

SWISS NATIONAL MUSEUM

Christ & Gantenbein / 2016



TUAN PHAN

BACKGROUND

THE ORIGINAL BUILDING 1898



Architect: Gustav Gull
Style: late Gothic and Renaissance



The architects' models of Hermann Herter of the enlargement on the Sihl side, 1941

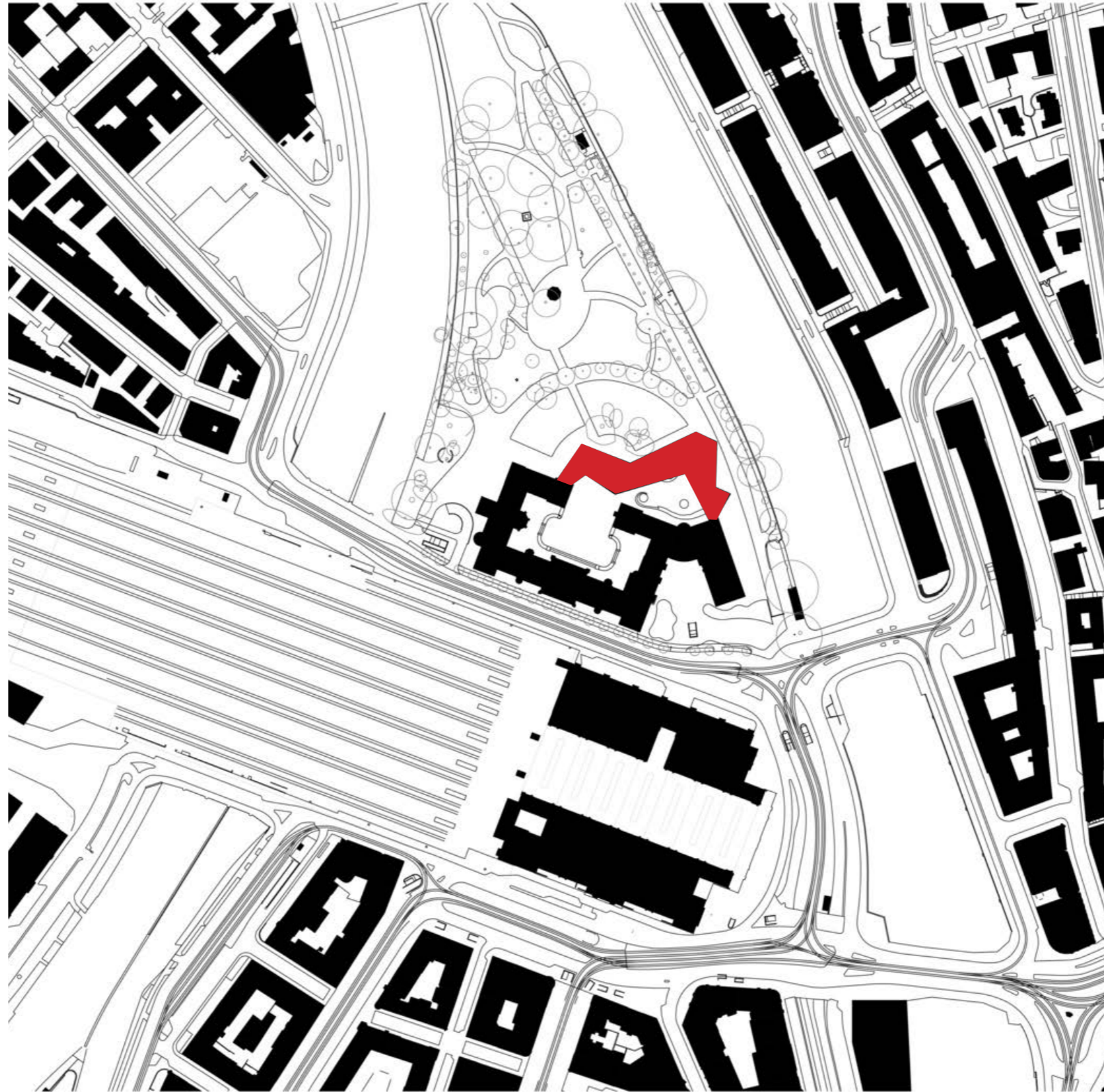


The architects' models of Steiner in 1944
The formal language in Steiner's model is distinctly more modern

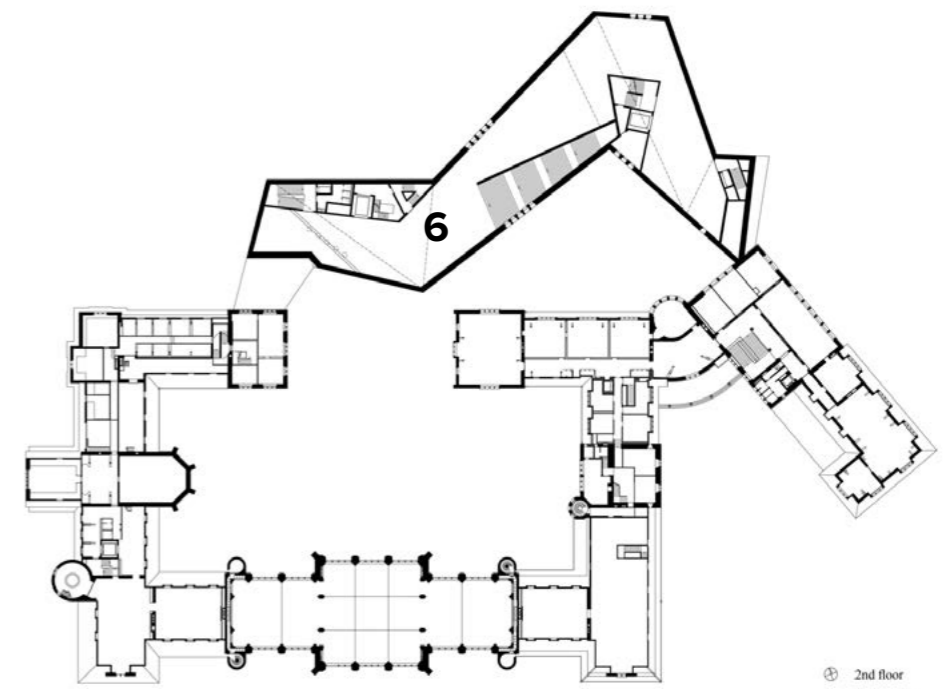
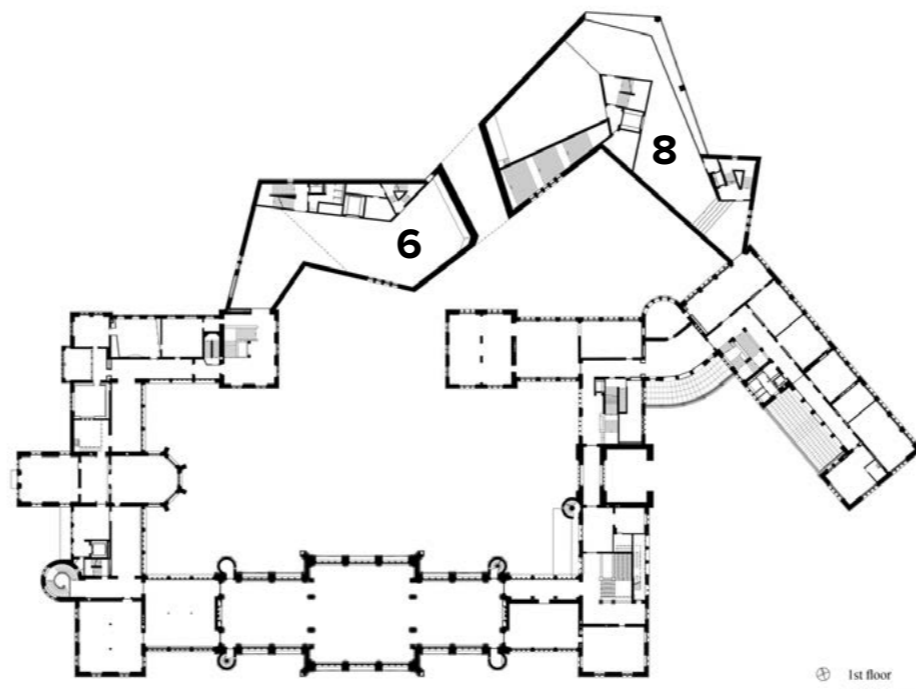
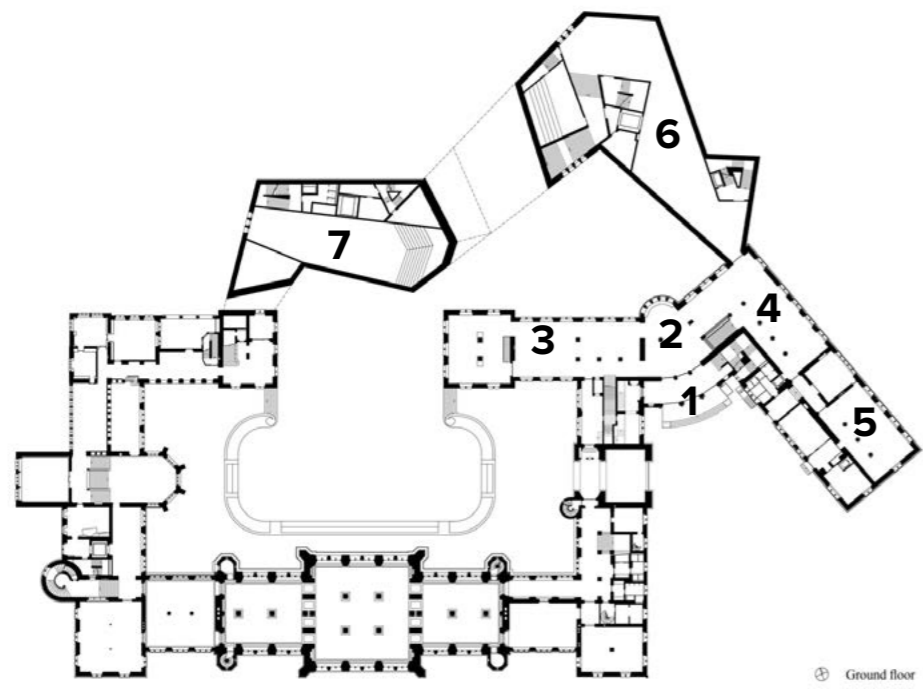


The final model of Christ&Gantenbein architects 2002

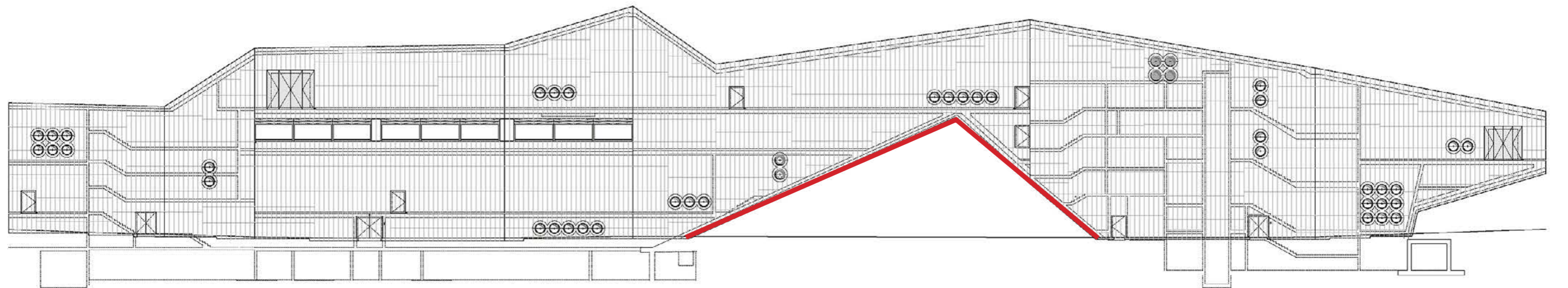
THE CONCEPT
“BRIDGE”



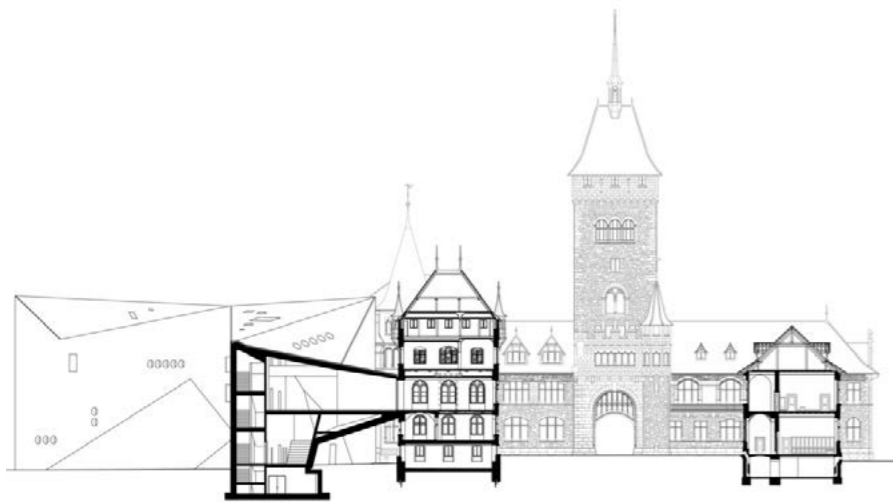
The existing U-shaped building is now connected by a bridge-like extension that proposes a unified path within the museum.



- 1. New entrance
- 2. Lobby
- 3. Shop
- 4. Bar
- 5. Restaurant
- 6. Gallery
- 7. Auditorium
- 8. Study Center



The massing spans across a wide space that connects the new inner courtyard with the park.

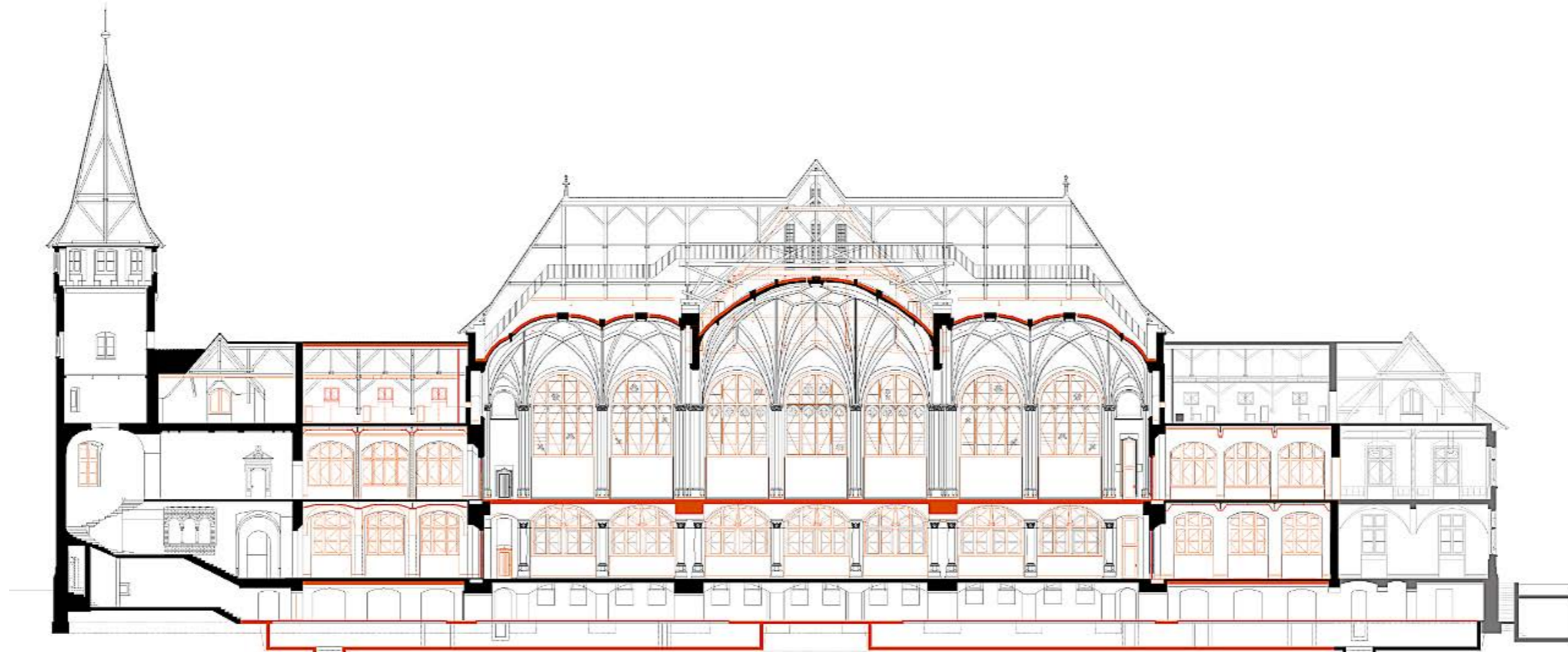
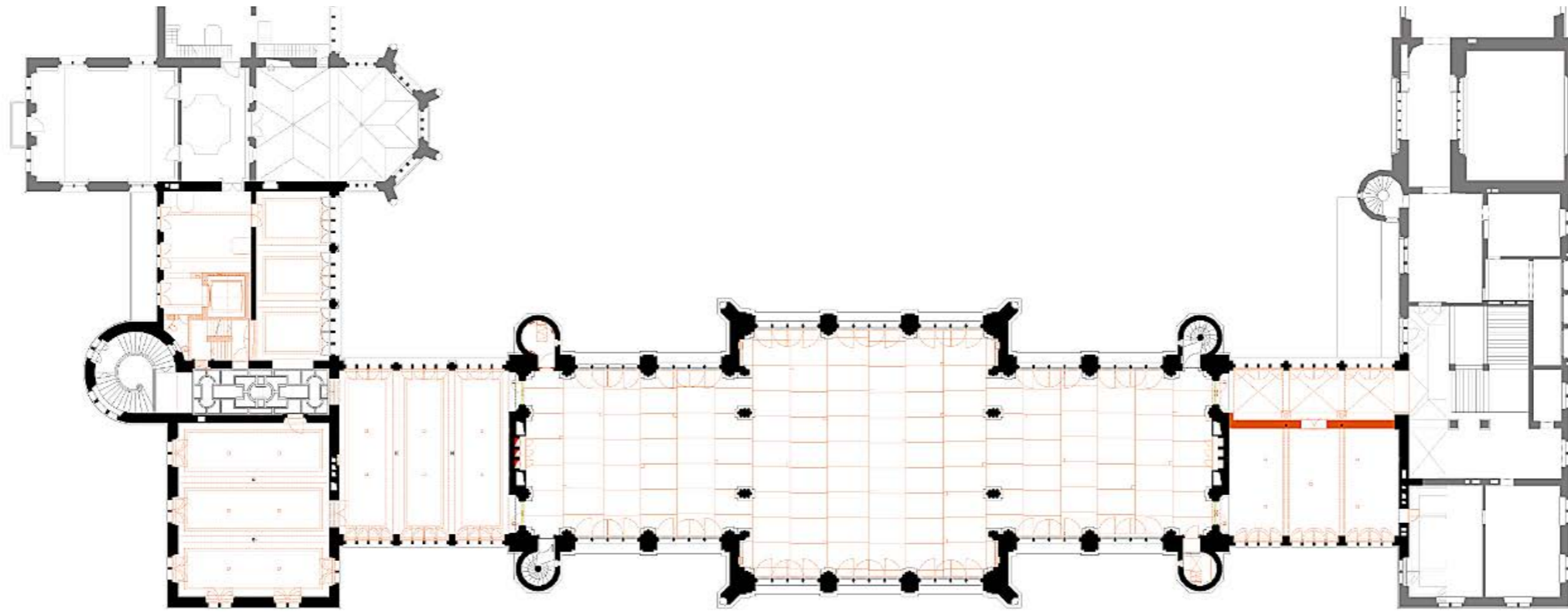


The addition connects to the old building at the second level, permitting pedestrian access between the museum's courtyard and nearby park

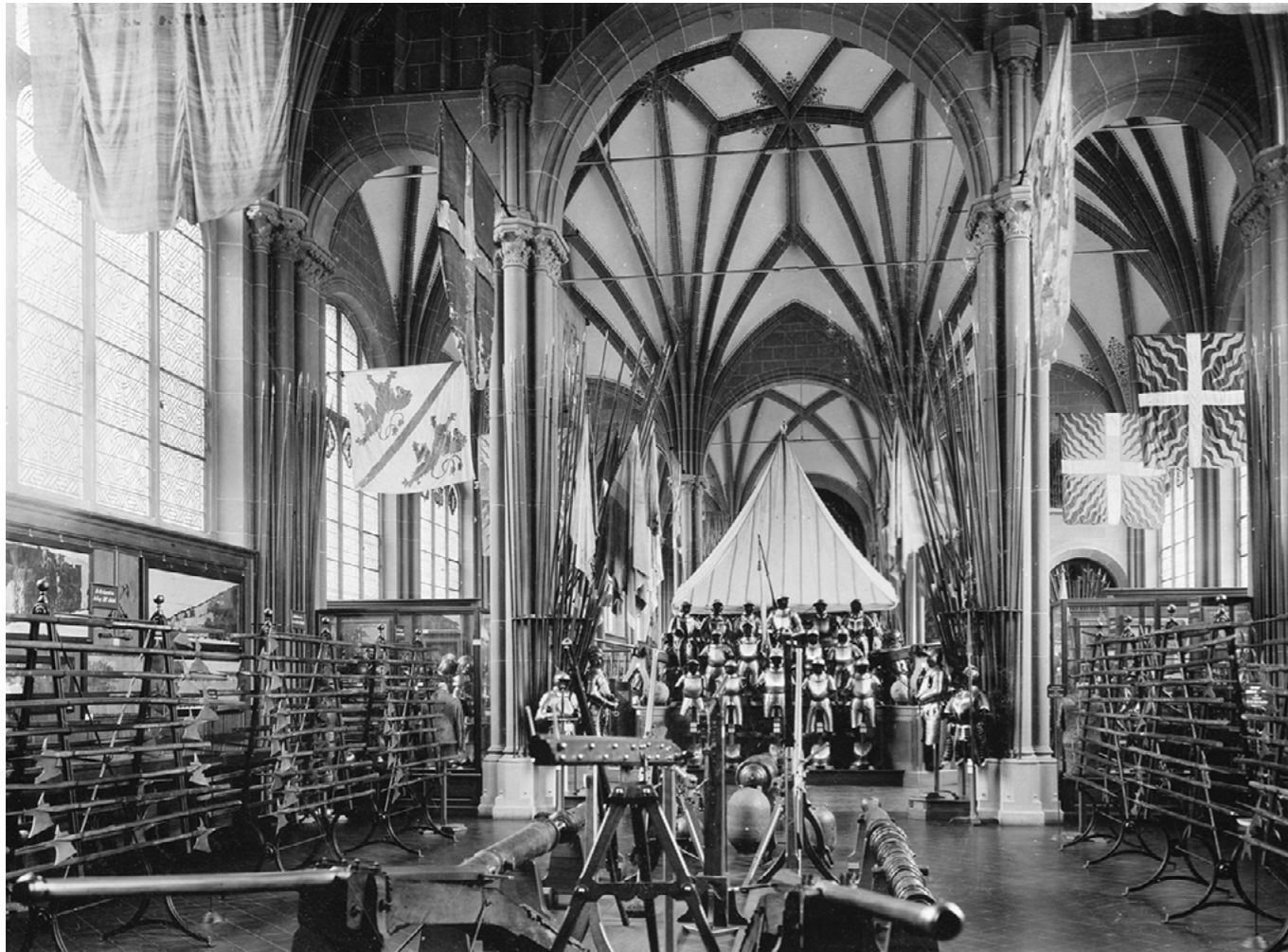


the origami roof of the new building - pitched roofs of the original.

THE RENOVATION
“CREATIVE RECONSTRUCTION”



earthquake and fire-protection measures / load-bearing structure



1900s

returning the building to its original architectural quality and coherence.



2020



Original



newly-cast concrete vaulted ceilings

“CREATIVE RECONSTRUCTION”



wood carving on the new fire exit door

“CREATIVE RECONSTRUCTION”

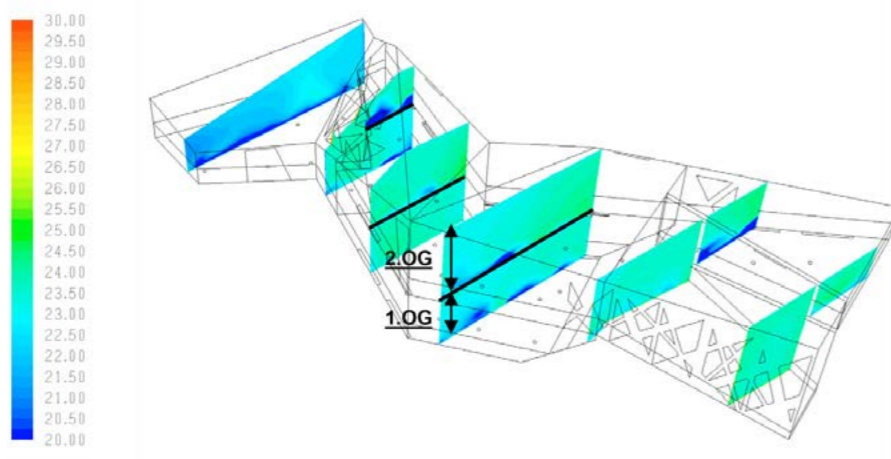
TECHNICAL&SUSTAINABLE SOLUTIONS



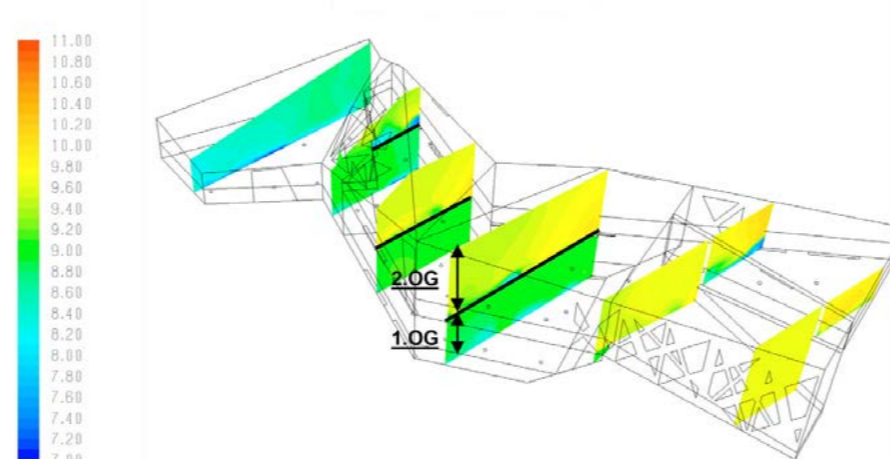
800 mm thick walls



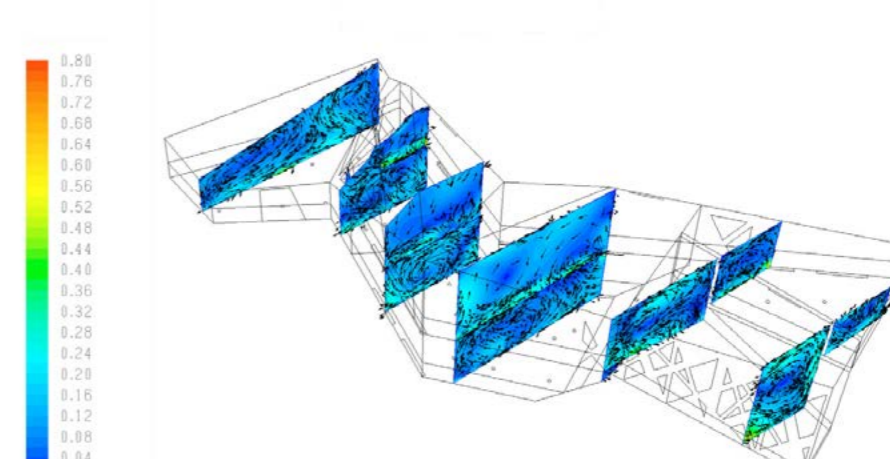
almost no windows in the exhibition areas



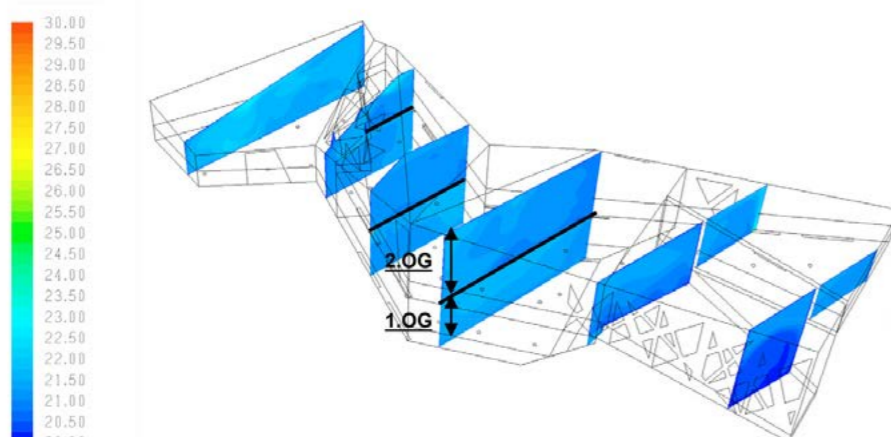
Summer case: room air temperature [°C]



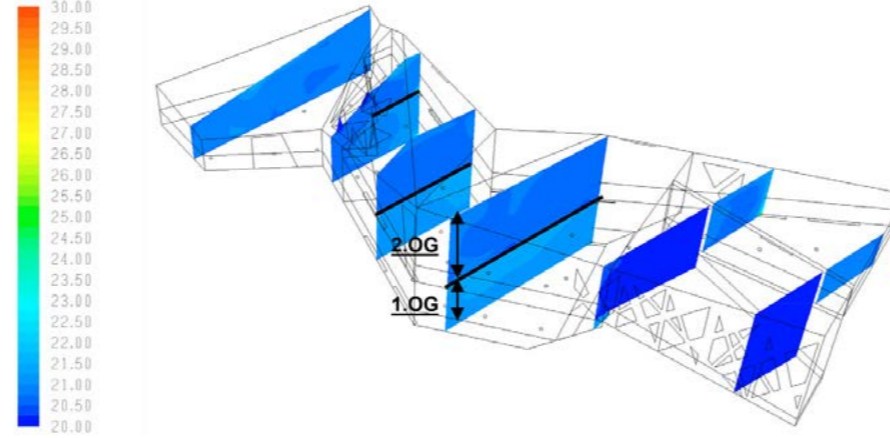
Summer case: Absolute room humidity [g/kg]



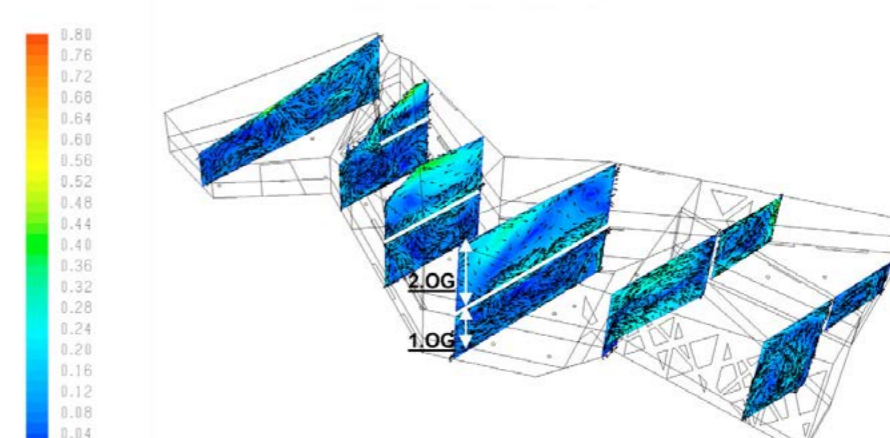
Summer case: flow velocity [m/s]



Winter case: room air temperature [°C]



Winter case: operative air temperature [°C]



Winter case: flow velocity [m/s]

TEMPERATURE, HUMIDITY, AIR FLOW

References

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