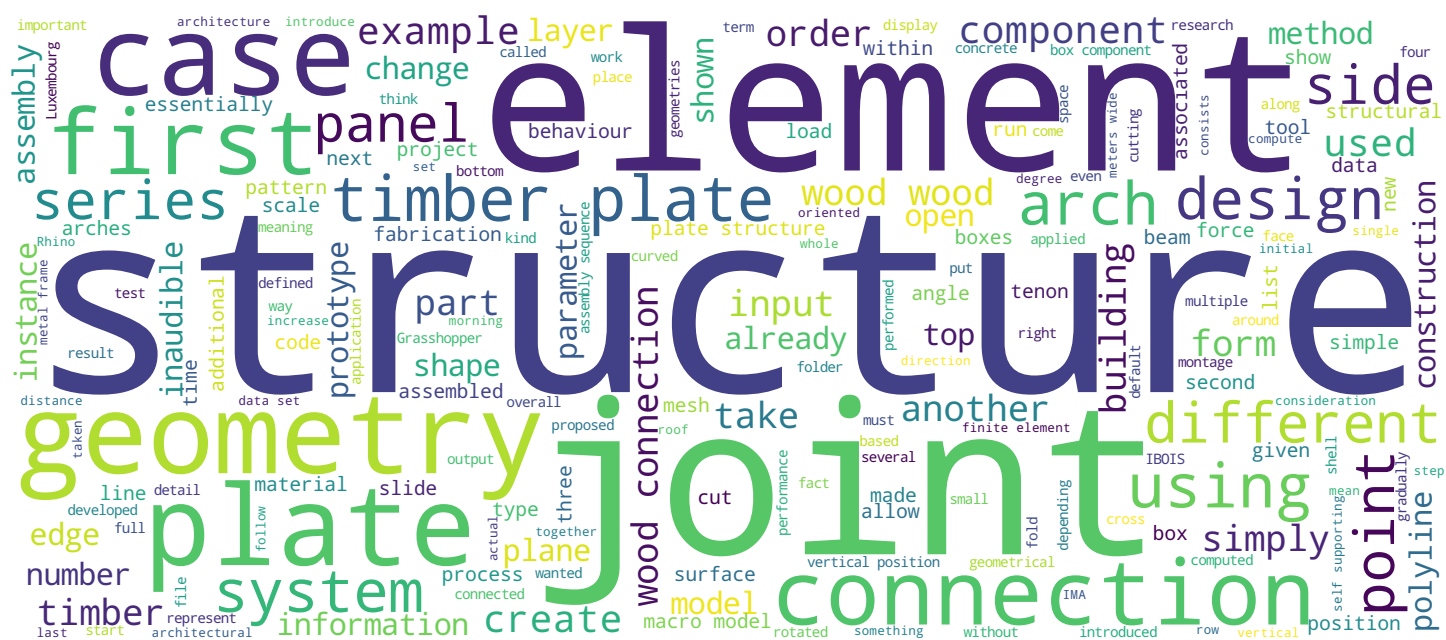


Prof. Dr. Yves Weinand



## Search MOOC



## Video





Is Mr Annen there? Could we meet him? Ah, we have to go upstairs. We are in Manternach, in Luxembourg, at the headquarters of the Annen carpentry company. Annen saw one of the exhibitions of the wood construction laboratory here in Luxembourg. At some point, he decided to build headquarters for his company and he asked me to design the building. We have used the research that we have developed. These wood-wood connections traditionally exist in cabinet making. We are trying to apply them to the scale of the building in a structural form. Carrying 52 meters is a world premiere, with structures connected only with wooden tenons. This morning we observed the construction site from above. The client really wanted to use self-supporting vaults. He wanted a very curved building. We had a long discussion about it. Actually it is a building inspired by the engineer Eladio Dieste. Dieste built that in brick. We proposed a variant made of wooden panels with multi-ply. Here you can see an arch that is already in its vertical position but not yet in its final position. This arch was assembled flat, row by row, on this slab in concrete. It is 6 meters wide.

Notes

Summary

0m 05s







At the front are  
the offices, the management

They just pivoted it this morning they turned it around an horizontal axis, to put it in a vertical position. To do it, they had to create a metal frame that you can see here. This is a metal frame that varies in width. It can be opened to accomodate the increasing spans of the following arches. It forms a rigid plan that has been rotated from an horizontal to a vertical position. The other side of the arch is held only by tie rods. There is an important moment when lifting this arch: first gravity holds it in position and at some point it tends to pivot. At that point, the two grids that were pulling it, have to hold it back instead. There are 23 arches. They are all different sizes and made up of different elements. A lot of different parts are assembled here. I think that you can't leave active wood exposed to weather. You have to protect these elements with another layer of wood such as cladding, shingles, shindels or, as it is the case here, with zinc panels that follow the double curvature and form the waterproof layer of the building. There is a basement below the whole building which includes technical spaces and a car park. At the front are the offices, the management and a restaurant.

Notes

Summary



2m 14s



At the back a very nice workshop for carpentry will come. As these are self-supporting arches, we create each time glass strips that emphasize the shape of each arch and also create a beautiful space as the light penetrates between these two arches. Here, there is an interesting architectural detail: the sash windows that open up to 4 meters wide, so they open vertically. It's very beautiful because you can open the whole bay that you see here.

Notes

Summary



4m 04s