

VSMN15, Integrated design, structures and architecture

AAHN10, Integrated design, architecture and structures

TASK B – SURFACES

Instructions

Two different versions of this task are available (see next page):

- “Taking off from ground”
- “Para-site”

You may choose freely from one of these.

Presentation & tutorials

The work should be presented in A3 format, **3 papers**, preferably in landscape orientation as they will be presented on a digital projector+**1 page of text**.

Make sure that the file format is *.pdf and verify the resolution (dpi) for raster images. The **first paper should explain the context**, which includes both the architecture and structure. The **second paper should present the architectural idea**, and the **third should explain the structural idea**. You are free to include any set of drawings, diagrams and images you wish, the A3 is the limiter.

The **one page of text should contain the story told and presented** on the three A3-papers.

Make sure that the names of the group members are clearly visible on the first page!

An important part of explaining an architectural/structural design is in the story of how you arrived at the final result, and as such we want you to include a set of sketches from the work in progress, explaining why you made some of your decisions.

Consultation will be available, see the detailed schedule in the course PM.

Final critique is on **Tues 14th of February**, see course PM, and you should upload your final design to the Dropbox before the presentation, **12:00 Monday 13th of February**, at the latest.

Task descriptions

“Taking off from ground”

Your task is to make a design which is primarily perceived as horizontal. You are to make a (approximately) 100 m² surface *7 meters above the ground level* which only has to take a vertical load of 3 persons/m², nothing less nothing more (and no horizontal load).

Elevator/stairs may be placed detached from your design and do not necessarily need to play a role in your concept.

The design should be placed within a context which serves as a way to set out your architectural and structural intentions. It can either be a functional context, say an outpost in the wetlands for bird watching or maybe a bus stop/gallery in an urban area, or if you prefer, the context may be a feeling you wish to evoke, say the unsafety of walking out on a large tree branch which deflects more and more the further out you get.

The surface can be held in place either by a structure from below, suspended from above or act as a cantilever. Some deflection of the carried surface is allowed, but it should still be able to perform its intended function. As engineers you are to make sure that the structure will not collapse or buckle under the given loading conditions, and with a dialog with the architects make sure that it works with the given architectural intentions. What we want is for you to present *the structural principle* and where you *need material/stiffness* in order for it to *work as intended*, you are not expected to do detailed calculations of cross-sections and so on.

Remember that you should to an extent stay within your roles as architects or engineers and use your respective tools to collaborate with each other and develop a framework within which architectural intentions and structure benefit from each other.

“Para-site”

Your task is to make a design which is primarily perceived as horizontal. You are to make a (approximately) 100 m² surface *attached to a vertical wall*. The surface only has to take a vertical load of 3 persons/m², nothing less nothing more (and no horizontal load).

Elevator/stairs may be placed detached from your design and do not necessarily need to play a role in your concept.

The design should be placed within a context which serves as a way to set out your architectural and structural intentions. It can either be a functional context, say an outpost resting on a mountain or canyon wall or a building add-on serving as a terrace, or if you prefer, the context may be a feeling you wish to evoke, say the unsafety of walking out on a large tree branch which deflects more and more the further out you get.

The surface can be held in place either by a structure from below, suspended from above or act as a cantilever. Some deflection of the carried surface is allowed, but it should still be able to perform its intended function. As engineers you are to make sure that the structure will not collapse or buckle under the given loading conditions, and with a dialog with the architects make sure that it works with the given architectural intentions. What we want is for you to present the *structural principle* and where you *need material/stiffness* in order for it to *work as intended*, you are not expected to do detailed calculations of cross-sections and so on.

Remember that you should to an extent stay within your roles as architects or engineers and use your respective tools to collaborate with each other and develop a framework within which architectural intentions and structure benefit from each other.