

Portfolio Spring 2013

**ANDERS HOLDEN DELEURAN**  
MSc.Eng/Cand.Polyt.Architecture & Design

Address: Öregrundsgatan 18 3.Tr  
115-59 Stockholm, Sweden  
Phone: +46722068291

Mail: anders.deleuran@aedas.com  
Web: andersholdendeuran.com

**Selected Projects**  
2005-2013

RIBS 2013  
Green Block Astana 2013  
GEMS Academy 2012  
Doha Metro 2012  
Polish Embassy 2011  
Dermoid 2011  
Thaw/Thicket 2010  
Reef 2010  
Project Distortion 2010  
devA Laser Rig 2010  
Persistent Model #1 2010  
Environmental Response 2010  
Sargasso Cloud 2009  
Sargasso Fields 2009  
Nørreport Boids 2009  
Performative Architecture 2008  
The New Materiality of the Social 2008  
SpaceFraming 2007  
NoRA 2006  
Herning Art Museum 2005  
Leica Smarhield 2005  
Miscellaneous 2007-2010

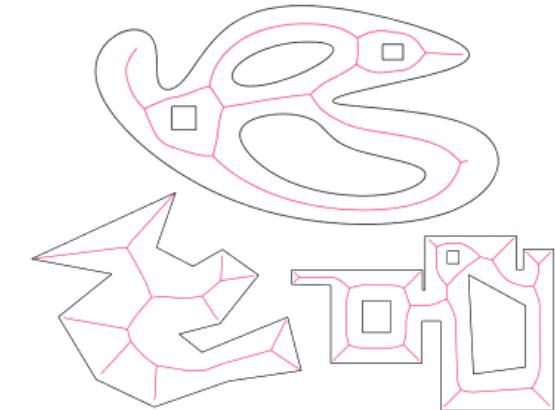
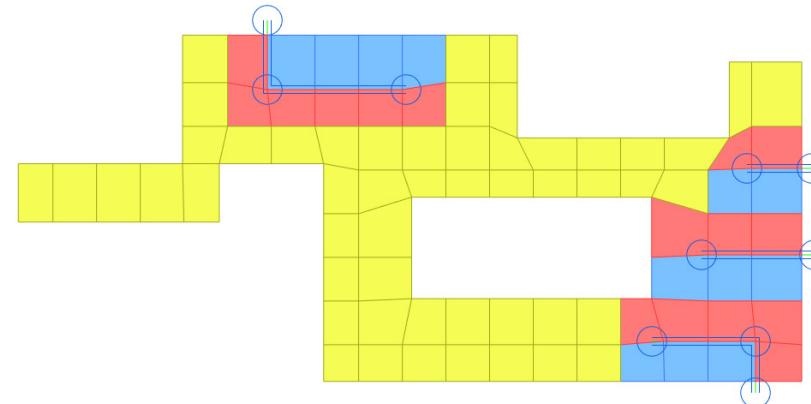
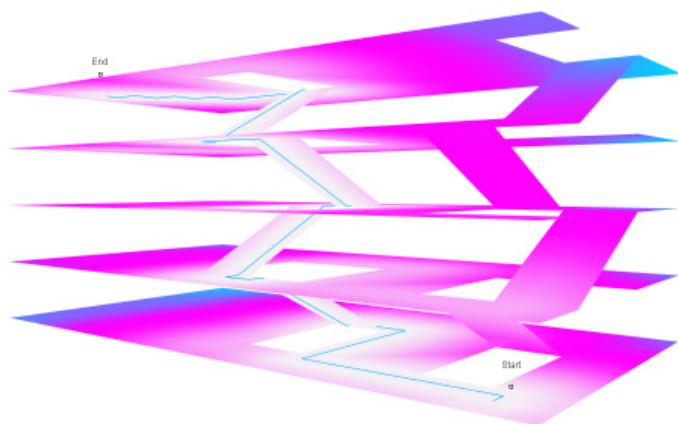
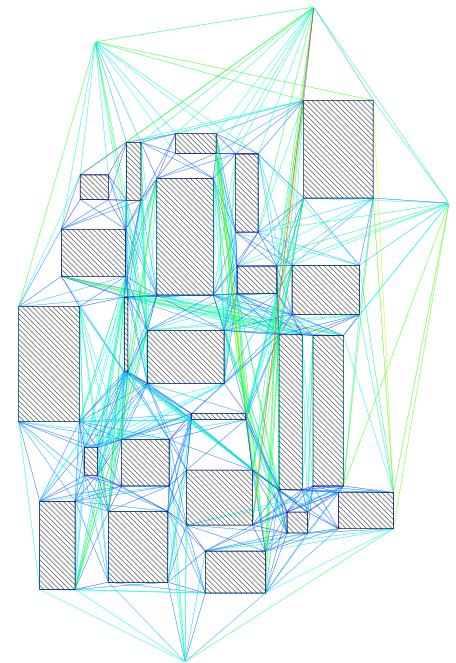
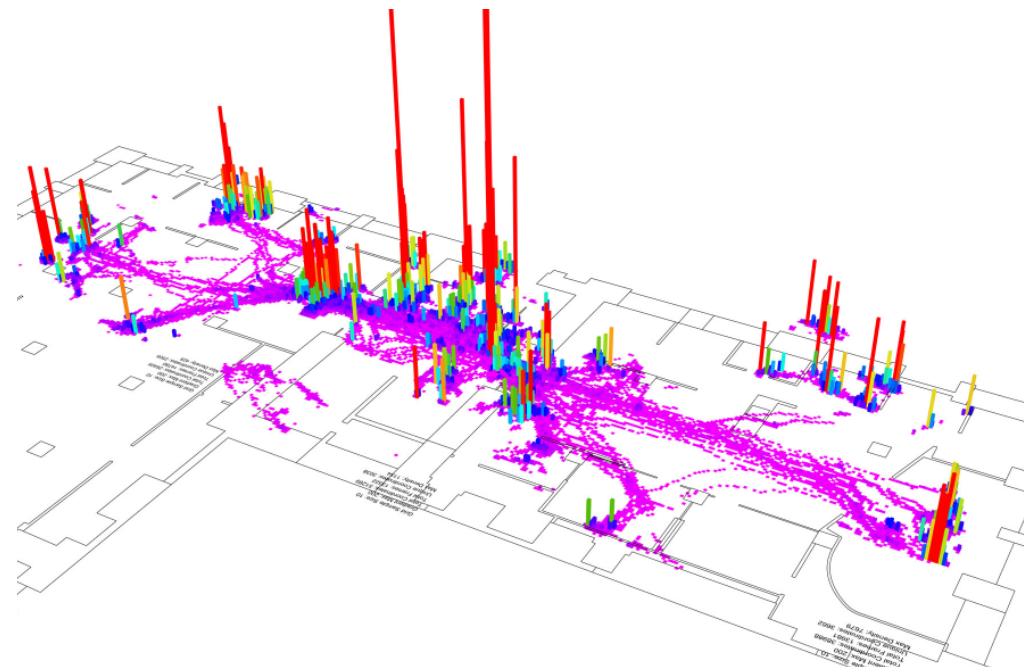
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Full version available upon request.

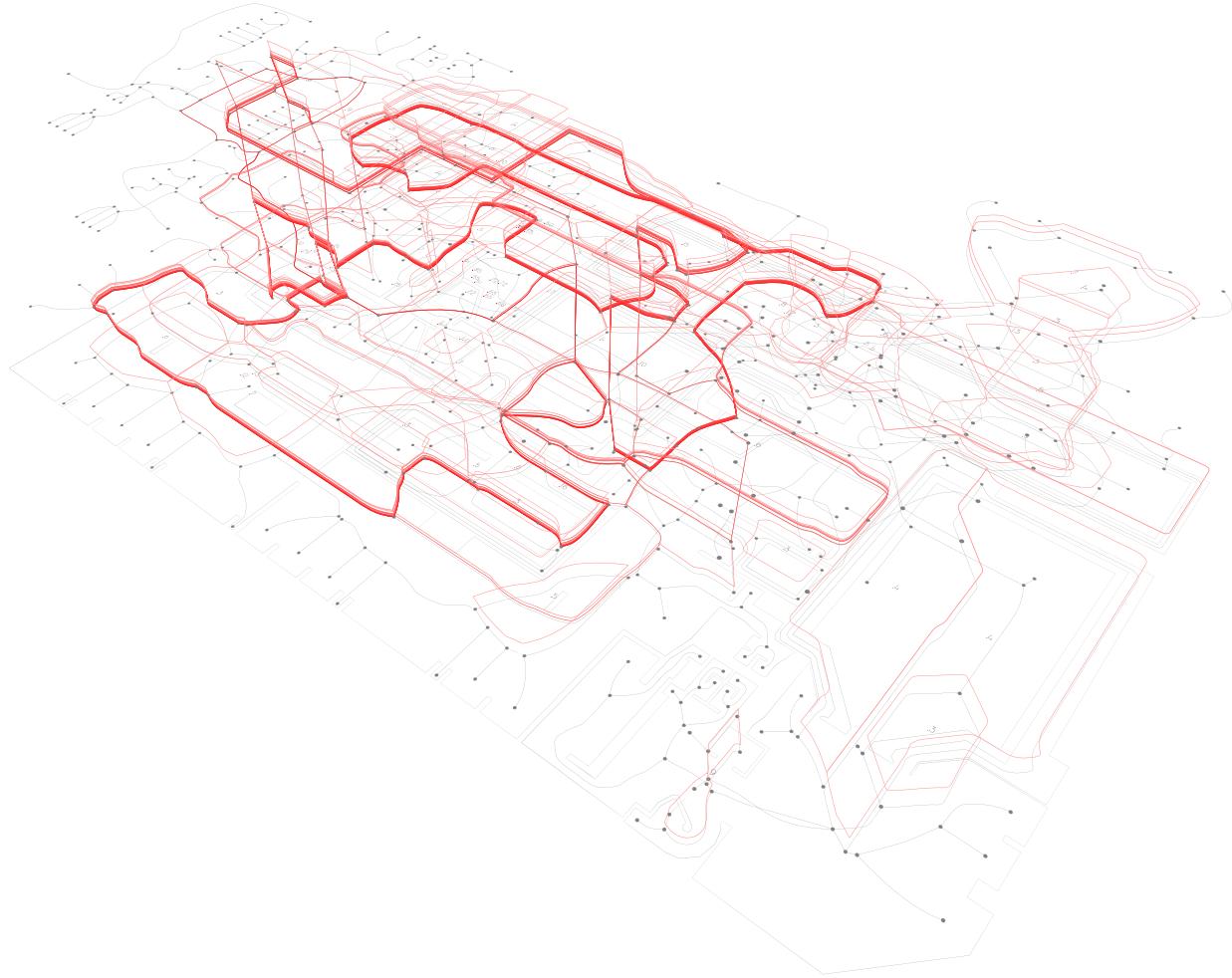
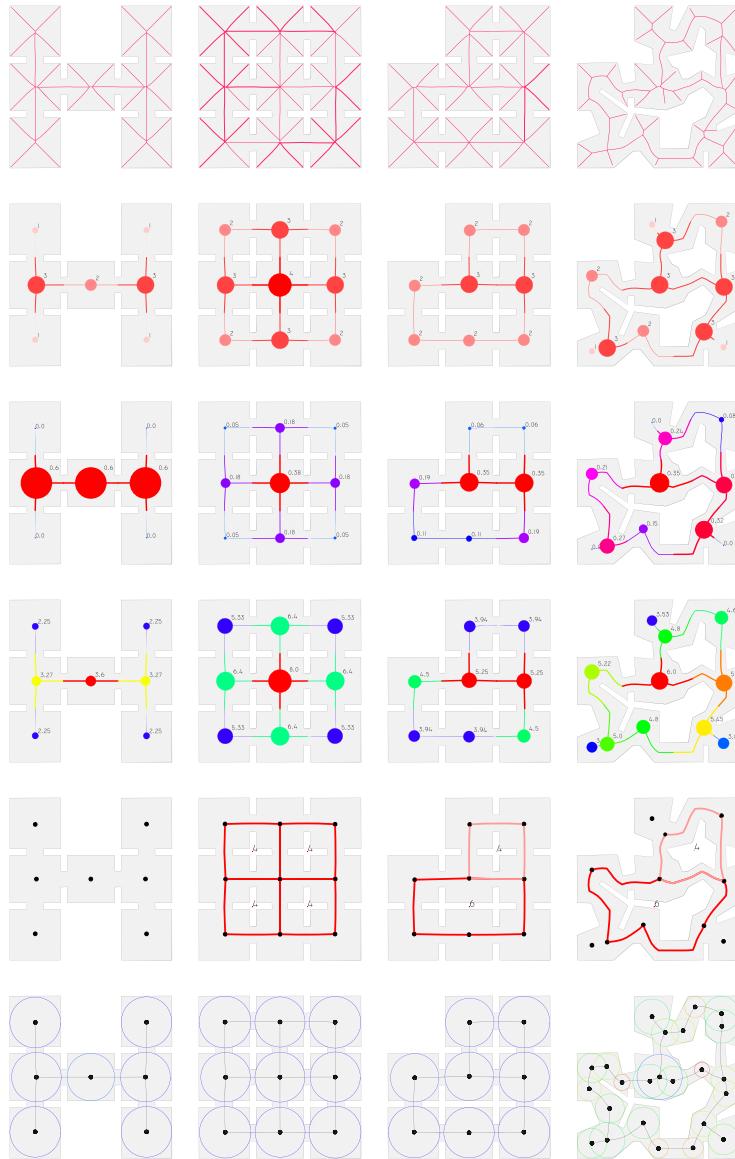
#### **Resilient Infrastructure and Building Safety**

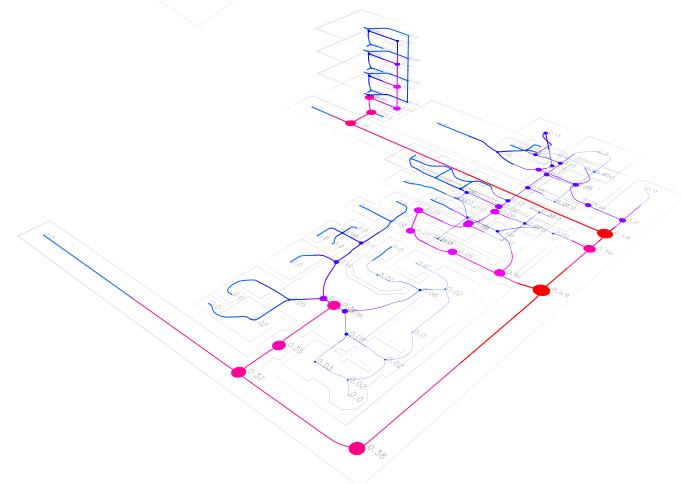
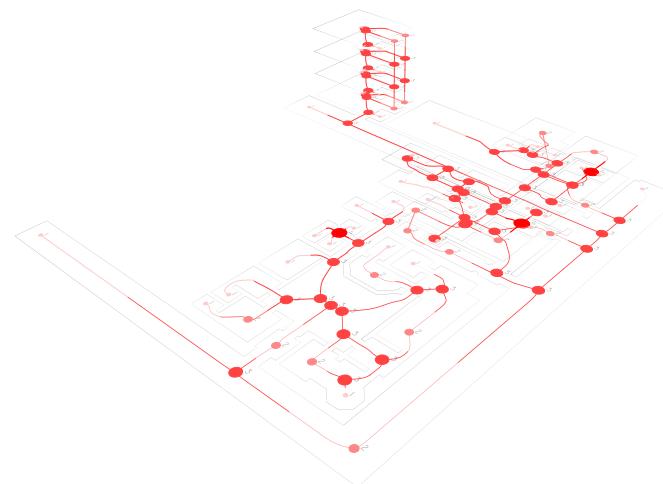
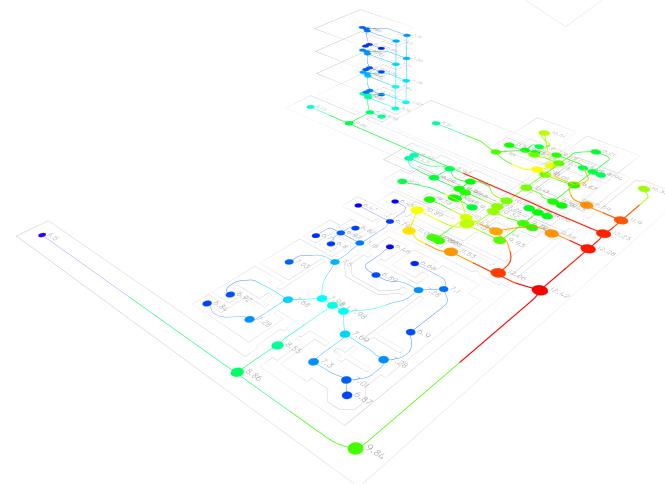
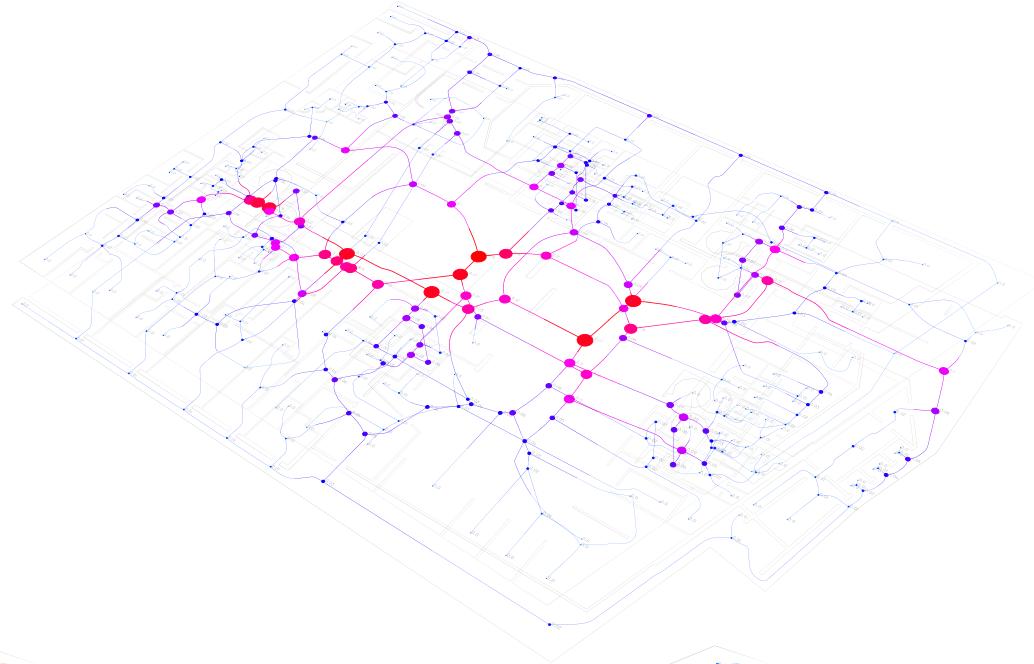
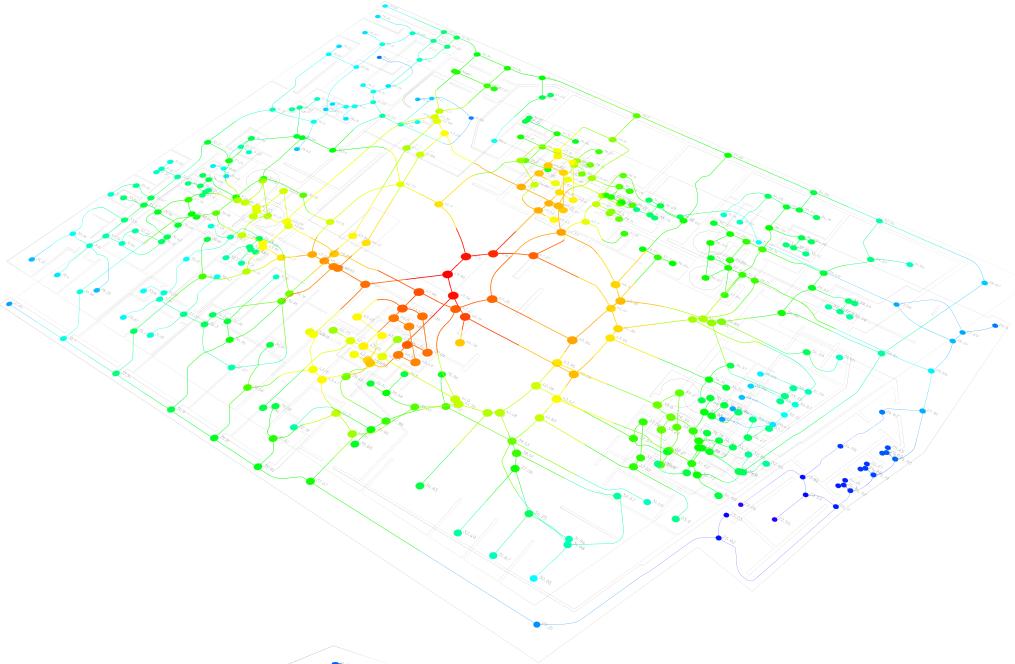
2011-Present

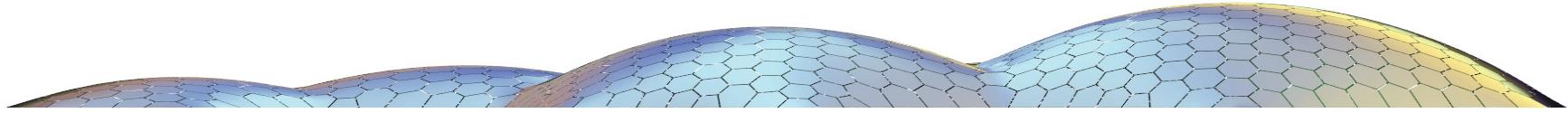
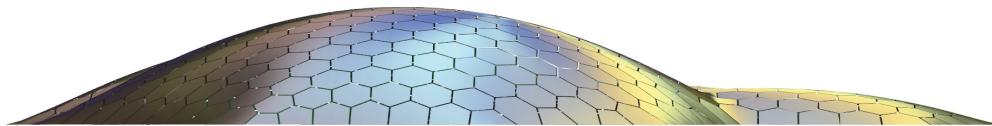
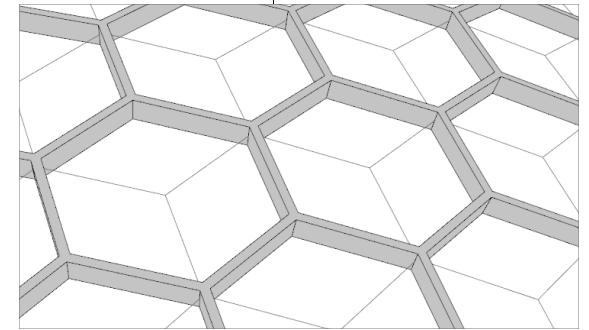
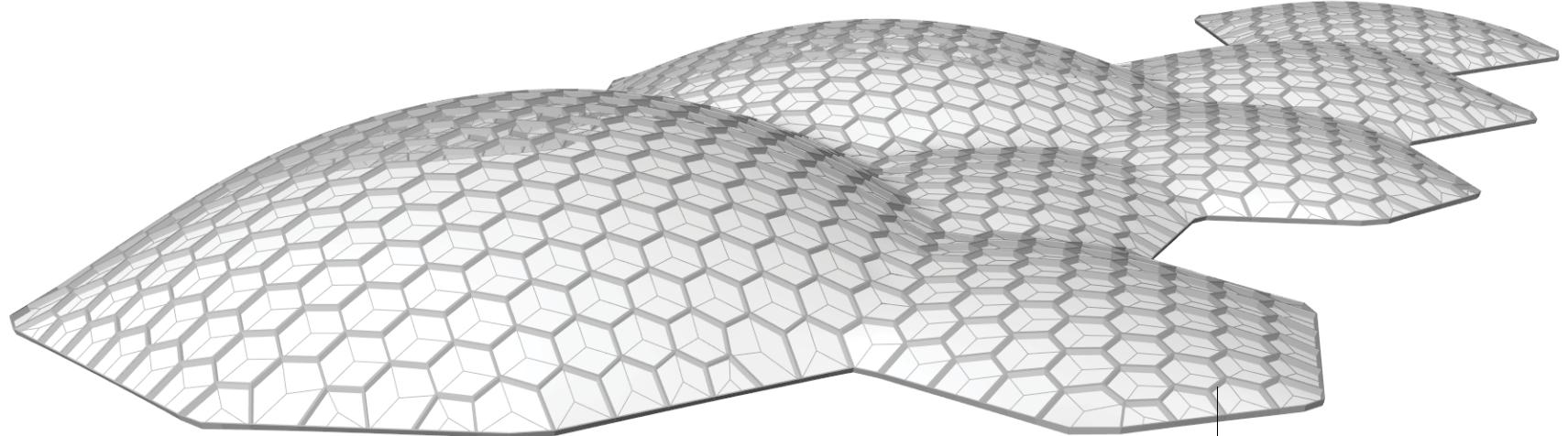
Aedas R&D

EU funded FP7 research project with UCL  
London, Technion Israel, DTU Denmark, KTH Sweden  
London, UK / Stockholm, Sweden







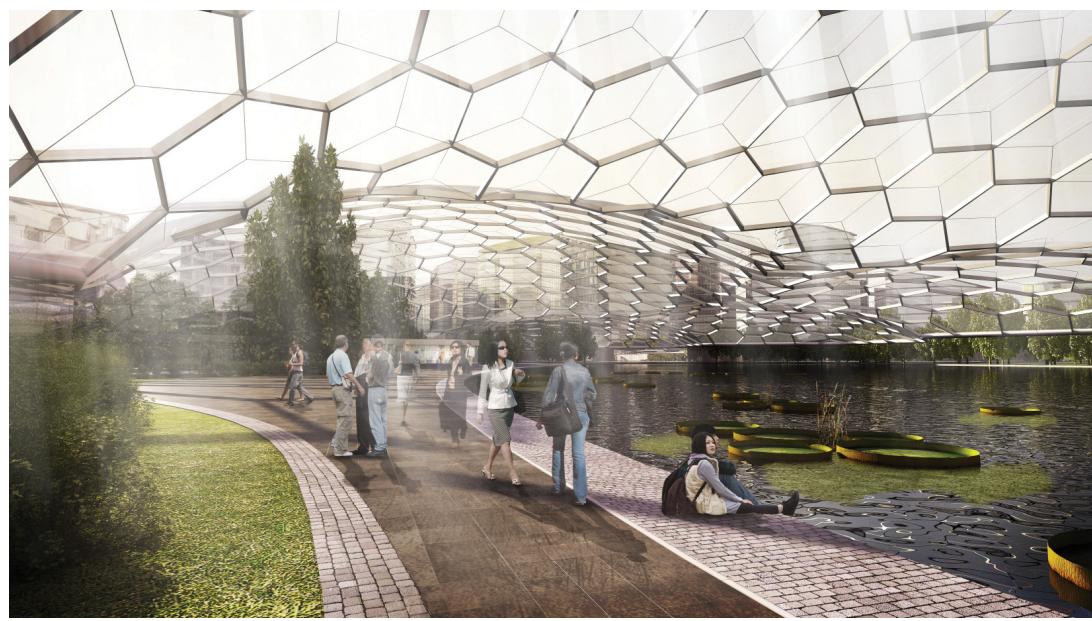
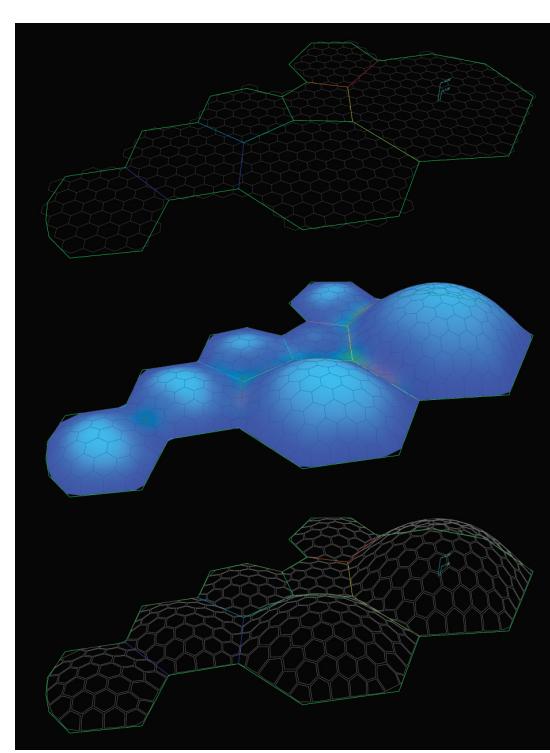
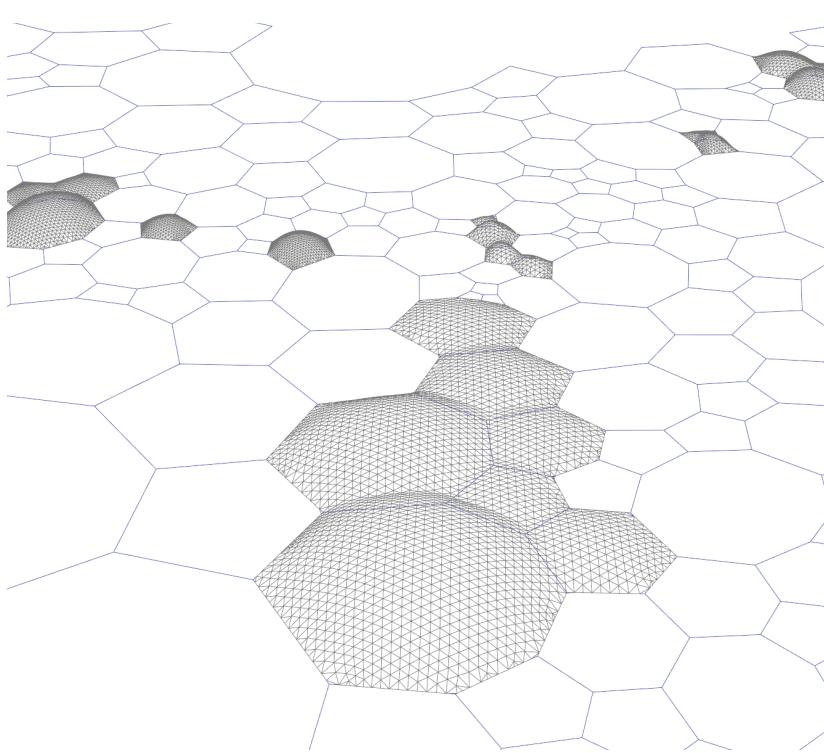
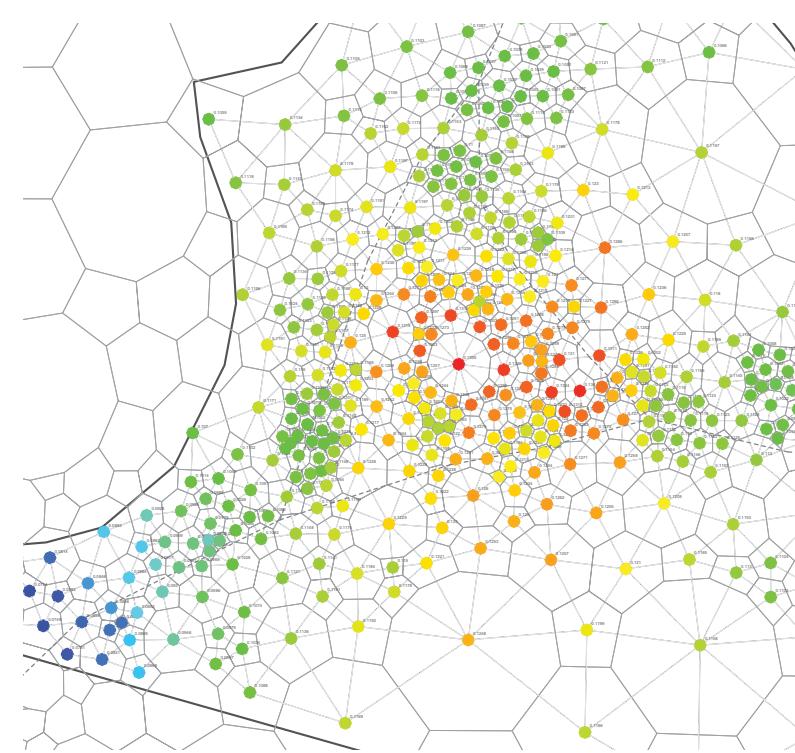


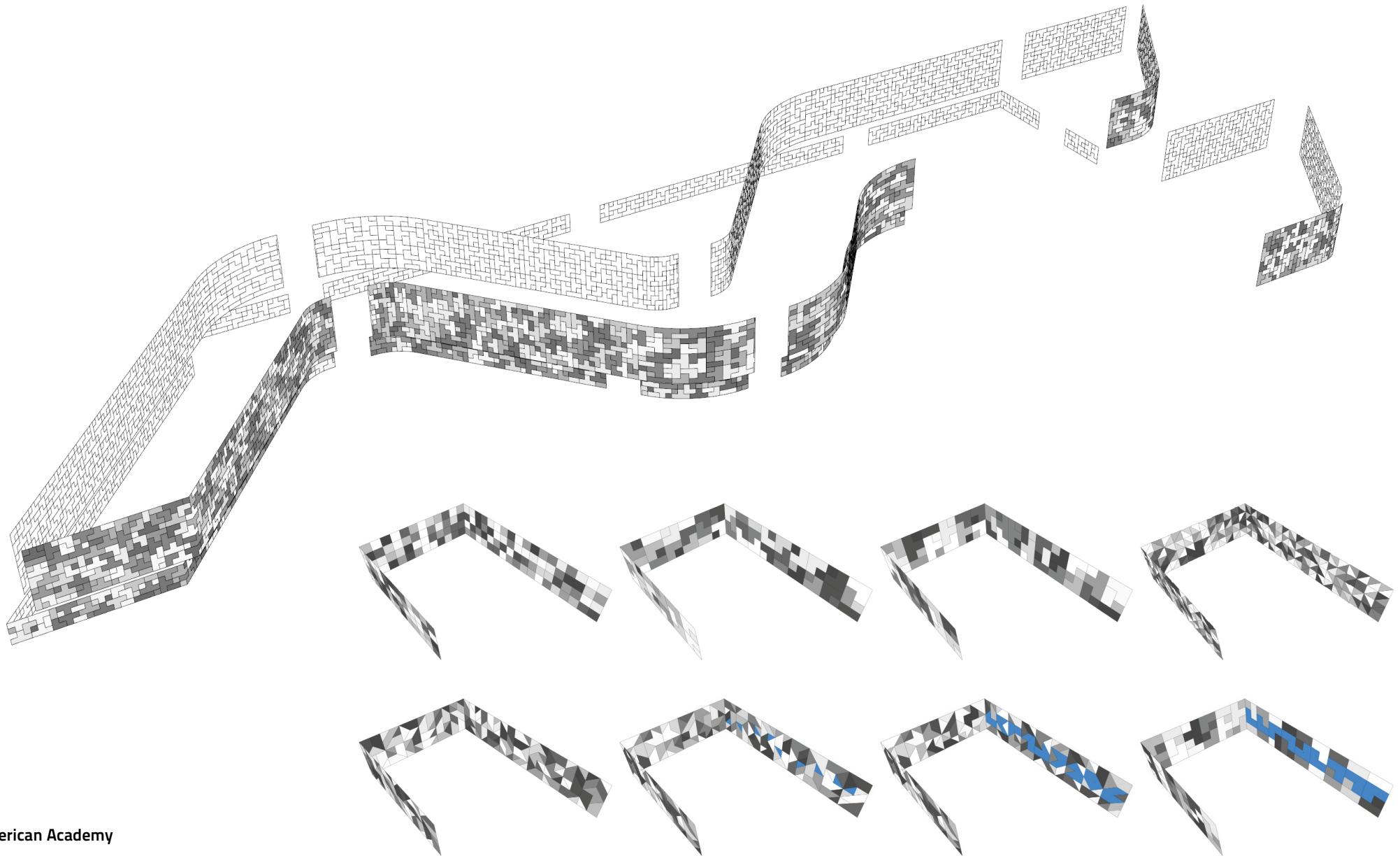
### Green Block Astana

2013

Aedas R&D

With Prarthana Jagannath  
London, UK / Stockholm, Sweden



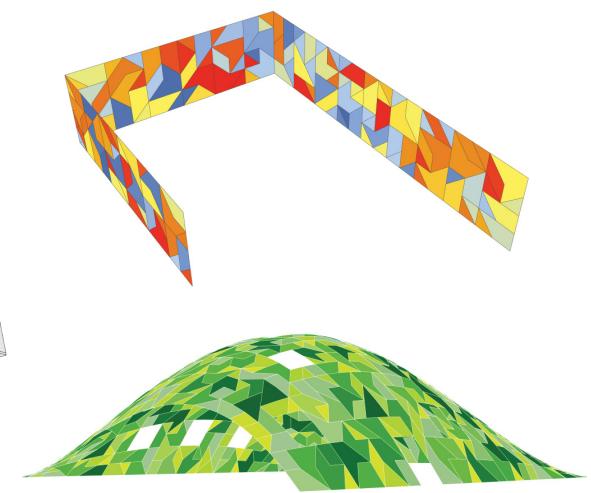
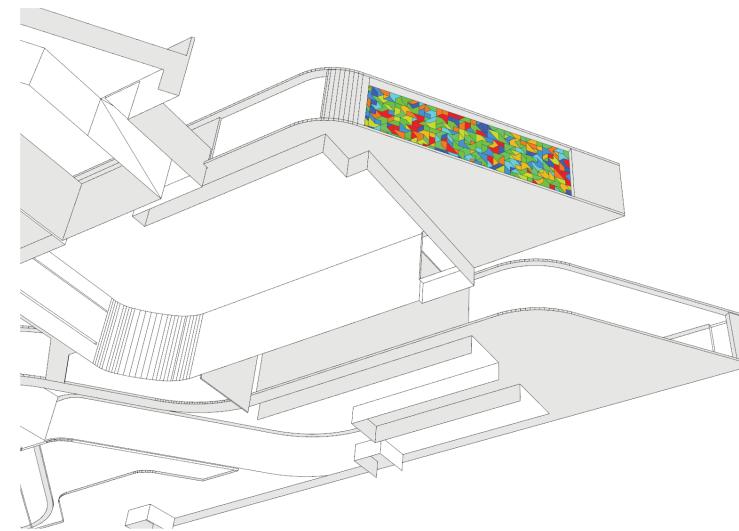
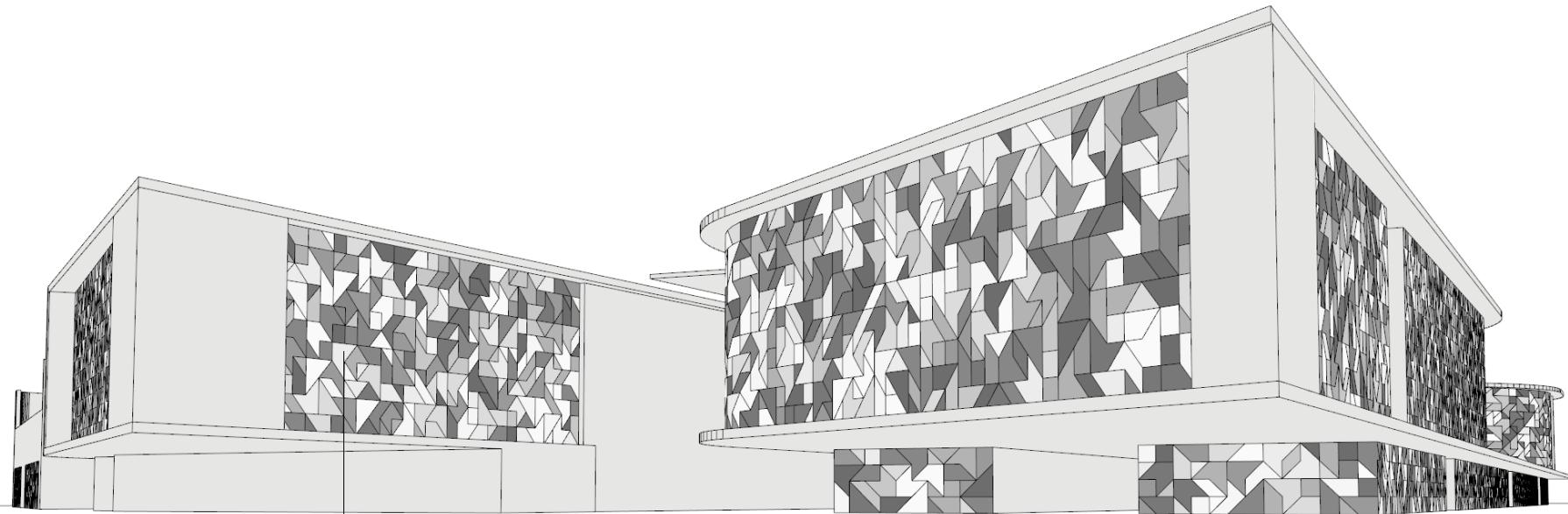


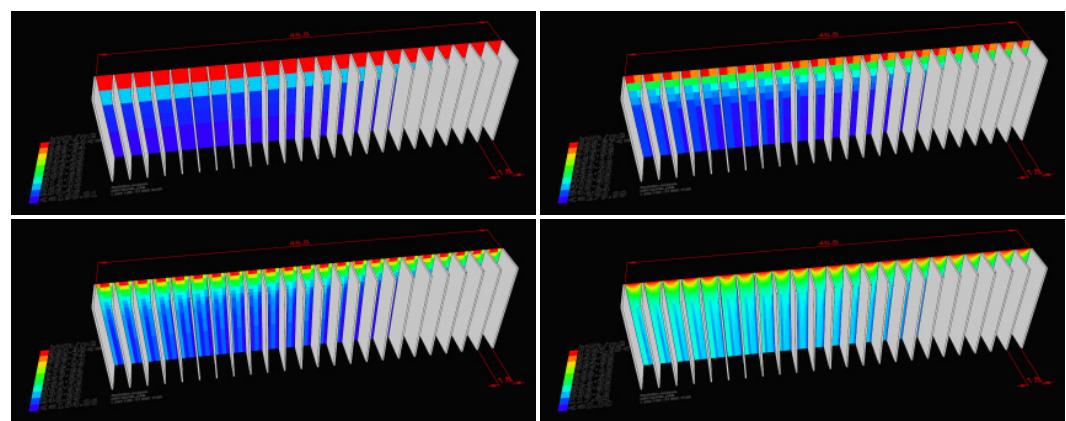
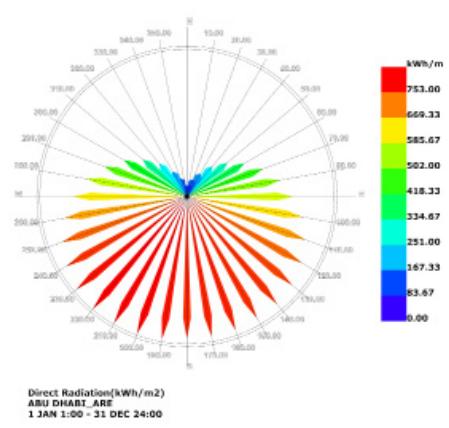
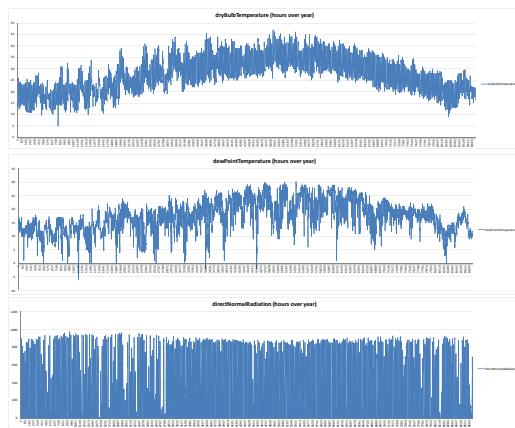
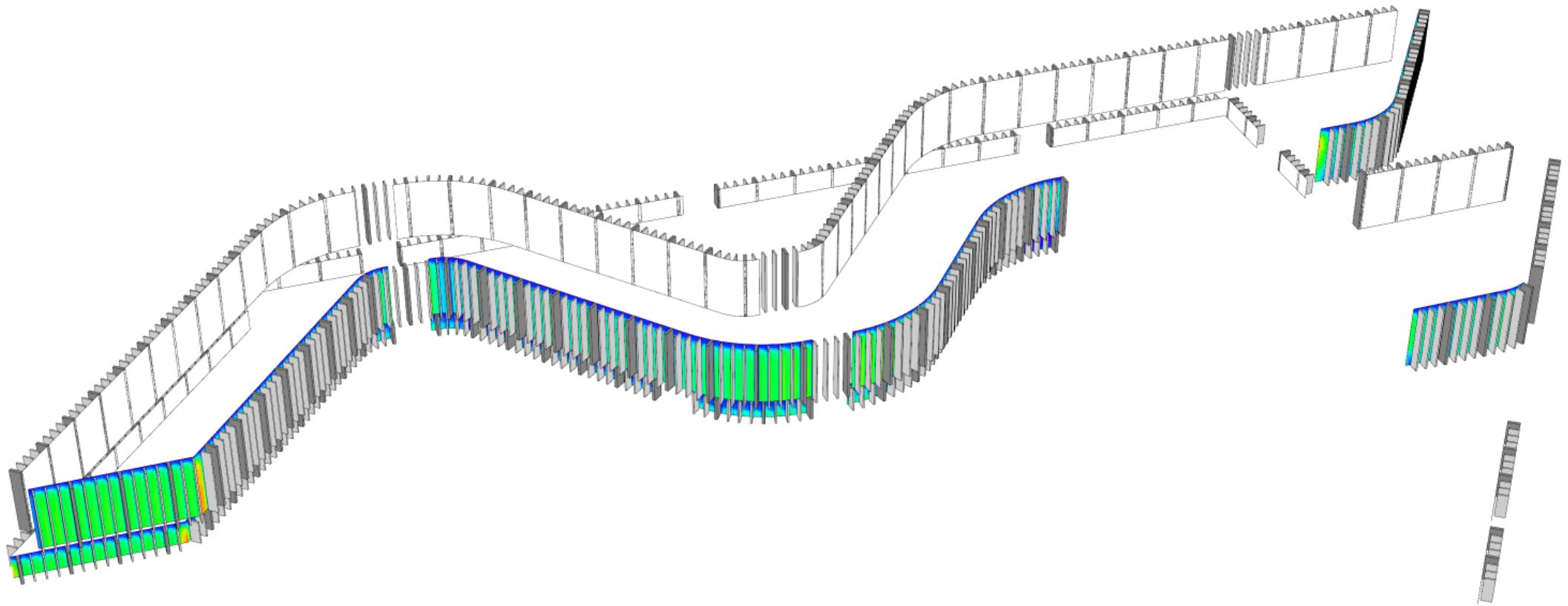
**GEMS American Academy**

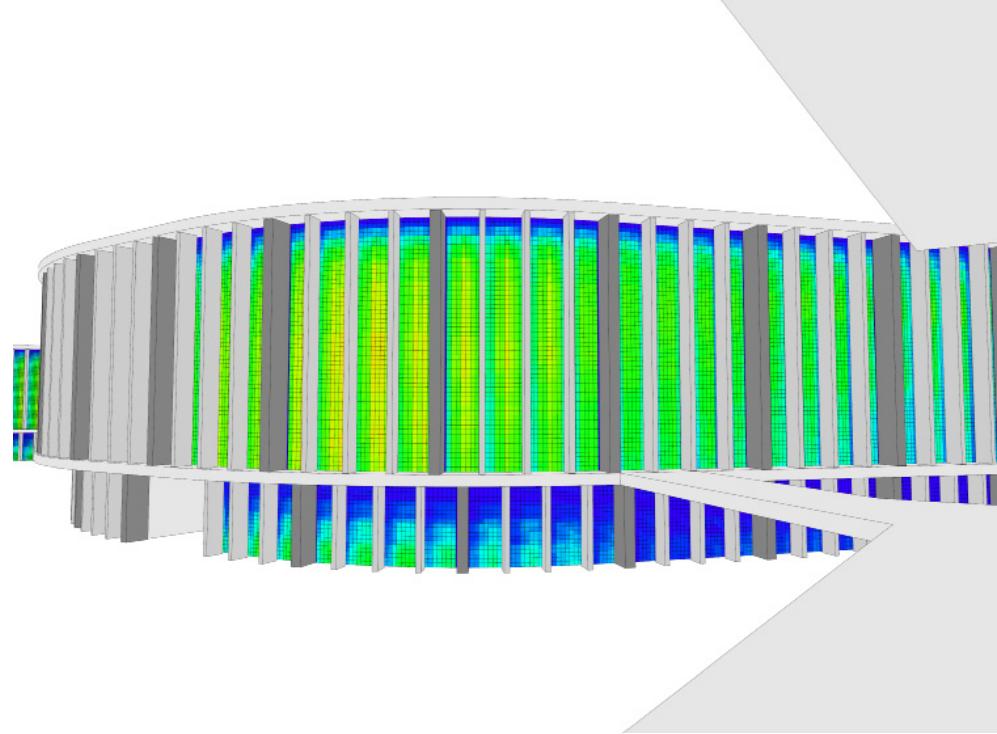
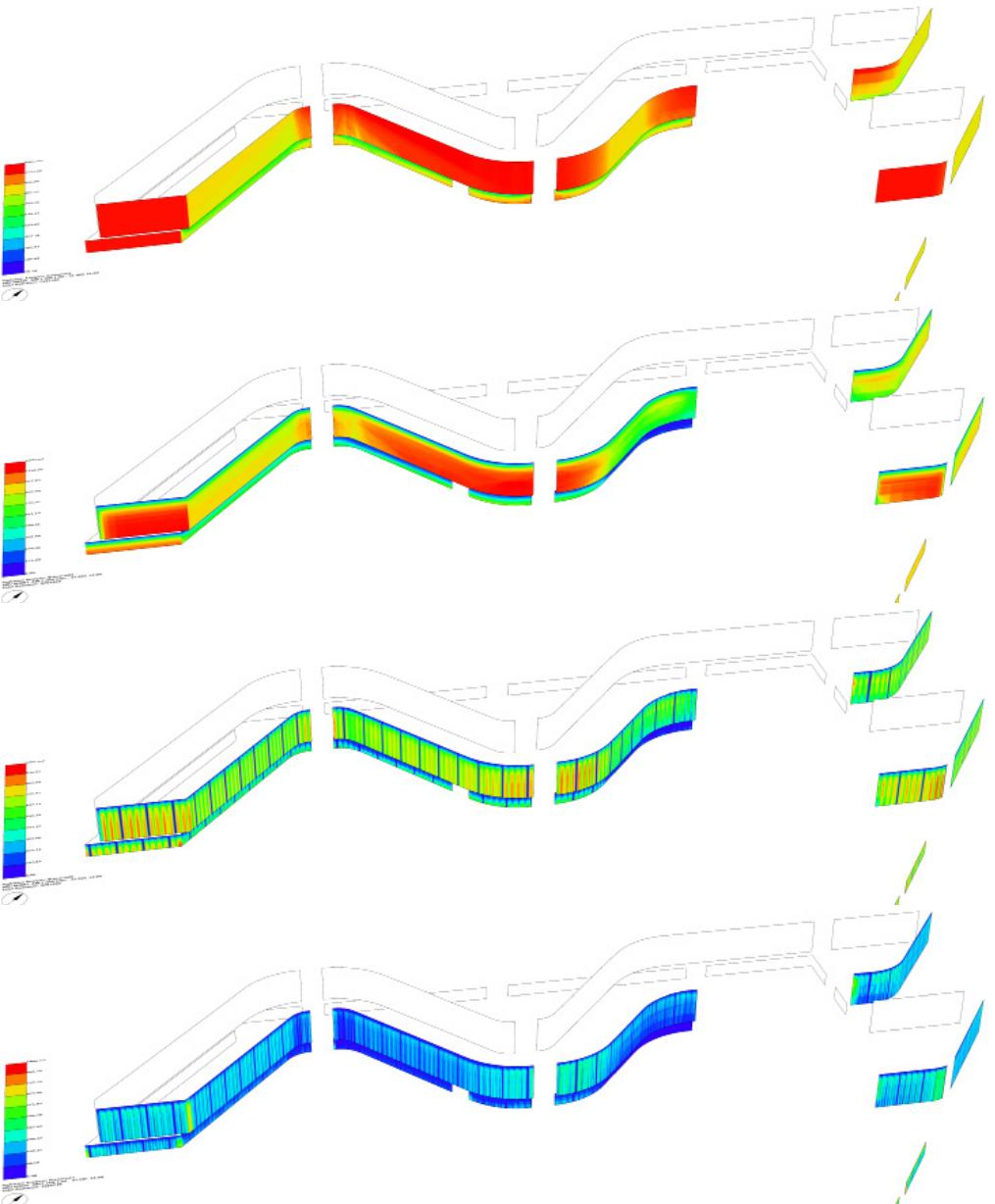
2012-2013

Aedas R&D

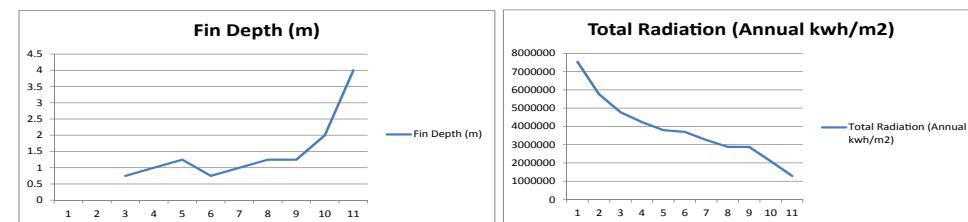
London, UK / Stockholm, Sweden

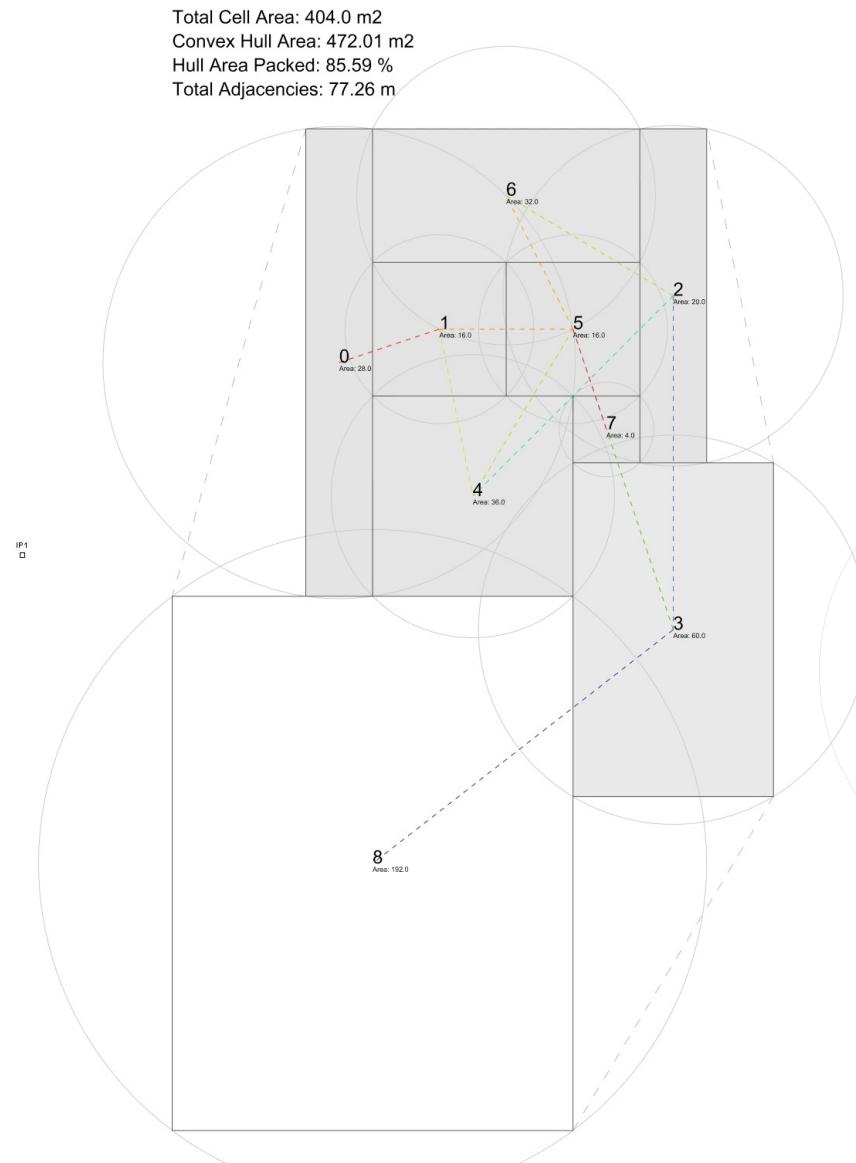




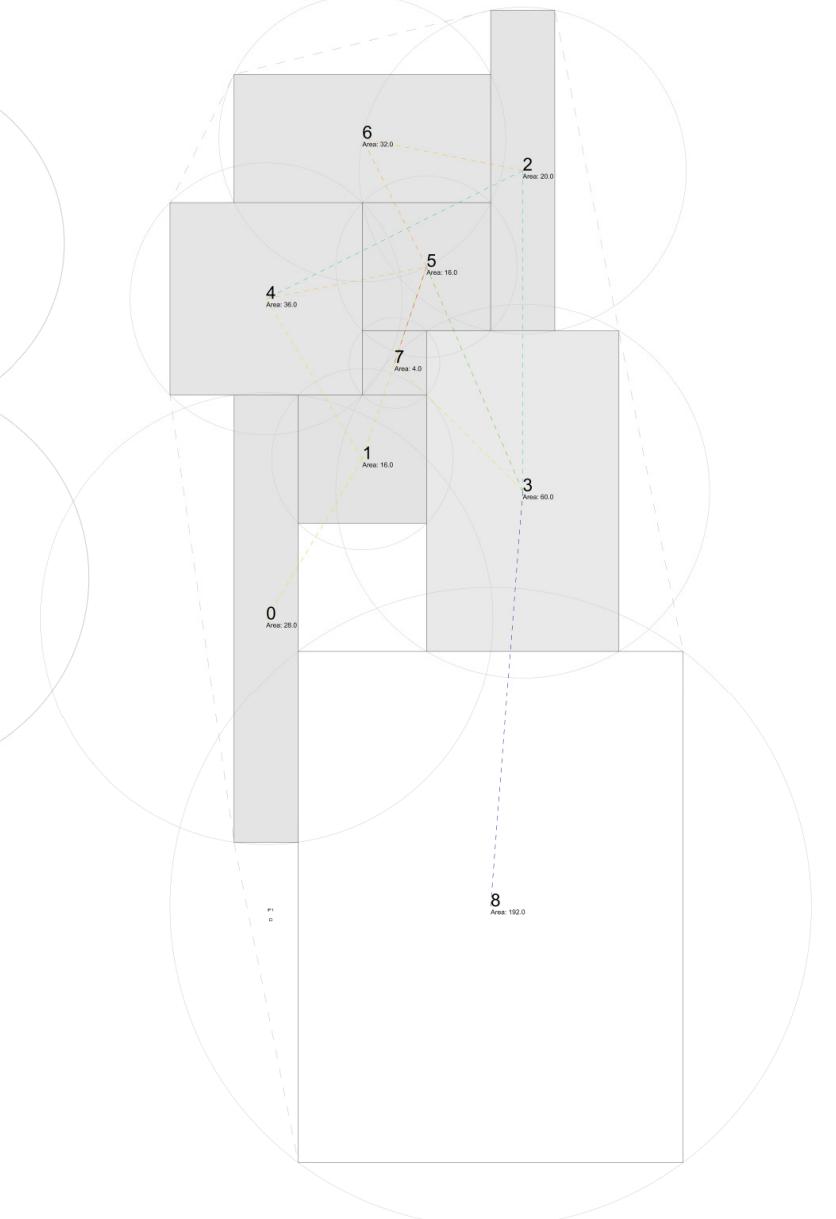


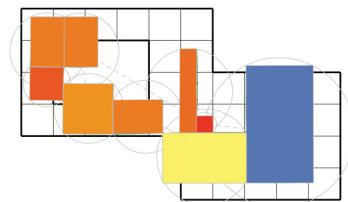
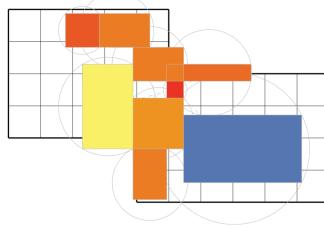
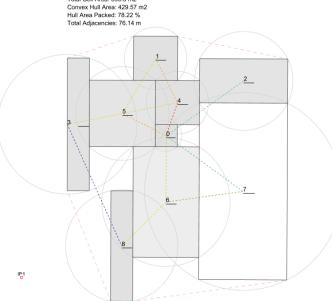
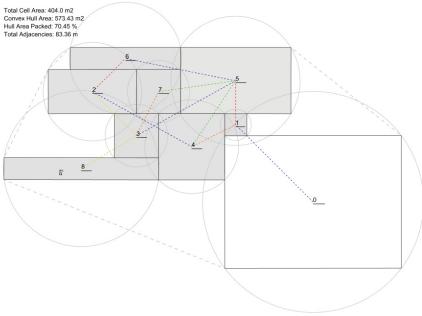
Scenario	Building Geometry	Fins	Fin Depth (m)	Grid size (m)	RunTime (min)	Total Radiation (Annual kwh/m2)
1	FALSE	FALSE		0.20	4.1	7532298
2	TRUE	FALSE		0.20	4.4	5764549
3	FALSE	TRUE	0.75	0.20	4.5	4781469
4	FALSE	TRUE	1.00	0.20	4.7	4236472
5	FALSE	TRUE	1.25	0.20	5.1	3798484
6	TRUE	TRUE	0.75	0.20	5.7	3702983
7	TRUE	TRUE	1.00	0.20		3255229
8	TRUE	TRUE	1.25	0.20	5.9	2881744
9	TRUE	TRUE	1.25	0.15	10.3	2879560
10	TRUE	TRUE	2.00	0.20	6.4	2097908
11	TRUE	TRUE	4.00	0.20	6.6	1286719





Total Cell Area: 404.0 m<sup>2</sup>  
 Convex Hull Area: 476.01 m<sup>2</sup>  
 Hull Area Packed: 84.87 %  
 Total Adjacencies: 81.07 m

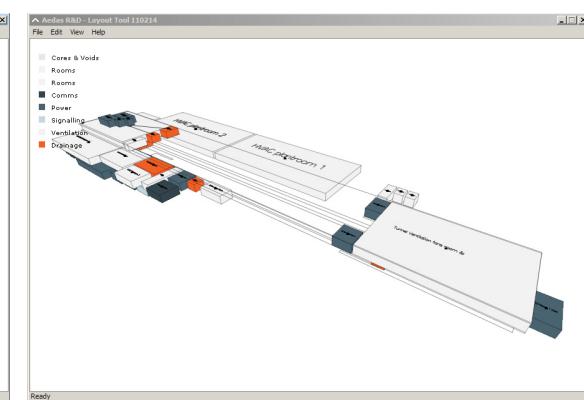
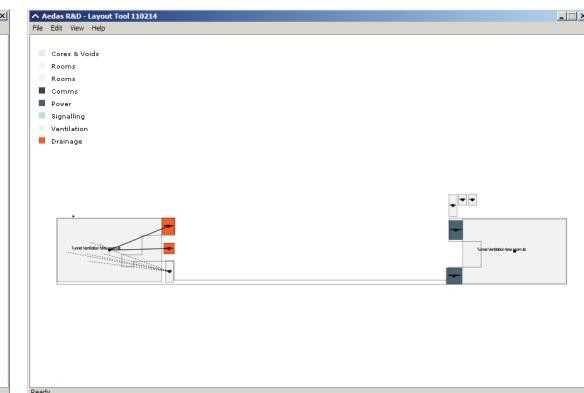
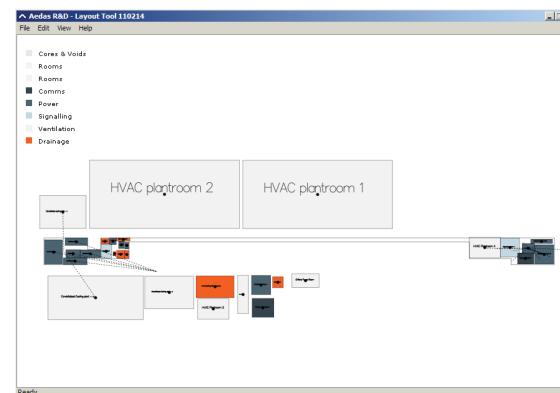
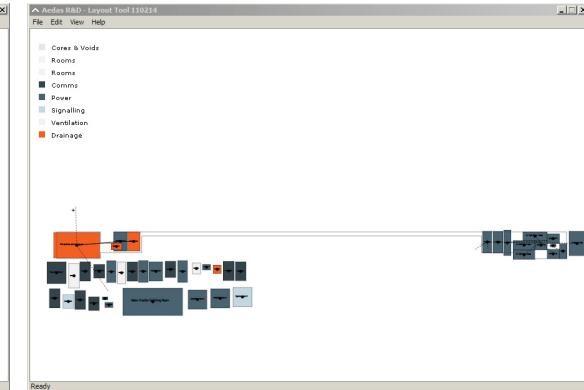
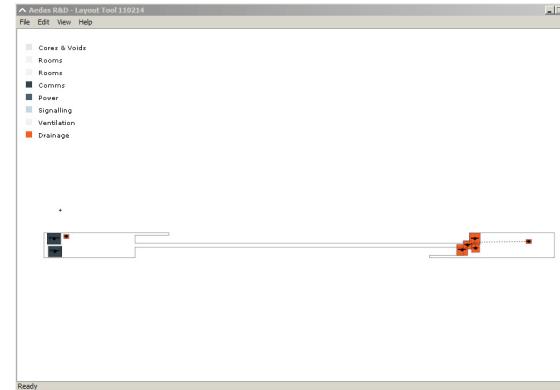


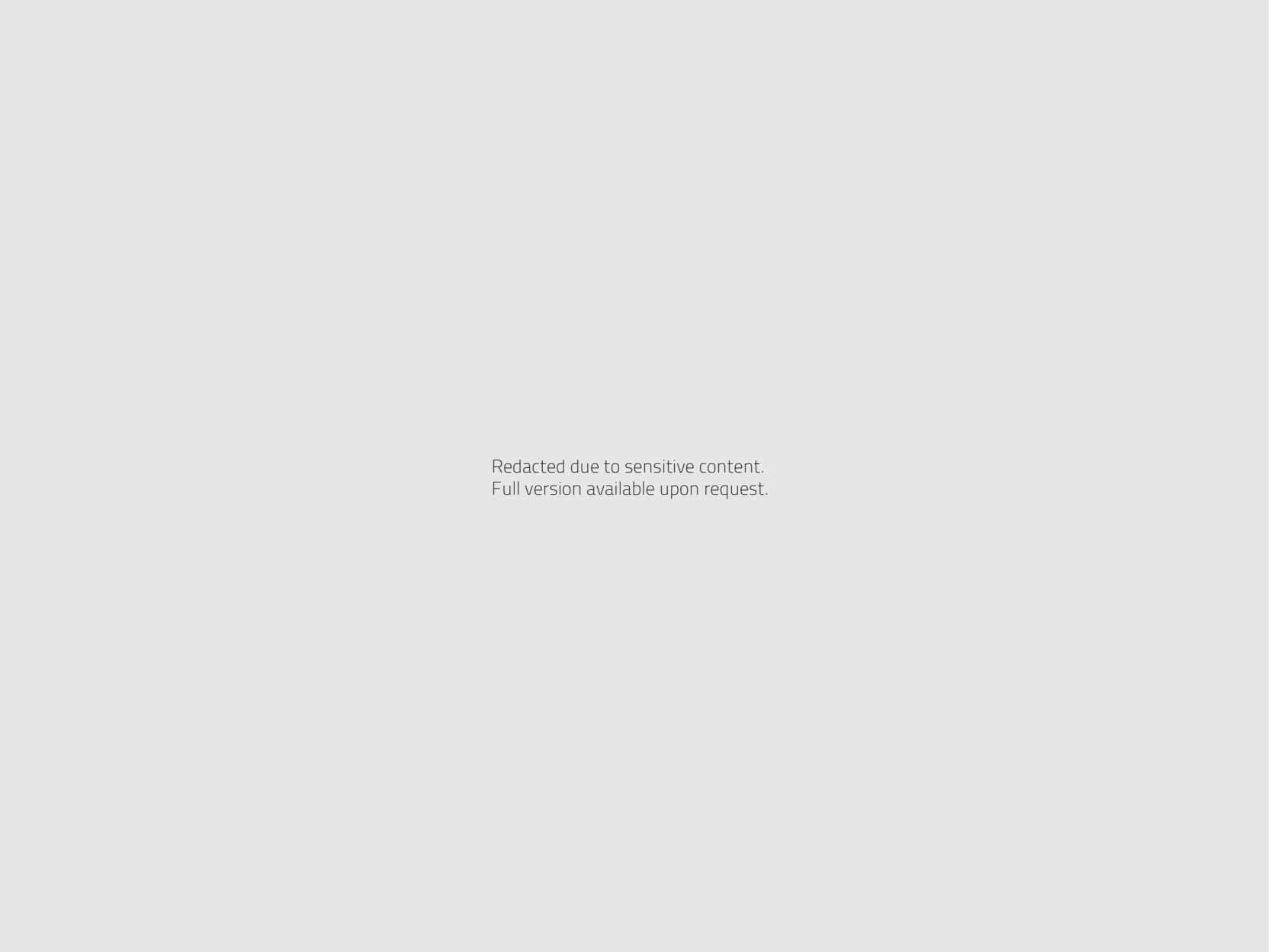


AEDES R&D - Building Services Acceptance Criteria - Rev 2014

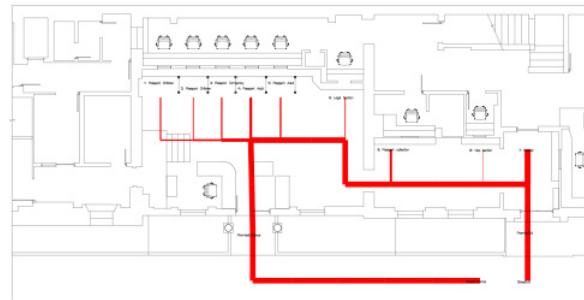
This table lists acceptance criteria for various building services across different categories. The columns include: Category, Sub-Categories, Metric Name, Metric Code, Min Value, Max Value, and Status.

Category	Sub-Categories	Metric Name	Metric Code	Min Value	Max Value	Status
HVAC	HVAC	Water flow rate	WFR	1.000	1.000	OK
		Water flow rate	WFR	1.000	1.000	OK
		Water flow rate	WFR	1.000	1.000	OK
		Water flow rate	WFR	1.000	1.000	OK
		Water flow rate	WFR	1.000	1.000	OK
		Water flow rate	WFR	1.000	1.000	OK
		Water flow rate	WFR	1.000	1.000	OK
		Water flow rate	WFR	1.000	1.000	OK
		Water flow rate	WFR	1.000	1.000	OK
		Water flow rate	WFR	1.000	1.000	OK
Power	Power	Water flow rate	WFR	1.000	1.000	OK
		Water flow rate	WFR	1.000	1.000	OK
		Water flow rate	WFR	1.000	1.000	OK
		Water flow rate	WFR	1.000	1.000	OK
		Water flow rate	WFR	1.000	1.000	OK
		Water flow rate	WFR	1.000	1.000	OK
		Water flow rate	WFR	1.000	1.000	OK
		Water flow rate	WFR	1.000	1.000	OK
		Water flow rate	WFR	1.000	1.000	OK
		Water flow rate	WFR	1.000	1.000	OK
Signalling	Signalling	Water flow rate	WFR	1.000	1.000	OK
		Water flow rate	WFR	1.000	1.000	OK
		Water flow rate	WFR	1.000	1.000	OK
		Water flow rate	WFR	1.000	1.000	OK
		Water flow rate	WFR	1.000	1.000	OK
		Water flow rate	WFR	1.000	1.000	OK
		Water flow rate	WFR	1.000	1.000	OK
		Water flow rate	WFR	1.000	1.000	OK
		Water flow rate	WFR	1.000	1.000	OK
		Water flow rate	WFR	1.000	1.000	OK
Ventilation	Ventilation	Water flow rate	WFR	1.000	1.000	OK
		Water flow rate	WFR	1.000	1.000	OK
		Water flow rate	WFR	1.000	1.000	OK
		Water flow rate	WFR	1.000	1.000	OK
		Water flow rate	WFR	1.000	1.000	OK
		Water flow rate	WFR	1.000	1.000	OK
		Water flow rate	WFR	1.000	1.000	OK
		Water flow rate	WFR	1.000	1.000	OK
		Water flow rate	WFR	1.000	1.000	OK
		Water flow rate	WFR	1.000	1.000	OK
Drainage	Drainage	Water flow rate	WFR	1.000	1.000	OK
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		Water flow rate	WFR	1.000	1.000	OK
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		Water flow rate	WFR	1.000	1.000	OK
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		Water flow rate	WFR	1.000	1.000	OK
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		Water flow rate	WFR	1.000	1.000	OK

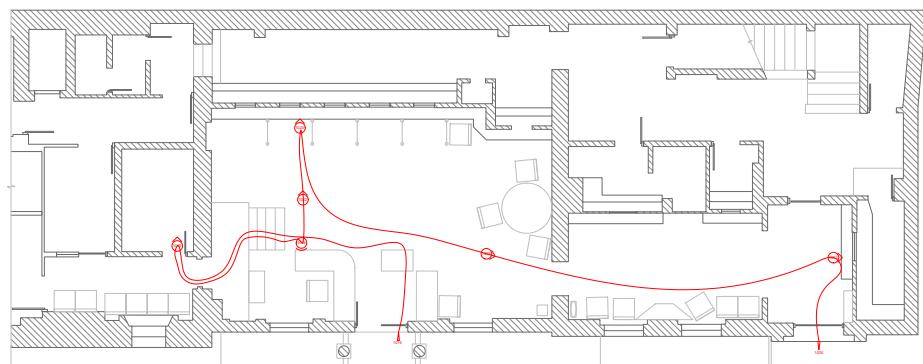
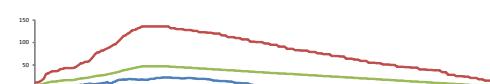
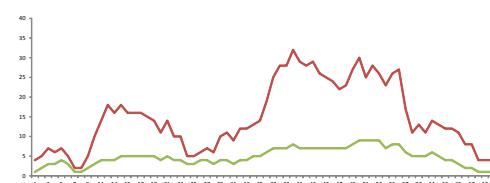
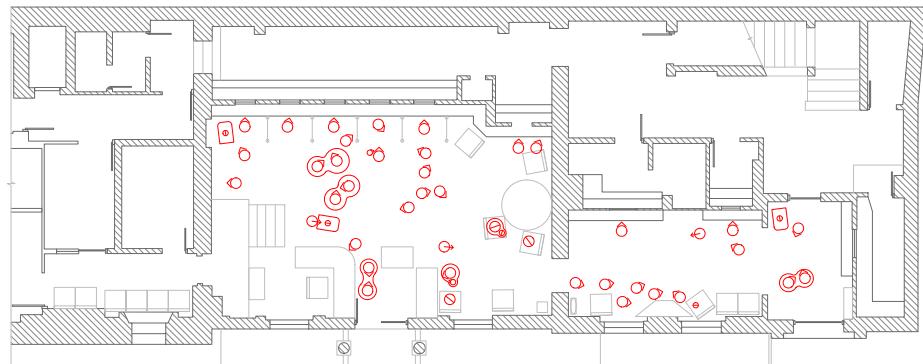




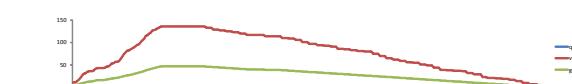
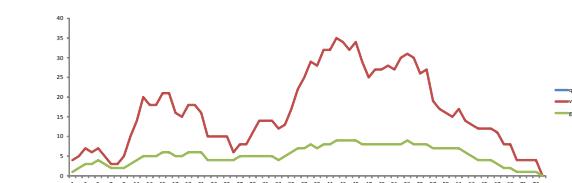
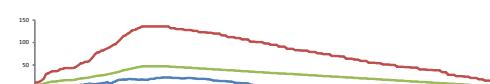
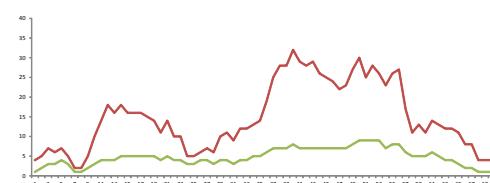
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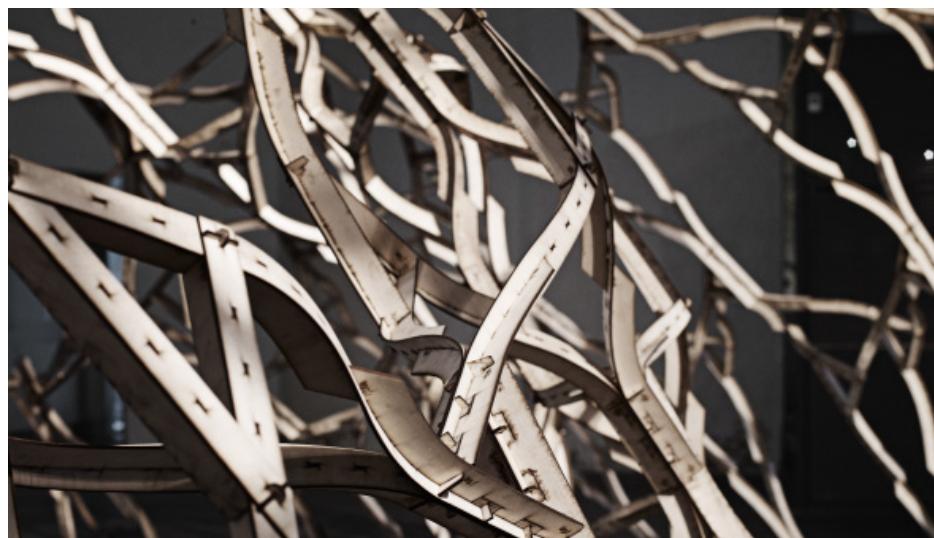
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Full version available upon request.



A	B	C	D	E	F	G	H	I	J	K	L
1	start	start offset	adults	children							
2	11:45	1	1	0							
3	11:47	3	1	0							
4	11:48	4	1	0							
5	11:49	5	1	0							
6	11:50	6	3	1							
7	11:53	9	3	0							
8	11:54	10	5	0							
9	11:55	11	5	1							
10	11:57	13	2	0							
11	11:58	14	2	1							
12	11:59	15	2	2							
13	12:00	16	2	2							
14	12:01	17	2	0							
15	12:02	18	2	1							
16	12:03	19	2	0							
17	12:04	20	1	0							
18	12:06	22	1	0							
19	12:08	24	3	0							
20	12:13	29	2	0							
21	12:14	30	2	1							
22	12:15	31	1	0							
23	12:16	32	1	0							
24	12:18	34	1	0							
25	12:19	35	1	0							
26	12:20	36	1	0							



A	B	C	D	E	F	G	H
1	Destination ID	Task	Task Complexity(in minutes)		Counter	Tasks	
2	4	Passport Adult	19	0		Passport Children	
3	2	Passport Children	18	1		Passport Children	
4	4	Passport Adult	16	2		Passport Children	
5	3	Passport Temporary	15	3		Passport Temporary	
6	3	Passport Temporary	14	4		Passport Adult	
7	5	Passport Adult	14	5		Passport Adult	
8	6	Legal Section	14	6		Legal Section	
9	8	Visa Section	14	7		Visa Section	
10	2	Passport Children	13	8		Passport Collection	
11	6	Legal Section	13	9		Leave	
12	2	Passport Children	12	10		Enter	
13	2	Passport Children	12	11			
14	3	Passport Temporary	12				
15	4	Passport Adult	12				
16	6	Legal Section	12				
17	6	Legal Section	12				
18	8	Visa Section	12				
19	1	Passport Children	11				
20	2	Passport Children	11				
21	2	Passport Children	11				
22	2	Passport Children	11				
23	2	Passport Children	11				
24	4	Passport Adult	11				
25	6	Legal Section	11				
26	6	Legal Section	11				



### Dermoid

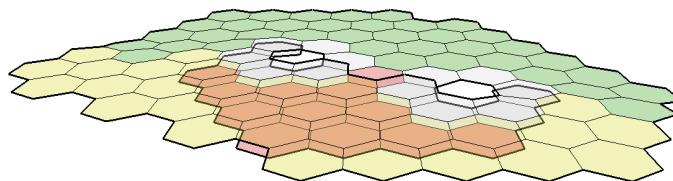
2011

CITA & RMIT/SIAL

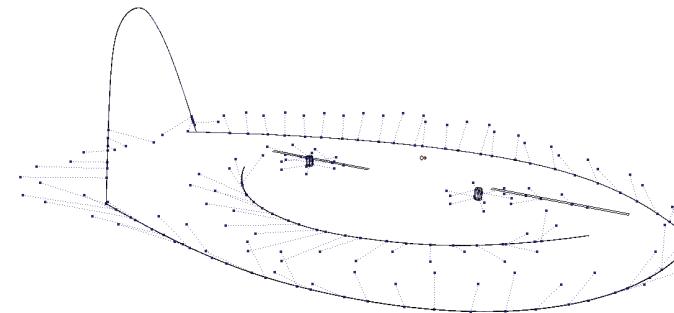
1:1 Research by Design Exhibition

Royal Danish Academy of Fine Arts, School of  
Architecture, Copenhagen, Denmark

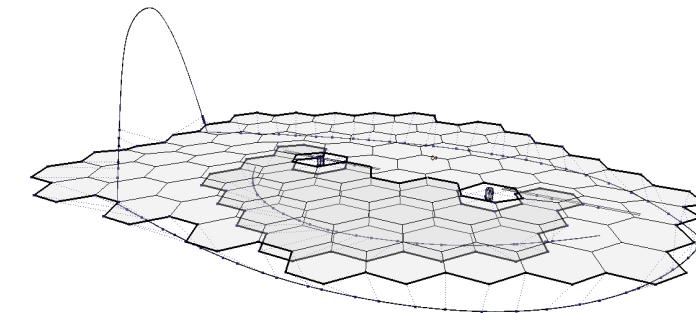
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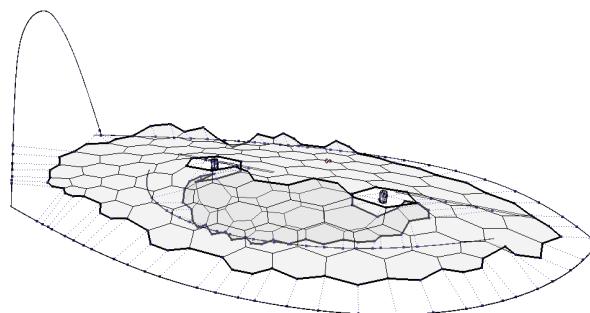
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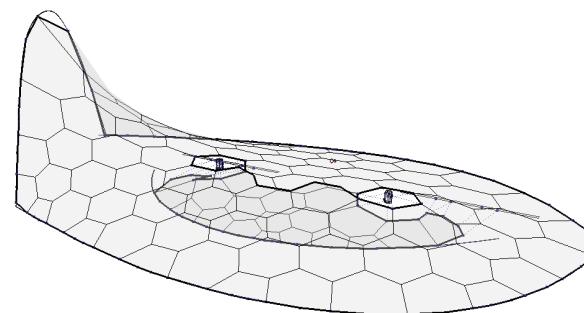
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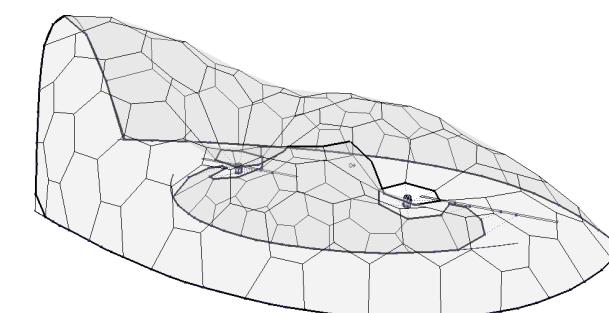
2  
Tri:  
UVs:



Scene Timecode:  
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UVs:

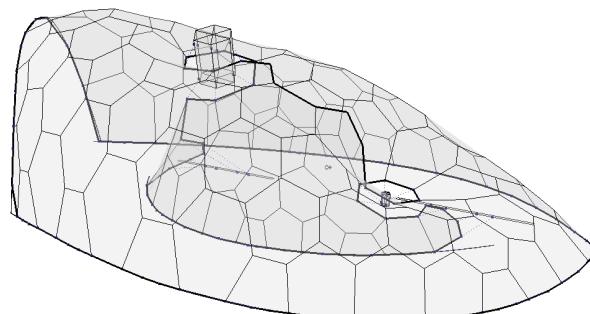


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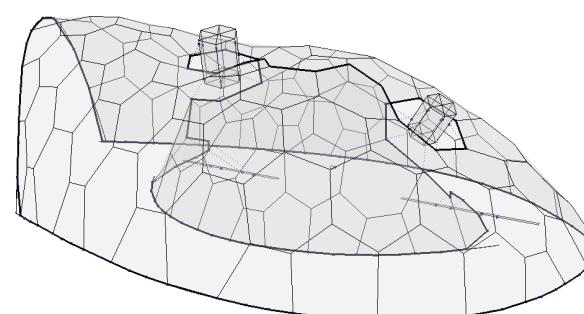


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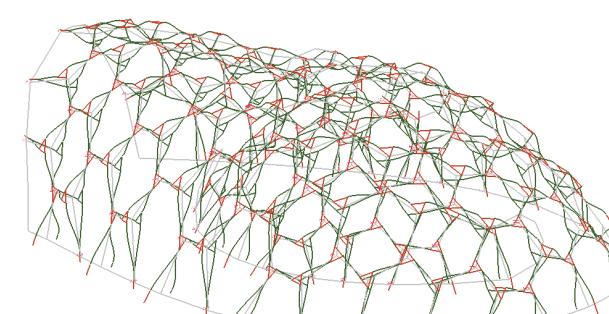


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2  
Tri:  
UVs:



Scene Timecode:

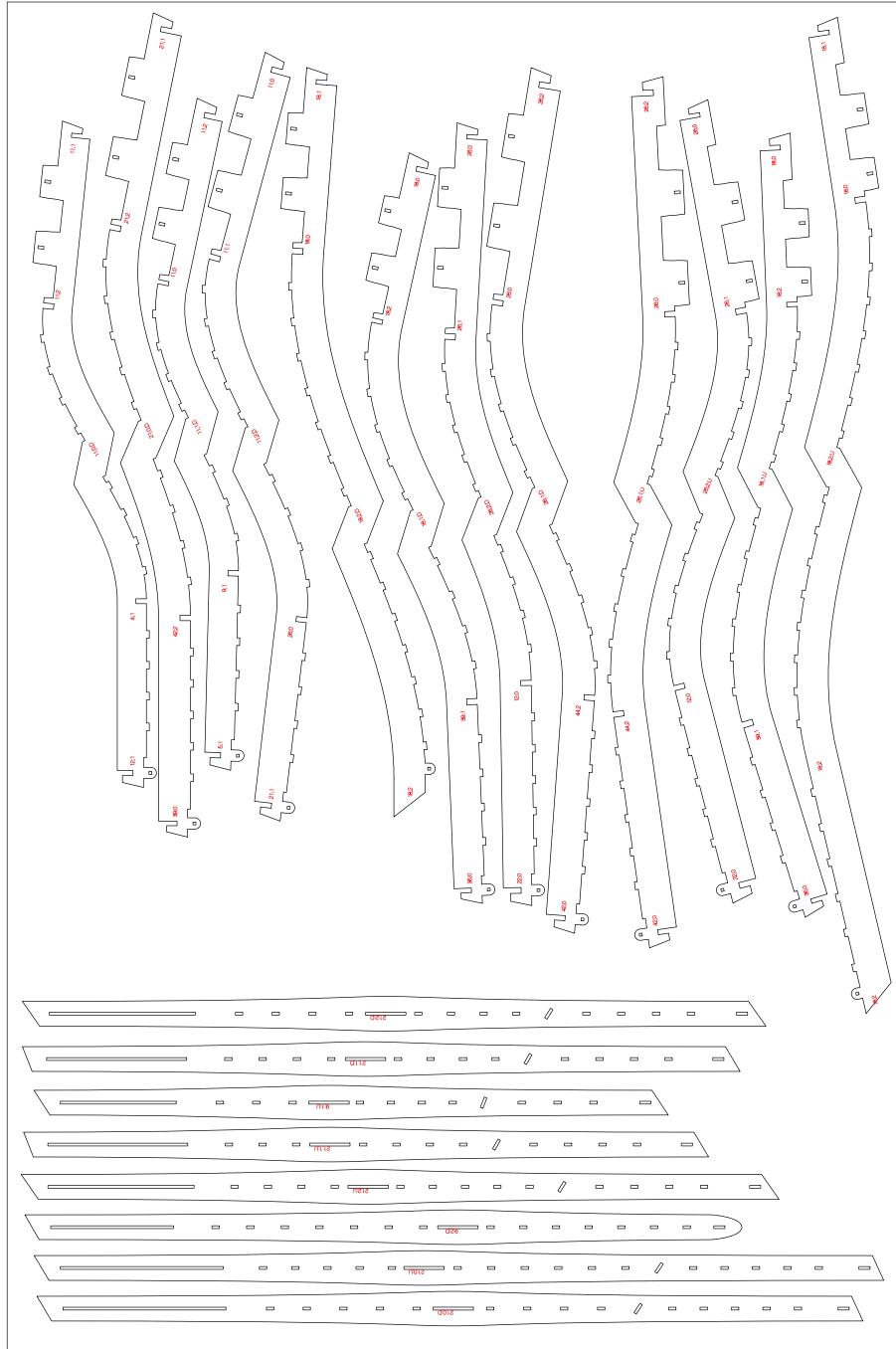
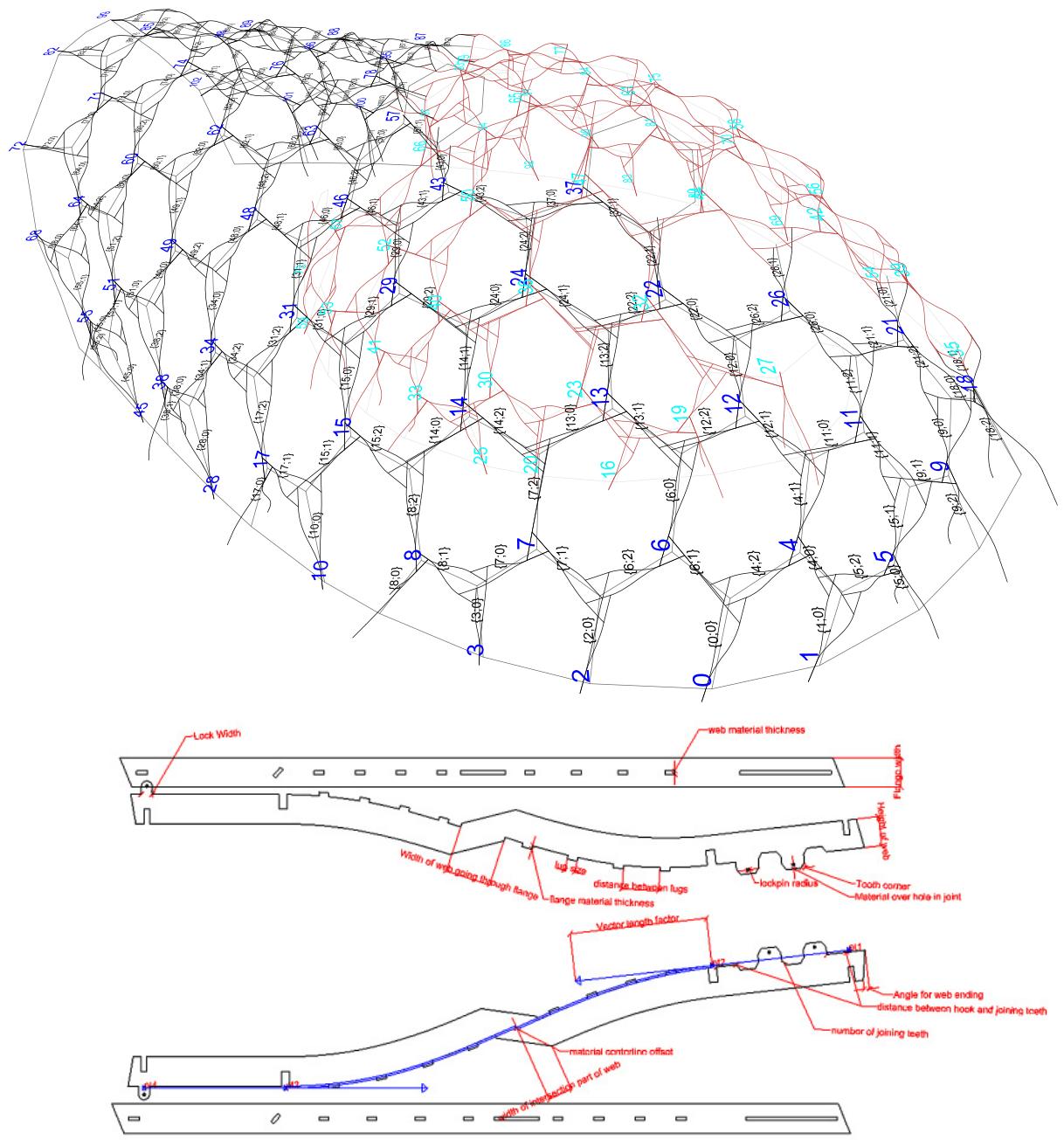
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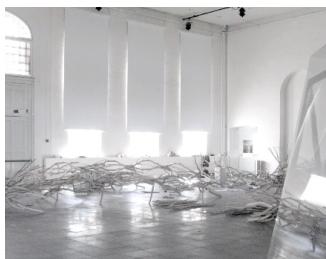


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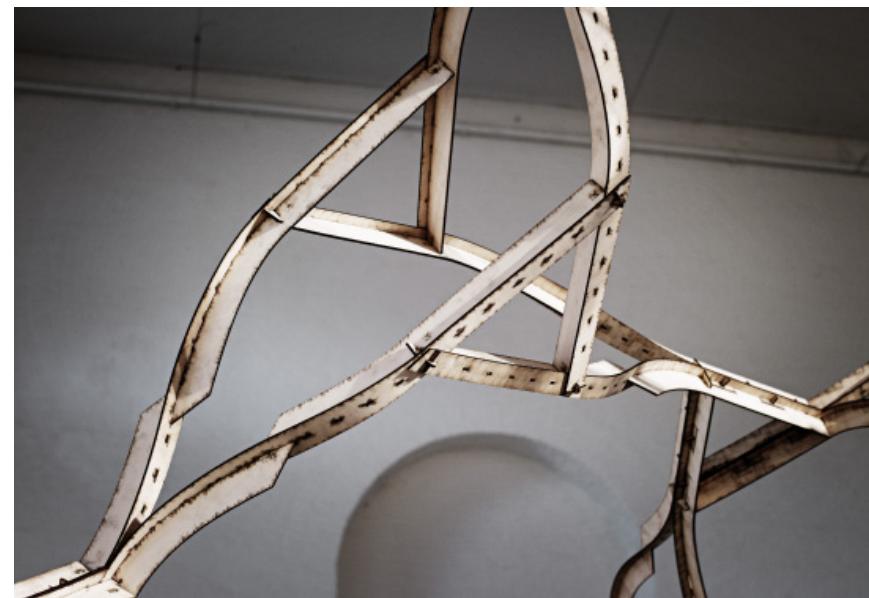
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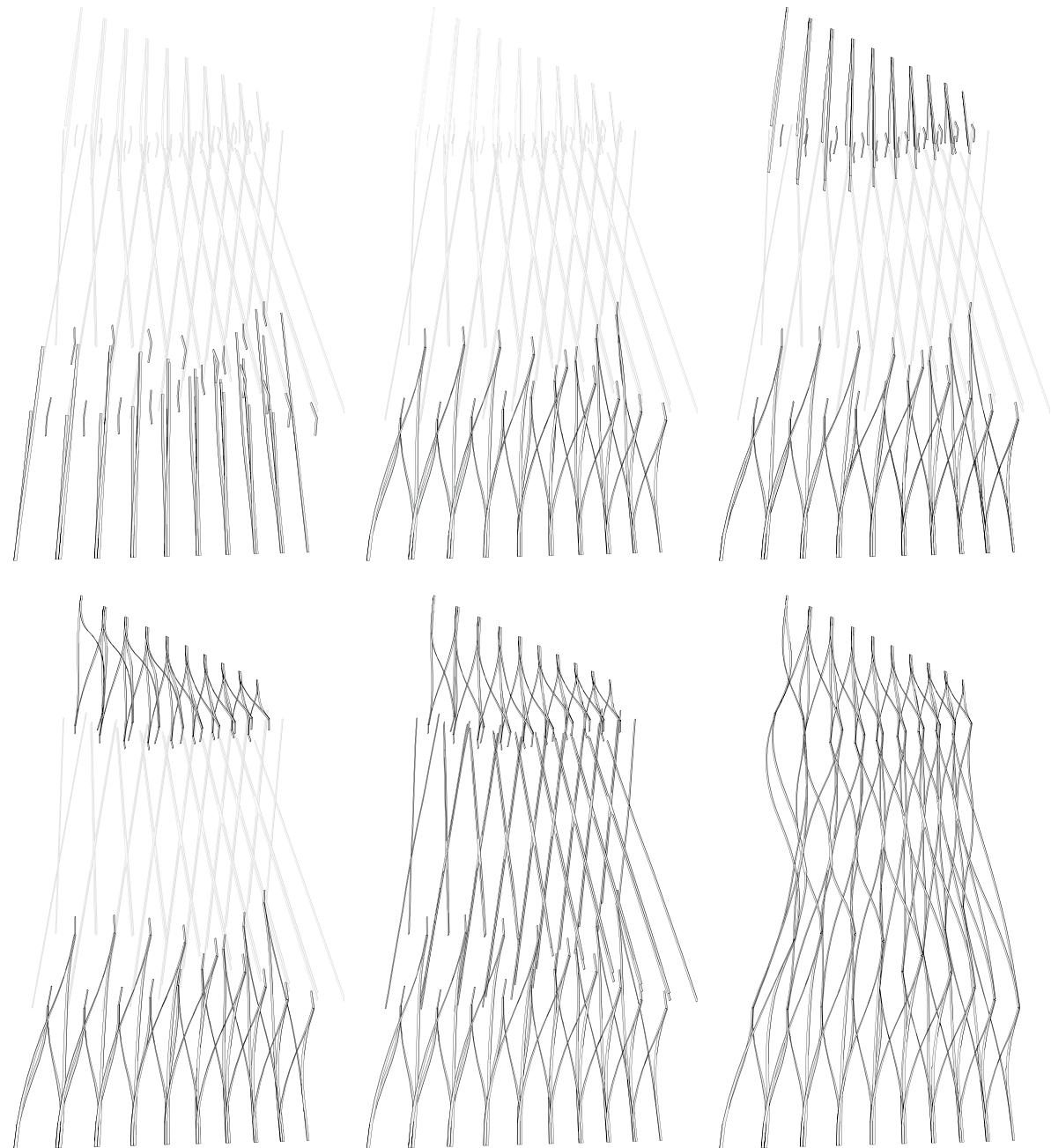
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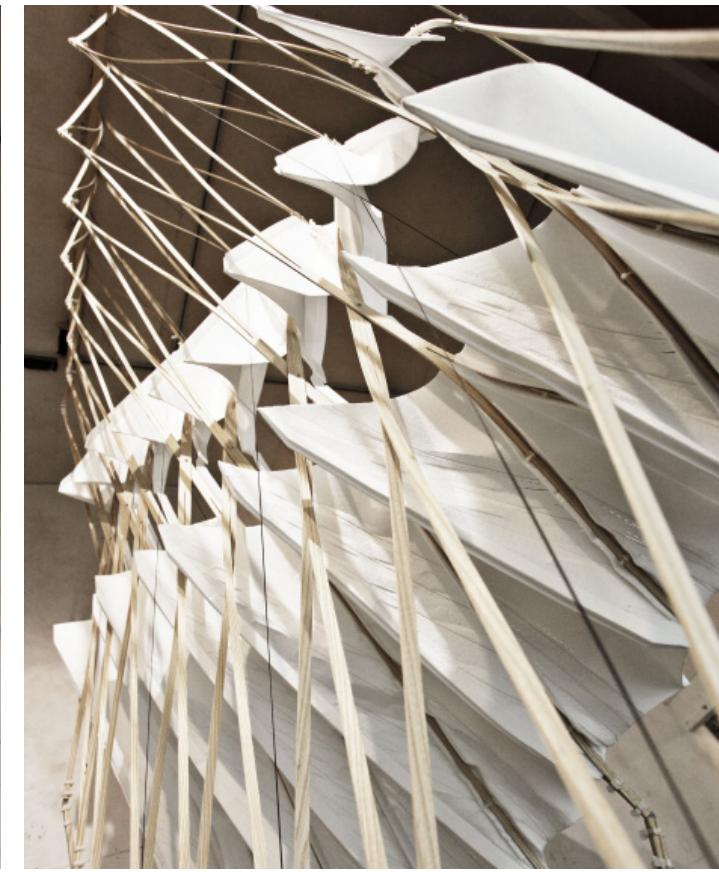
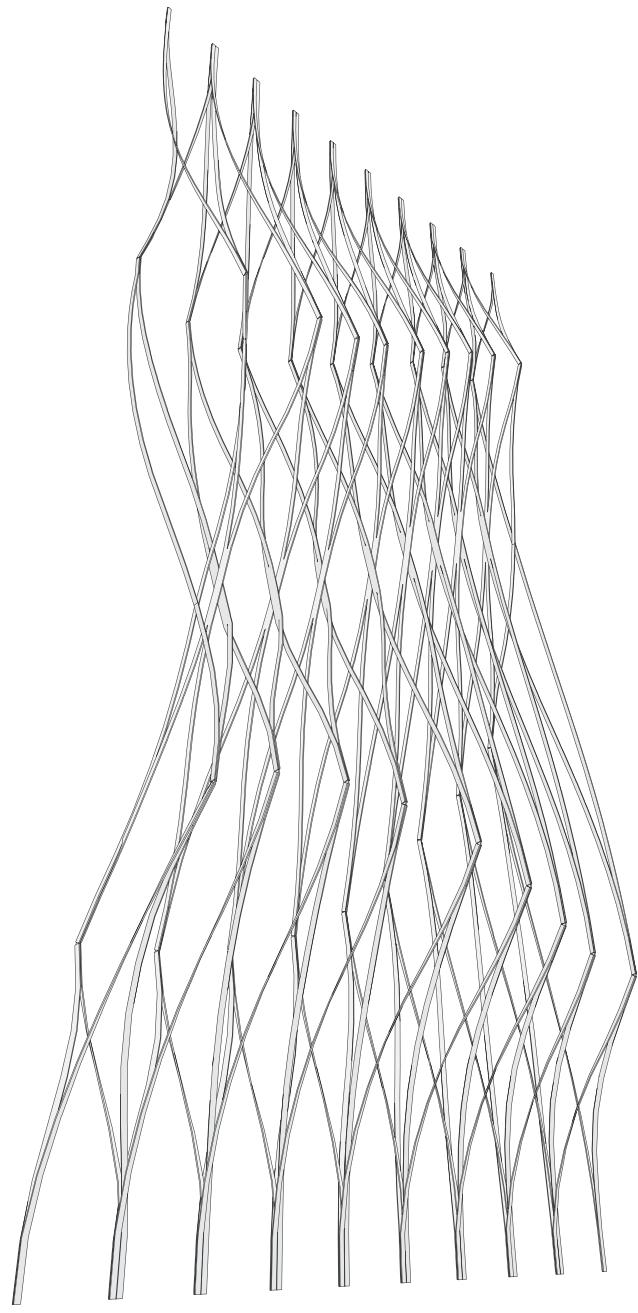


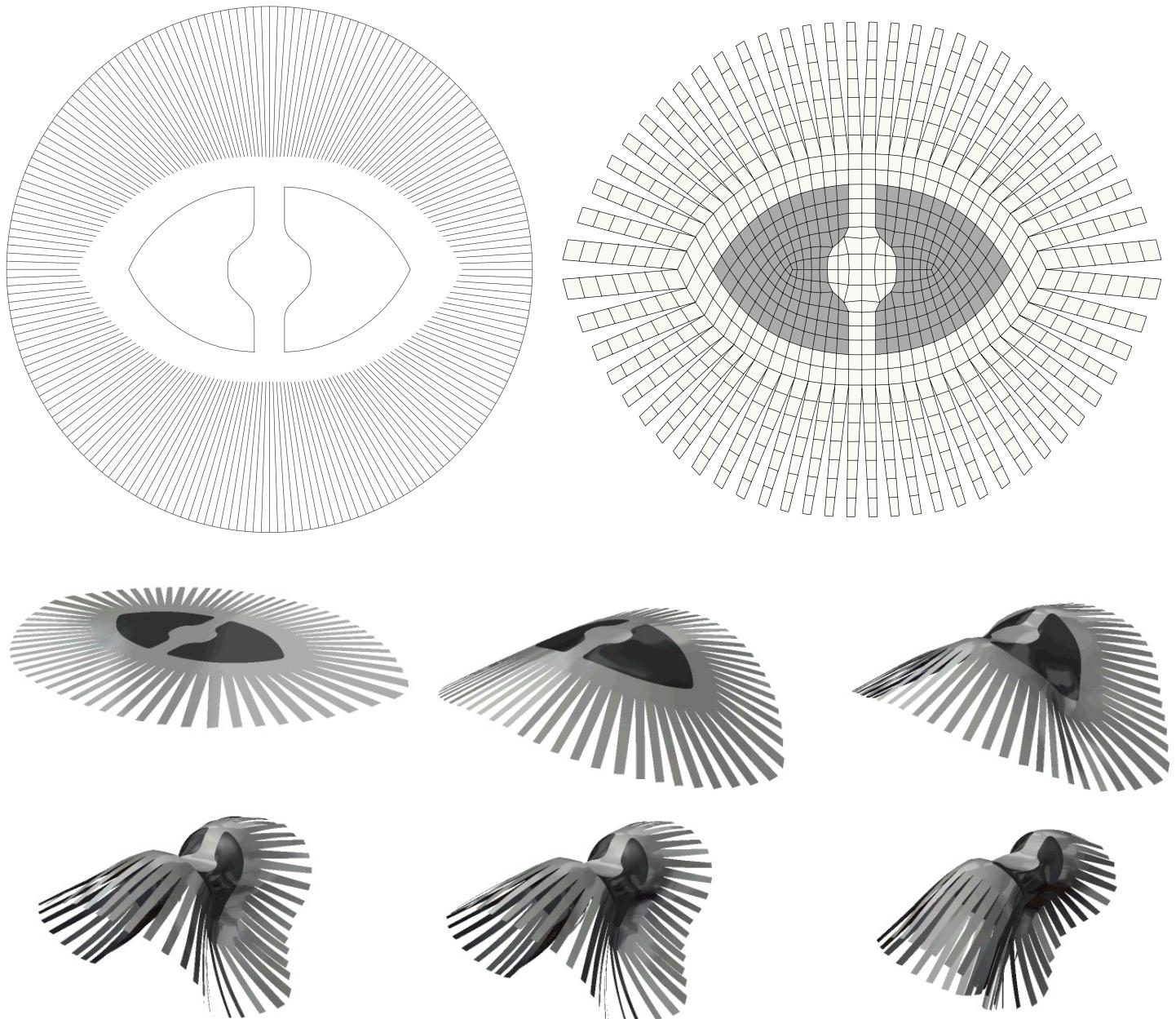


**Thaw/Thicket**

2010

CITA: Mette Ramsgaard Thomsen, Karin Bech  
Lisbon Architecture Triennale  
Lisbon, Portugal





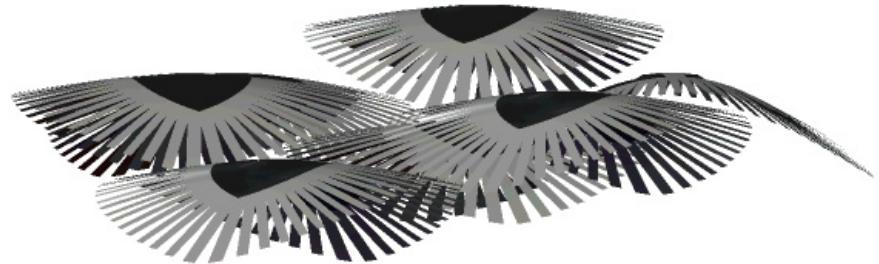
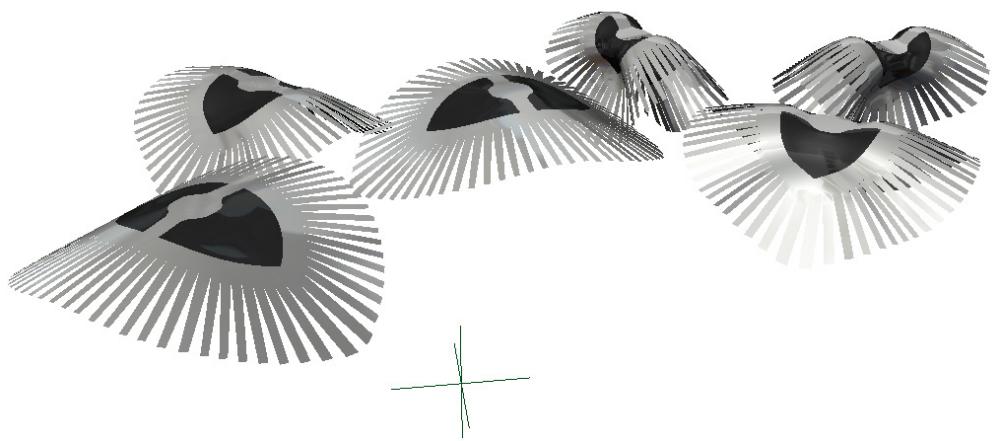
**Reef**

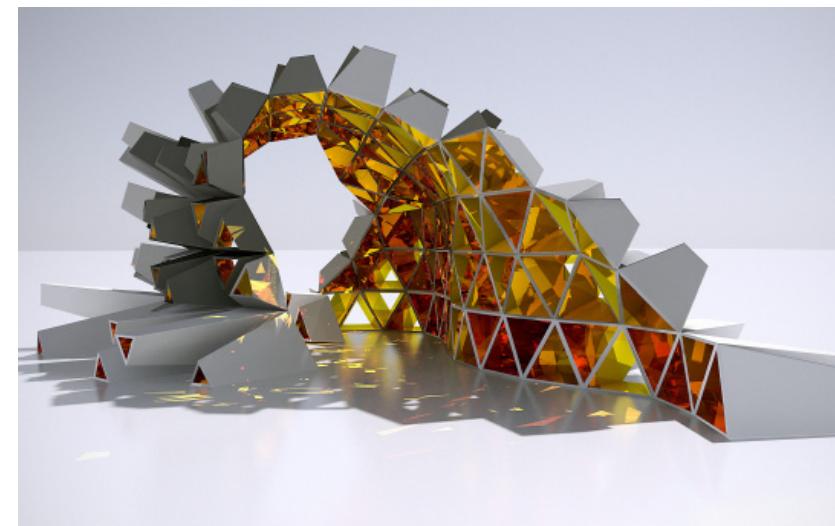
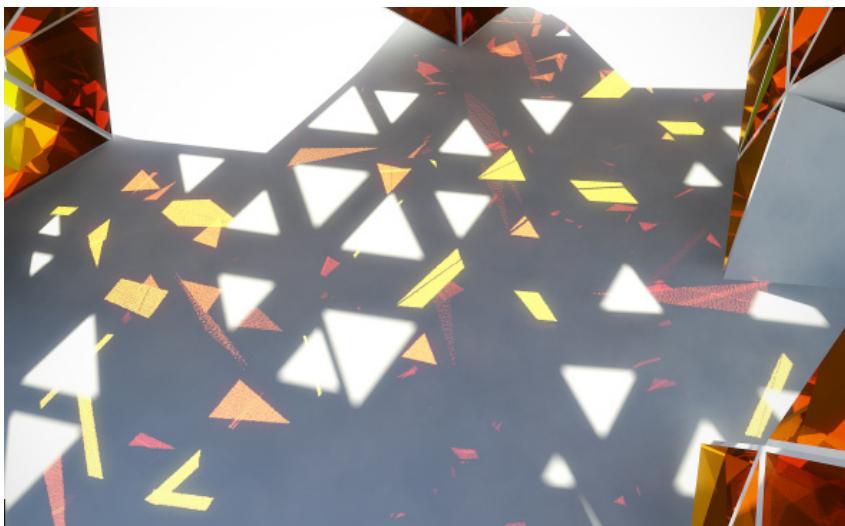
2010

CITA: Aurélie Mossé

1:1 Research by Design Exhibition

Royal Danish Academy of Fine Arts, School of  
Architecture, Copenhagen, Denmark





### **Project Distortion**

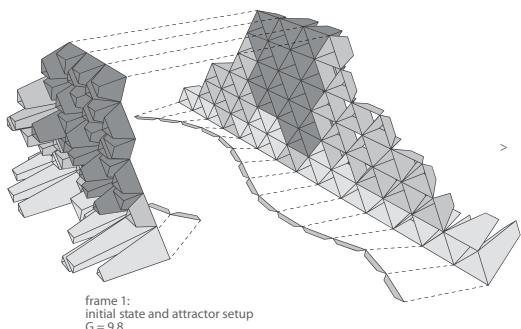
2010

CITA & RPI & Krydsrum Architects

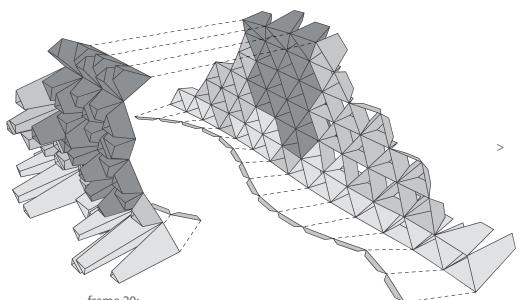
Various locations during the Distortion Street

Festival 2010

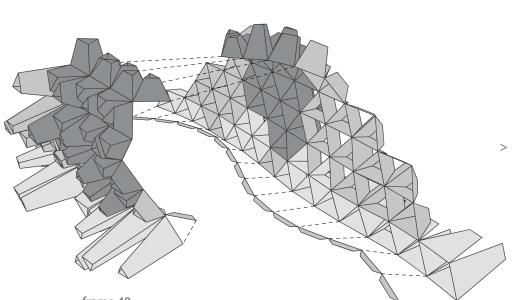
Copenhagen, Denmark



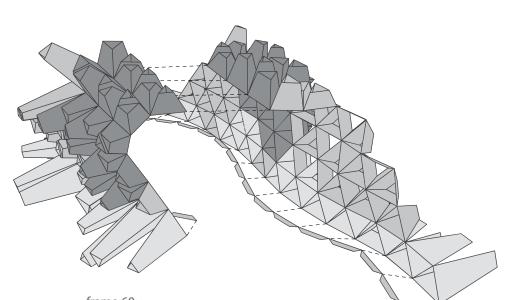
frame 1:  
initial state and attractor setup  
 $G = 9.8$



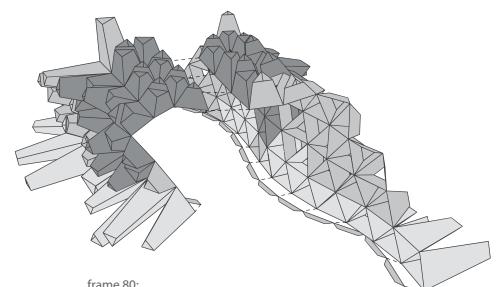
frame 20:  
points attracted 20%  
 $G = 9.8$



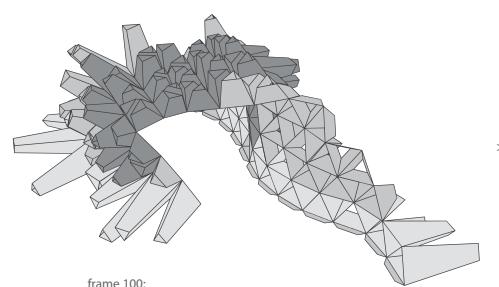
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points attracted 40%  
 $G = 9.8$



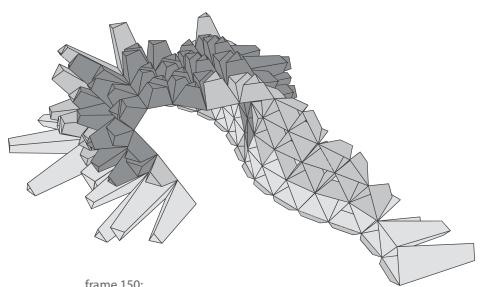
frame 60:  
points attracted 60%  
 $G = 9.8$



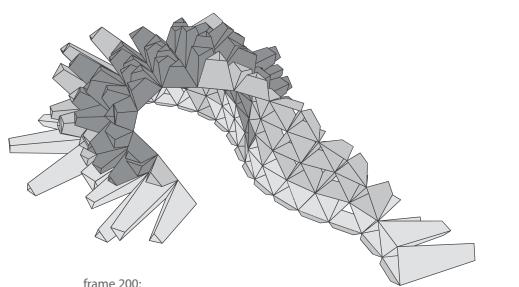
frame 80:  
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 $G = 9.8$



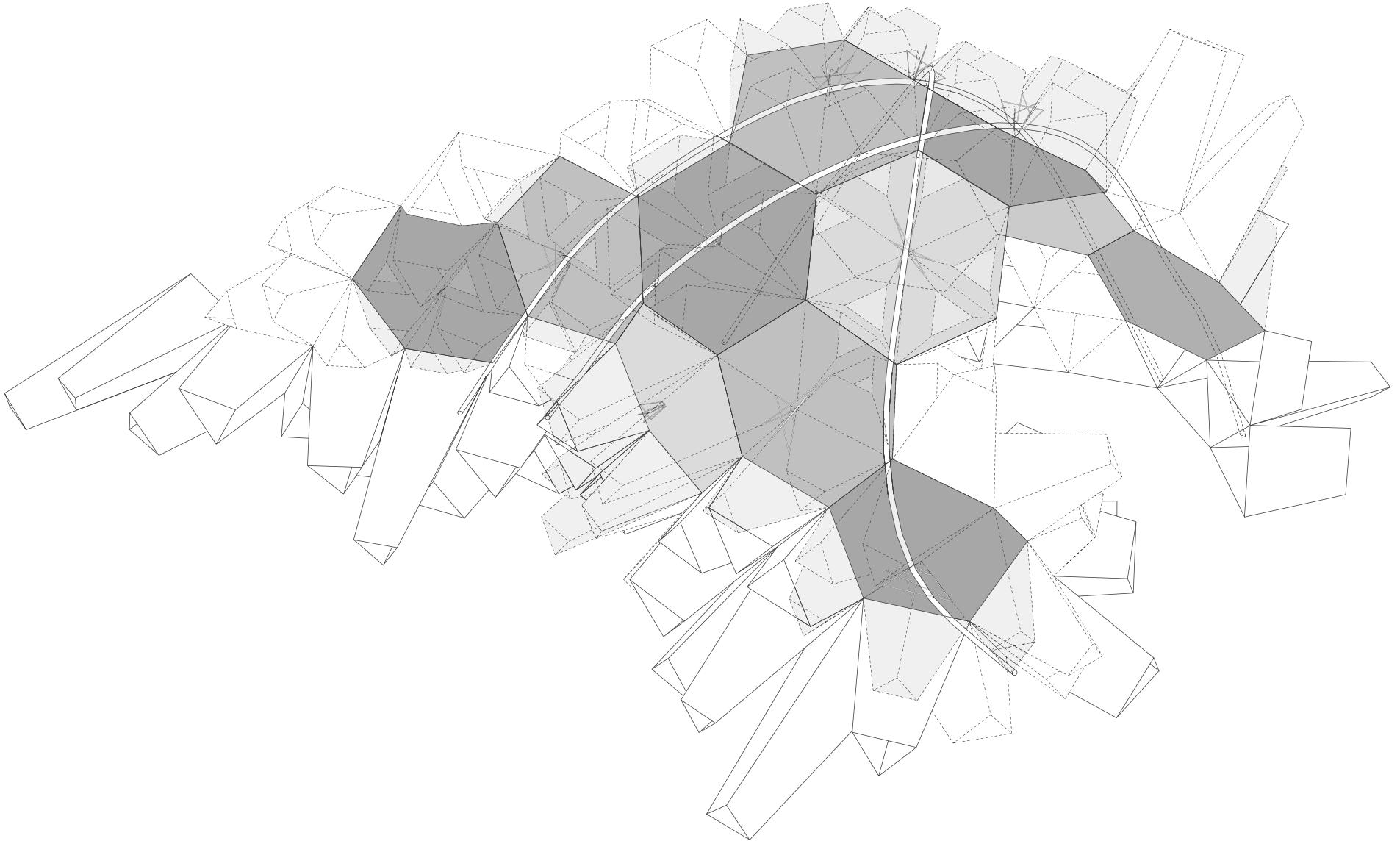
frame 100:  
points attracted 100%  
 $G = 9.8$   
base cones: locked

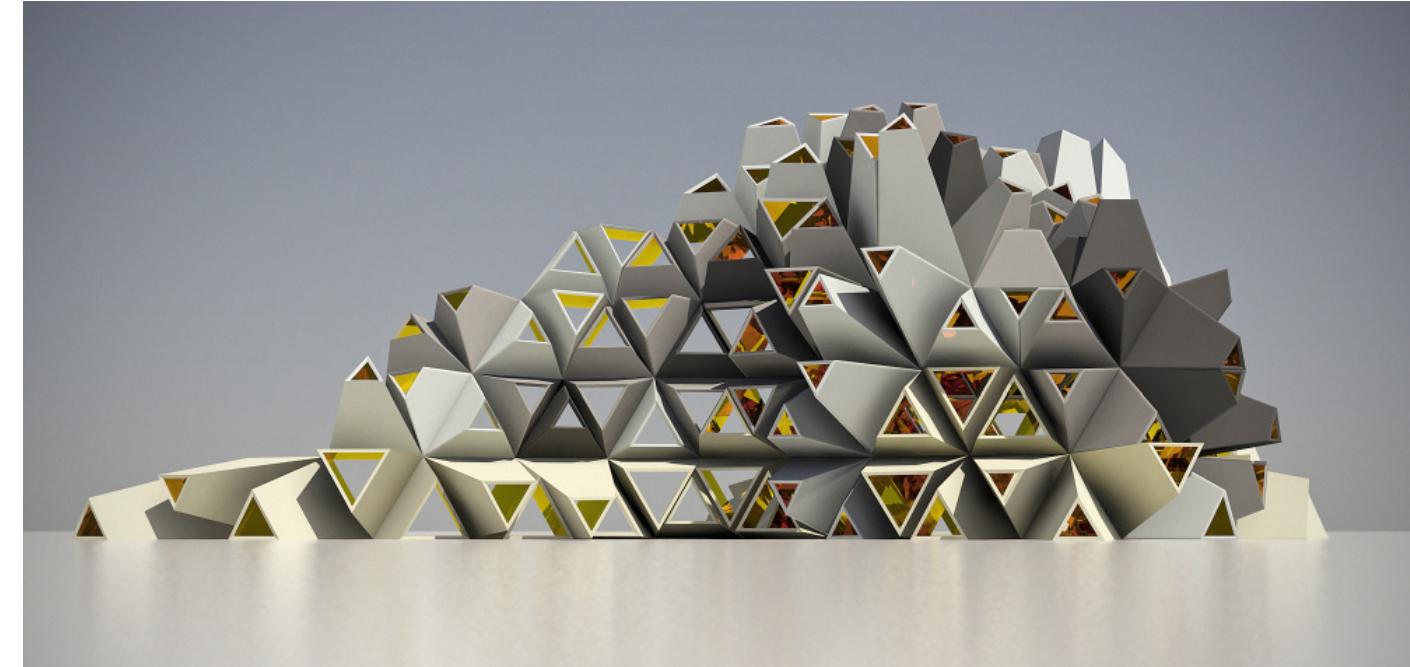


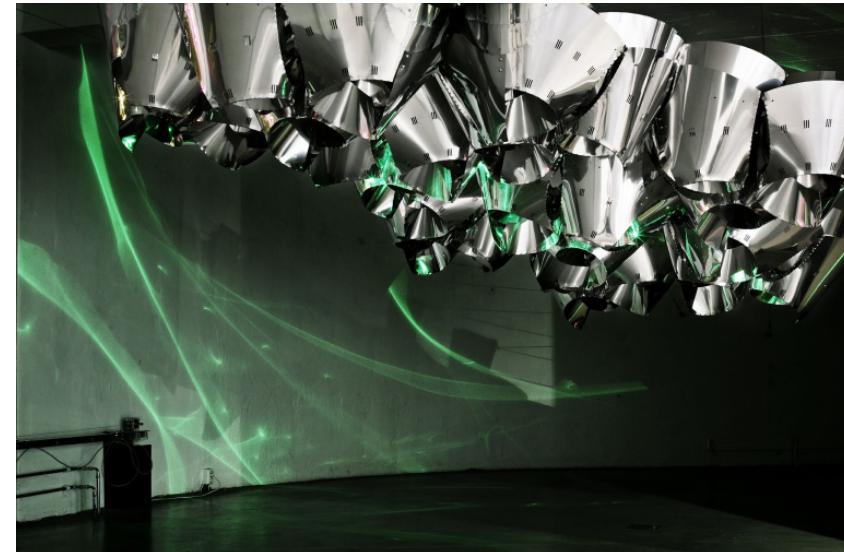
frame 150:  
points attracted 100%  
 $G = -10$   
base cones: locked



frame 200:  
points attracted 100%  
 $G = -20$   
base cones: locked



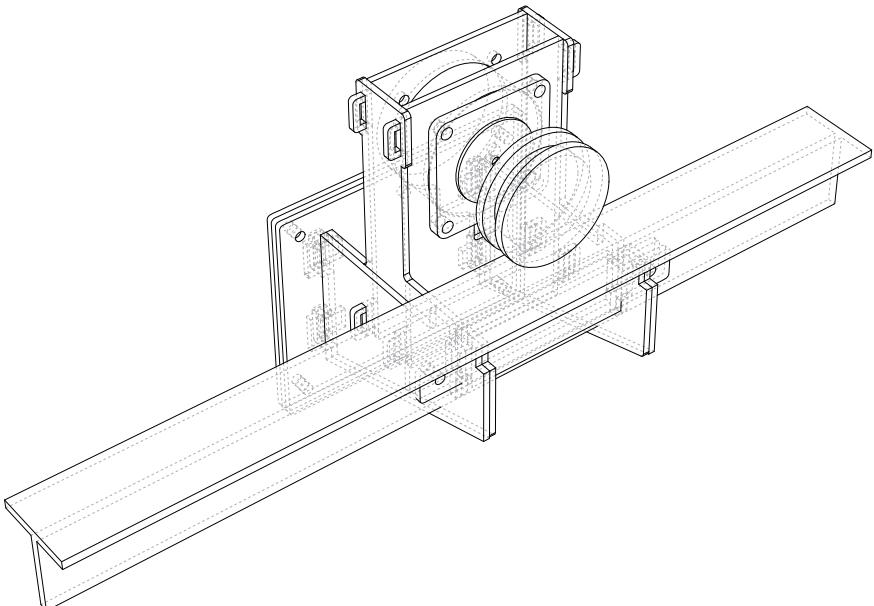
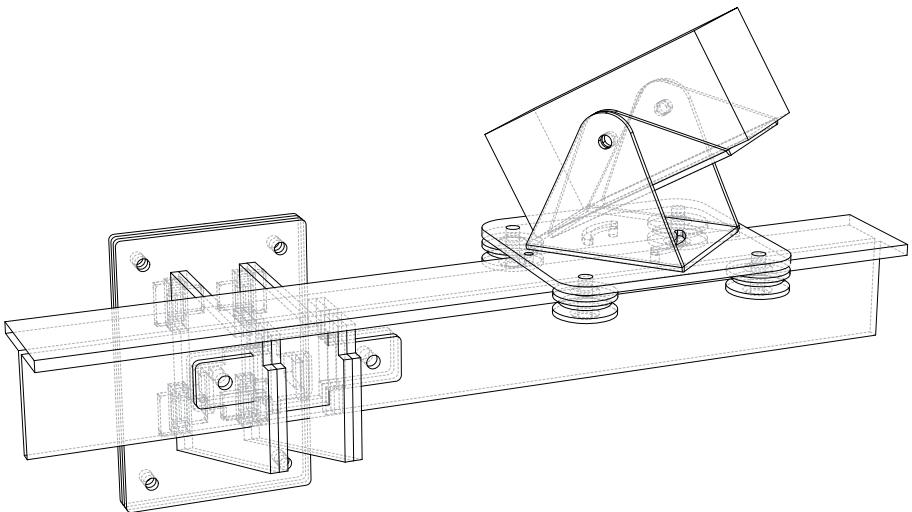
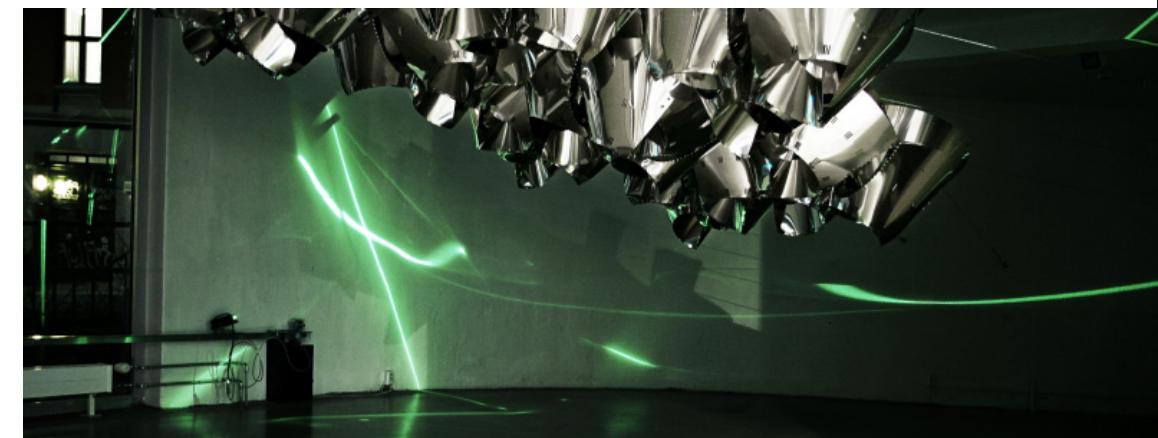
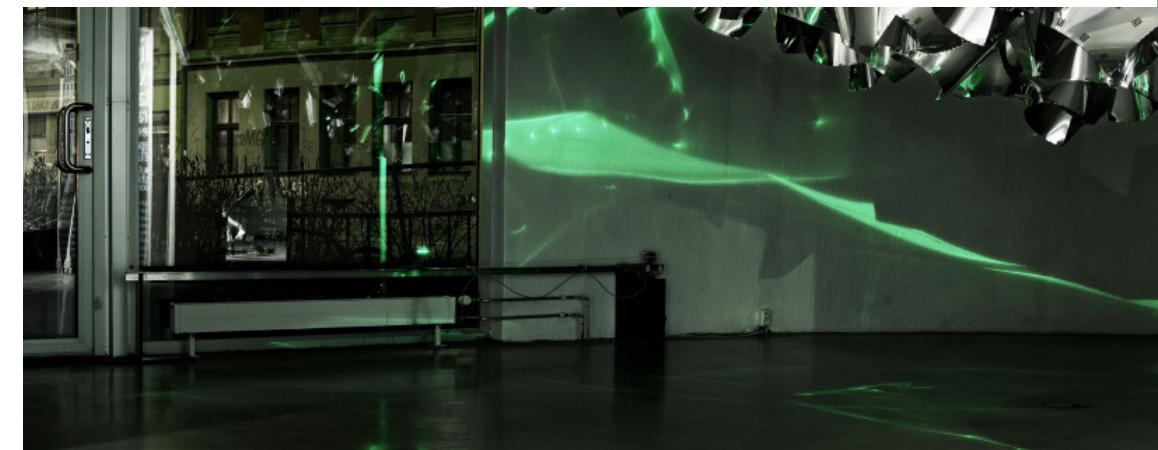
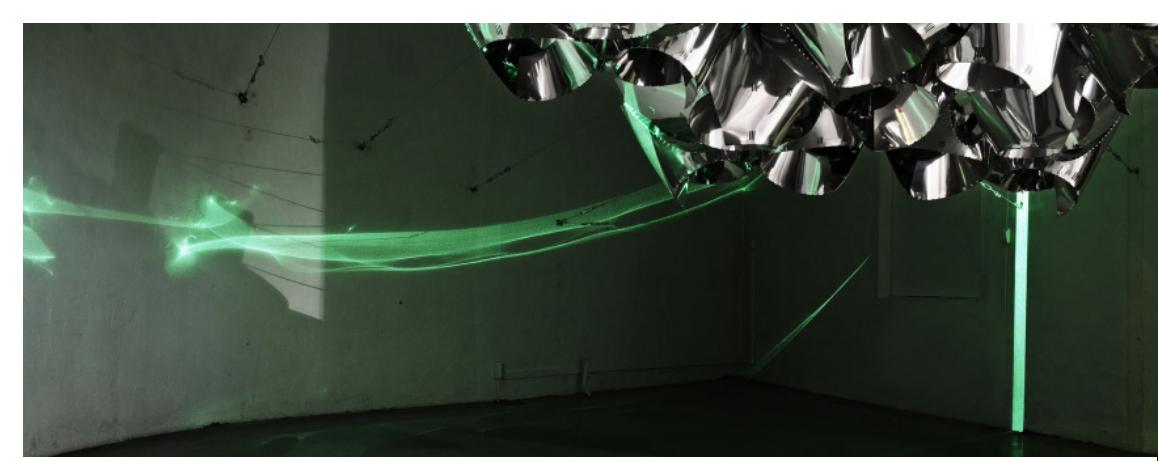


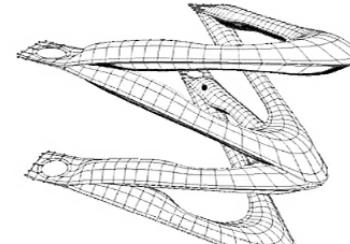
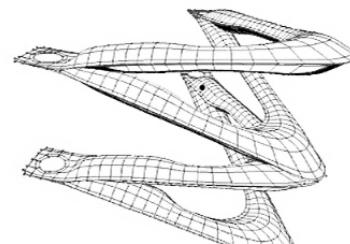
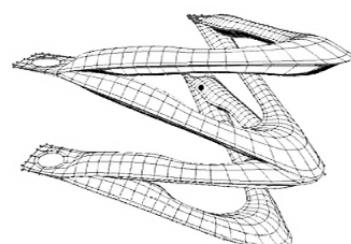
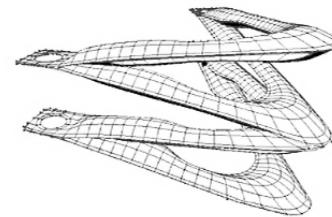
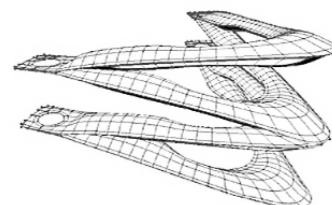
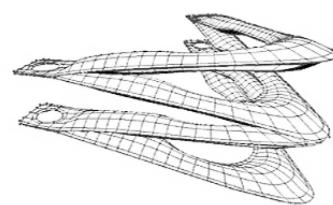
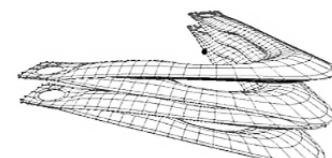
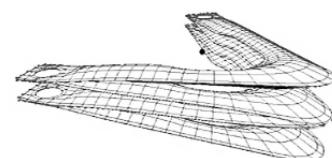
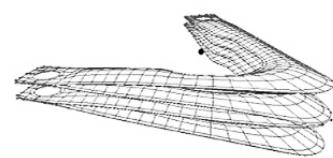
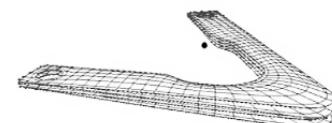
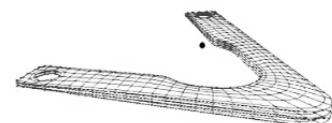
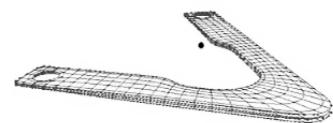


### devA Laser Rig

2010

CITA: Mette Ramsgaard Thomsen, Martin Tamke  
With Phil Ayres  
Digital Material Exhibition  
ROM Gallery, Oslo, Norway



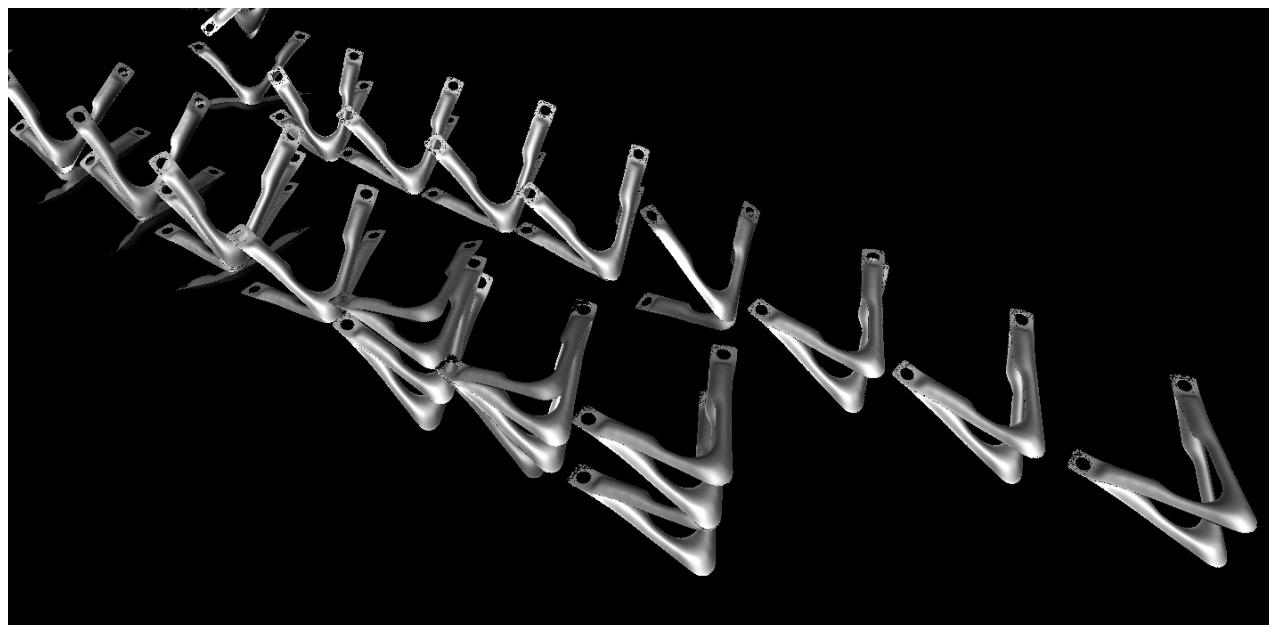
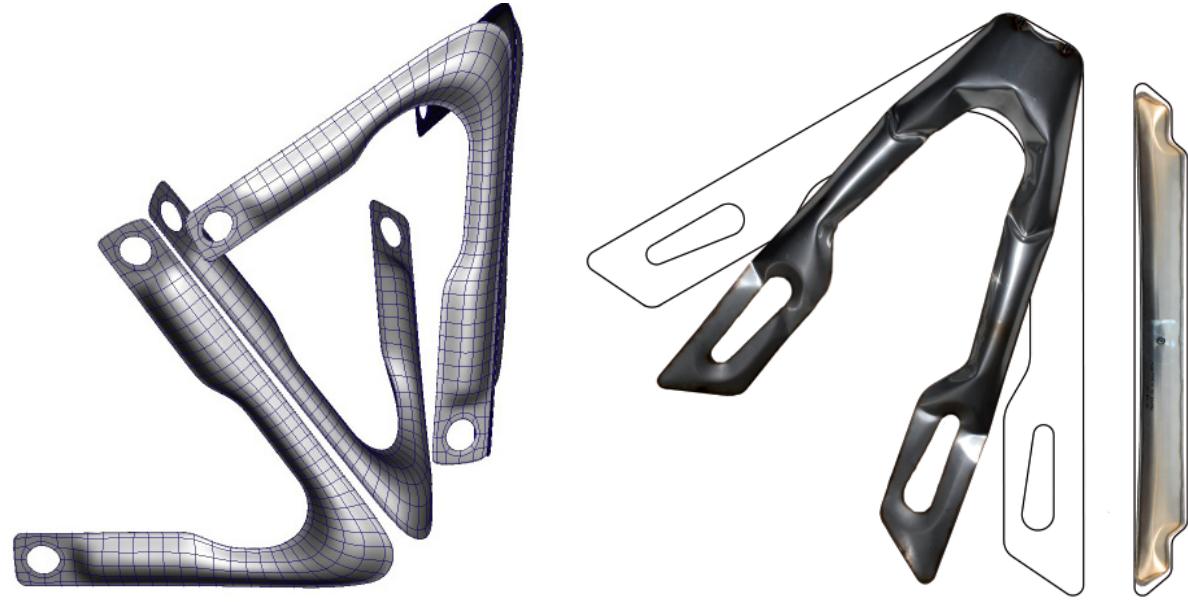


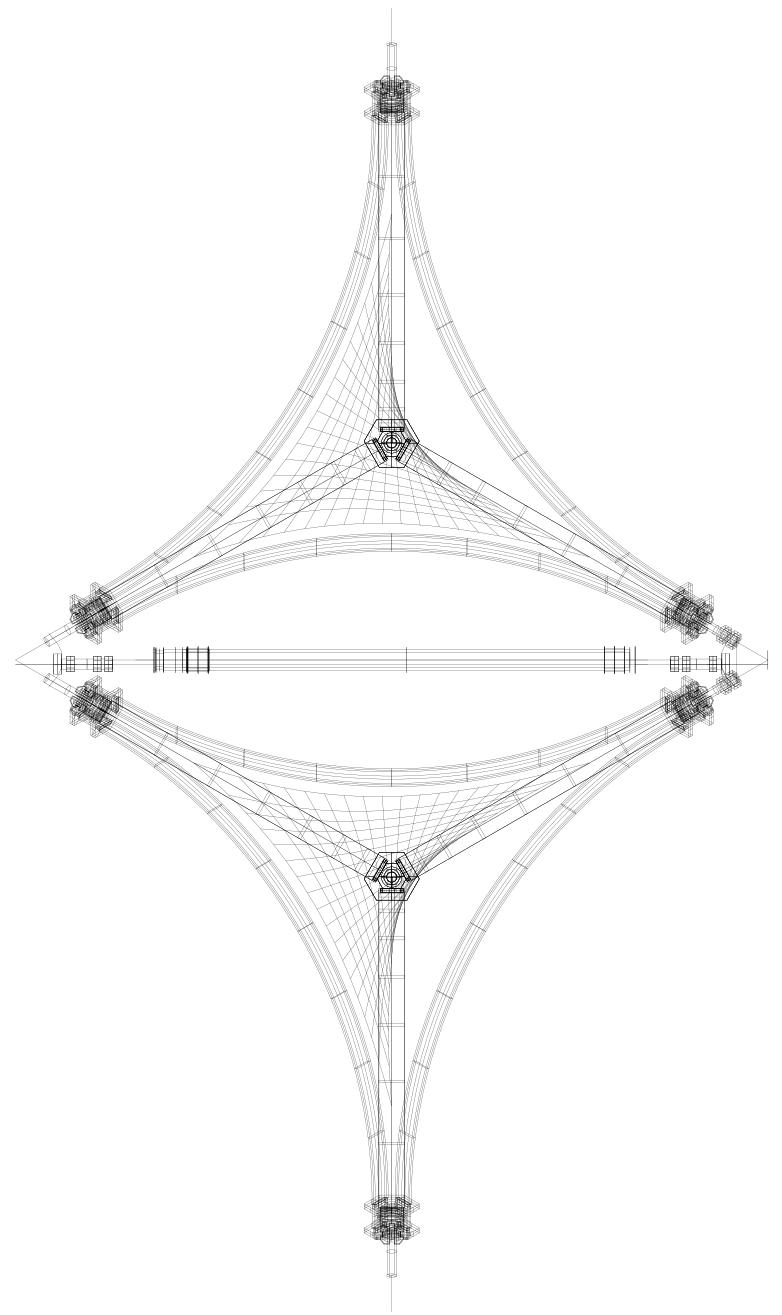
### Persistent Model #1

2010

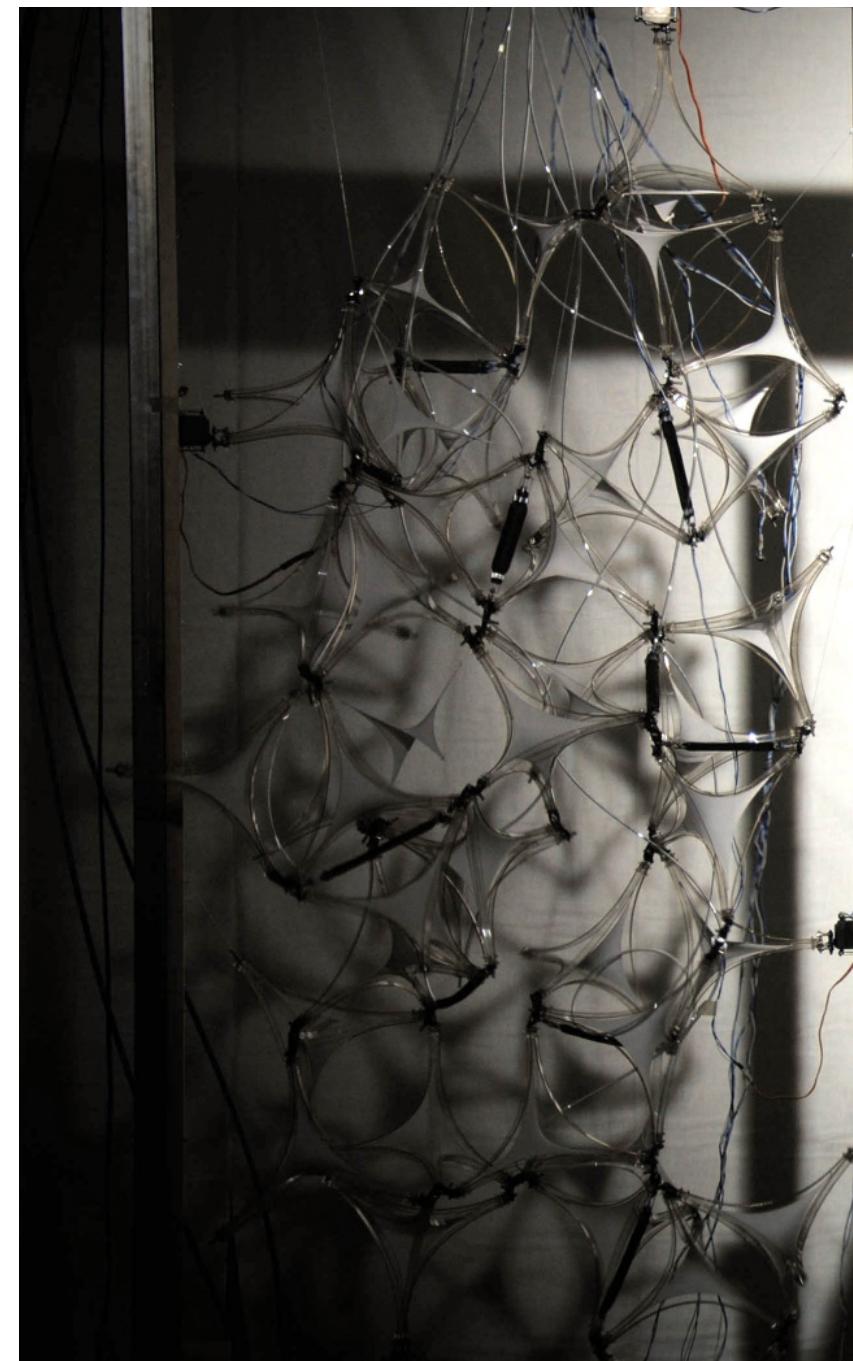
CITA: Phil Ayres

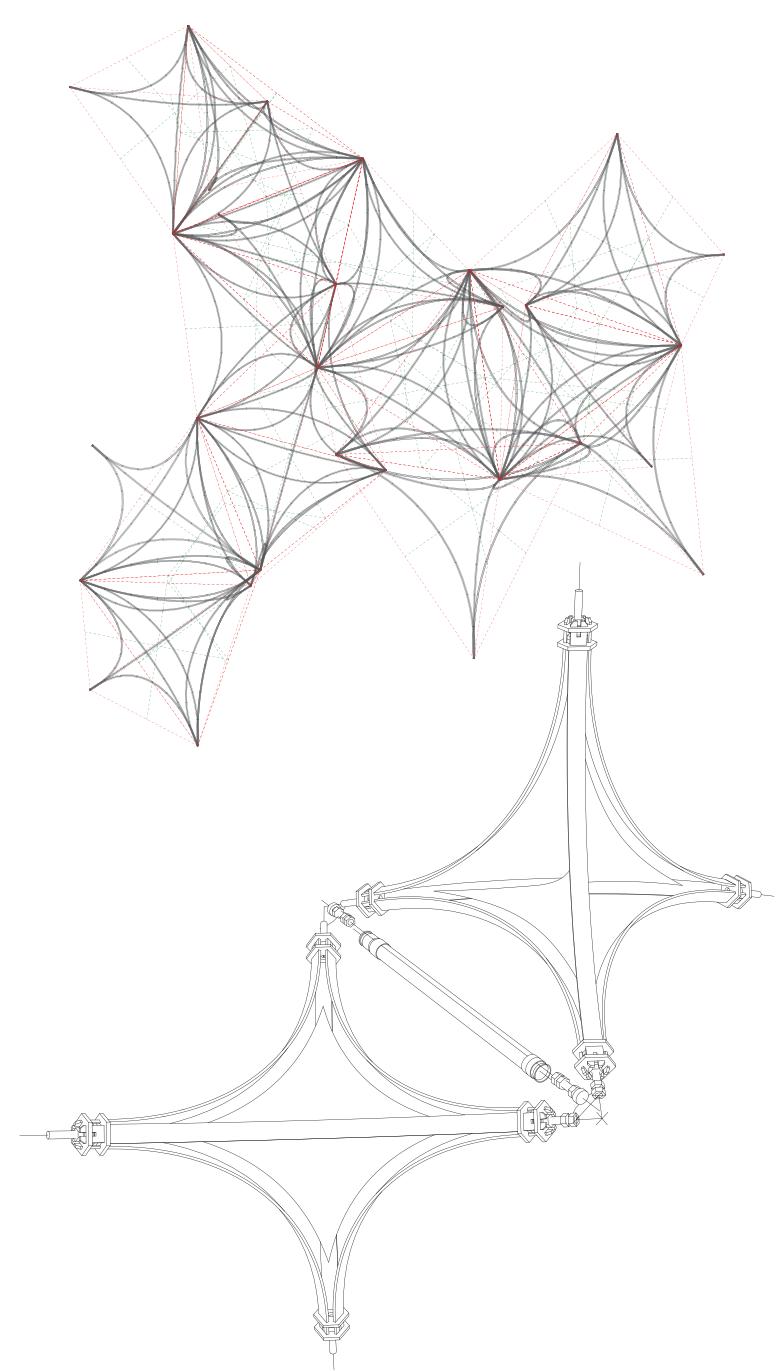
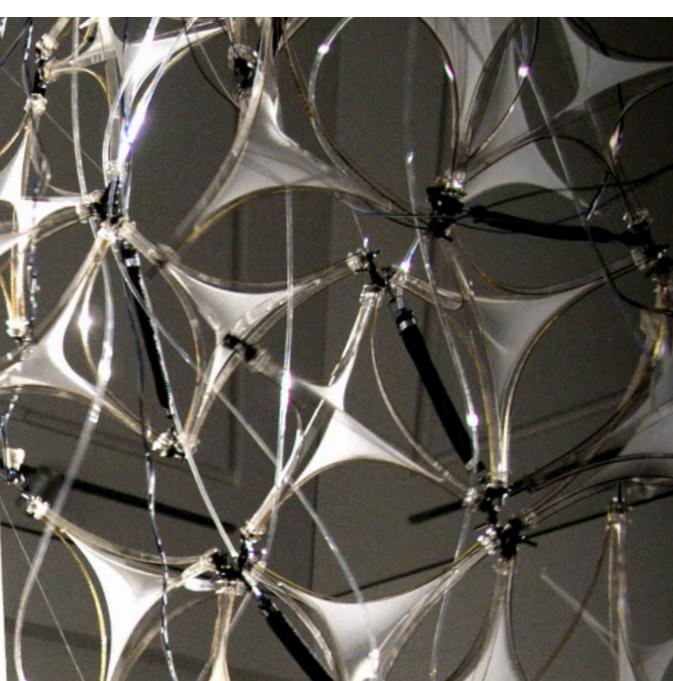
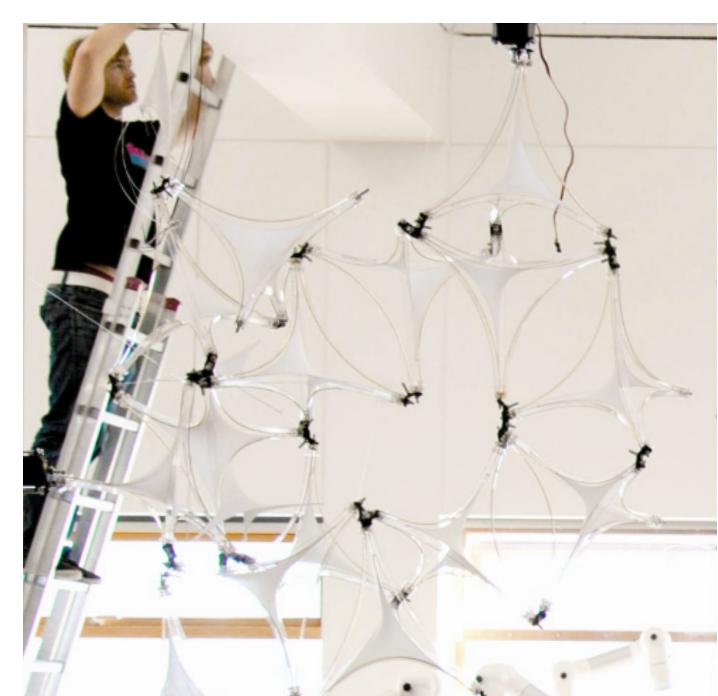
Royal Danish Academy of Fine Arts, School of  
Architecture, Copenhagen, Denmark





**Environmental Response: Adaptive Performance in Architectural Design**  
2010  
One week workshop, group  
Department of Architecture, Design & Media Technology, Aalborg University, Denmark



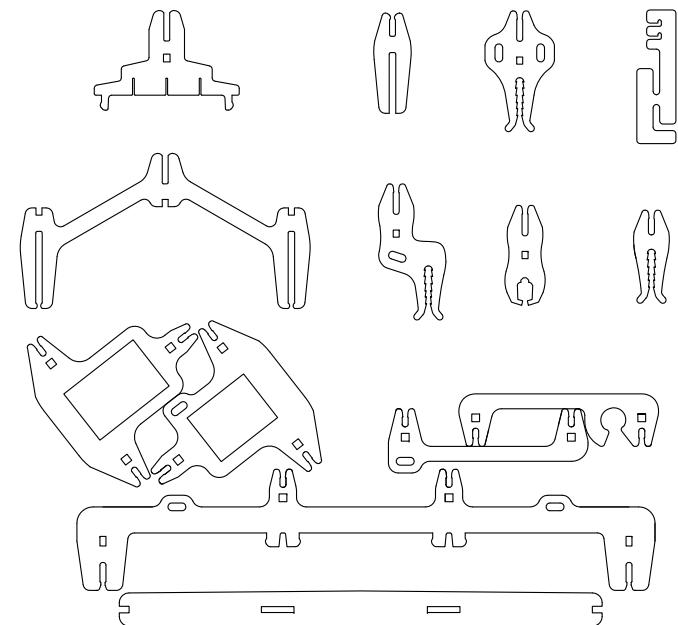
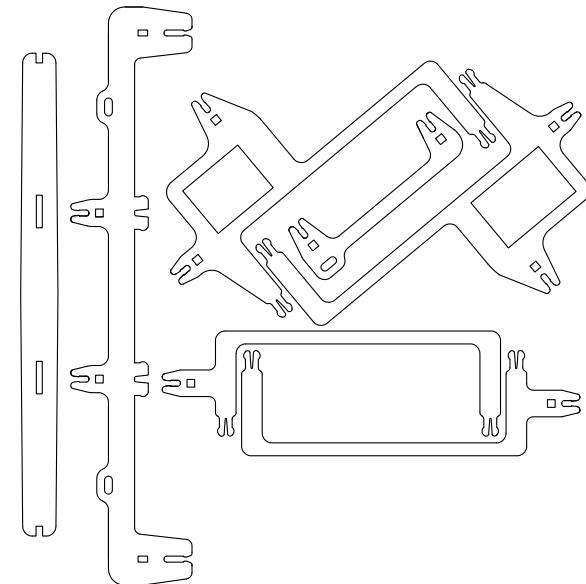
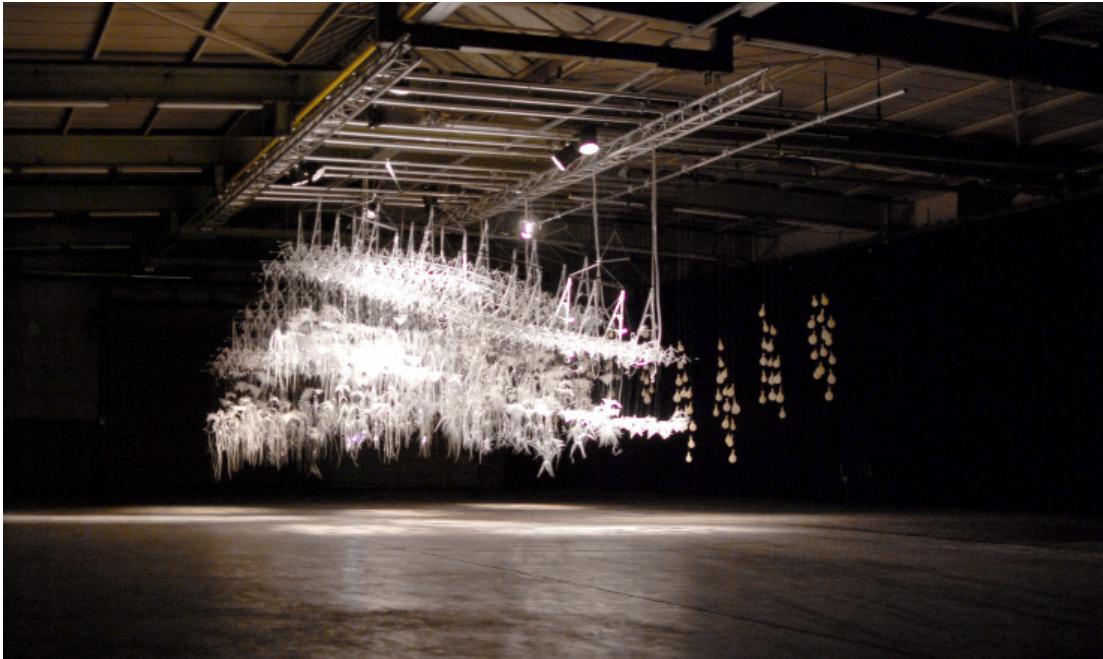




**Sargasso Cloud**

2009

Philip Beesley Architects & CITA  
Pluto Festival Nijdrop Gallery  
Opwijk, Belgium

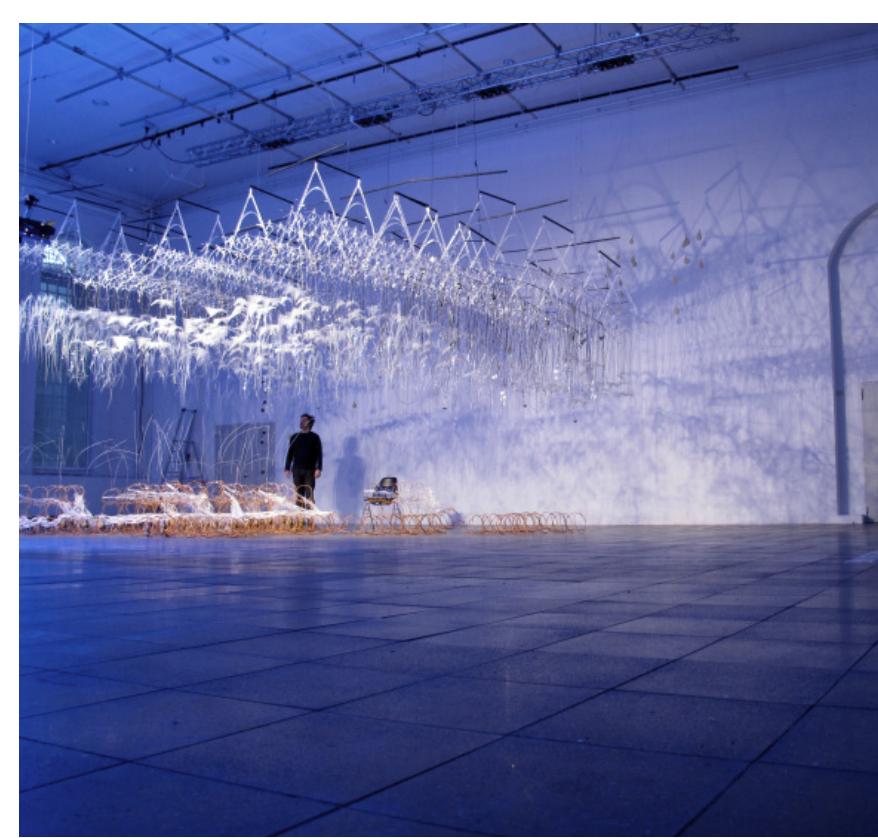


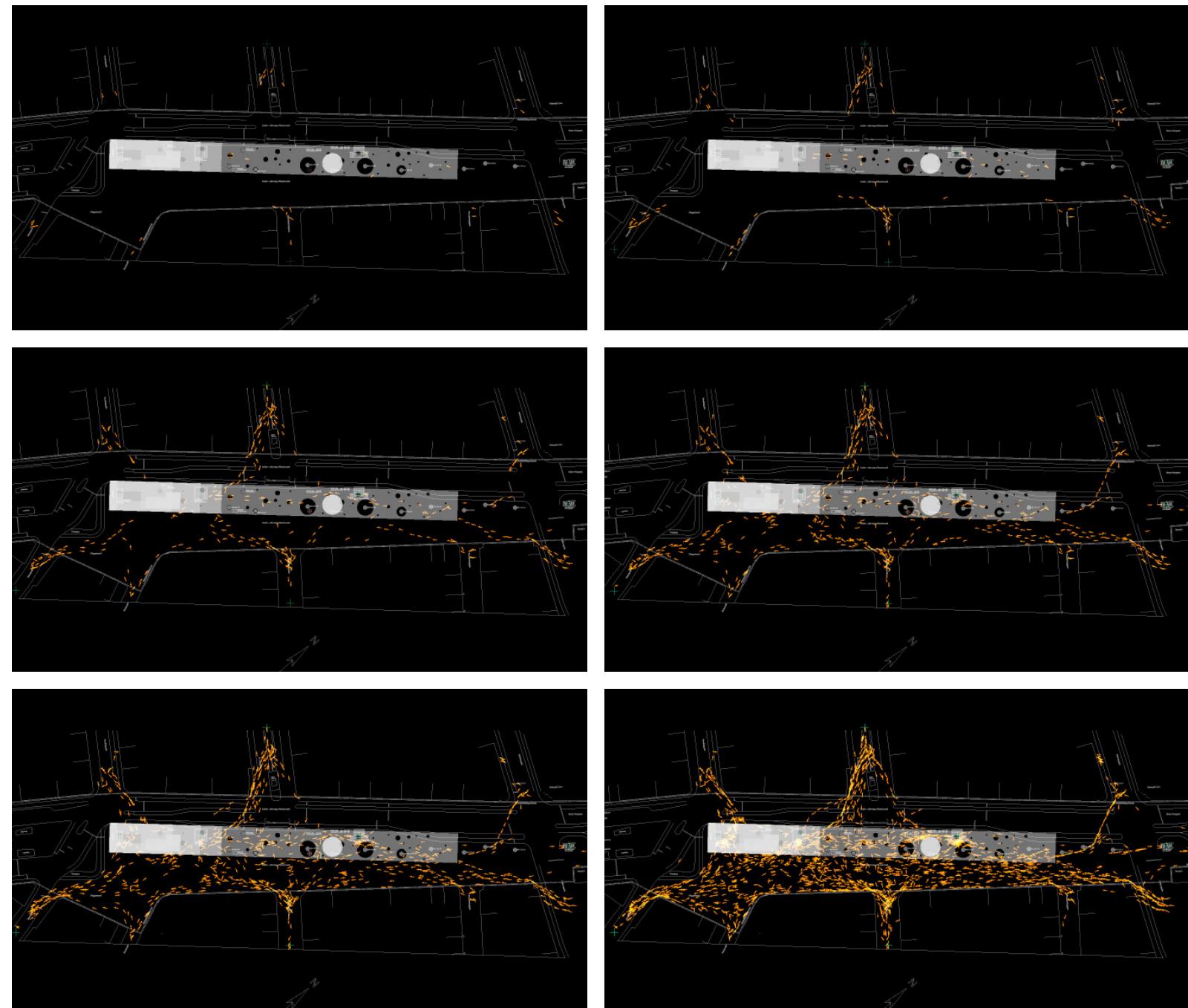


### Sargasso Fields

2009

Philip Beesley Architects & CITA,  
COP15: Climate and Architecture Exhibition,  
Royal Danish Academy of Fine Arts, School of  
Architecture, Copenhagen

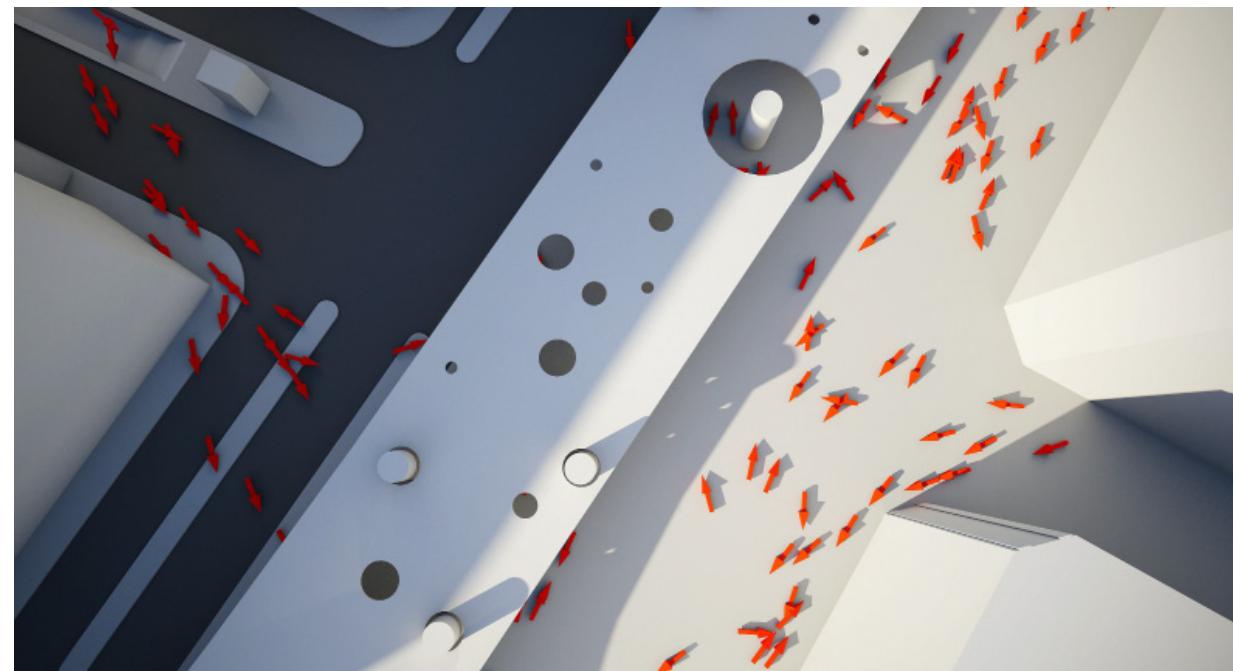
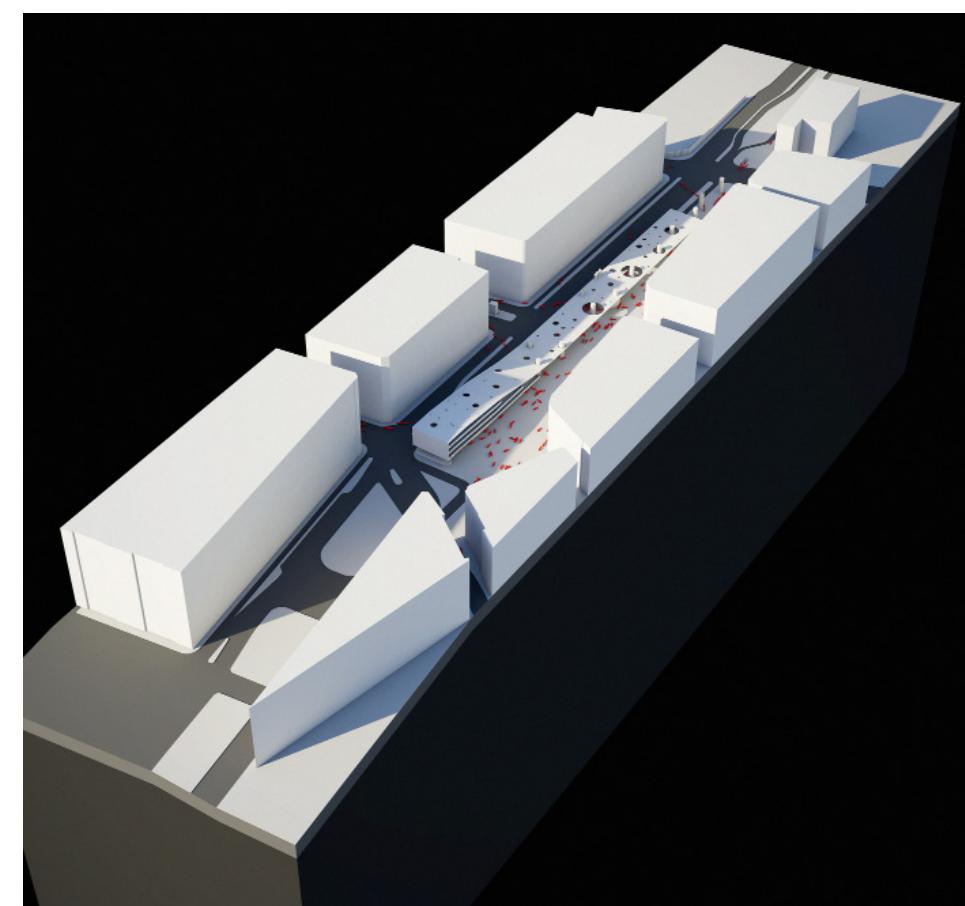
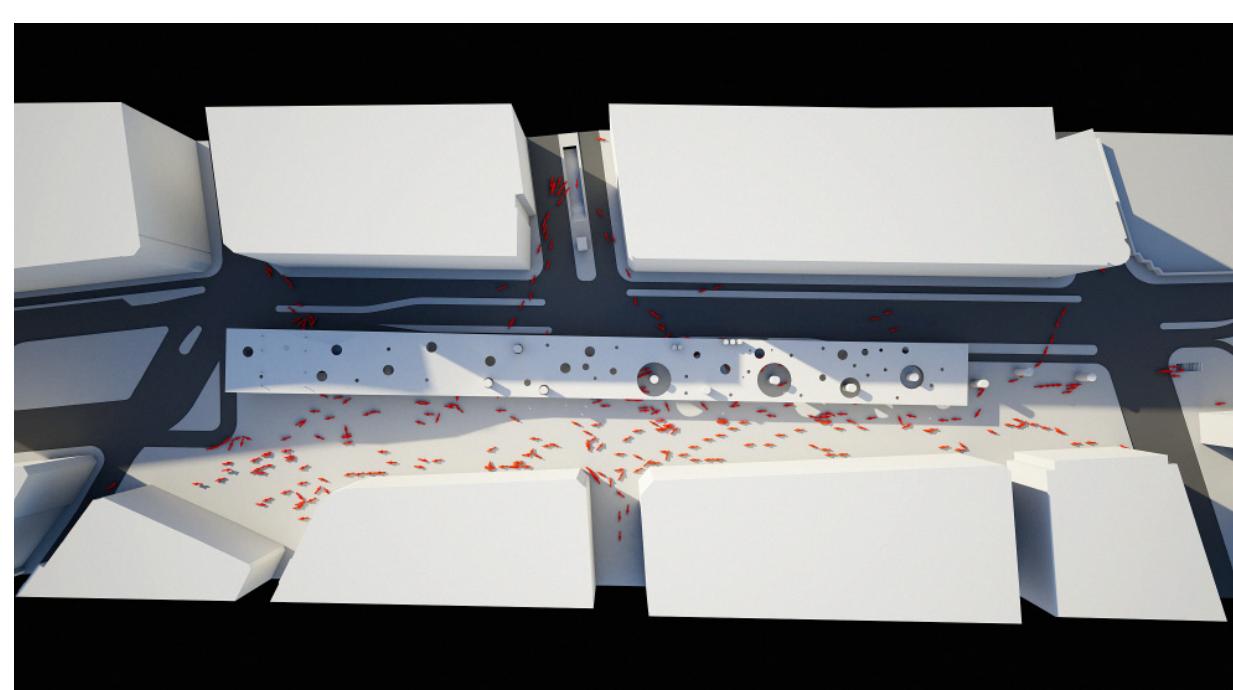
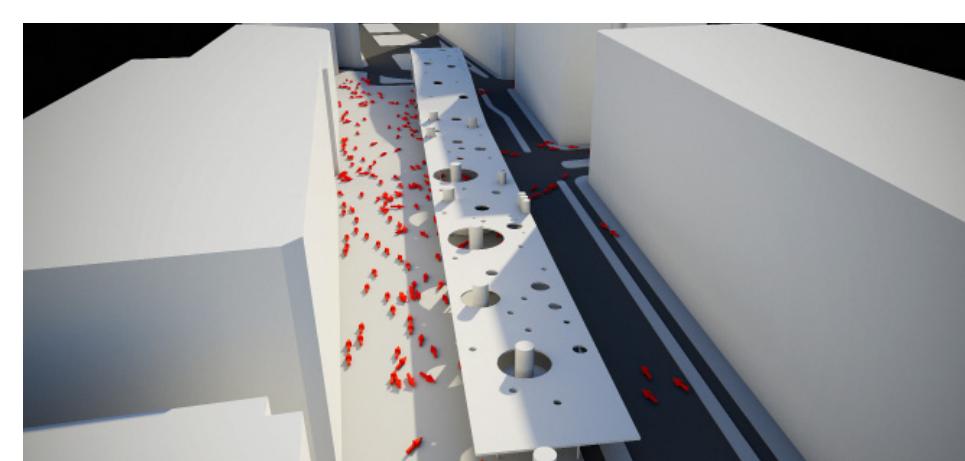


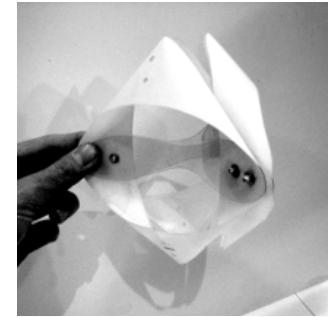
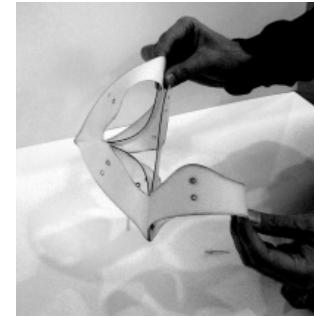
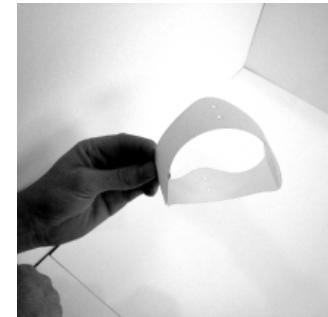
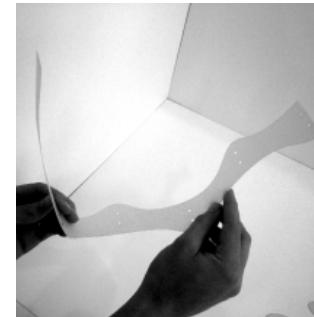
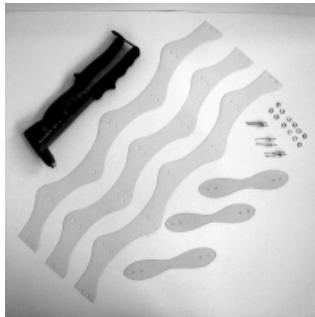
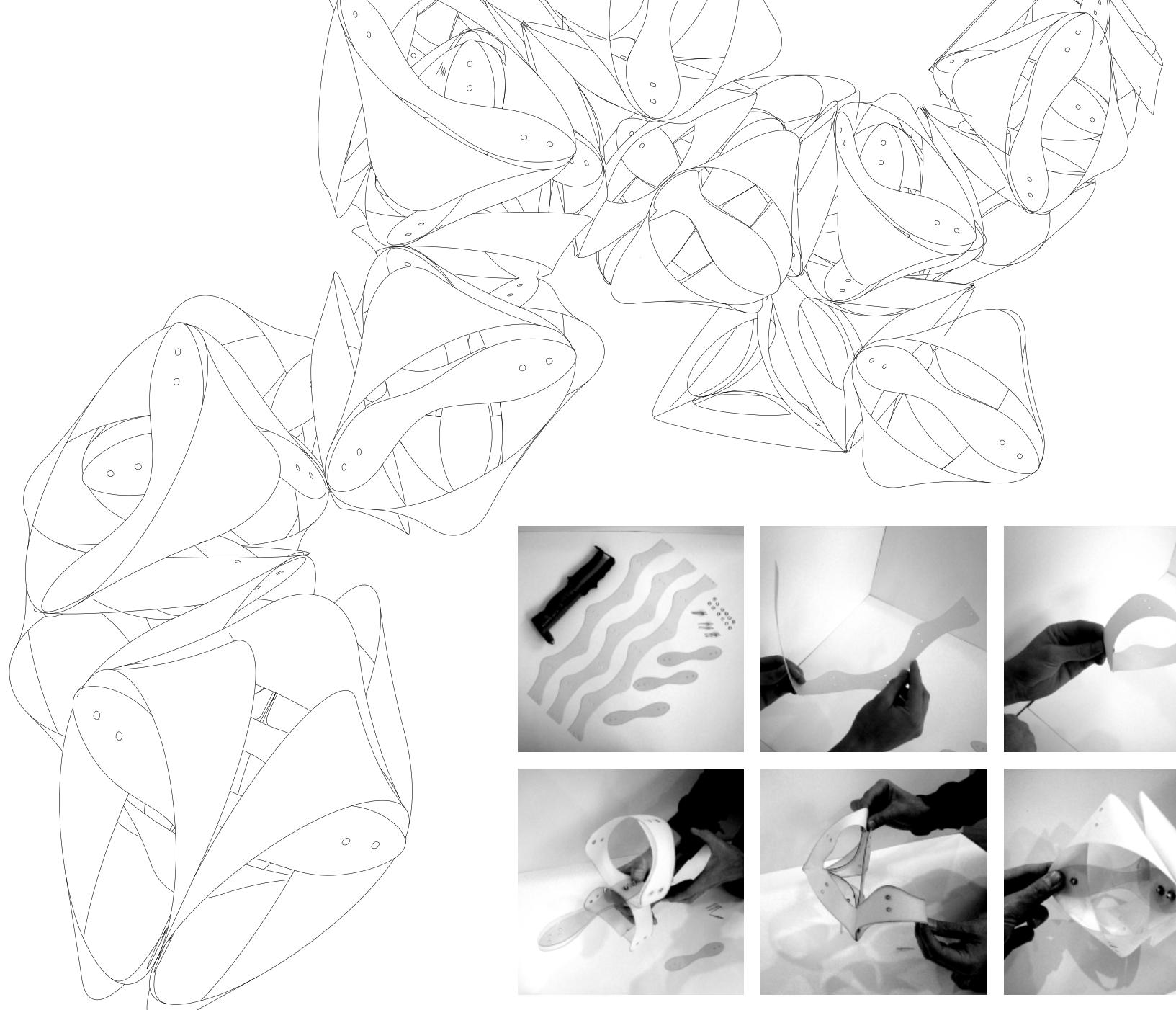


### Nørreport Boids

2009

JAJA Architects and Shift Control  
New Nørreport Competition  
Copenhagen, Denmark





## Performative Architecture

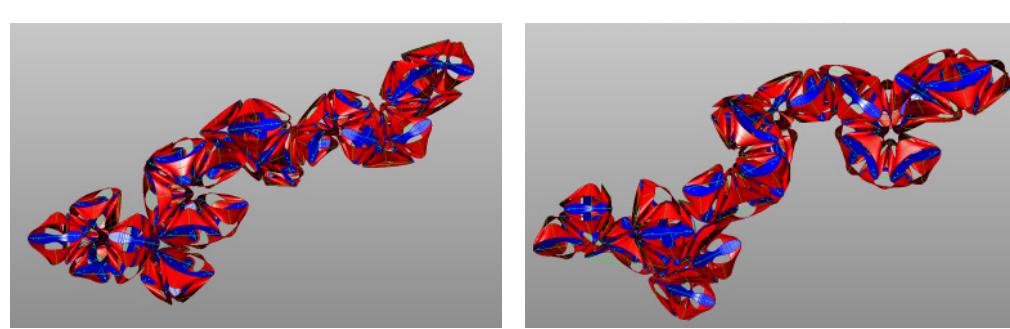
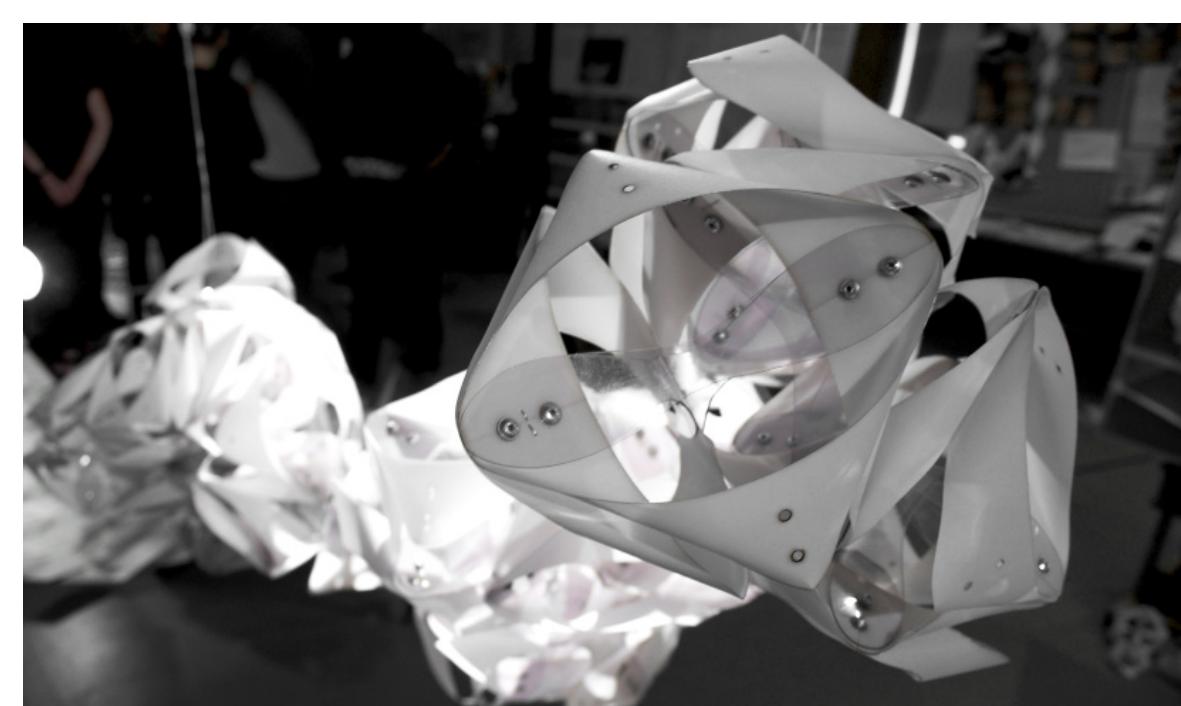
2008

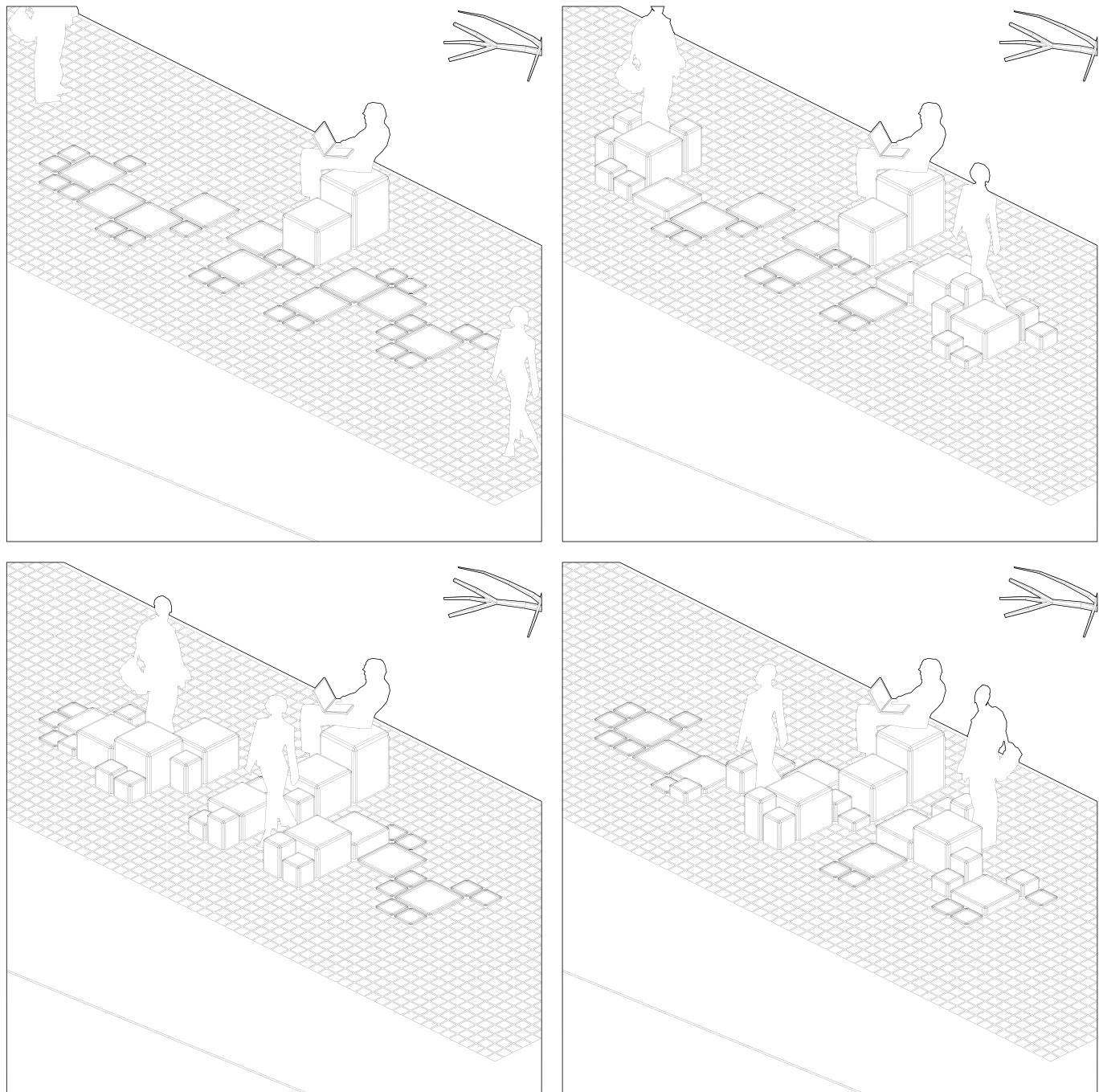
One week workshop

With Jesper Thøger Christensen

Department of Architecture, Design & Media

Technology, Aalborg University, Denmark





## The New Materiality of the Social

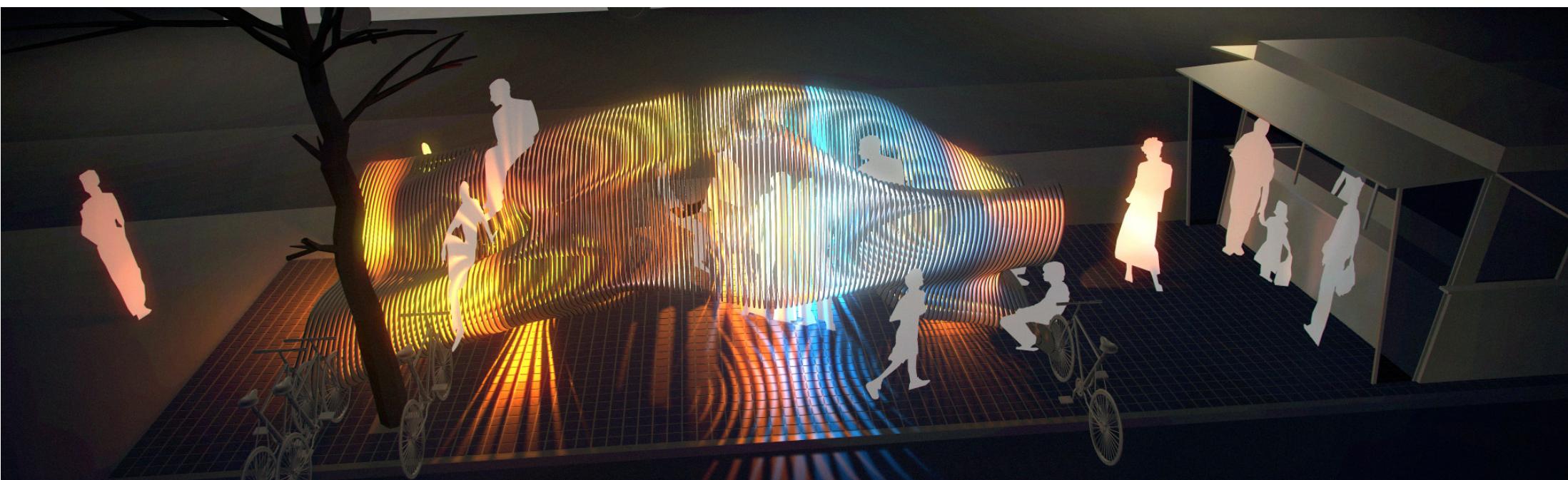
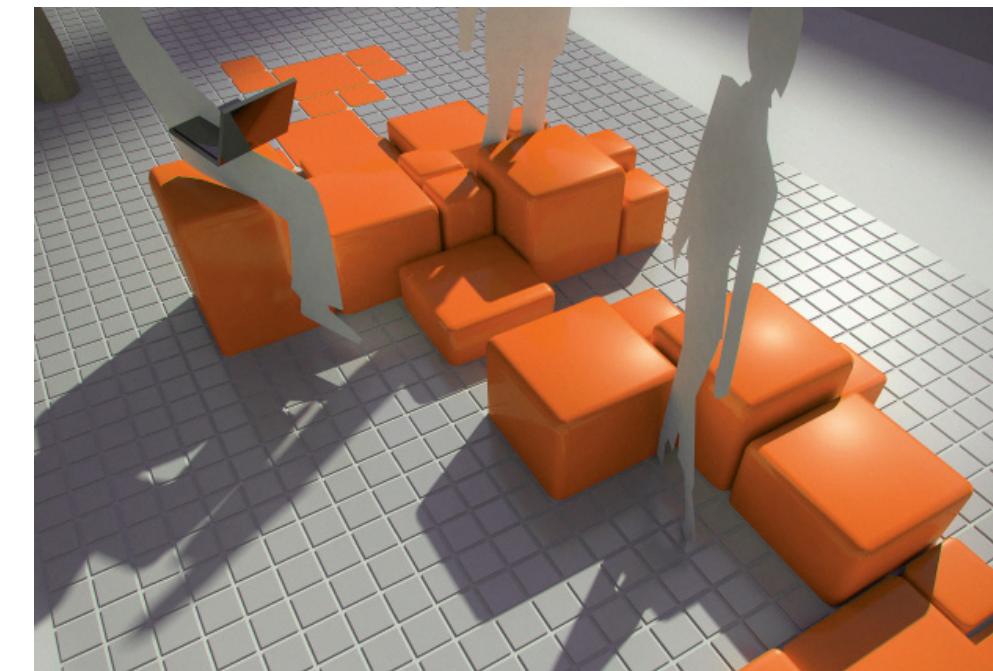
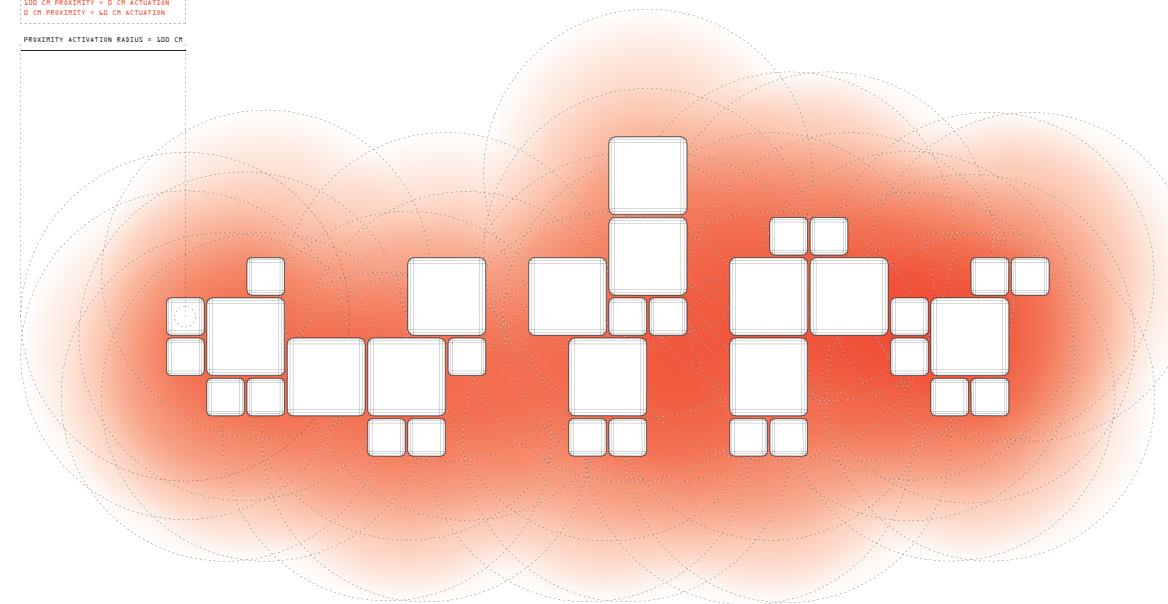
2008

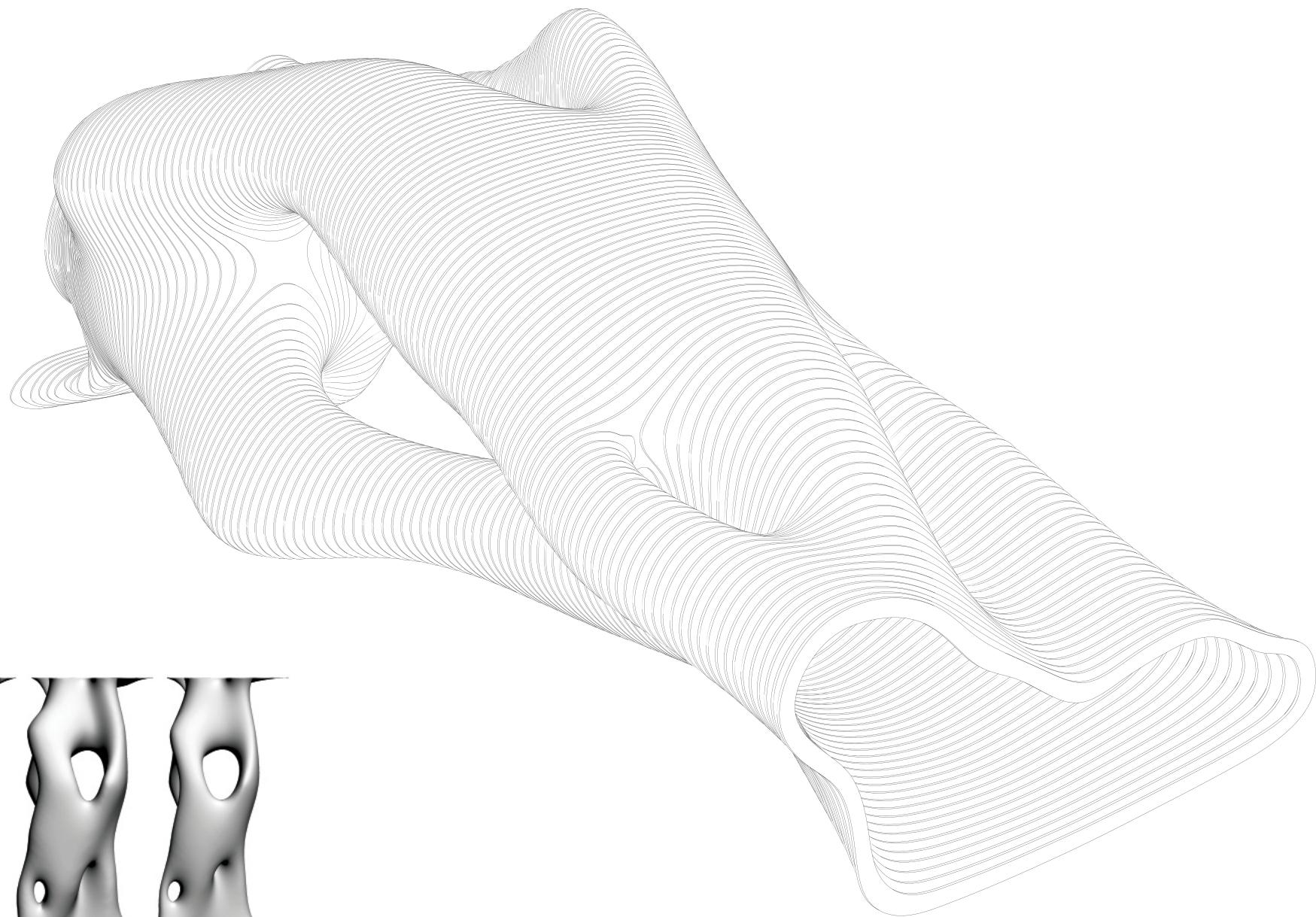
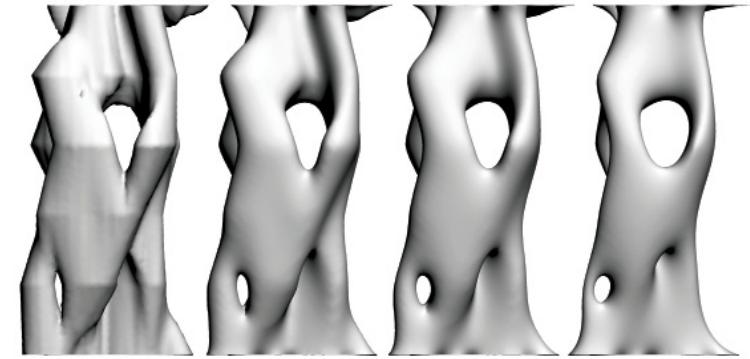
University project, individual

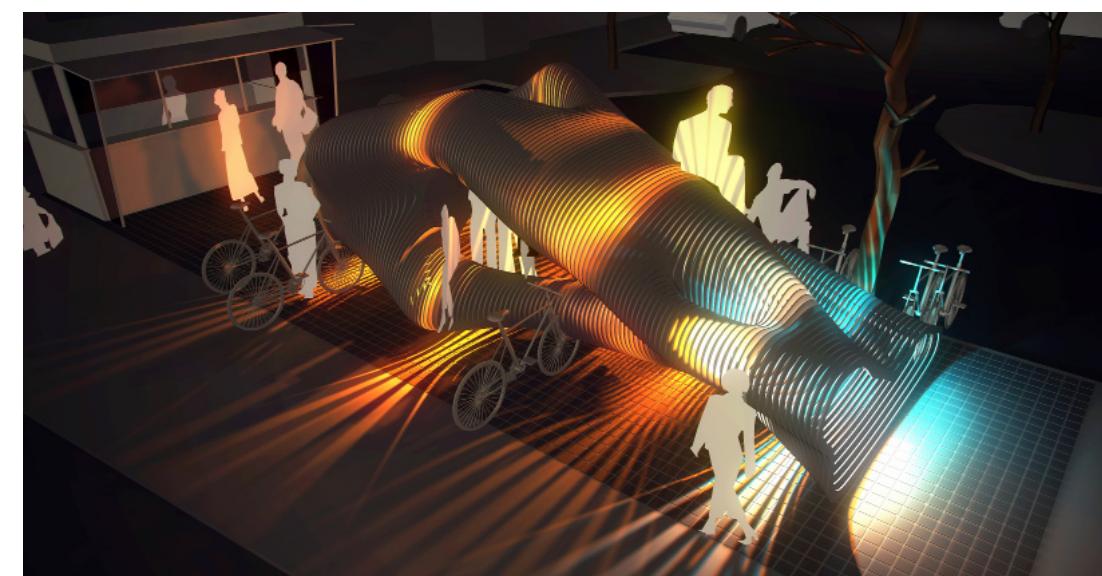
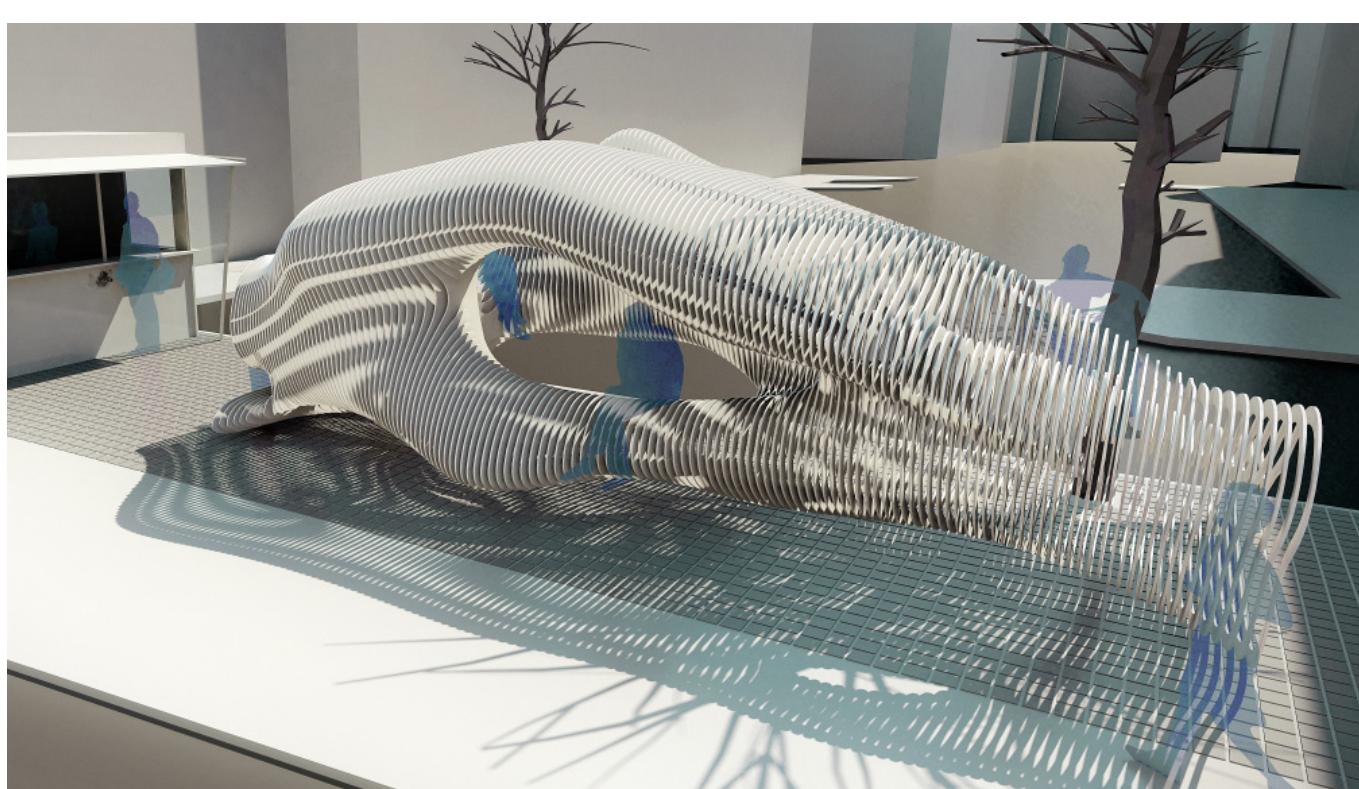
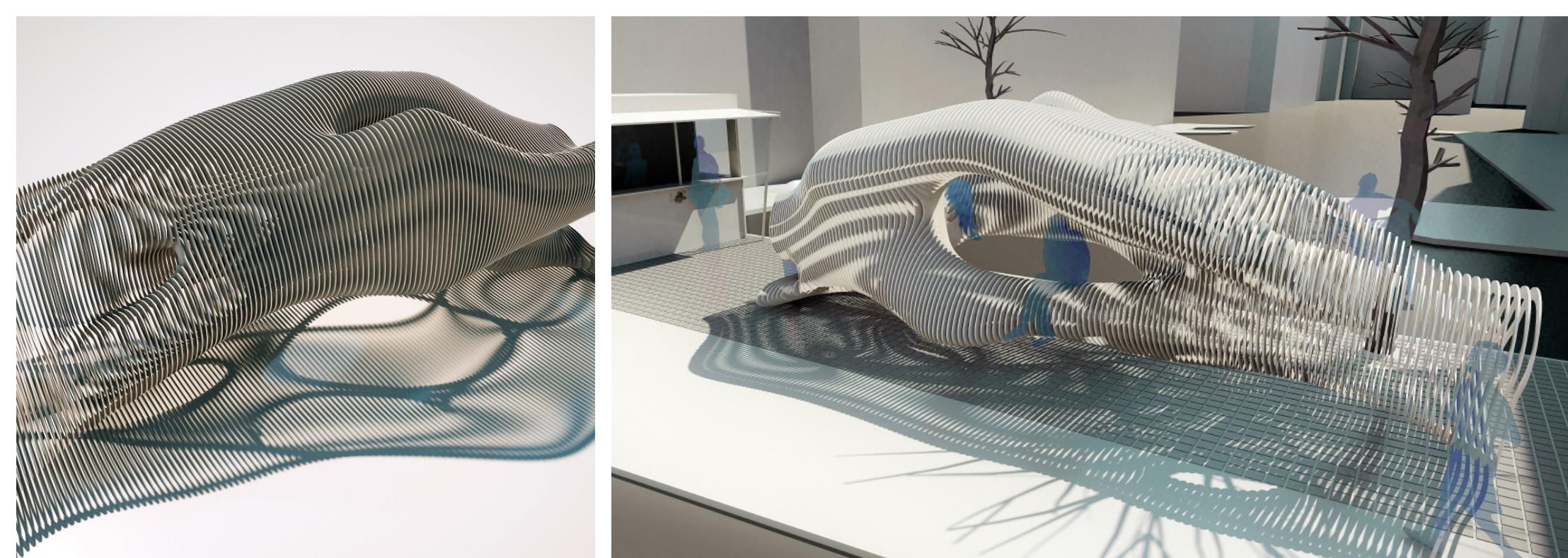
Department of Architecture, Design & Media  
Technology, Aalborg University, Denmark

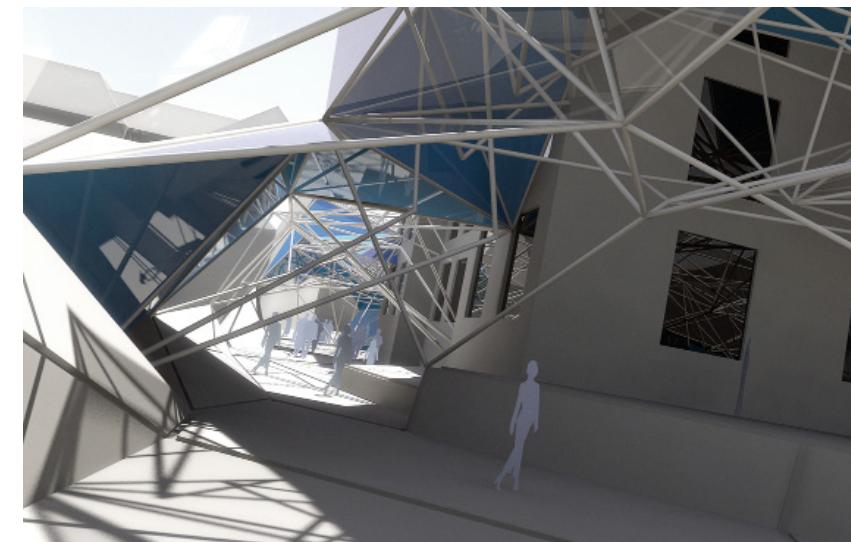
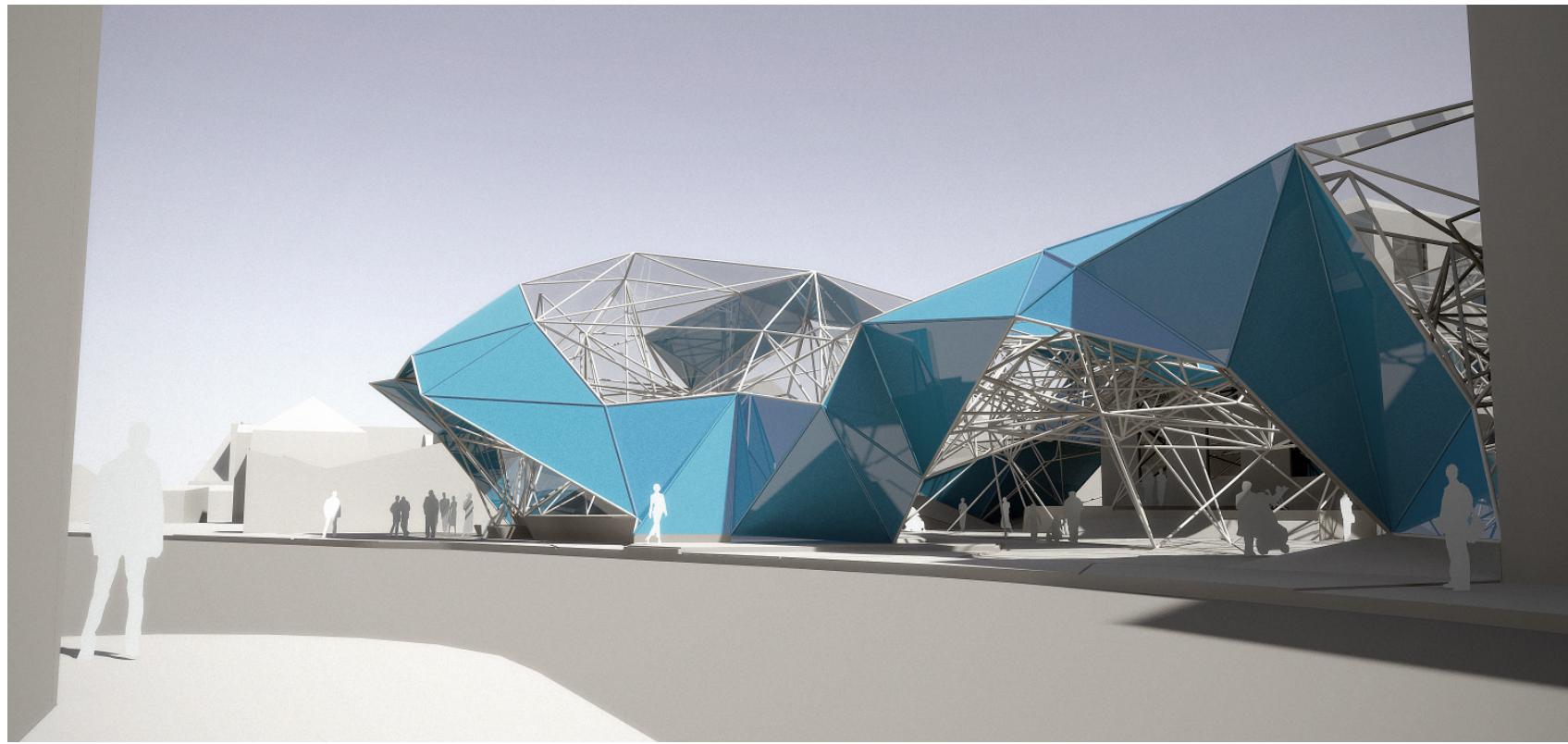
100 CM PROXIMITY = 0 CM ACTUATION  
0 CM PROXIMITY = 100 CM ACTUATION

PROXIMITY ACTIVATION RADIUS = 100 CM







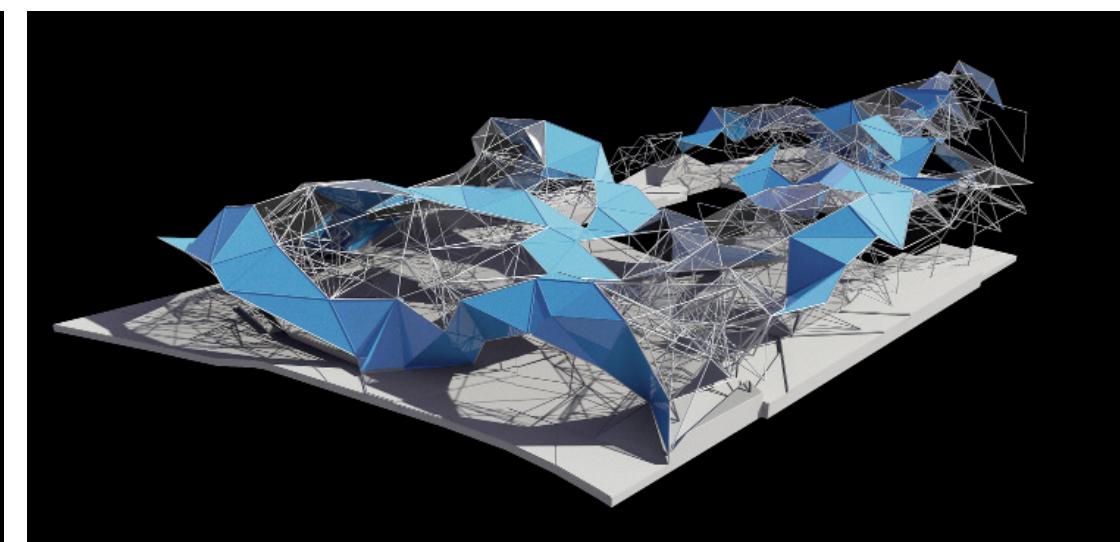
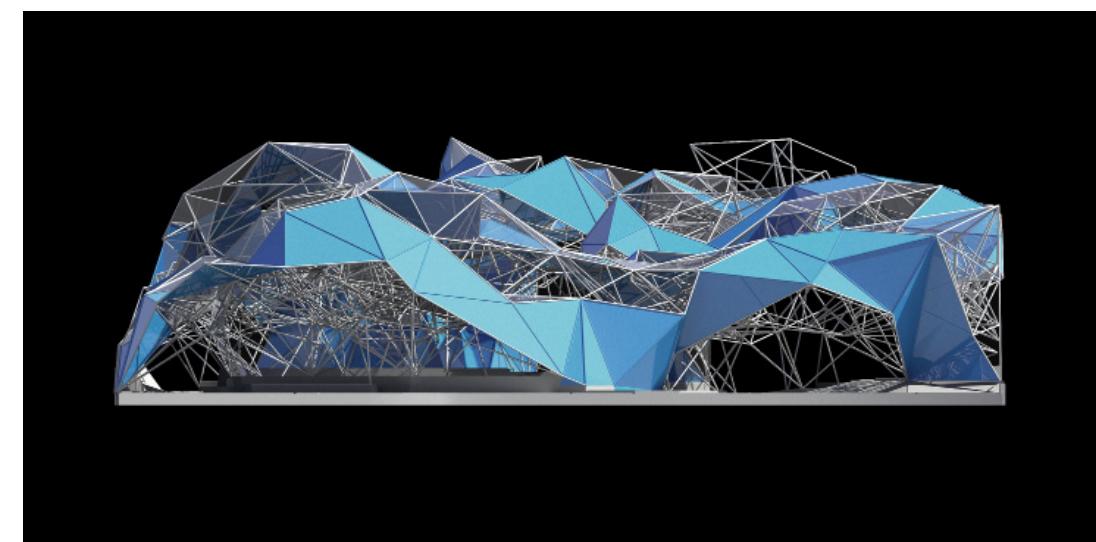
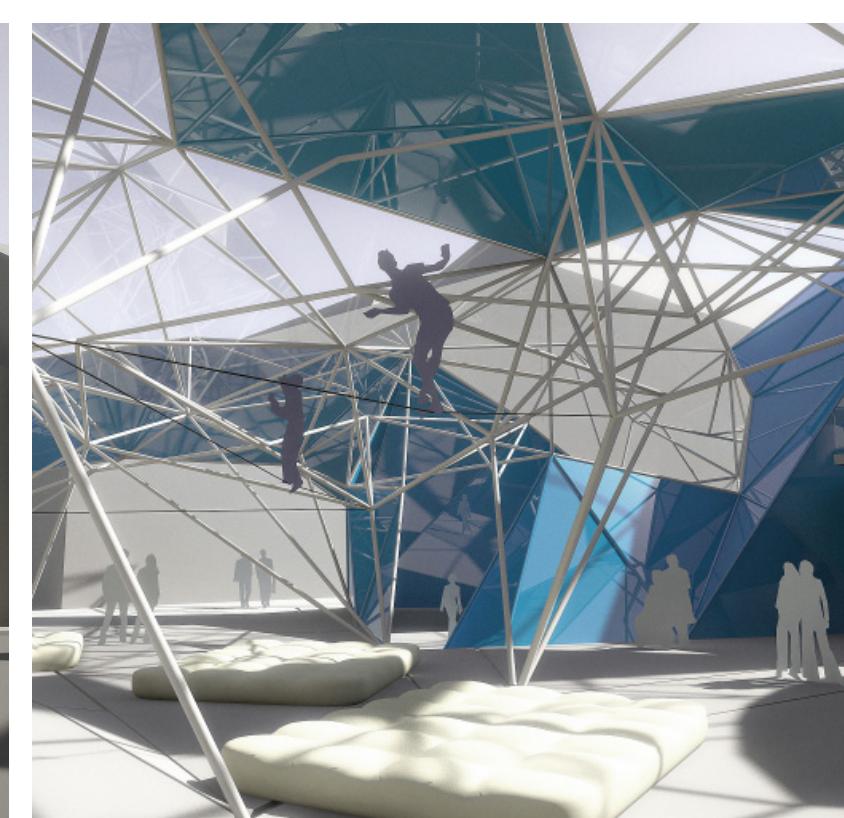
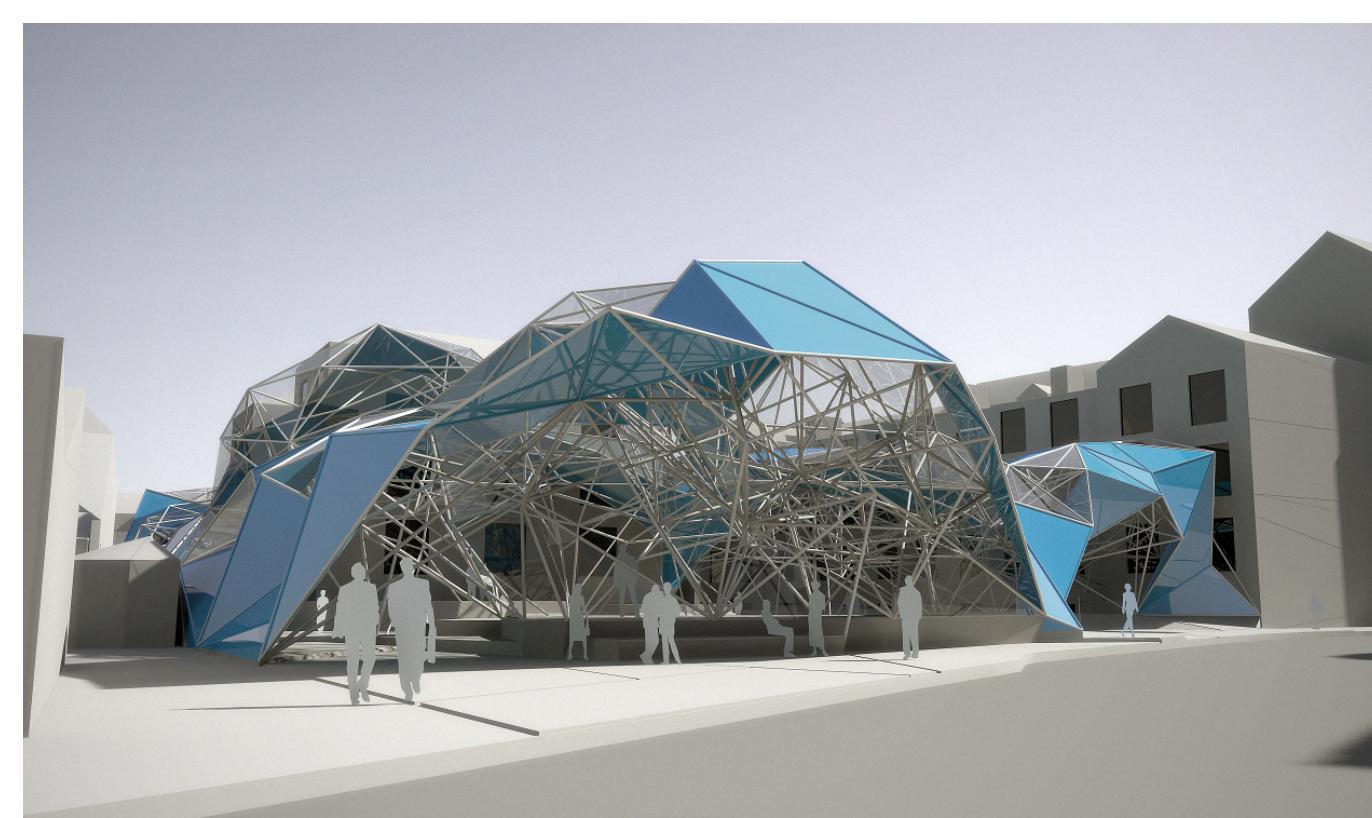


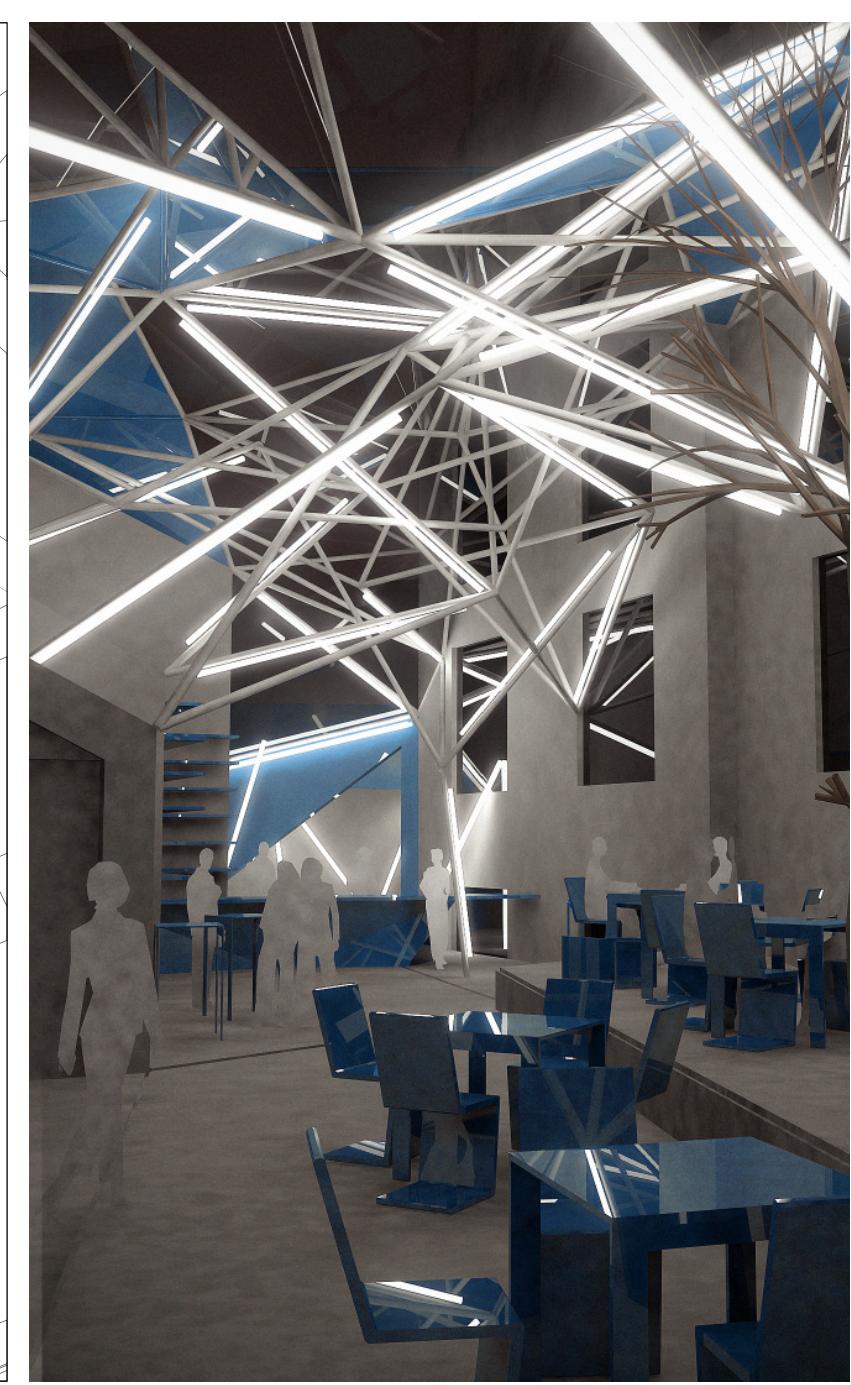
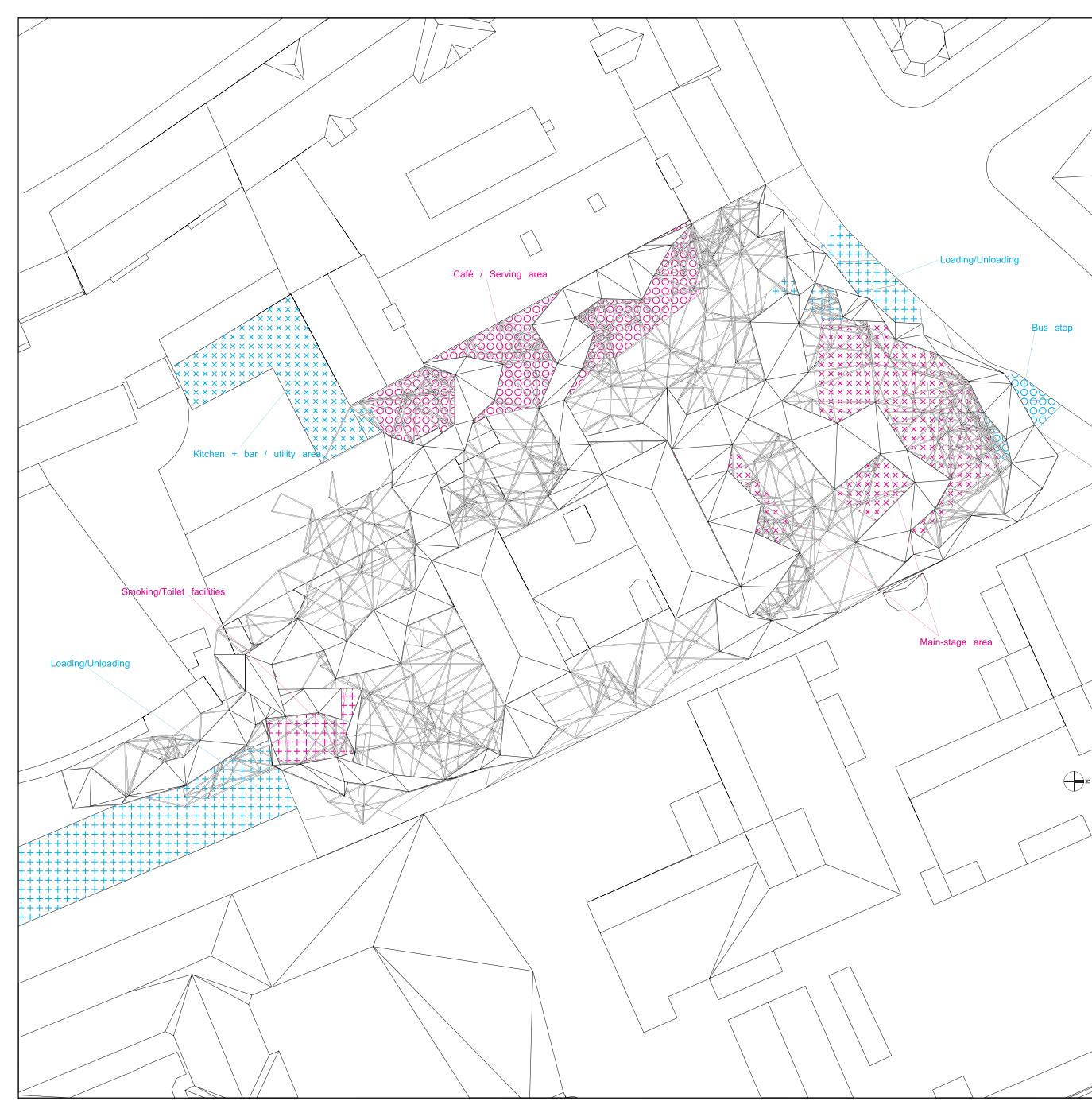
### SpaceFraming

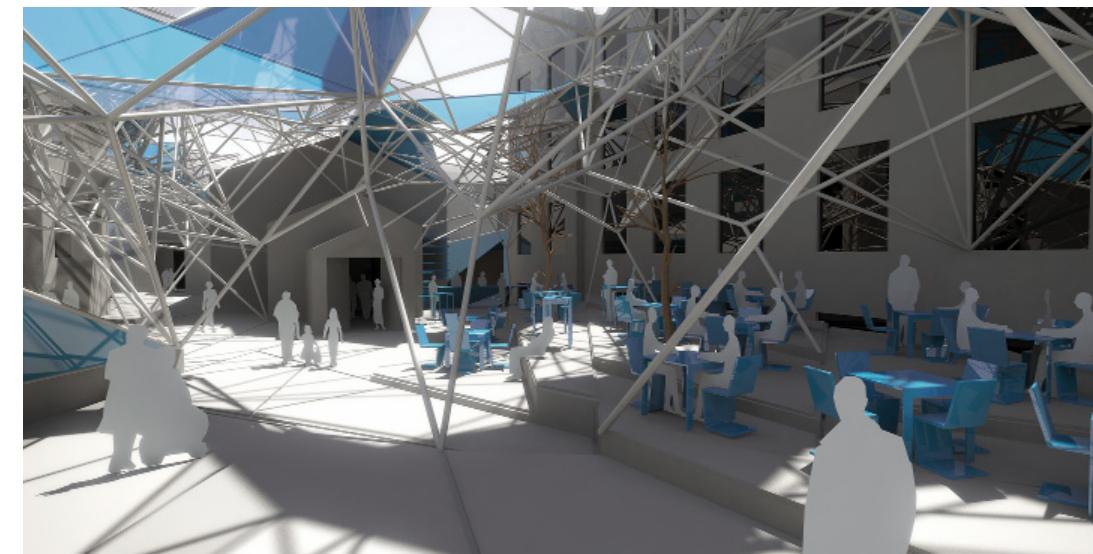
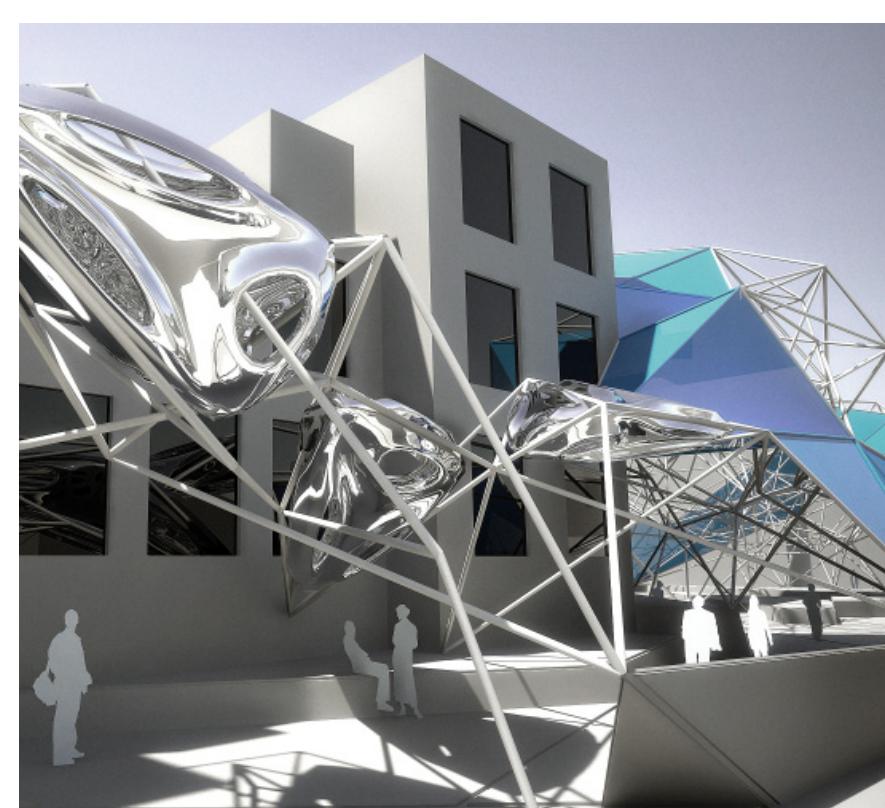
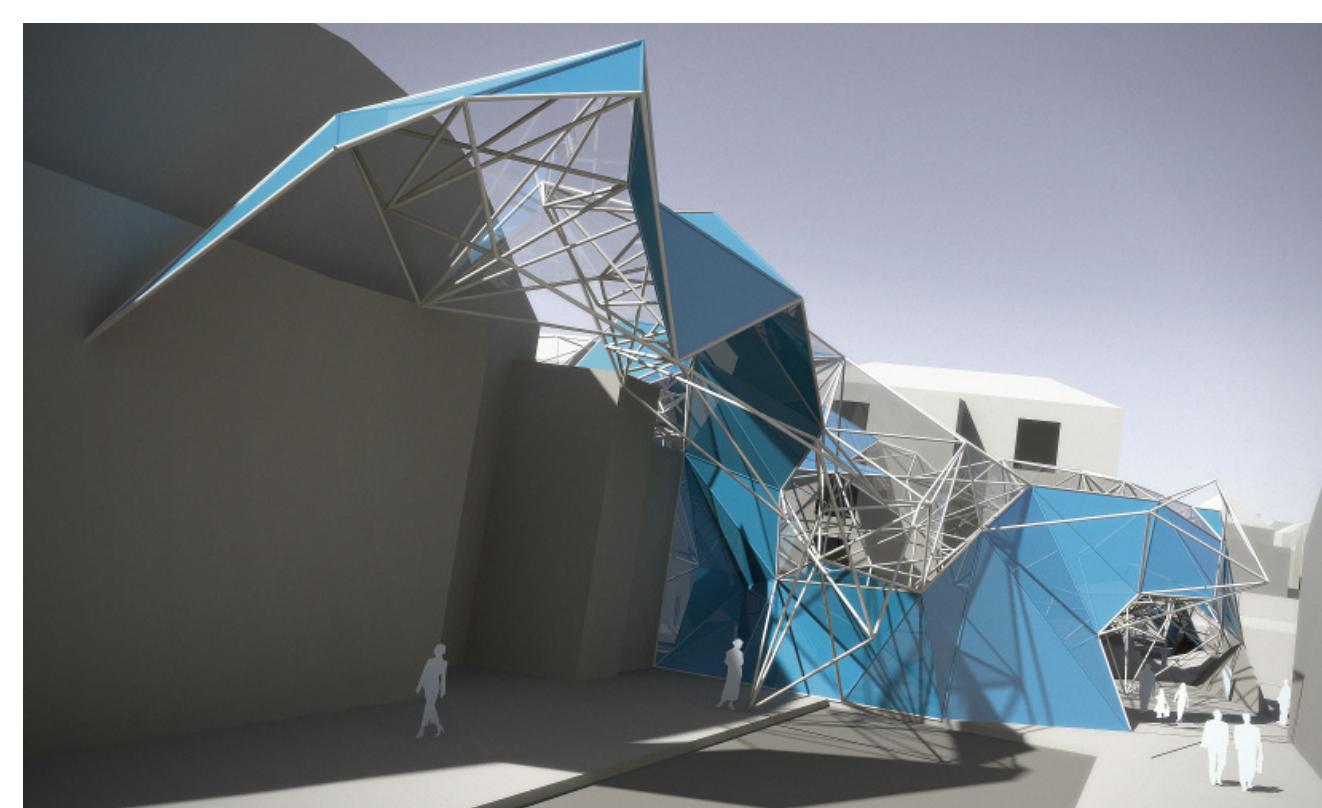
2007

University project, individual

Department of Architecture, Design & Media  
Technology, Aalborg University, Denmark









## NoRA

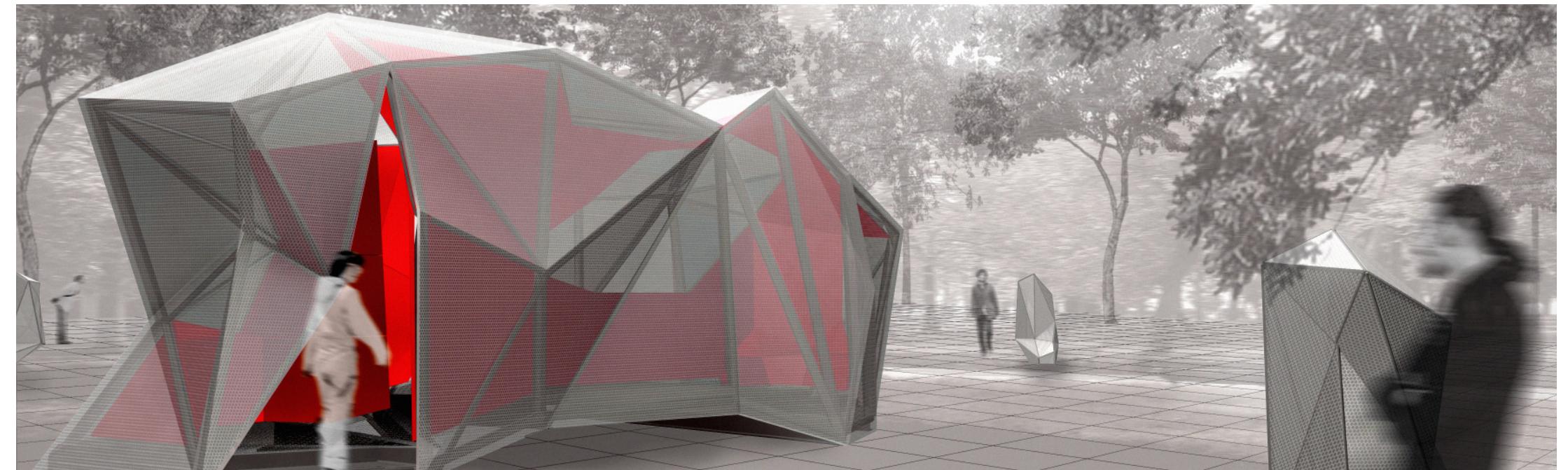
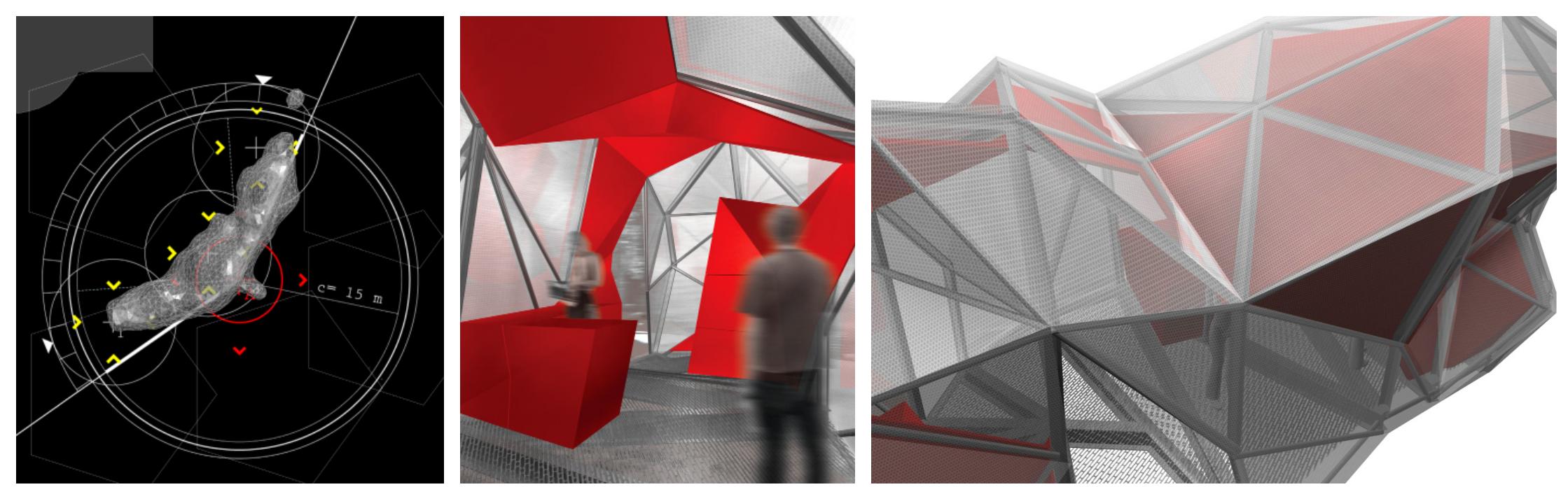
2006

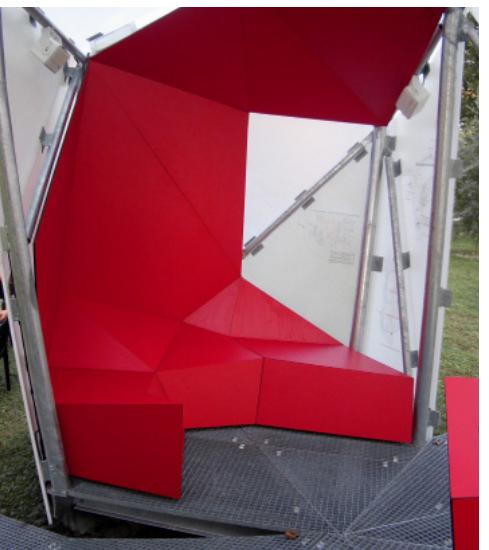
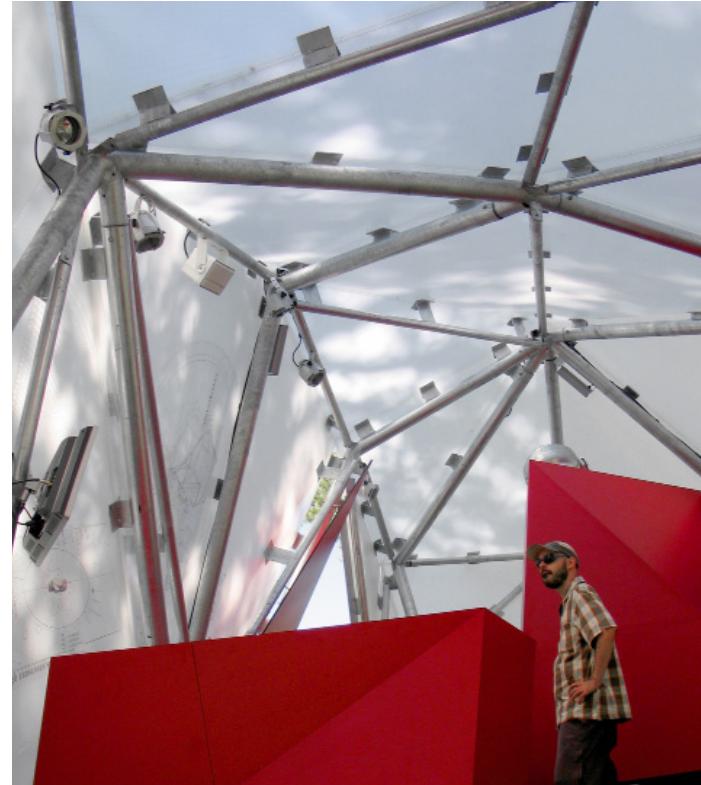
University project, group

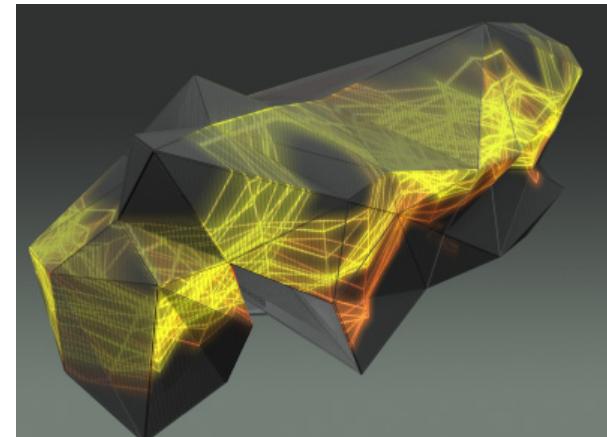
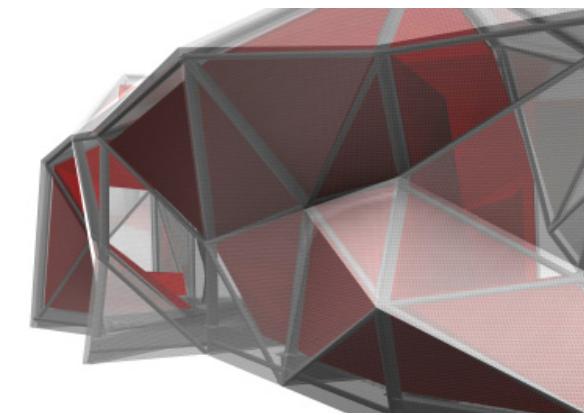
Pavilion for the Venice Architecture Biennale

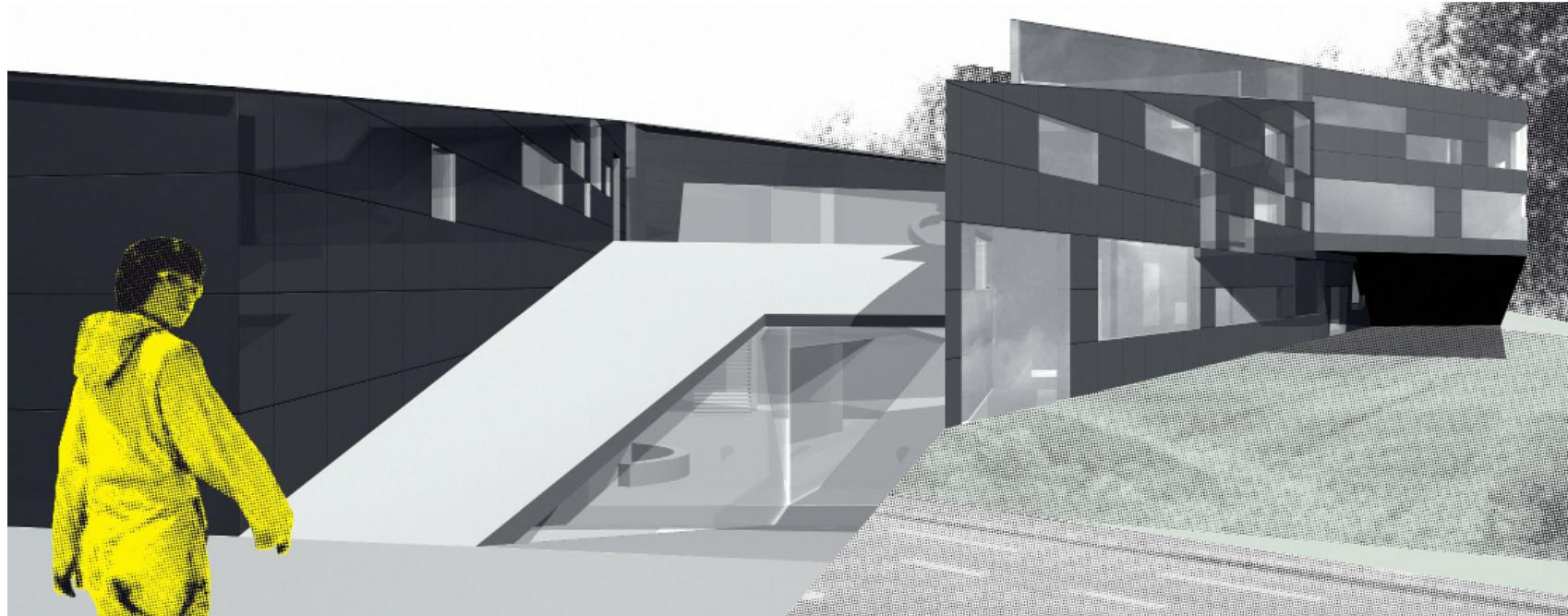
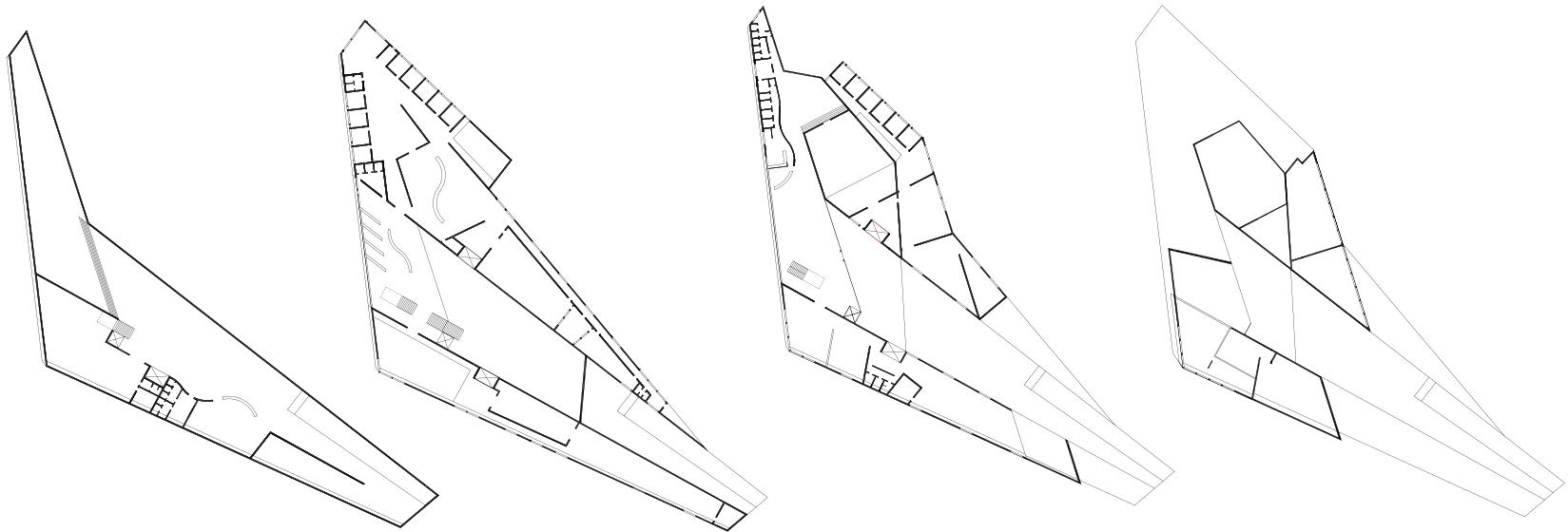
Department of Architecture, Design & Media

Technology, Aalborg University, Denmark







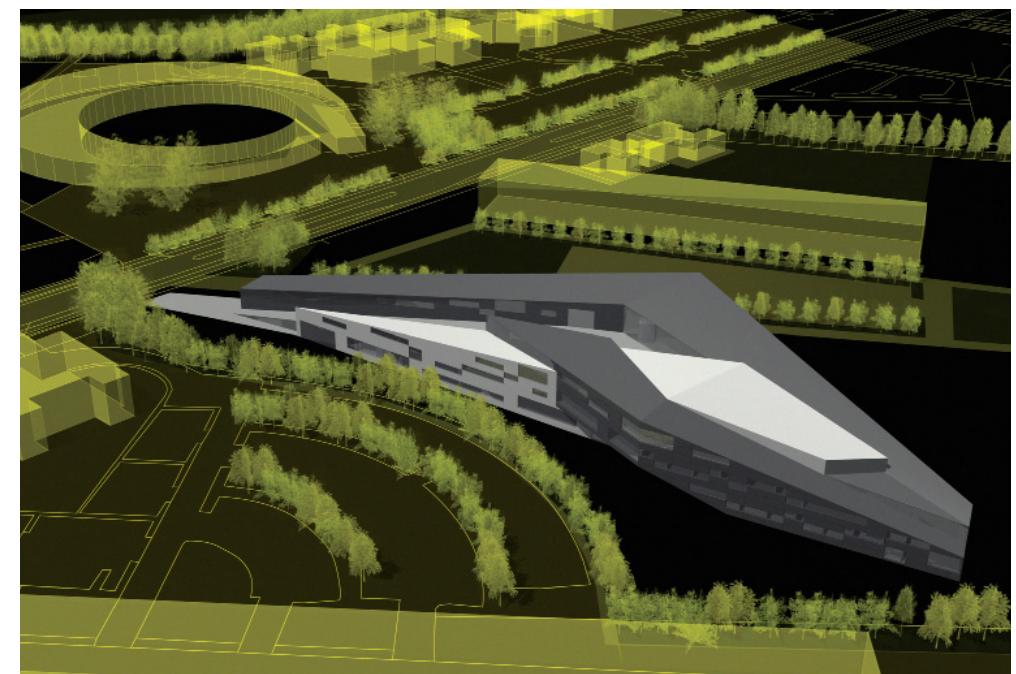
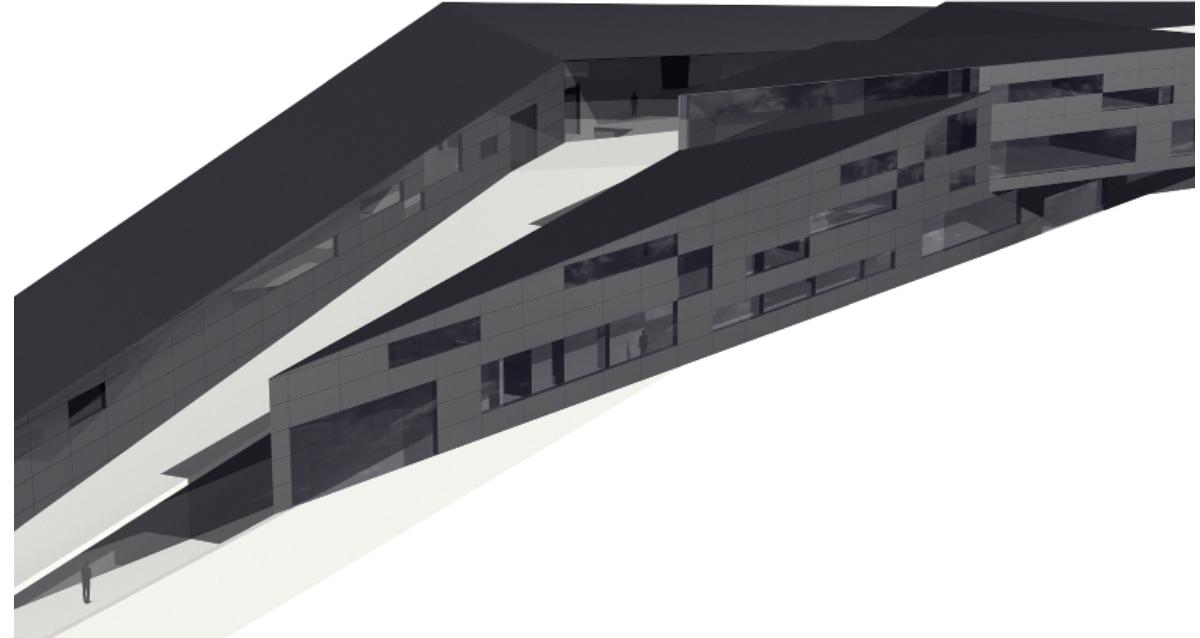


**Herning Art Museum**

2005

University project, group

Department of Architecture, Design & Media  
Technology, Aalborg University, Denmark





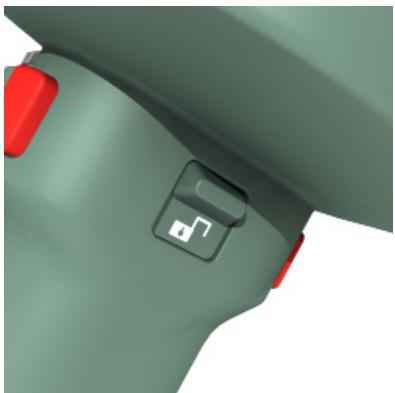
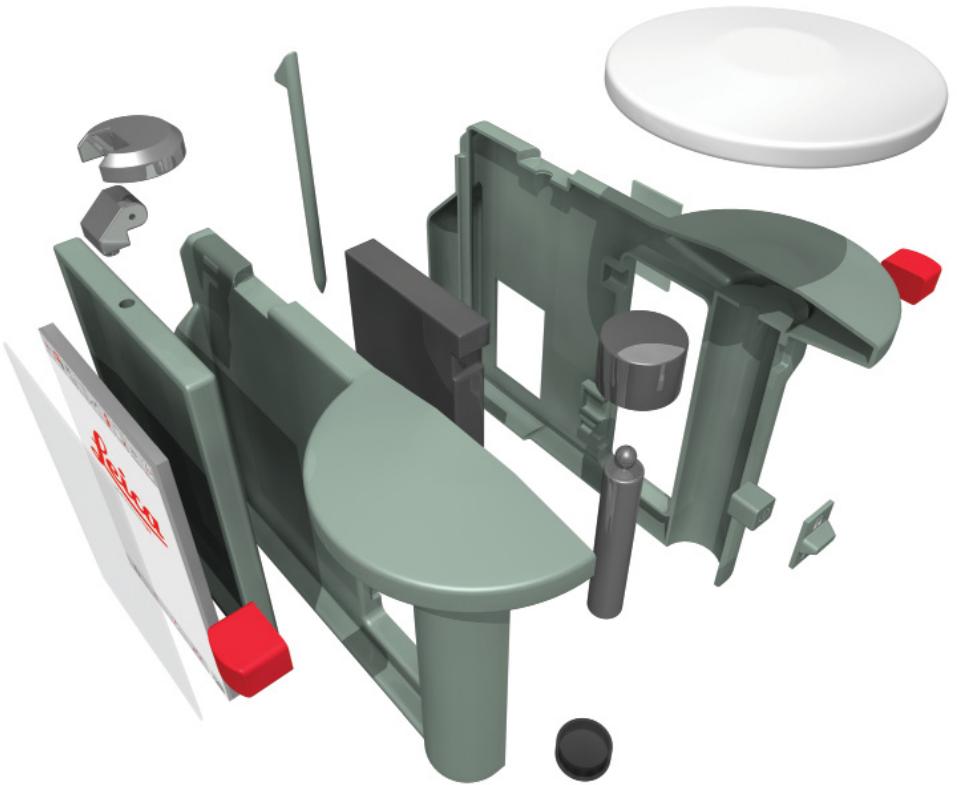
### Leica SmartHeld

2005

University project, group

Department of Architecture, Design & Media

Technology, Aalborg University, Denmark



Product Poster

**LEVELLING FUNCTION**

The Leica SmartHeld has a built-in level function. This can be used to level the device by implementing a levelling connection coupling and hinge. This allows the device to be tilted in all directions according to the user's preference. As the display is made to be tilted simultaneously with the base, the SmartHeld becomes a protective shield.

**EDGEE LEFT AND RIGHT HANDEDNESS**

Both the left and right hand can be used to hold and grip the device. This has been achieved by constructing the device with a symmetrical design and by implementing a swiveling connection coupling and hinge. This allows the device to be tilted in all directions according to the user's preference. As the display is made to be tilted simultaneously with the base, the SmartHeld becomes a protective shield.

**CATCHING SATELLITES**

The Leica SmartHeld uses a GPS receiver to determine its position relative to satellites in orbit around the earth. For this purpose the SmartHeld utilizes GPS (global positioning system) that uses signals from orbiting satellites to calculate its position. These signals are received by an antenna and translated into a set of coordinates by a microprocessor and memory. These coordinates are then compared to a known reference station - hence the precise differential GPS positioning.

**LEVEL DISTANCE METER**

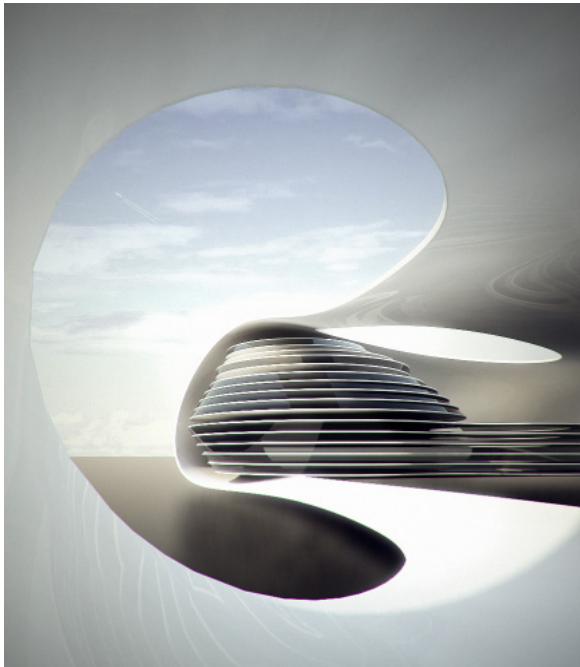
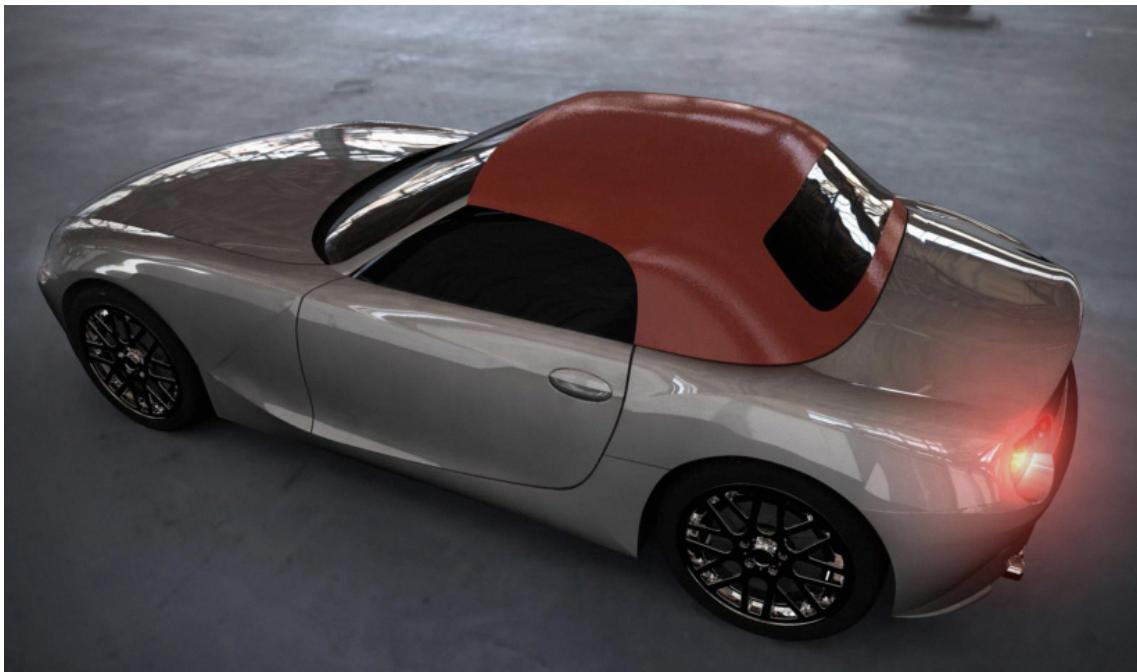
For the position to be that of the desired location, the distance between the device and the point needs to be known. A laser distance meter is used to measure the distance at a specific rate and calculates the distance from the device to the point. The distance is measured by sending out a beam of light and beam, which is received by a sensor also positioned on the device. The sensor is held within the primary grip of the device.

**Projections:**

**The Leica SmartHeld**  
PORTABLE DIFFERENTIAL GPS EQUIPMENT  
FOR SURVEYING PURPOSES

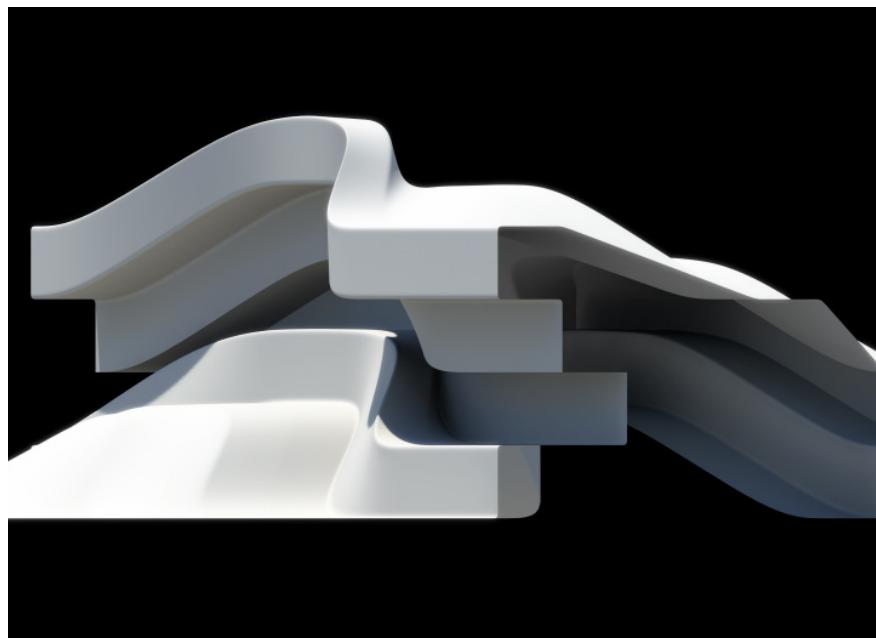
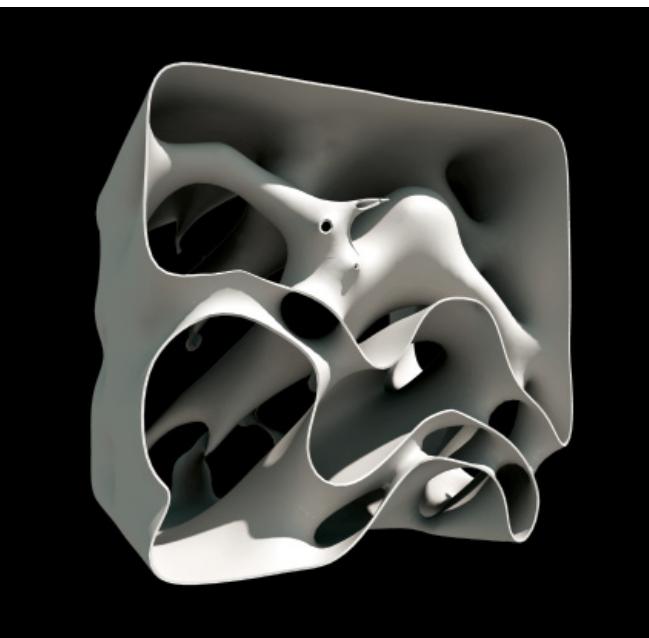
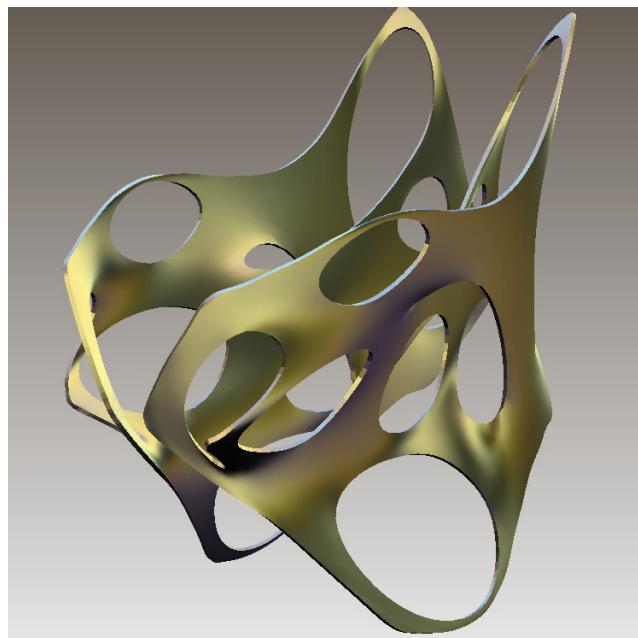
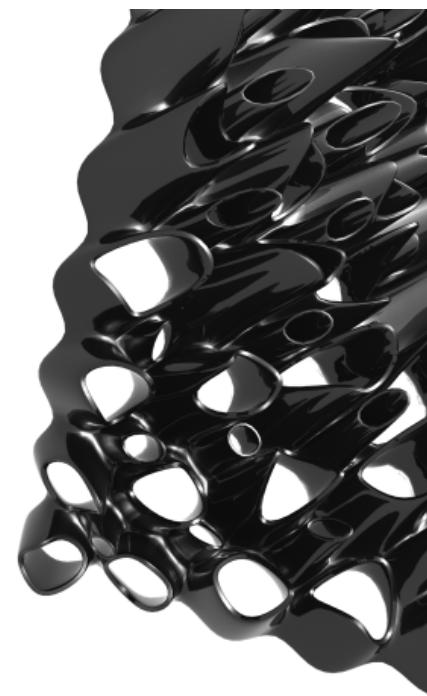
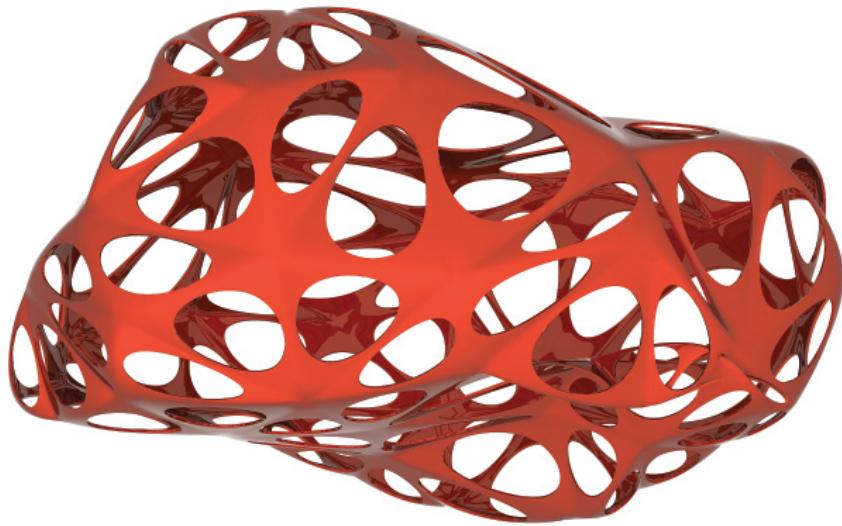
**Vision and Concept**

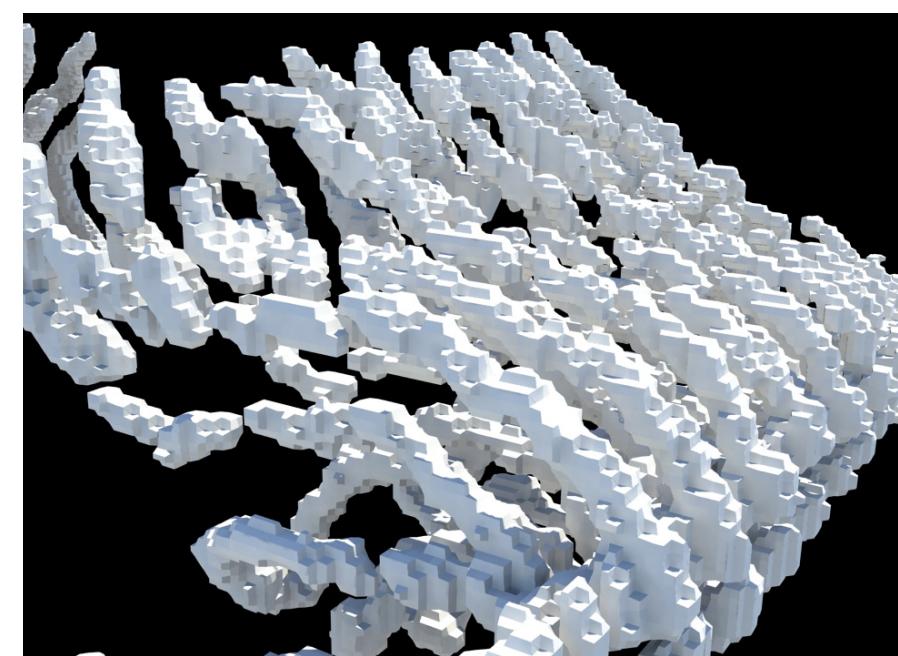
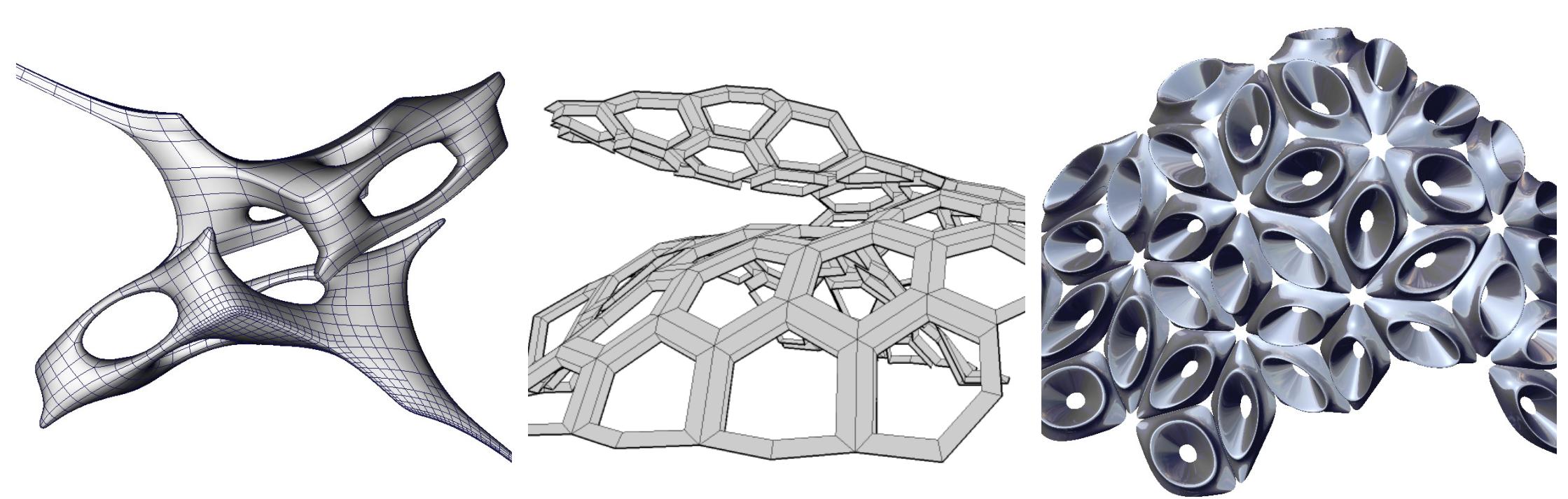
The vision of the Leica SmartHeld is to exceed the limits of pole-based land surveying and focus on an all-round convenient work flow. A newfound freedom in the choreography of surveying is introduced by a small and lightweight differential GPS device for the casual surveyor of tomorrow.

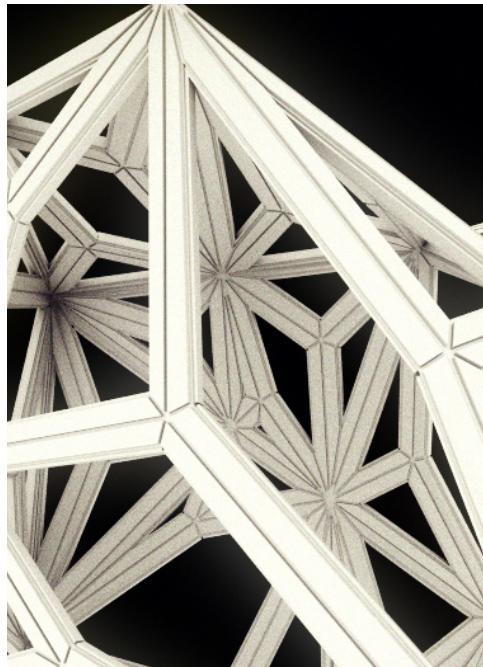
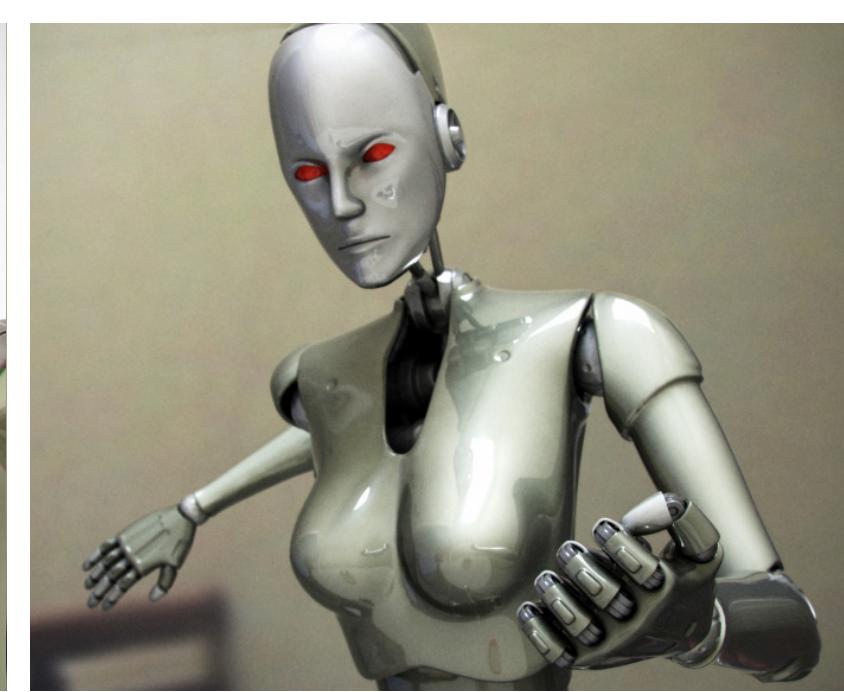
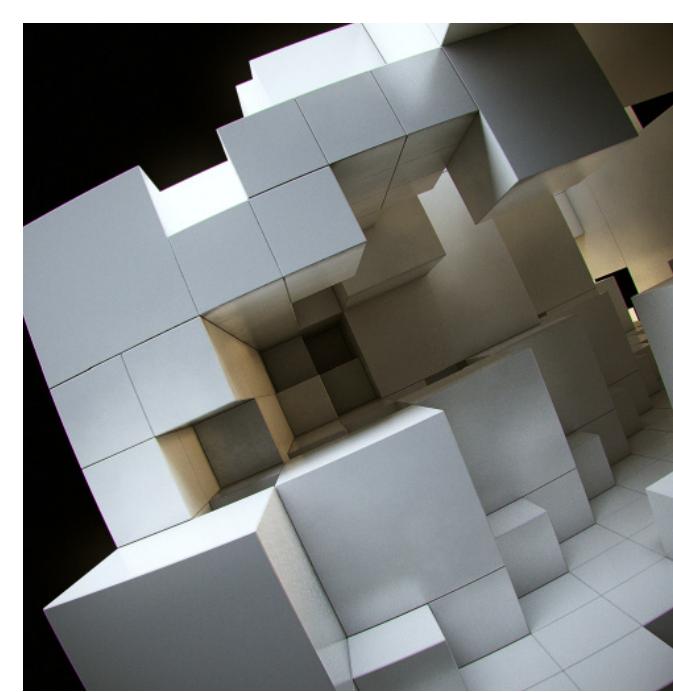


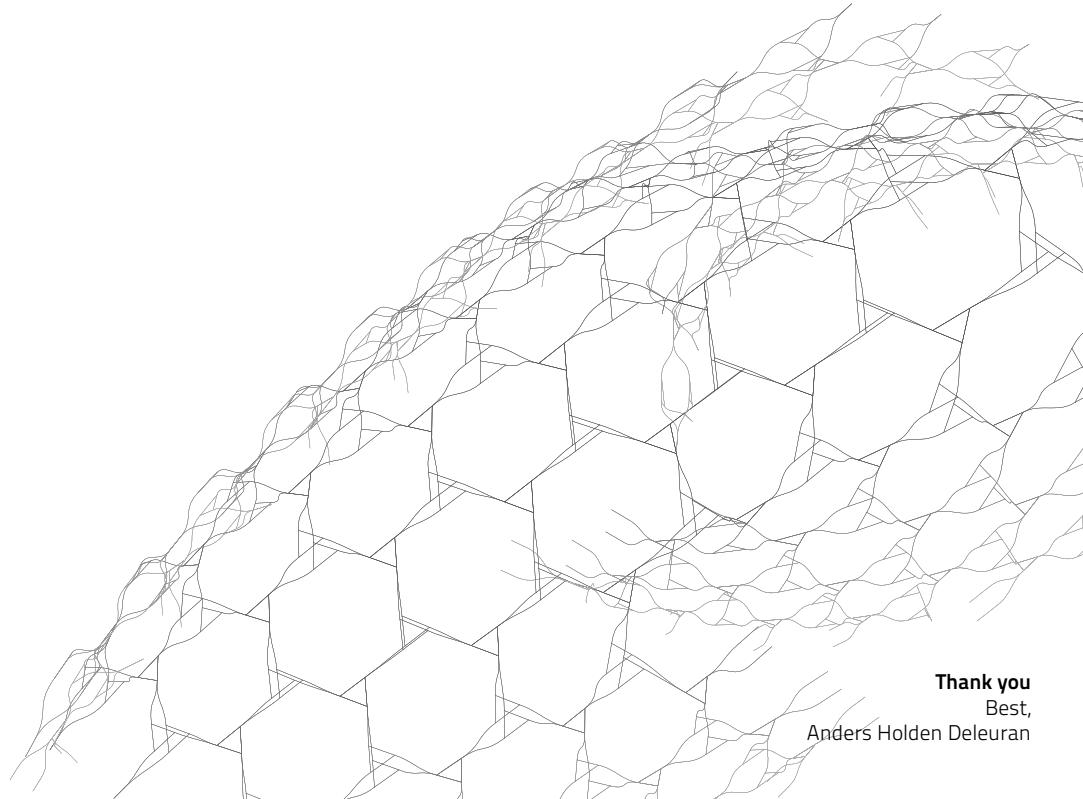
### Miscellaneous

3D modelling and rendering studies  
2007-2010









**Thank you**

Best,

Anders Holden Deleuran