Collegium Academicum Heidelberg

Flexible Timber Structure for Student Housing

Since 2016 a group of students and ‘DGJ Architektur’ have been planing a self-managed student housing project ‘Collegium Academicum’ in Heidelberg. The project is not only a model project of ‘Variowohnungen’ but also project of the International Building Exhibition IBA Heidelberg.

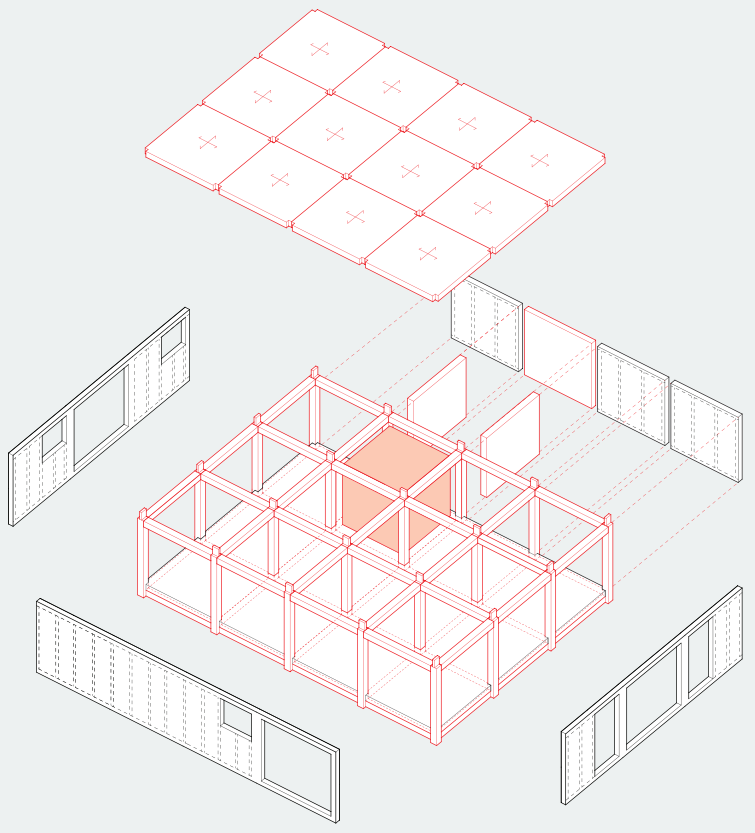
Innovative Timber Construction

The constructional design approach for the building is to utilize the ecological benefits of wood, being a locally available and renewable resource, as much as possible. To achieve this a newly developed timber construction system is applied as the main load bearing structure. Its skeleton frame design allows high levels of spacial flexibility as well as the use of modular elements easy to disassemble and recycle.

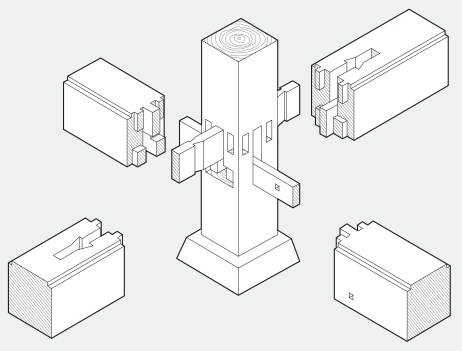
The system is adapting traditional carpentry techniques to modern fabrication and assembly processes. Wherever possible structural joints are constructed entirely out of wood avoiding additional steel elements.

Sufficiency and Flexible Spacial Arrangements

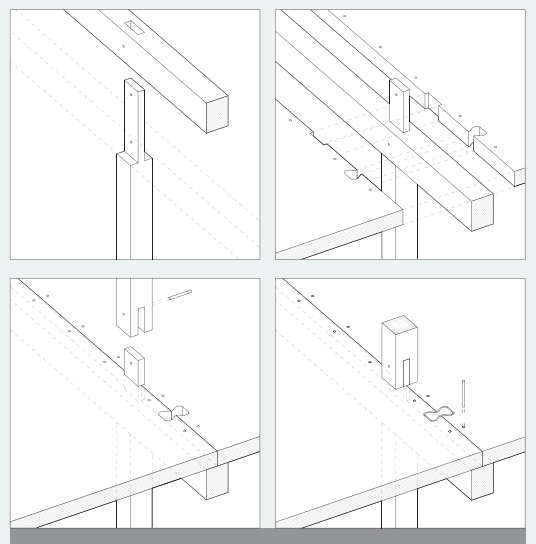
The project tackles both the reduction of material and spacial resources and tries to explore the spacial needs of individual residents, a group of flatmates, and the entire community. Following the concept of sufficiency the adaptability of apartments offers the option to reduce individual rooms for the benfit of larger shared spaces. Due to flexible partition walls, which can be repositioned by the residents themselves, a variety of configurations can be created. Depending on changing needs the apartments can be adapted and allow to accommodate different users throughout the buildings lifetime.



Schematic structure of the building system



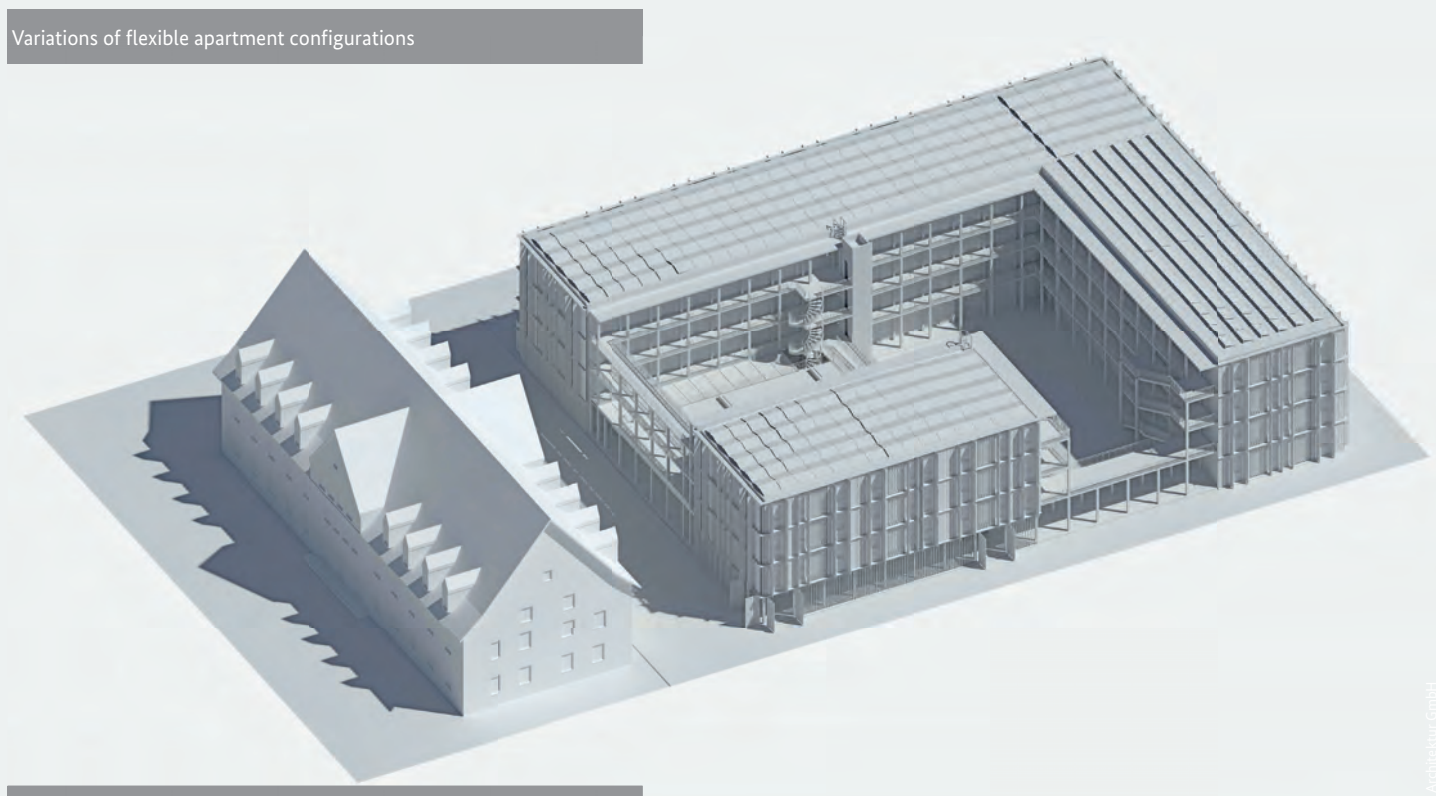
Traditional japanese joinery detail



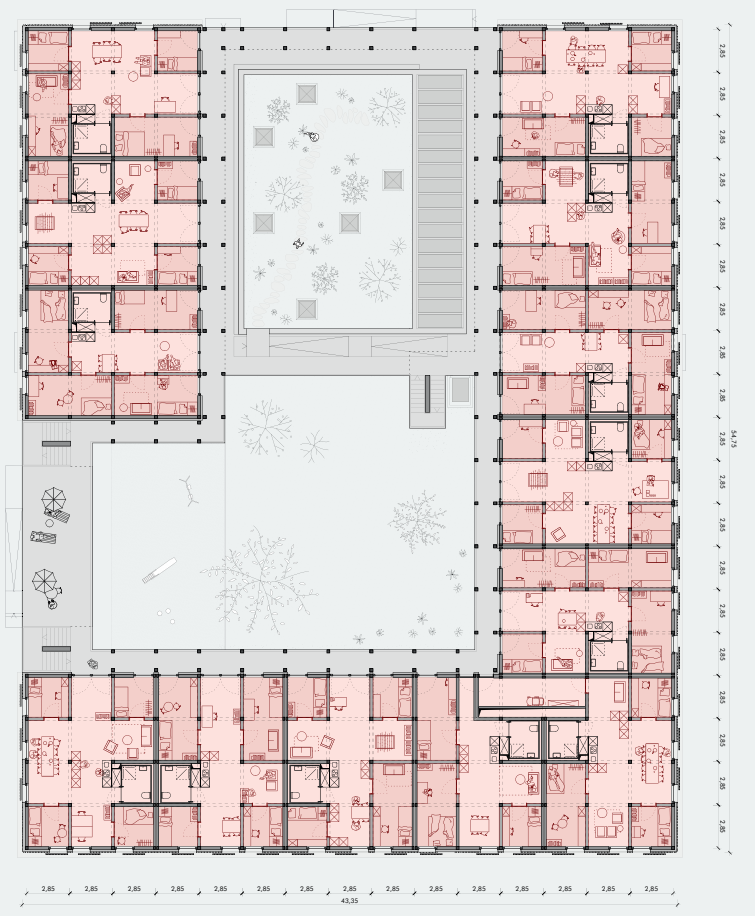
Joinery principal of the construction system

Scan the code to access the report of the BBSR research project ‘Press-fit timber buildings: developing a skeleton construction system’

Variations of flexible apartment configurations



Visualisation of the building volume



Floorplan; scale 1:200

Federal Ministry of the Interior, Building and Community

Federal Institute for Research on Building, Urban Affairs and Spatial Development within the Federal Office for Building and Regional Planning