



French Pavilion, Claude Parent, 1970 | AA DRL 10 Pavilion, Dempsey/Huang, 2008

## Project 4

In the final project of the year, students are asked to choose the development and construction of a full-scale project, or the development of a cultural centre for music and moving image – both in collaboration with the *Smart Kreativ Stad project (SKS)*. We also address the need for concert venues in Stockholm, most recently made obvious by the planned closing of Debaser at Medborgarplatsen.

Besides the collaboration with SKS, project 4 also introduces a conceptual starting point in the Function of the Oblique, as introduced by Claude Parent and Paul Virilio.\* This is primarily aimed at the design project, where the sloping plane should be regarded as an element of pedestrian infrastructure (tying into the theme of the year), as well as a way to form spaces apt for the projection of moving image. The idea of the oblique may very well influence also the Full Scale project, but here we introduce another reference – *Nine Problems in the Form of a Pavilion*, that reflects on the development of the DRL 10 pavilion at the Architectural Association.\*\*

Project 4 will be divided into two phases, the initial phase being a preparatory stage, with separate assignments for students participating in Full Scale and Design Project respectively. The full brief for Phase 2 will be presented in week 13.

\* *The Function of the Oblique – the architecture of Claude Parent and Paul Virilio 1962 – 1962*, AA Documents 3, Excerpts available on our server – under Reading

\*\* *Nine Problems in the Form of a Pavilion*, Edited by Alan Dempsey and Yusuke Obuchi, AA Agendas No. 8, 2010, Excerpts available on our server – under Reading

# Phase 1

## *Design Project assignment*

The assignment involves the conceptual design of a series of spaces, where the notion of the Oblique is a starting point. Students are asked to develop a series of spaces, based on the criteria below. The design can be developed in any media (digitally, sketching etc), but must be presented as a physical model.

- The notion of the Oblique should be employed in the way spaces and vertical communication is formed.
- The space required for the projection of media – its “projection cone” - should be considered in a way that allows multiple screenings in adjacent or same spaces, with no interference between audience and projection. This can be defined as a combination of a projector’s throw ratio – the distance from lens to screen divided by the width of projection, and its aspect ratio. For the purposes of the assignment, assume a throw ratio of 2, and an aspect ratio of 16:9.\*
- Please note that the screen for projection may not necessarily be vertical, or even planar, and that there may be interesting relations between sloping floors for seating and the “projection cone”.
- The design should include a series of screening spaces according to the following: 1 space for 100 people seated, 2 spaces for 50 people seated or standing, 4 spaces for 10 people seated or standing.
- The design must be in multiple levels, using the sloping planes of the Oblique for vertical infrastructure allowing for movement of disabled (max 1/12 inclination), as well as for seating arrangements.
- The spaces should be organized in sequence, forming a closed loop.
- The proposal should be presented in a physical model scale 1:50.
- The work is conducted individually.

\* Aspect ratio indicates the format of projection – 16:9 is the relation between width and height of projection. For background information on throw ratios, see: <http://www.theprojectorpros.com/learn-s-learn-p-theater-throw-ratios.htm>

The outcome of Design Project Phase 1 can be seen as the starting point for Phase 2, either directly or on a more conceptual level.

*Full Scale assignment*

The assignment involves the study of a selected precedence pavilion, through modelling it digitally in Rhinoceros, and employing Grasshopper for the systematic study of selected principles. The work should be based on the following criteria.

- Selecting one of the proposed precedence, develop a strategy for modelling it, making sure to go deeper into a certain aspect (structure, principle of fabrication, material performance etc).
- Use Grasshopper for aspects that could be systematized, such as structural logic, or fabrication work flow.
- You may test different modelling strategies, but the study should be presented as a series of images, showing important steps, as well as key Grasshopper elements from the definition.
- Students may choose the same precedence but the work should be conducted individually.
- Use all sources at hand as background information, but do not spend too much time on research – a consistent modelling principle is more important than absolute accuracy.

The alternative precedence projects:

- The DRL Pavilion, Architectural Association
- Hermés Rive Gauche, Bollinger Grohmann
- South Pond Pavilion, Studio Gang
- The Pure Tension Pavilion, Synthesis Design + Architecture
- The Forest Pavilion, nArchitects
- Eureka Pavilion, NEXArchitecture
- Serpentine Gallery Pavilion 2013, Sou Fujimoto
- Cutty Sark Pavilion, BAKOKO Architects
- Sway installation, Sack and Reicher Architects

## Phase 2



References: Stairway Cinema, Auckland, OH.NO.SUMO | Cineroleum, London, Assemble | Museum of Image and Sound, Rio de Janeiro, Diller Scofidio + Renfro

### *Design Project*

The Design Project trajectory involves the design of a cultural centre featuring a combination of music venues and moving image venues. It should be located in a residual area in relation to infrastructure. Sites will be investigated in collaboration with SKS, who will explore different alternatives with a number of municipalities around Stockholm. The starting point for spatial and formal concepts should be the Function of the Oblique.

The details will depend on this, but the following aspects are predefined:

- The programmatic area for the cultural centre should be 3000 to 6000m<sup>2</sup>
- It should primarily use sites deemed unusable for other activities.
- The centre should establish relationships with an Infrastructural element (bridge, station, road interchange, piers, tunnel/underground station...), and should engage with public space and urban flows in order to become part of public space.

The Design Project should be developed individually.

### *Full Scale*

The full-scale assignment this year entails a pop-up cinema that will be used already in June by SKS. The specific details for this project will be worked out in collaboration with SKS, but the following aspects are predefined.

- It should be modular and possible to assemble multiple times by unskilled labour.
- It should be possible to enclose for a smaller audience, and open up for a bigger one.
- It may be placed indoors or outdoors (summer, with basic weather protection).
- It should house technical equipment such as projectors and screens as specified by SKS.
- Technical screening equipment will be facilitated by SKS.
- Structural supervision will be given by Tyréns.
- Materials will be sponsored, but specific material has not yet been decided.
- It should be designed and executed with all relevant safety and accessibility criteria.

The Full Scale project is a collaborative project, in a single team.

## General Schedule

Week	Design Project	Full Scale	General
W11	Concept – Projecting Space	Precedence – Structural Modelling	<i>Phase 1 brief handout Thursday</i>
W12	Concept – Projecting Space	Precedence – Structural Modelling	<i>Individual studies</i>
W13	Program and Concept	Design Concept Development	<i>Phase 2 brief handout</i>
W14	Preliminary Design	Design Concept Development	<i>Smart Geometry</i>
W15	Mid Review	Final Concept?	<i>Smart Kreativ Stad seminar 13/4</i>
W16	Design Refinement – digital modelling	Structural resolution	
W17	Design Refinement – physical modelling	Fabrication Planning	
W18	Design Refinement - drawings	Fabrication	
W19	Final representations	Fabrication	
W20	Final Review	Prel Assembly	<i>Final Review Project 4</i>
W21		Final Assembly (tentative)	<i>Bachelor Thesis week</i>
W22			<i>Master's Thesis week</i>