

VSMN15, Integrated design, structures and architecture
AAHN10, Integrated design, architecture and structures

TASK A

Instructions

The task is described on the following page. Note that the task involves three subtasks.

The group has *until 15:30* to work with the task.

1. Prepare a presentation on 3 sheets of paper (one sheet for each of the subtasks, each sheet approximately the size of an A1). Use sketches and/or photos and text (50-200 words). Note that each group member should be prepared to give a 1-2 minutes presentation of any part of the group's work. Include in your presentation also any ideas that you abandoned during your work, if any.
2. Each group will be given ca *5-8 minutes* time slot for presentation+discussion.



Peter Jakubik



Marcel Wanders

Shape, structure and material

Background

The form chosen when designing an object often has consequences for the material choice to be made, and/or the structure. At the same time, the material(s) chosen can be in synch with the shape, or in contrast with it (honesty!). Whatever the perception people have, the intended design might be that of leading or misleading people to a conclusion about the load-bearing performance of the object.

Task description

Your task is to select an object where the materials and structure involved are clear consequences of the object's shape. State the connection between the shape the structure and the materials involved. Analyze the object from the following perspectives.

1. Explain, in general terms, how you perceive the object. What is its context (i.e. time and place), who designed it (architect, engineer, contractor), what kind of experience is the user likely to have when using it?
2. Explain how you regard the architectural ambitions. Discuss these including references and relations to other objects and to your perception as given in subtask 1. Discuss if the structure is perceived as an important or maybe an integral part of the architecture and if the construction technology has influenced the design.
3. Make some sketches on the structural performance of the object and discuss how loads are transferred through the object by e.g. illustrative drawings indicating deformation and tension/compression/bending-diagrams. What is the main structural action (beam, arch, cable, truss, etc)? Do the structural sketches in any way correlate to the form of the object? Does the detailing and the choice of material say anything about the boundary conditions?

