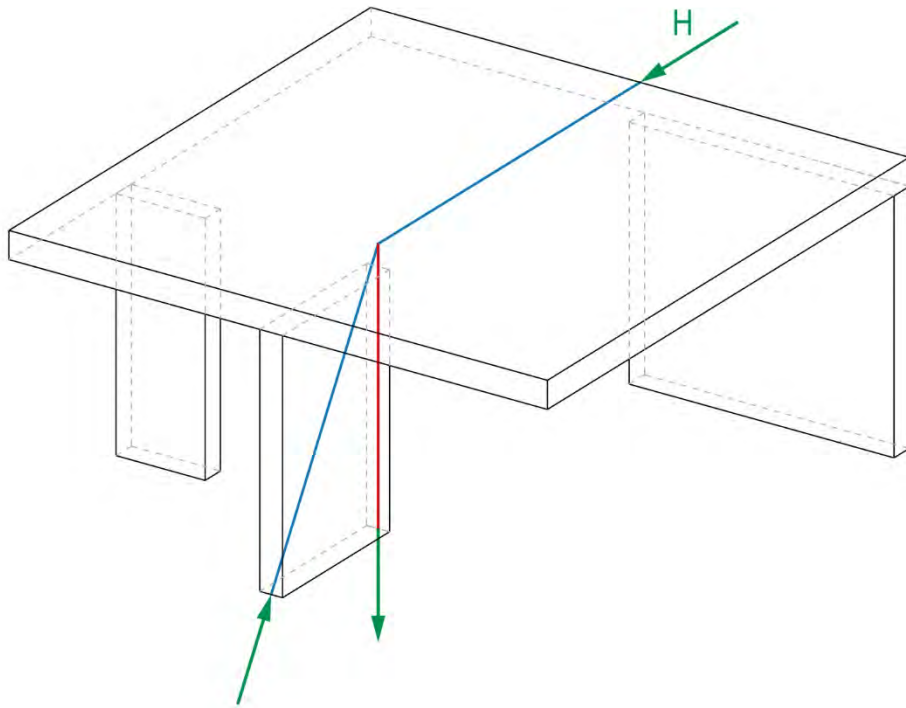
Hilti Pavillon, Schaan, 2016, Arch.: Giuliani Hönger, Ing.: Dr. Schwartz Consulting

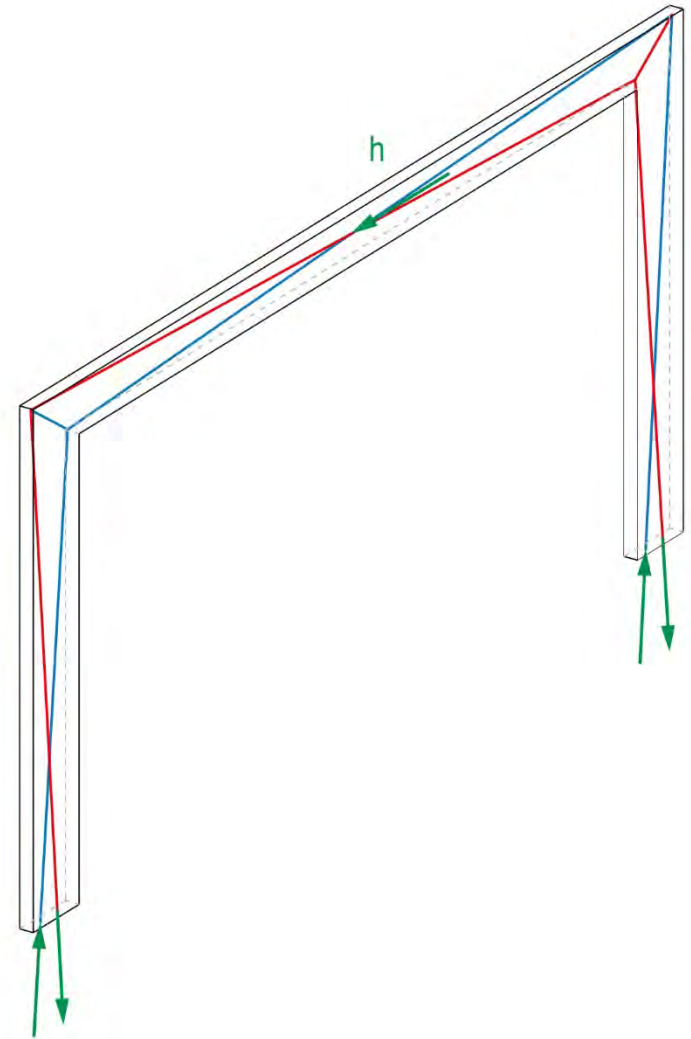
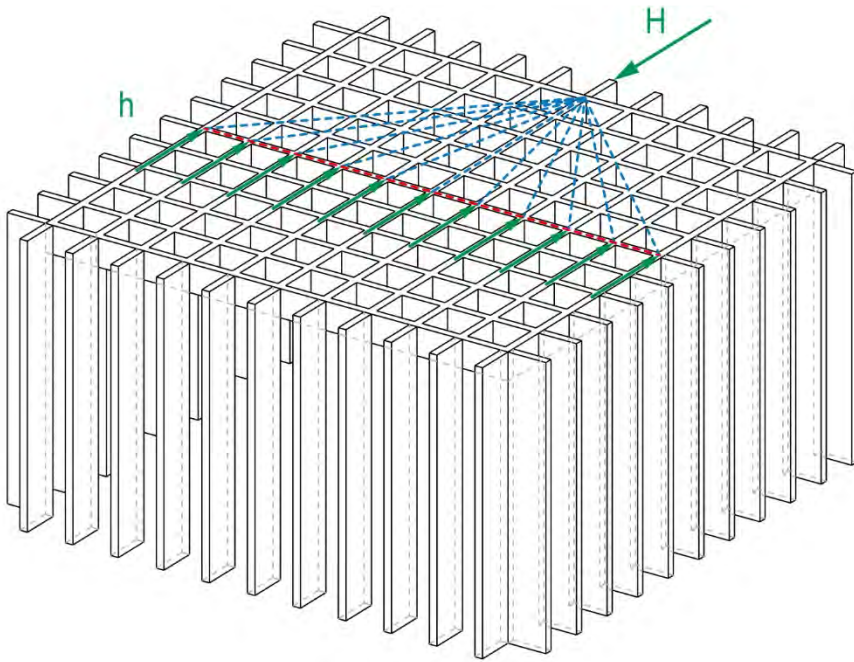


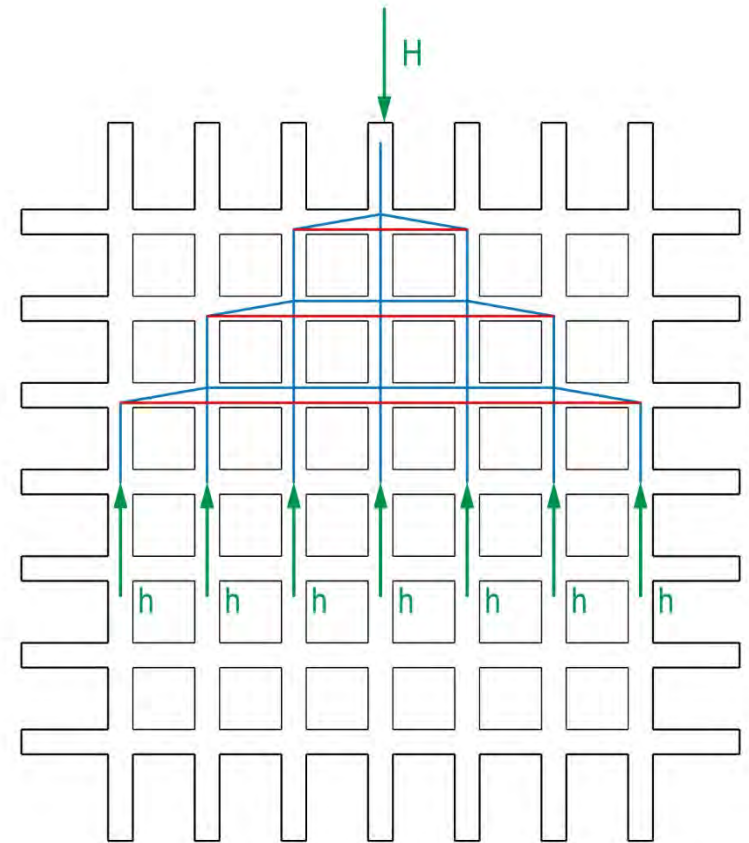
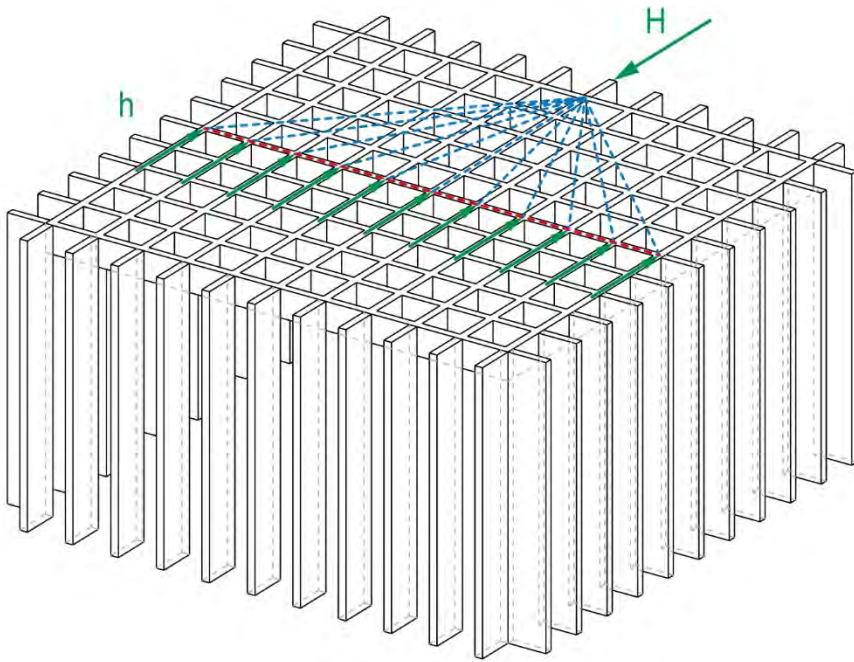
Hilti Pavillon, Schaan, 2016, Arch.: Giuliani Hönger, Ing.: Dr. Schwartz Consulting



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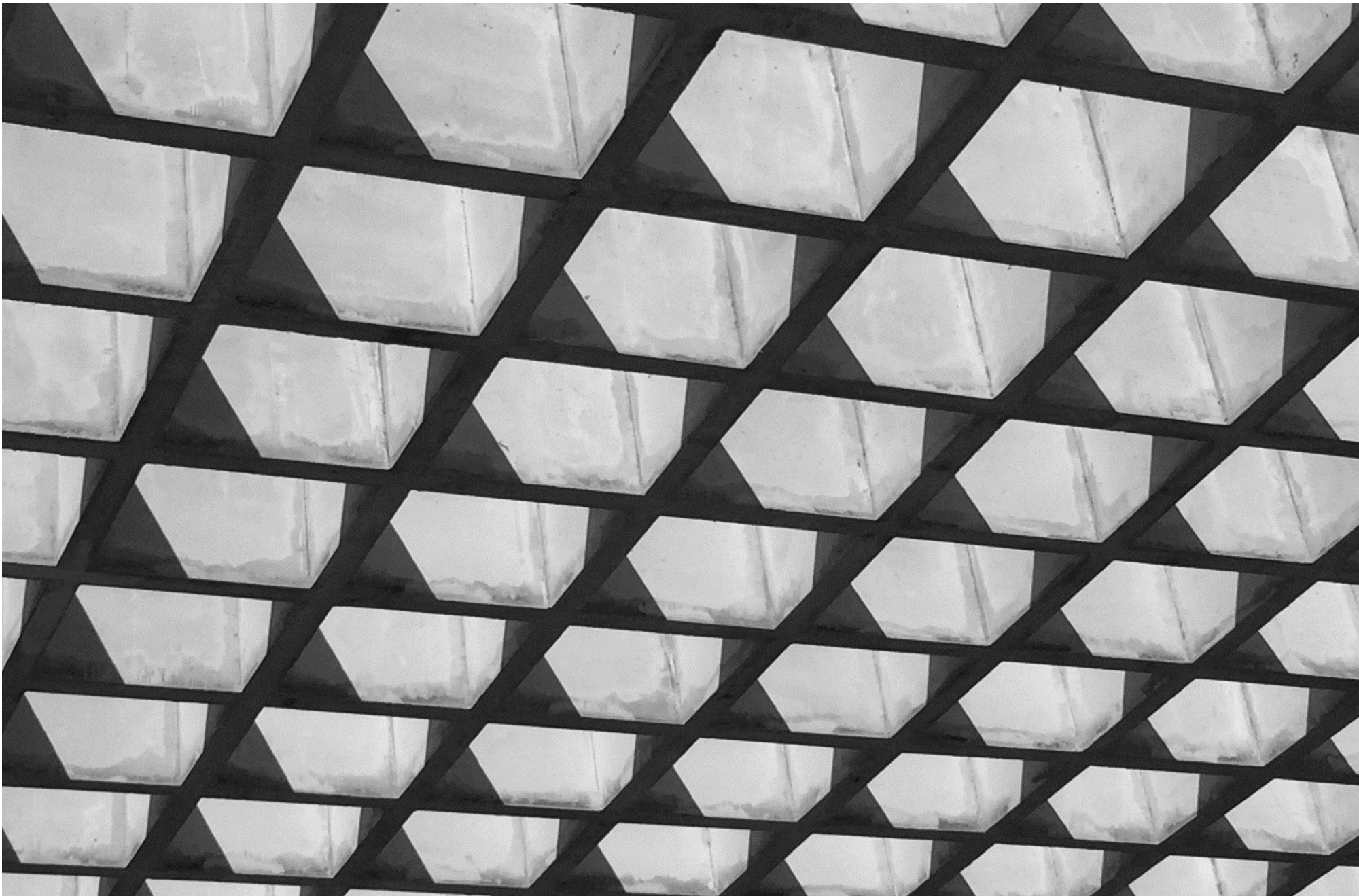
Hilti Pavillon, Schaan, 2016, Arch.: Giuliani Hönger, Ing.: Dr. Schwartz Consulting



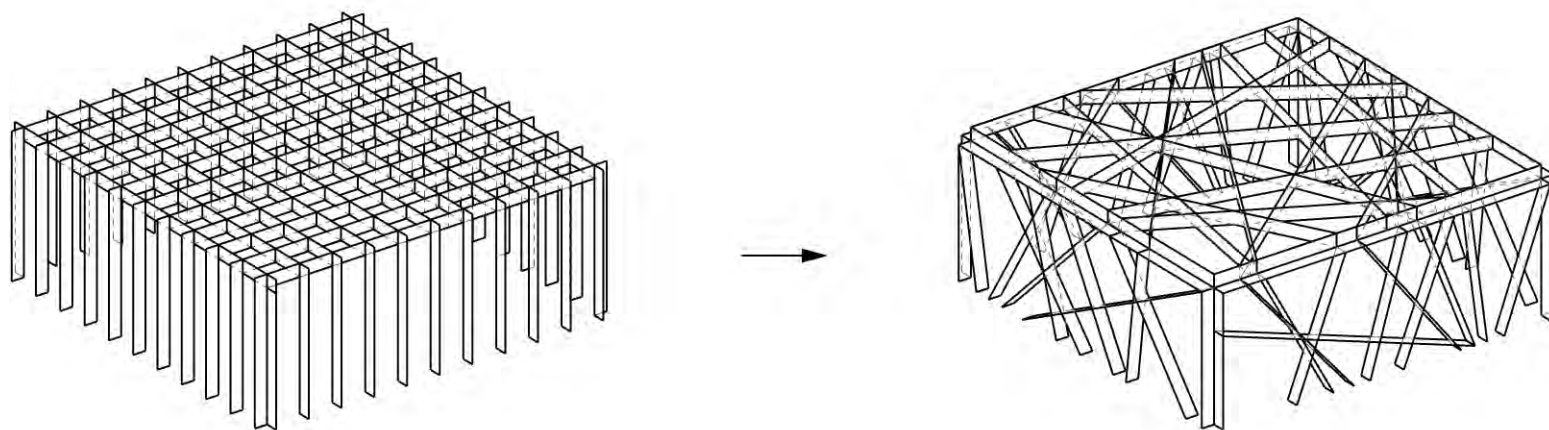
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Hilti Pavillon, Schaan, 2016, Arch.: Giuliani Hönger, Ing.: Dr. Schwartz Consulting

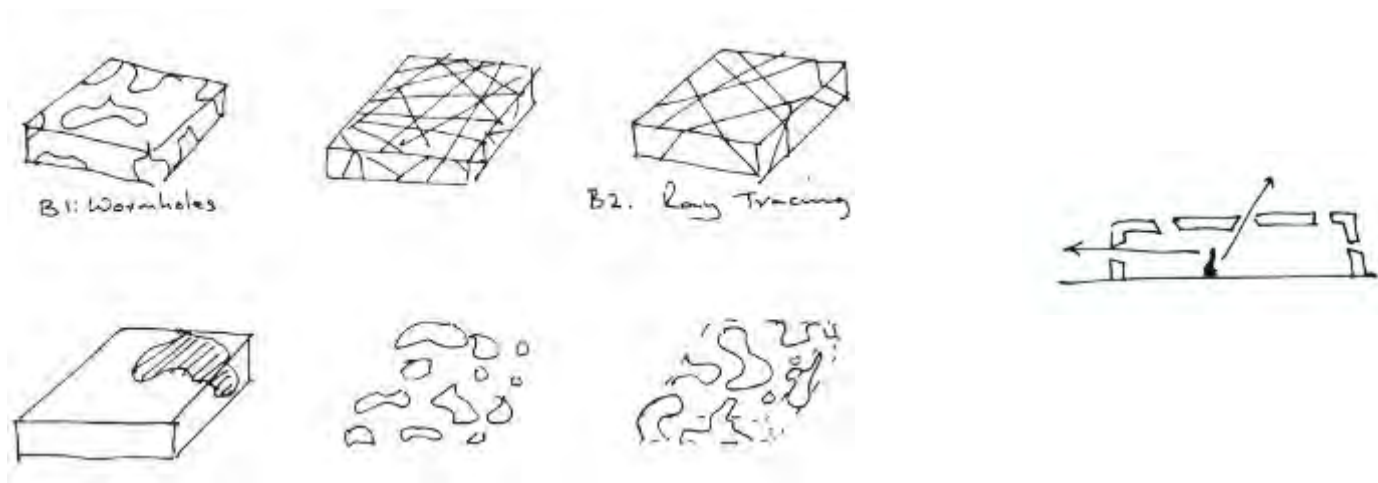


Hilti Pavillon, Schaan, 2016, Arch.: Giuliani Hönger, Ing.: Dr. Schwartz Consulting





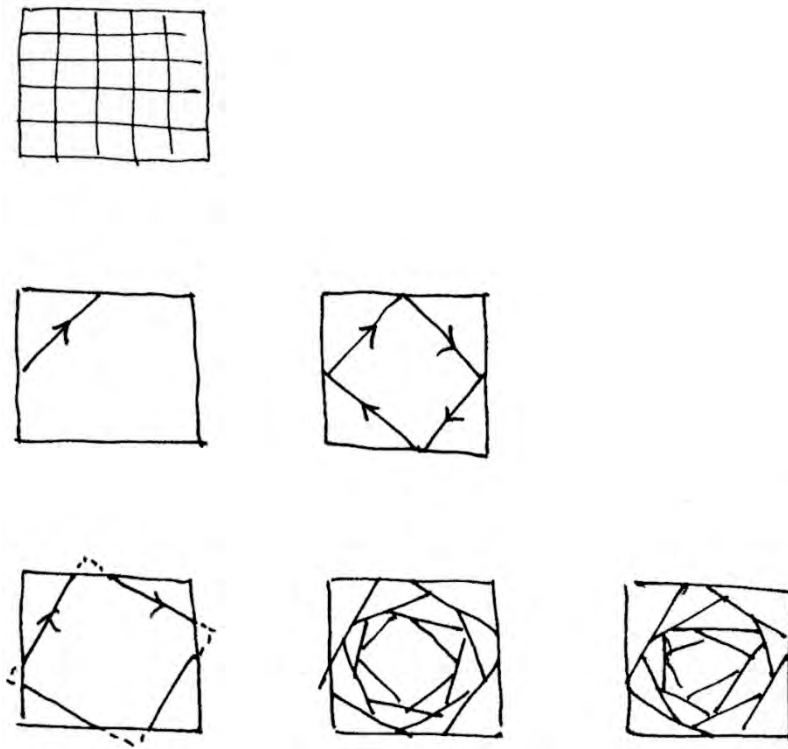
Serpentine Gallery, London, 2002, Arch.: Toyo Ito, Ing.: Cecil Balmond



“Geometry that is structure. Structure that is architecture.”

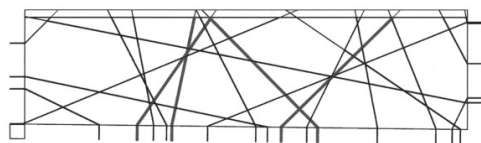
“The aesthetics effect is to occupy a multiplex of web and, as the eye traces the cells of engagement, the eye travels out and what is plane becomes limitless void. The box is no more.”

Cecil Balmond

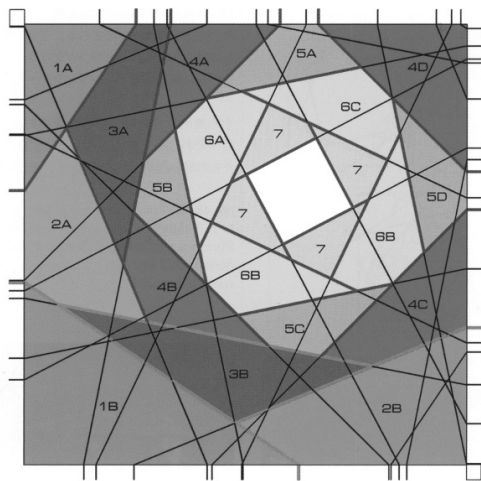


“The random pattern of the London pavilion, however, is both a product of the architects intent and an expression of engineer Cecil Balmond’s ideas about non-linear structure.”

Toyo Ito

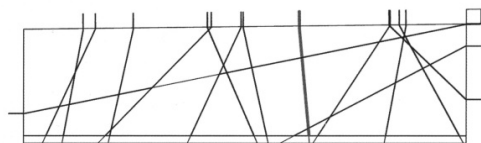


Wall A

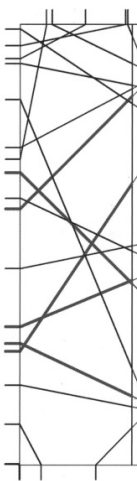


Wall B

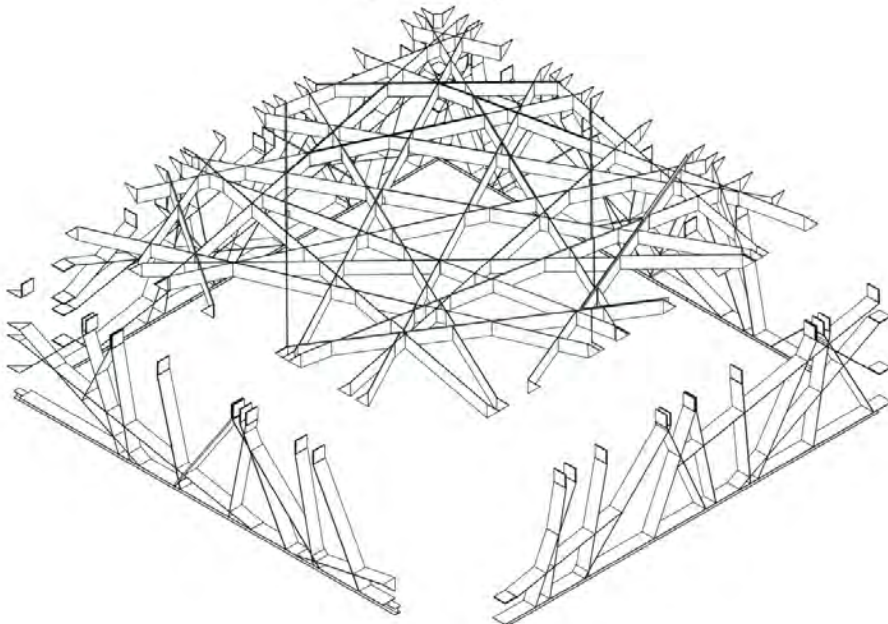
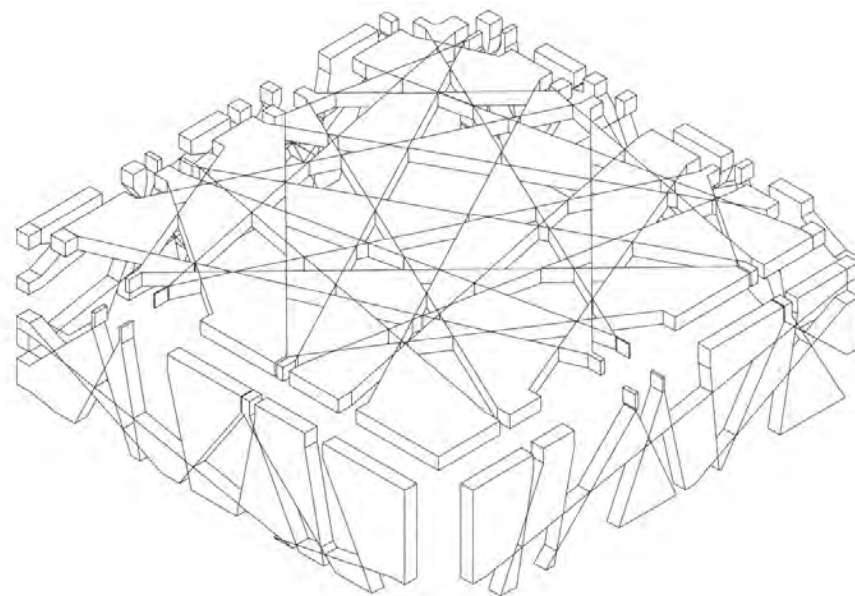
Roof Plan



Wall C



Wall D

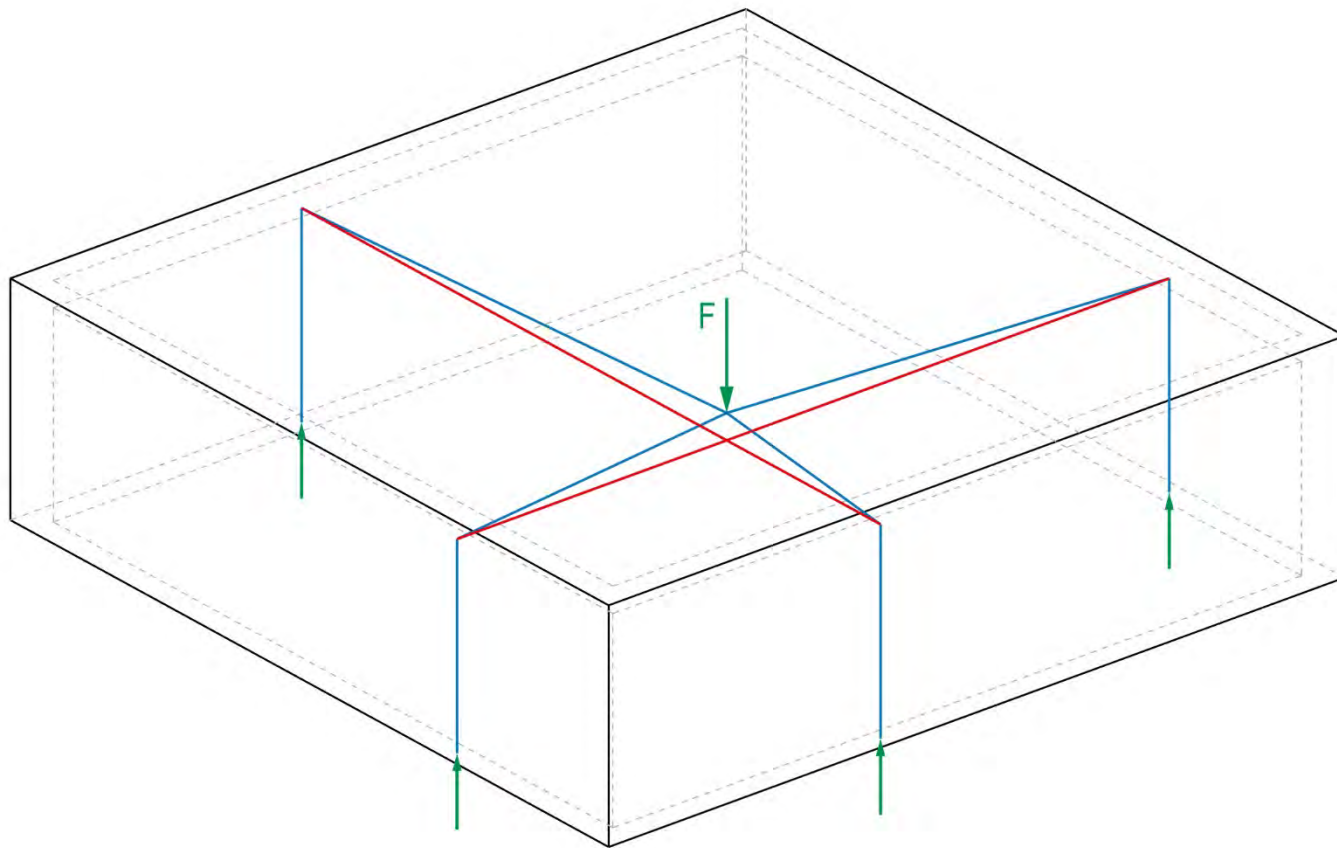


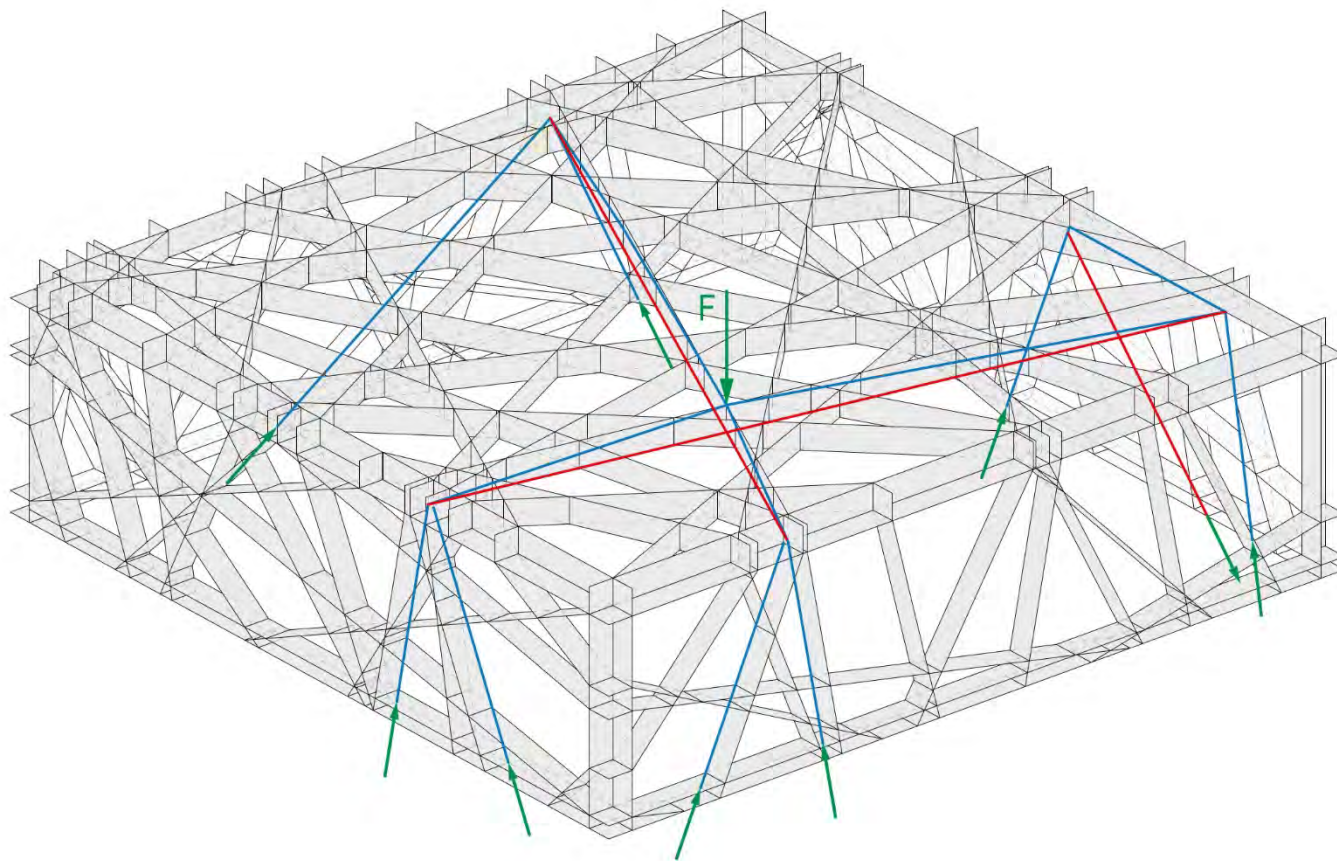


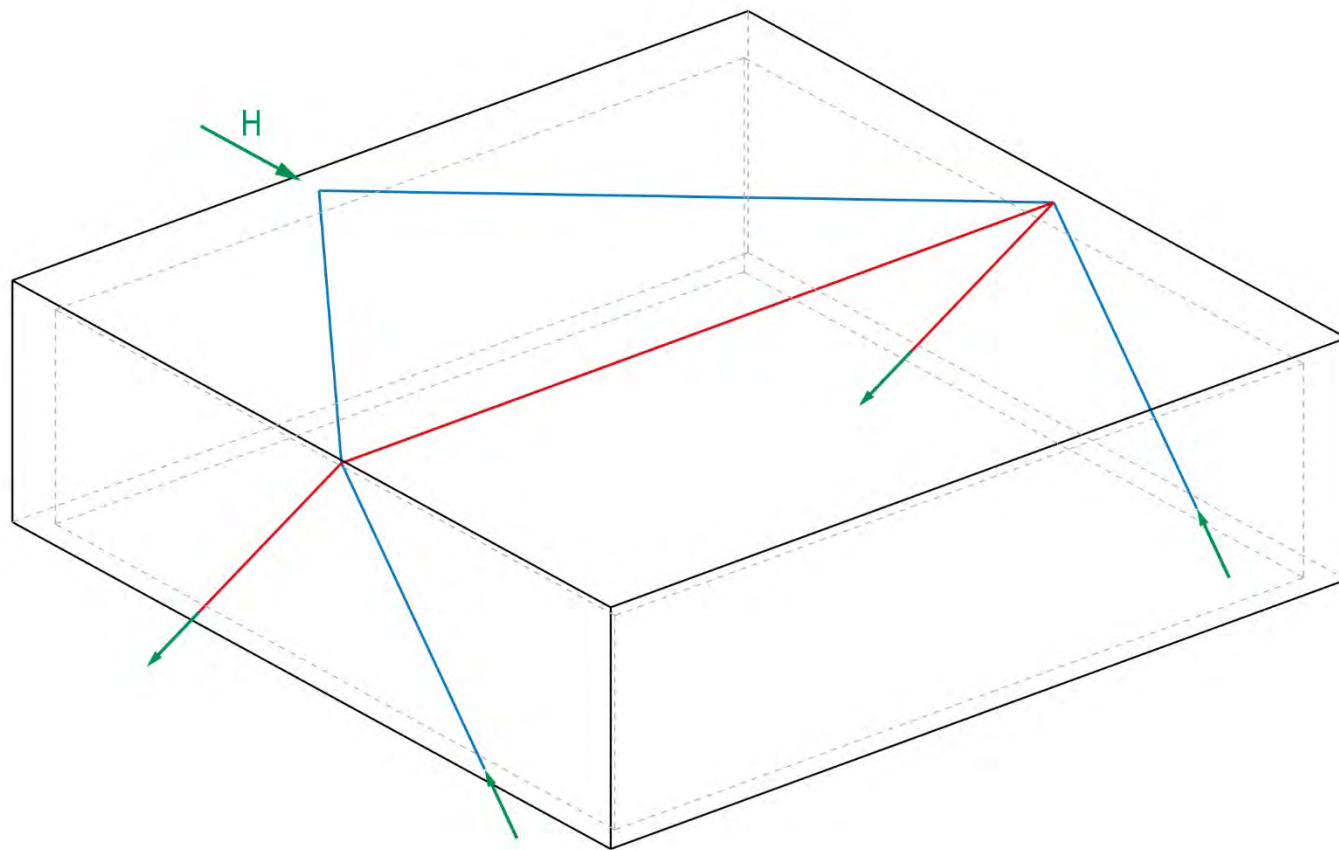
Serpentine Gallery, London, 2002, Arch.: Toyo Ito, Ing.: Cecil Balmond

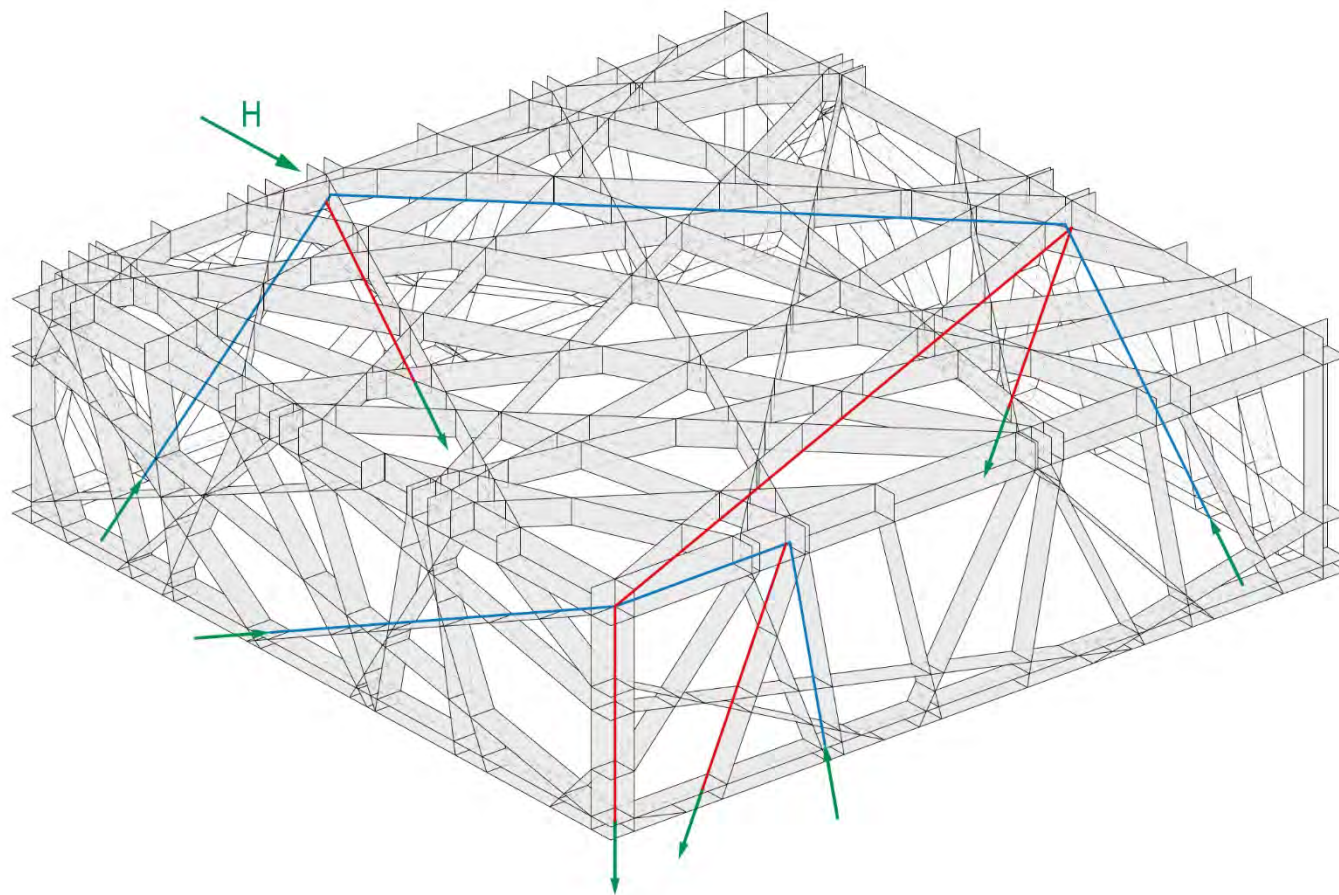


Serpentine Gallery, London, 2002, Arch.: Toyo Ito, Ing.: Cecil Balmond









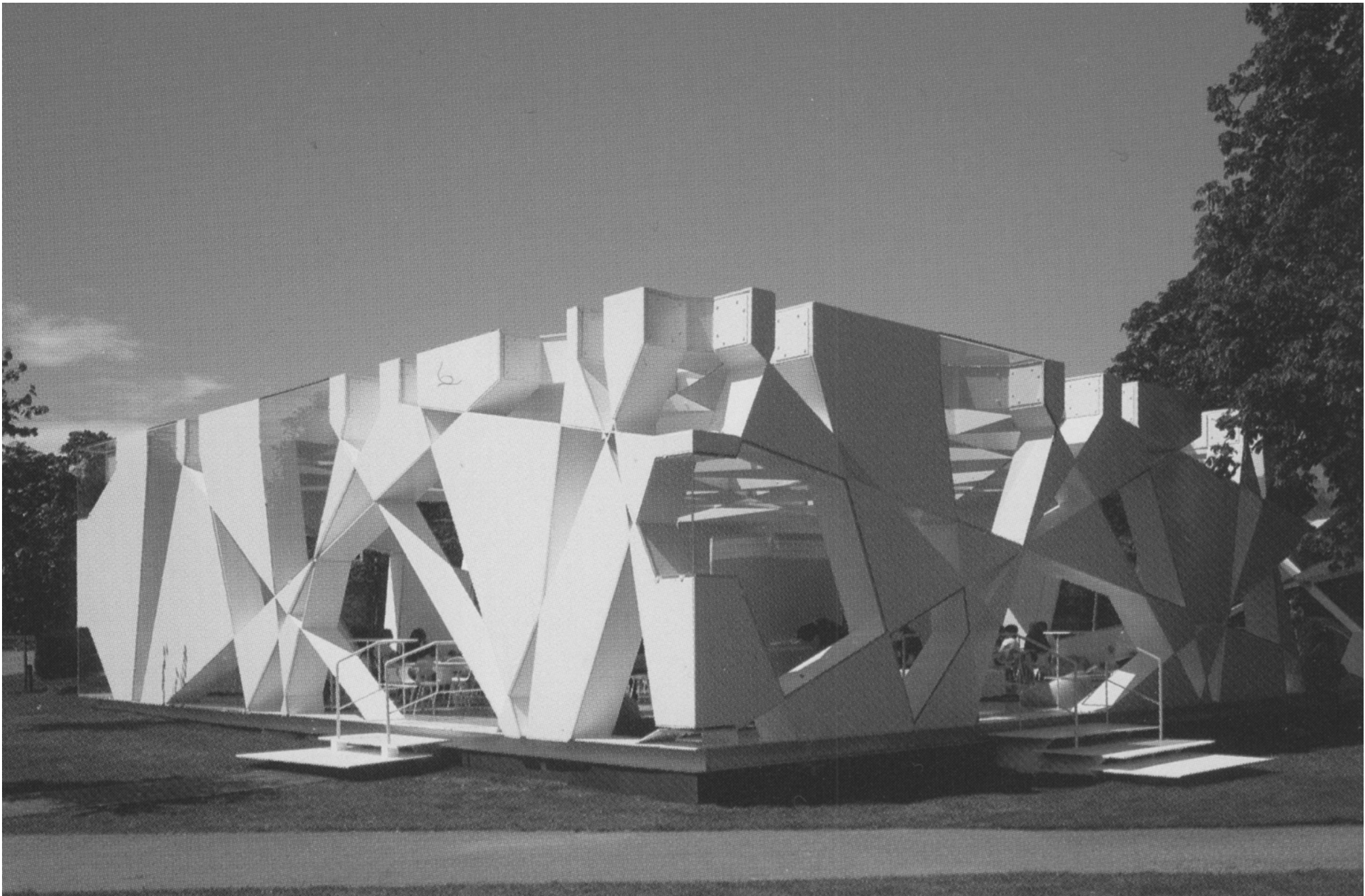
Serpentine Gallery, London, 2002, Arch.: Toyo Ito, Ing.: Cecil Balmond



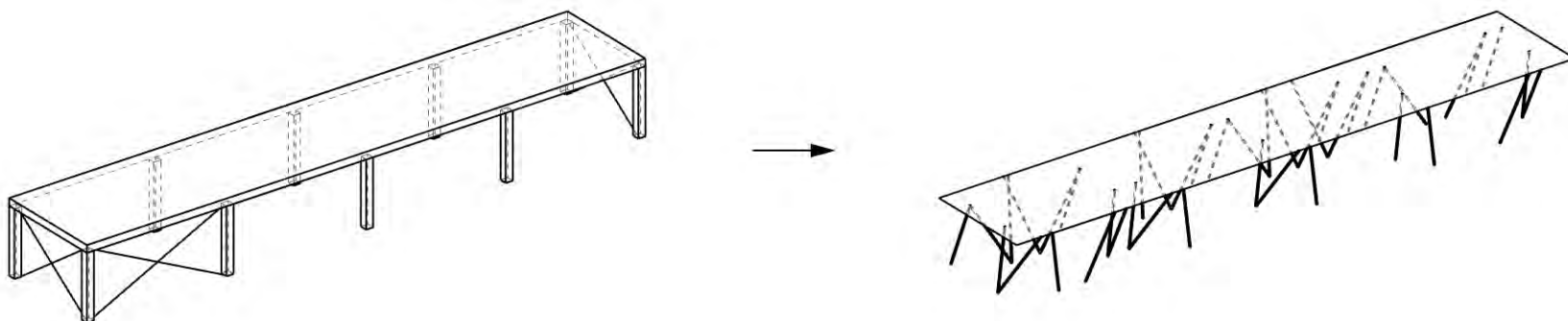
Serpentine Gallery, London, 2002, Arch.: Toyo Ito, Ing.: Cecil Balmond



Serpentine Gallery, London, 2002, Arch.: Toyo Ito, Ing.: Cecil Balmond



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U-Bahnstation Sainte-Catherine, Brussels, 2007, Arch.: Olivier Noterman und Nicolas Vanden Eeckhoudt, Ing.: Ney and Partners



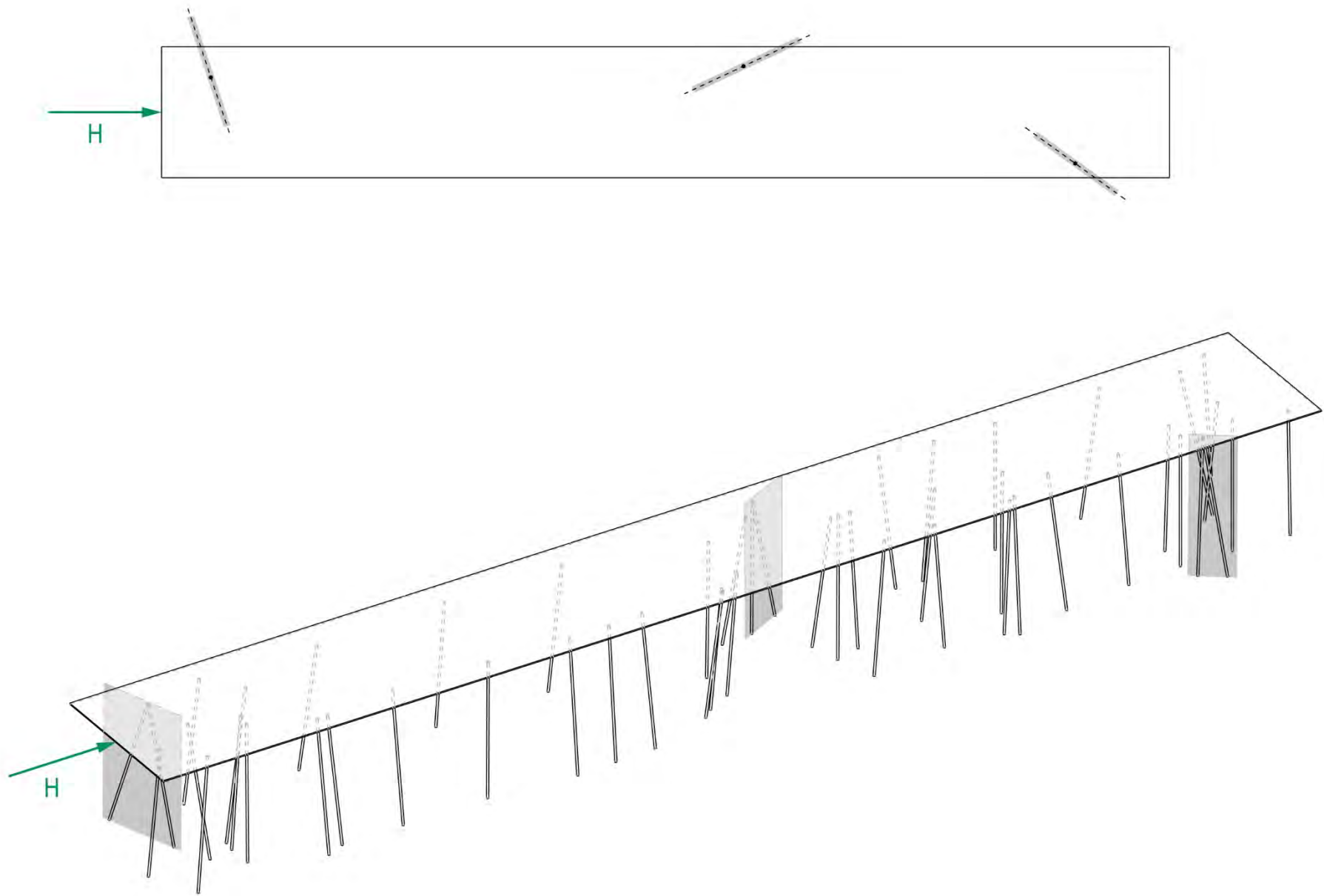
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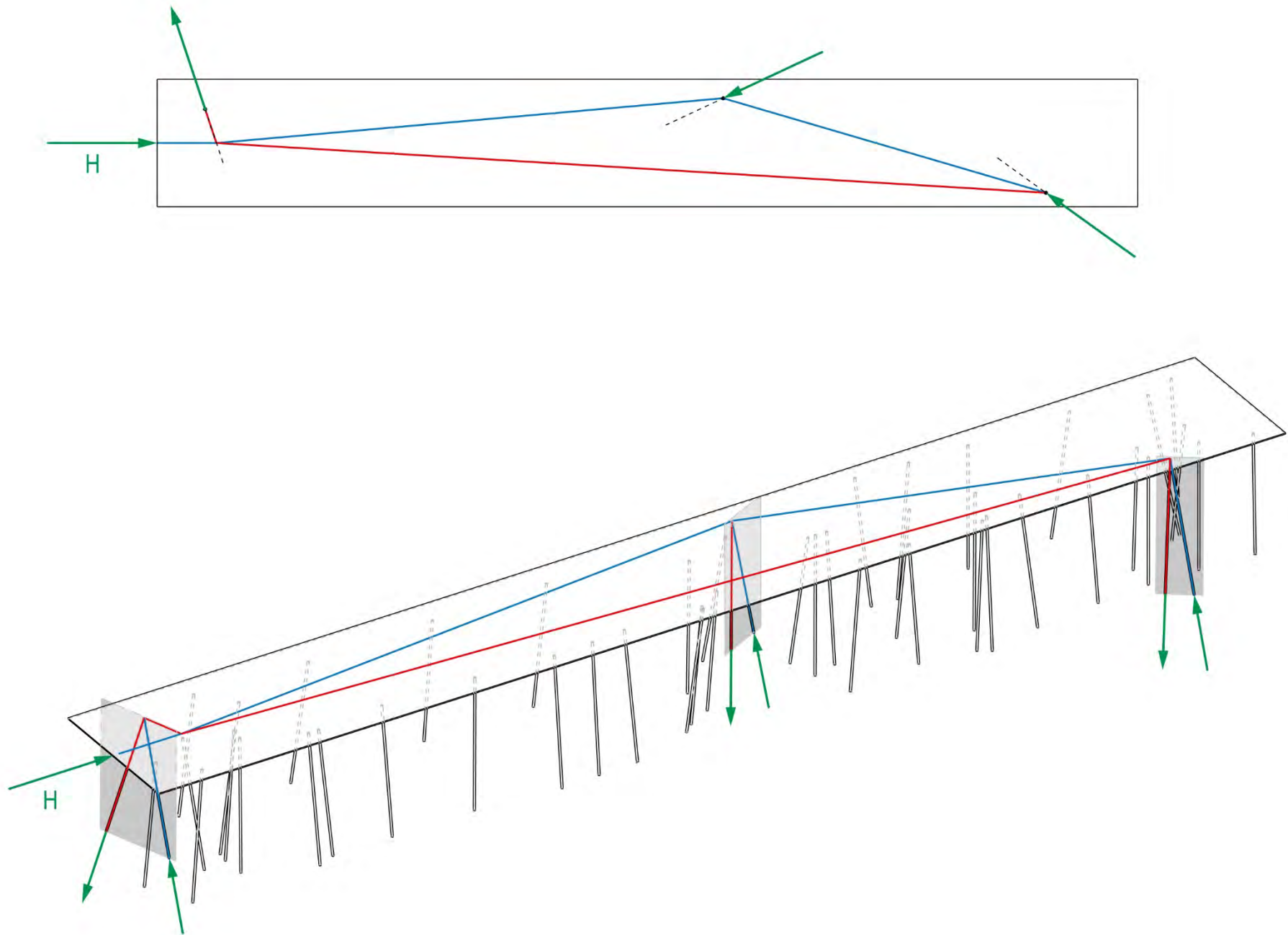


U-Bahnstation Sainte-Catherine, Brussels, 2007, Arch.: Olivier Noterman und Nicolas Vanden Eeckhoudt, Ing.: Ney and Partners



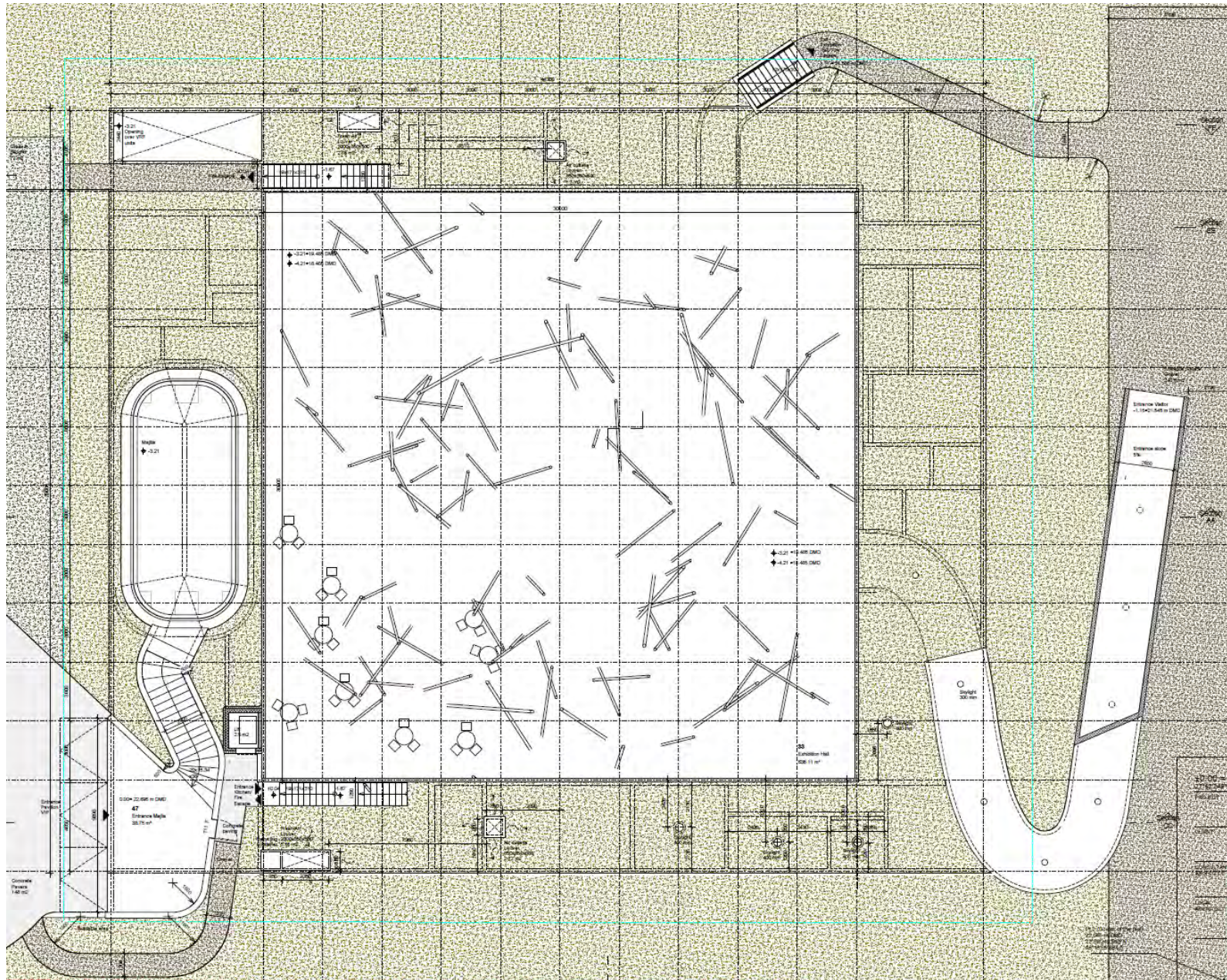
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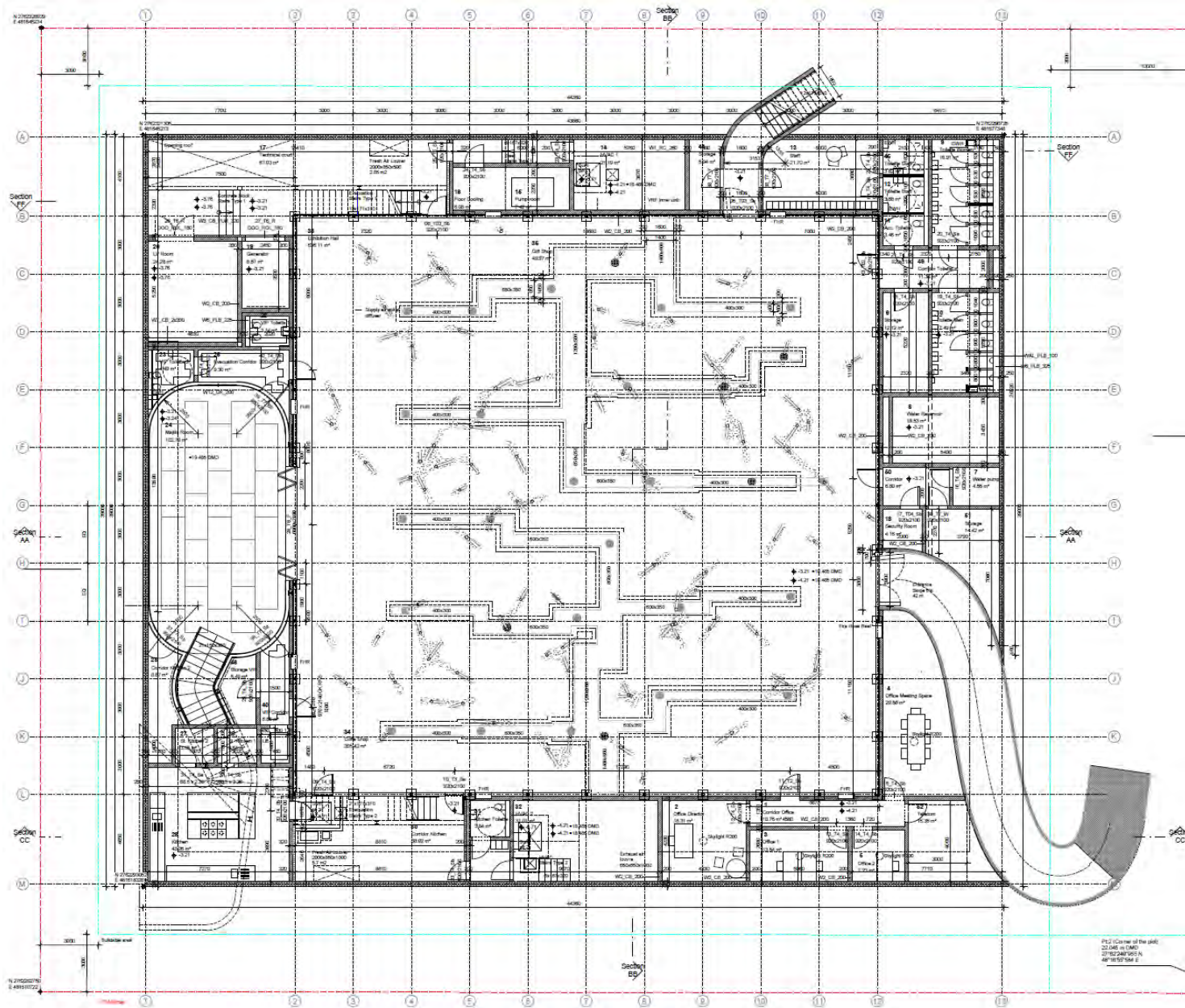




U-Bahnstation Sainte-Catherine, Brussels, 2007, Arch.: Olivier Noterman und Nicolas Vanden Eeckhoudt, Ing.: Ney and Partners



Bahrain Pavilion Dubai Expo 2020, Dubai, 2020, Arch.: Christian Kerez, Ing.: Dr. Schwartz Consulting



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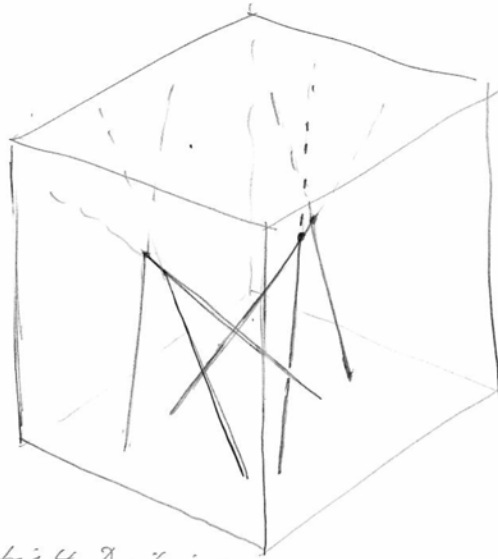
Bahrain Pavilion Dubai Expo 2020, Dubai, 2020, Arch.: Christian Kerez, Ing.: Dr. Schwartz Consulting



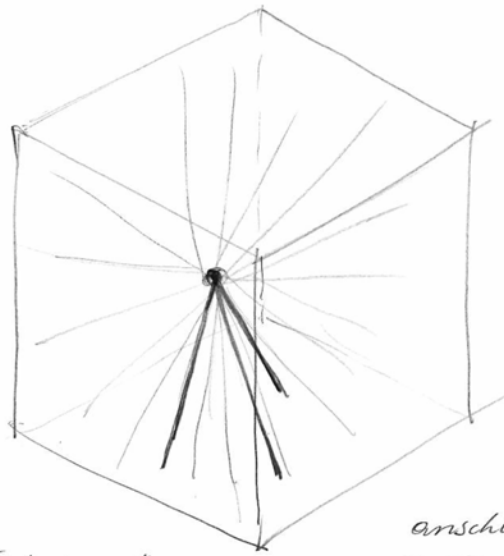
Bahrain Pavilion Dubai Expo 2020, Dubai, 2020, Arch.: Christian Kerez, Ing.: Dr. Schwartz Consulting

Überlegungen zum primären System

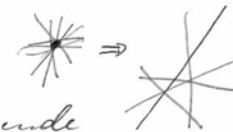
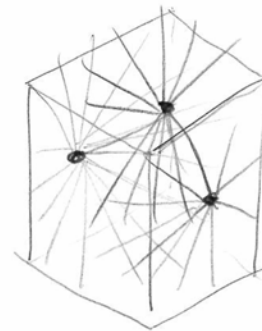
04.06.2019/Sj



2 bis 4 Freiteile



"Explosionen"



anschließende
Entflechtung der Zentrumspunkte





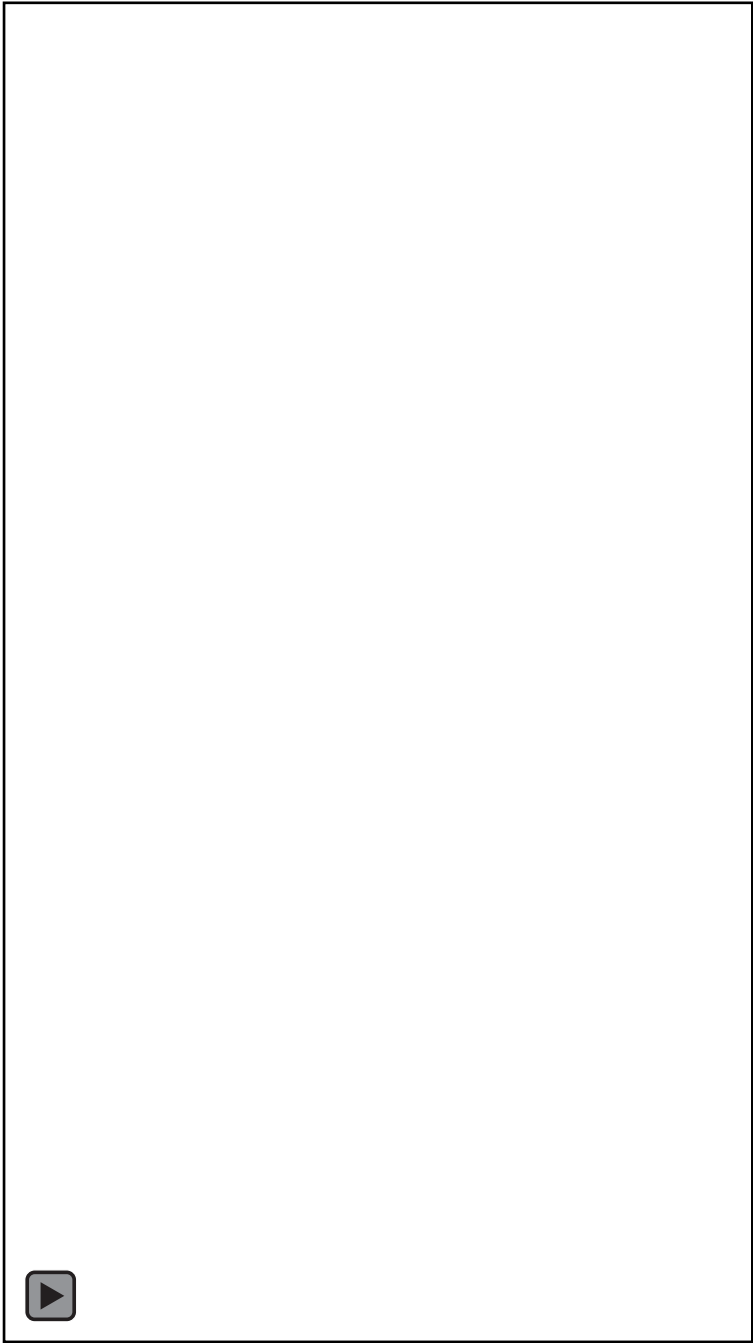
Bahrain Pavilion Dubai Expo 2020, Dubai, 2020, Arch.: Christian Kerez, Ing.: Dr. Schwartz Consulting



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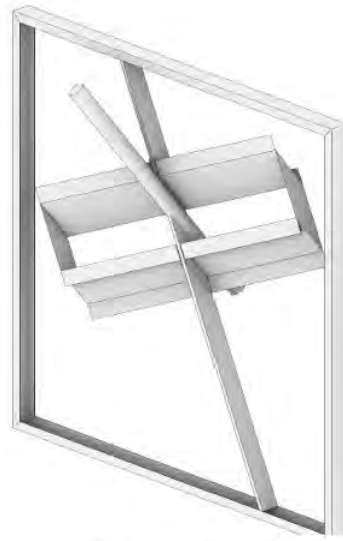




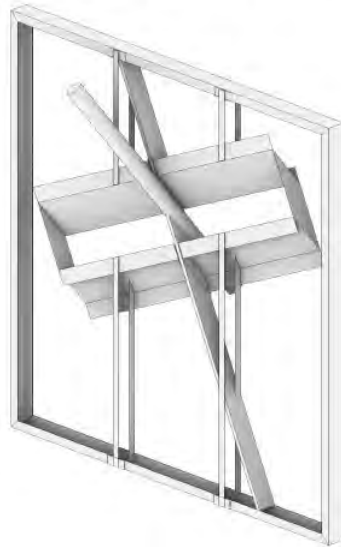
Roof edge - connection of the panels



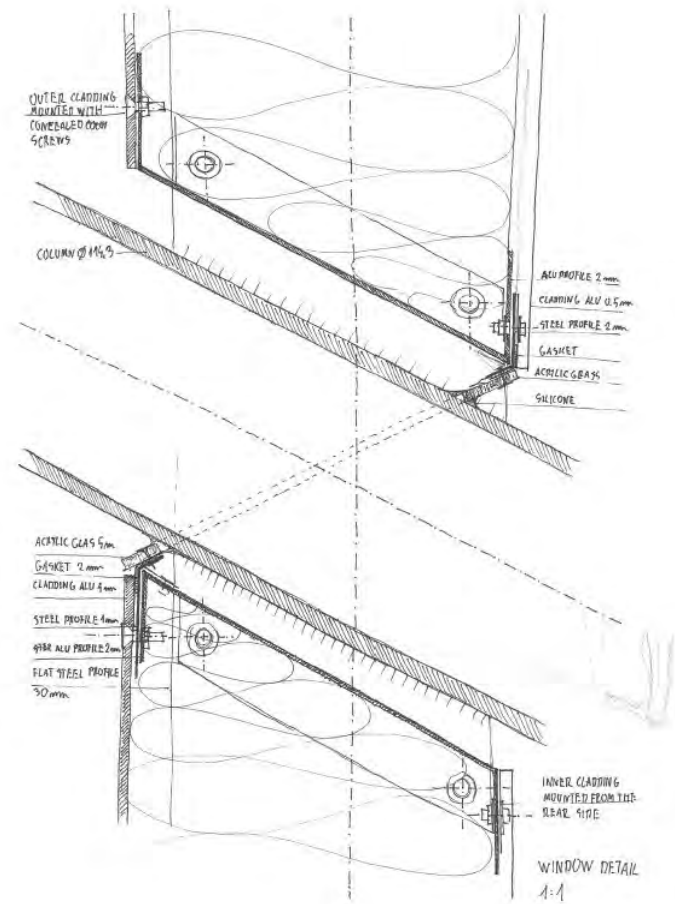
1. Main grid UPE 140



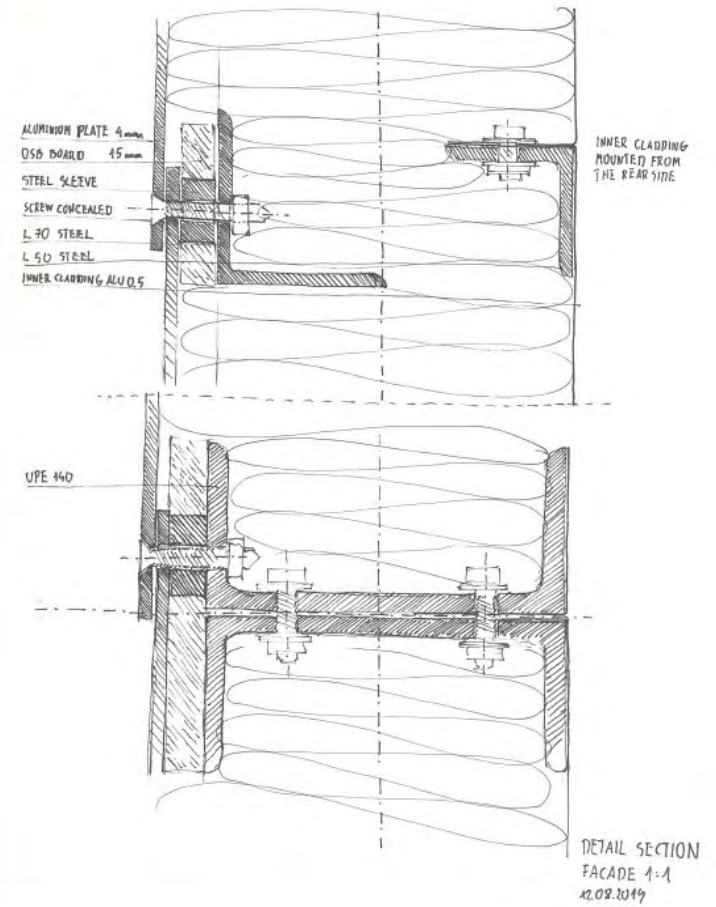
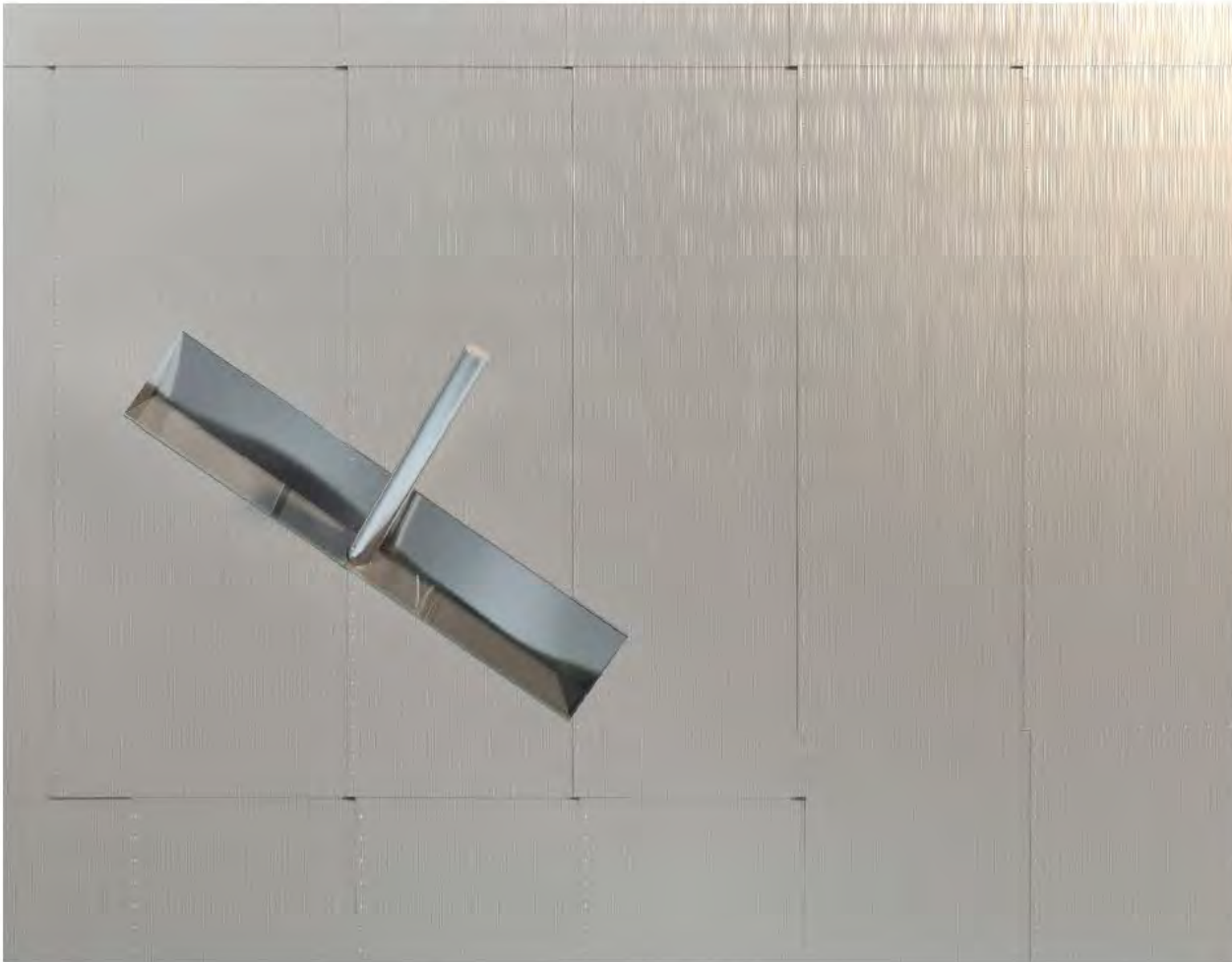
2. Window frame steel sheet 2 mm



3. Understructure cladding L70, L50



Option 1, detail 1:2





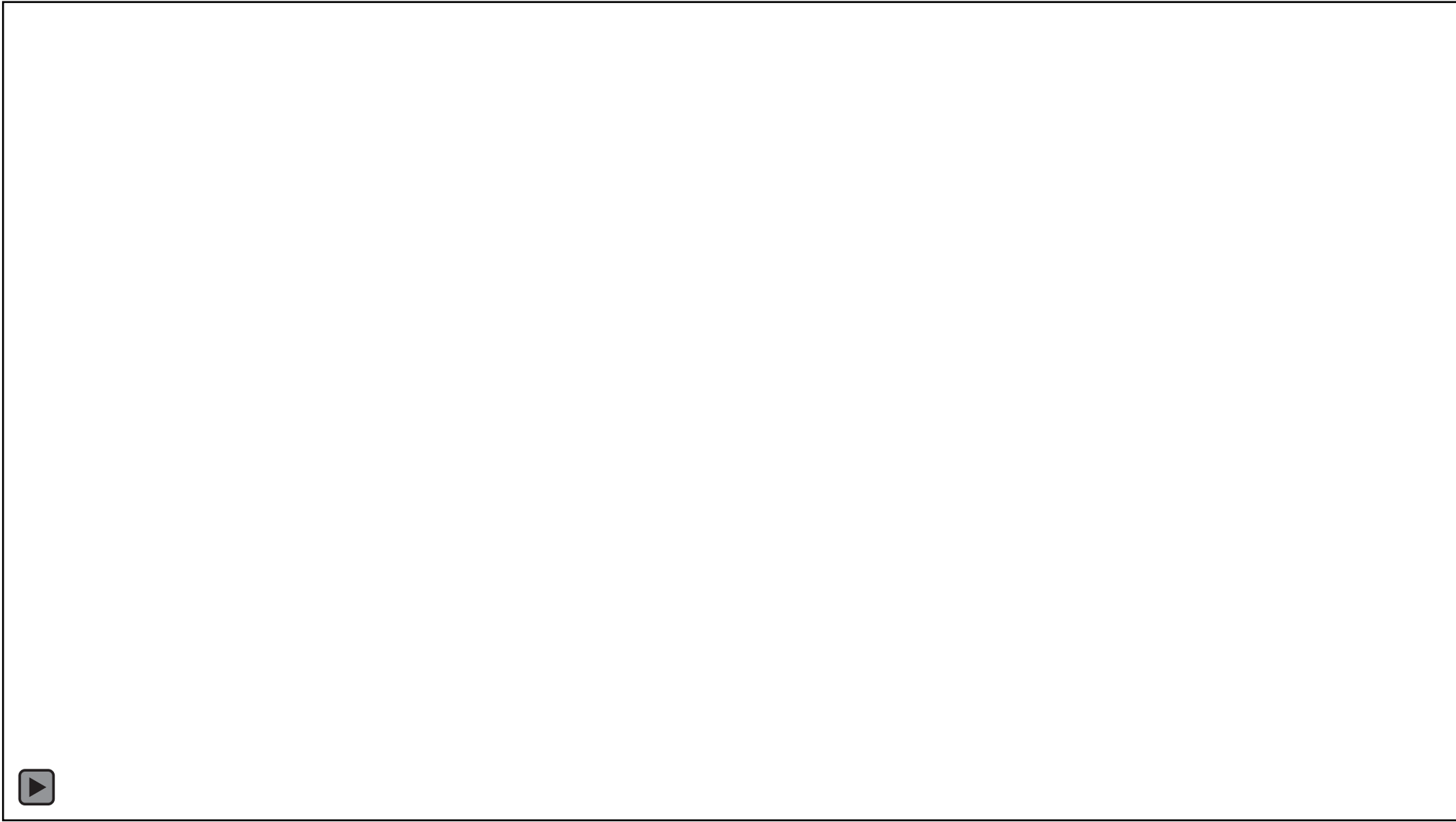
Bahrain Pavilion Dubai Expo 2020, Dubai, 2020, Arch.: Christian Kerez, Ing.: Dr. Schwartz Consulting



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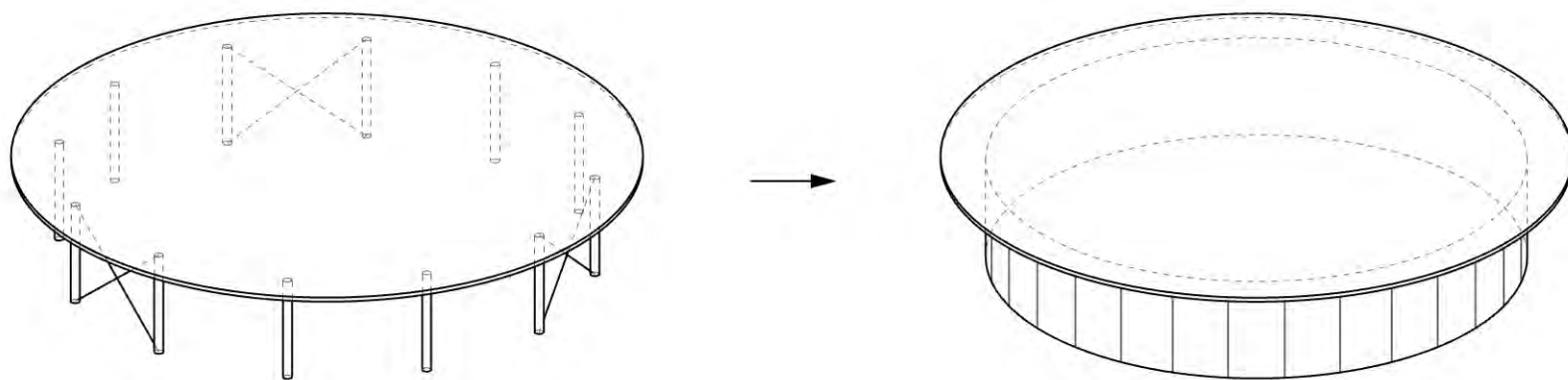
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Steve Jobs Theater, Cupertino, 2017, Arch.: Foster + Partners, Ing.: Eckersley O'Callaghan



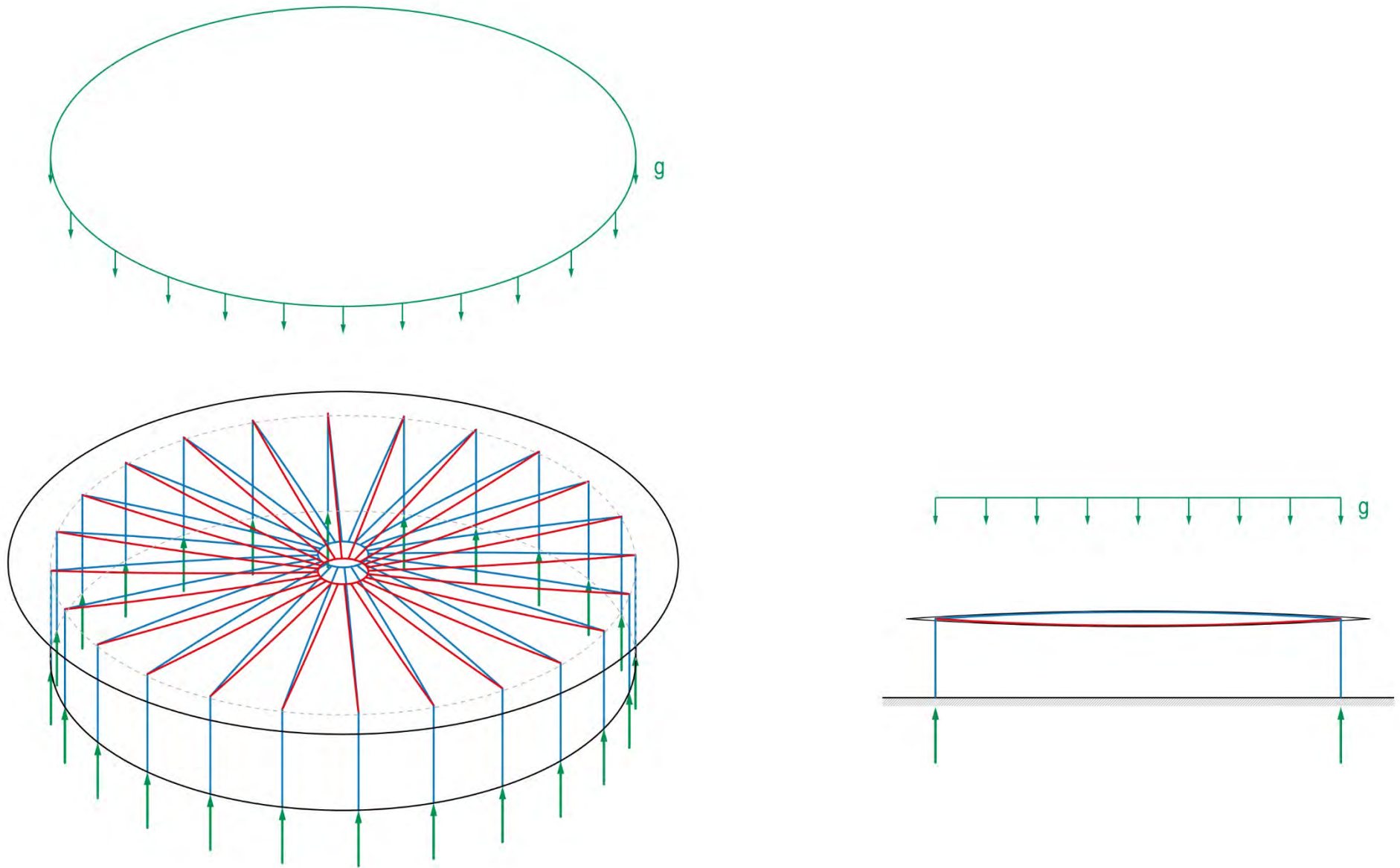
Steve Jobs Theater, Cupertino, 2017, Arch.: Foster + Partners, Ing.: Eckersley O'Callaghan



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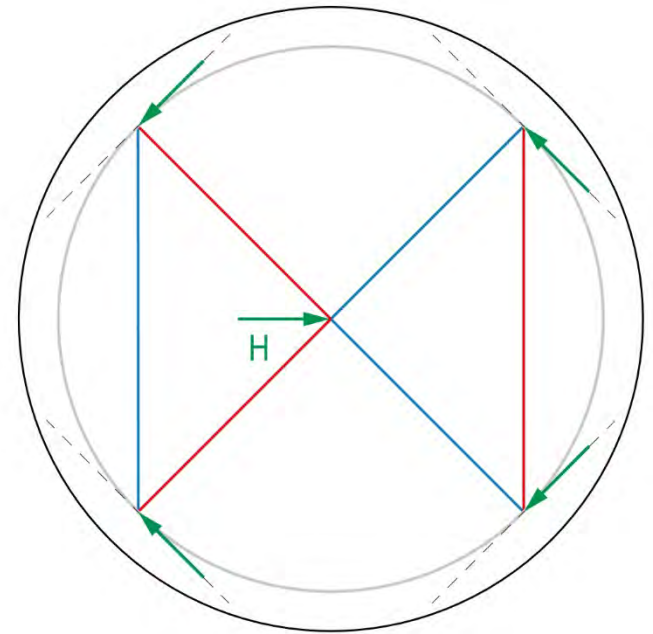
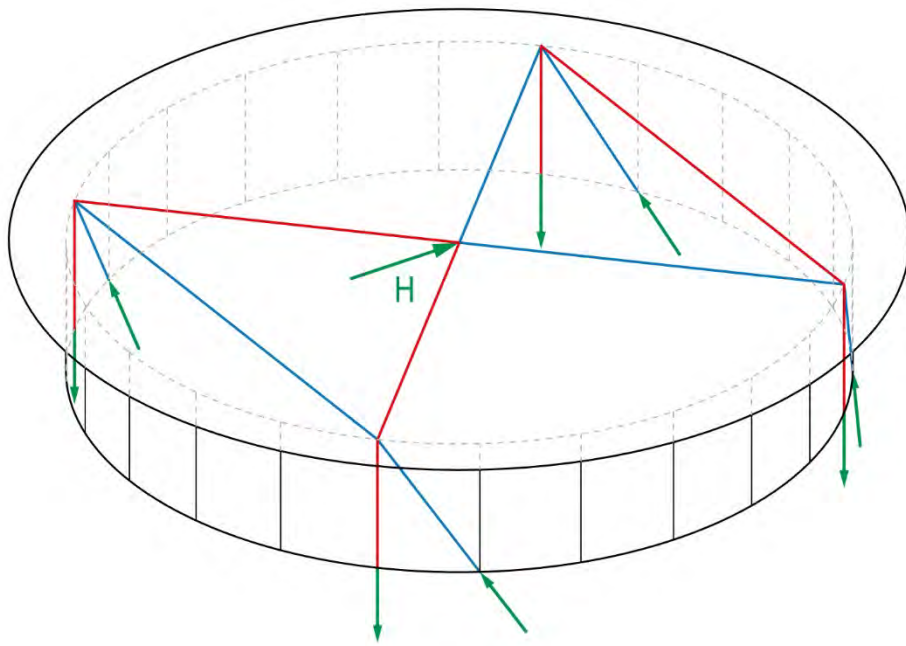


Steve Jobs Theater, Cupertino, 2017, Arch.: Foster + Partners, Ing.: Eckersley O'Callaghan



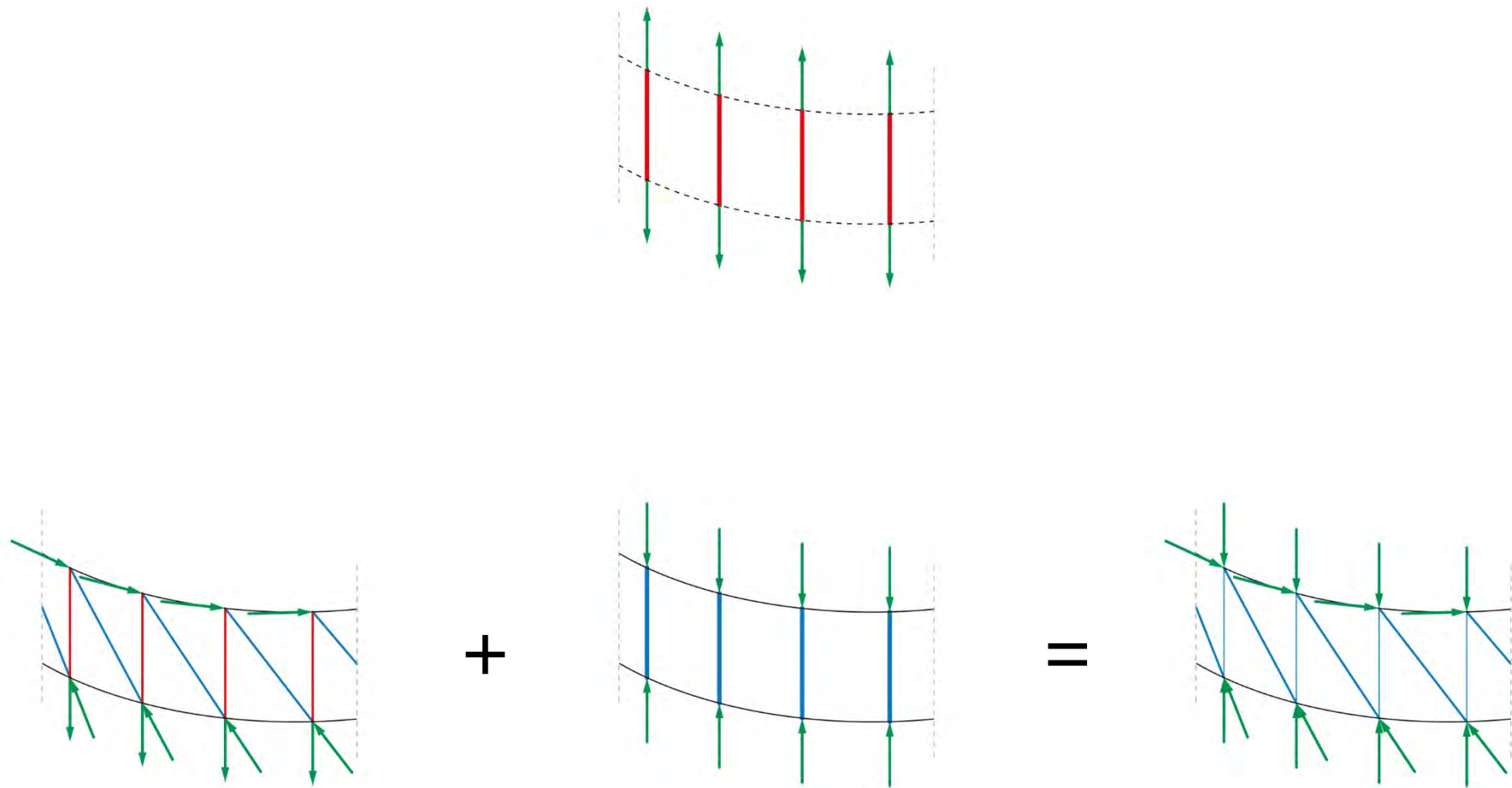


Steeve Jobs Theater, Cupertino, 2017, Arch.: Foster + Partners, Ing.: Eckersley O'Callaghan



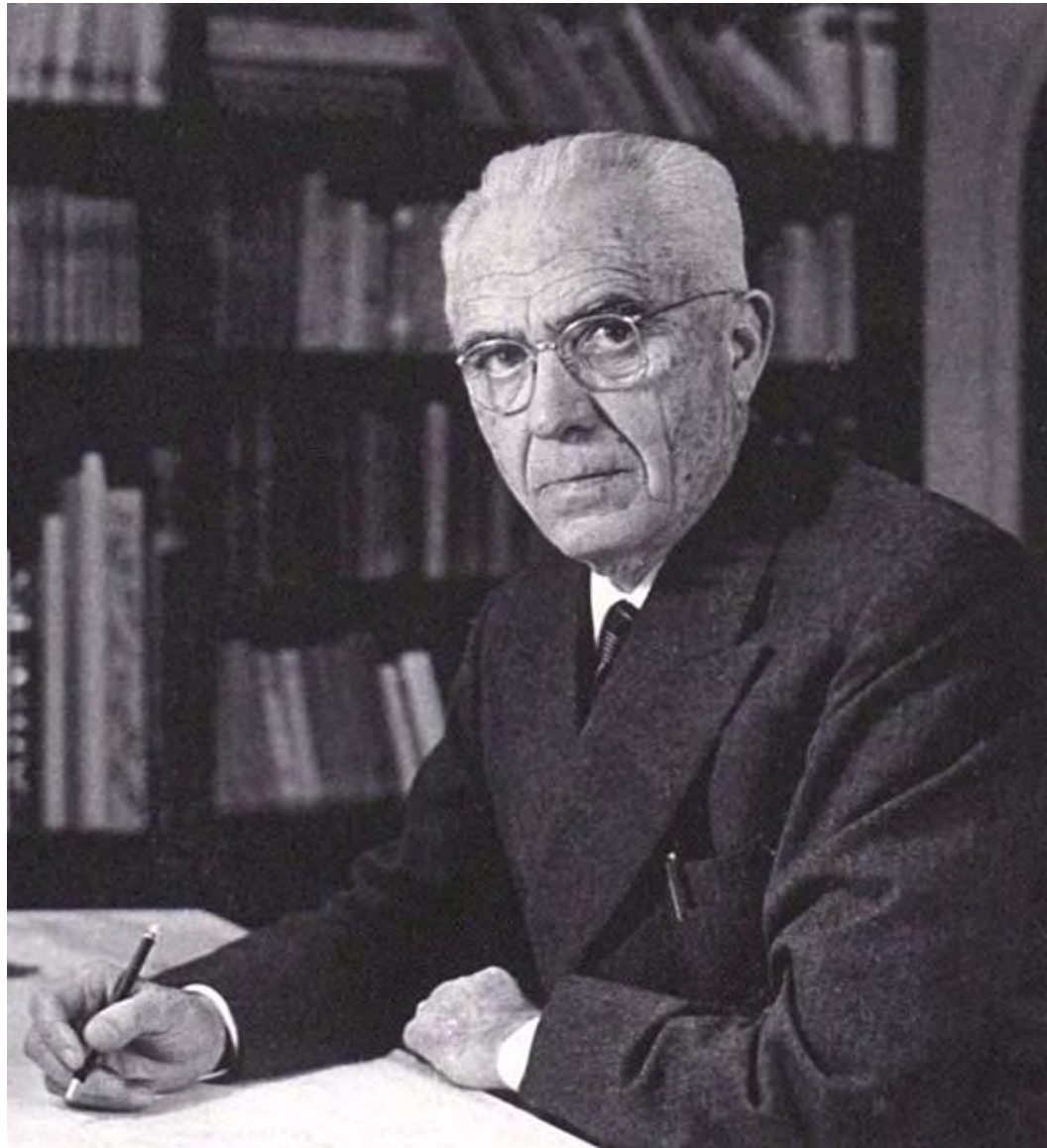


Steve Jobs Theater, Cupertino, 2017, Arch.: Foster + Partners, Ing.: Eckersley O'Callaghan





Steve Jobs Theater, Cupertino, 2017, Arch.: Foster + Partners, Ing.: Eckersley O'Callaghan



“It’s about finding ways to render the collaboration between architects and engineers more and more fruitful. A collaboration which has to start at the beginning of architectural planning in order to avoid formalistic excess as well as technically impracticable solutions.”

Pier Luigi Nervi, on the topic of architects and engineers, Casabelle, 1959