

Heidelberg Congress Center: a compact cube with many-faceted interior

Heidelberg, the city of science and research, now has its first major dedicated congress and convention venue. The Basel-based architectural bureau *Degelo Architekten* has developed a characterful building that on the exterior appears compact and plain, but which turns out to have a complex and many-faceted interior.

Congresses and trade fairs play an important role, even in today's digital world: people want to meet and interact on a personal level. This is especially important in science and research circles, but also where politics, economy, and culture are involved, as it is beneficial for networking and knowledge transfer. A dedicated venue for such events has, until now, not been available in the historic German university city of Heidelberg, where previously the theatre and town hall had to be used for these purposes. Degelo Architekten have now developed a congress centre that can be adapted to multiple event formats. Some 3,800 people can simultaneously take part in conferences, symposia, meetings or BarCamps on any given day.

The Heidelberg Congress Center is close to the main railway station in the city's new "Bahnstadt" ("Railway City") quarter. The floor-to-ceiling glass entrance of the multistorey sandstone building faces towards the also newly developed public square that lies just south of the railway station, the "Europaplatz". A small forecourt is created by the glassed area of the entrance being slightly recessed into the building, and the visual relief that that provides is further enhanced by a crease in the facade and the gradually tapering edge of the roof towards the east. The same principle can be found at the second entrance, which is on the western side of the building and faces the Zollhofgarten – a large public green, surrounded by cafés, bars, and restaurants. These apertures towards the two open spaces give the structure a representative, but at the same time inviting character, despite its otherwise monolithic compactness. Even though it reflects the building lines of the surrounding area perfectly, and thereby integrates seamlessly into the ensemble of the other Bahnstadt buildings, its design clearly marks it out as a public venue. An important role in this is played by the facade.

A facade like a curtain: massive sandstone appears light and vibrant

The facade is – like the famous Heidelberg Castle, and many of the city's historic buildings – made from the local red Neckar valley hard sandstone, which has been quarried in the region for over a thousand years. Significant differences can be seen, however, in the subsequent treatment of the stone when it comes to design and technique.

The almost windowless facade shows no direct indication of the number of storeys behind it – only the entrances allow for glimpses into the foyers and the gallery on the first floor. The massive sandstone has a vertical, slightly waved structure. This gives the impression of a theatre curtain, and the resulting interplay of light and shadow provides the otherwise solid stone with a touch of airiness. The fluting's charring – a traditional stonemason's technique – was honed digitally and then manually broken off. This coarse treatment of the surface results in the fine, yellow marbling of the sandstone being reduced to a background feature. In contrast, the entrance recesses and few, drop-shaped window openings are smooth and finely polished, which makes the marbling clearly visible.

Light sets the stage on the inside

While the outside of the building with its sparse placing of windows appears compact, the interior surprises with light and airy spaces that almost seem dematerialised. This impression is first provided upon entering the almost 20-meter-high foyer with its skylights, and is emphasised in the equally almost full-height "central hall", which undoubtedly is the main protagonist when it comes to the setting of the interior spaces. Natural light enters it through elliptical openings on the respective ends of the vaulted ceiling, which makes the concrete used for the construction almost appear like a draped piece of textile material – the motif of the curtain is repeated here once more. This space can accommodate up to 1,800 people.

Apart from the skylights, the glassed entrances let lots of natural light enter deep into the building – thereby staging the artful arrangement of the interior spaces with its many sightlines through a sophisticated interplay of light and shadow. A playful element can be found in the round ceiling lamps, made from hand blown opal glass, which hang suspended in the air like soap bubbles – and whose hidden LED lighting can be digitally controlled according to what kind of illumination is required.

The public areas of the building are almost uniformly white: white concrete and bright terrazzo flooring dominate the colour concept. The only, also haptic contrasts are provided by the warm tones of the doors and details in elm wood, which is also used as panelling in some of the smaller rooms (such as the "small hall" on the first floor). Black and darker tones can only be found in the studio for live-streaming, the show kitchen, and the sanitary facilities.

The dramaturgy: an intriguing and flexible arrangement of spaces

An intriguing impression of the interior spaces is achieved by means of an exciting interchange between low and very high, close and wide spaces. The decisive element to this concept was, however, that the house had to have the highest degree of flexibility when it came to the use for events of all manner and sizes, be it scientific congresses or hearings, smaller theatre performances, or concerts – which might be taking place all at the same time. When necessary, the two entrances with their respective foyers make it possible to run separate events without any interaction taking place. In all, the Heidelberg Congress Center offers two large halls and nine conference venues, of which some can be interlinked, a studio for live-streaming and video production, as well as a show kitchen. A highlight can be found on the second floor, where a courtyard was set amphitheatre-like into to roof.

The effect: durable and sustainable

The high degree of flexibility provided by the column-free layouts make them ideal for not only larger or smaller events, but in future also for a wide range of other uses – which has a positive effect on the building's life cycle, and therefore also on its environmental footprint. This is also where its compact design comes to the fore: a beneficial ratio between surface area and interior volume. The circulation areas were also kept to a minimum, which allows for a highly efficient use of floor space. The supporting structure is made from recycling concrete and is used to store a reduced amount of grey energy, thus providing a thermally inert mass which benefits the energy balance during use. The – except for the generously glassed entrances – mostly unbroken facade contributes positively to the energy balance, as it also acts as a storage mass. The air-conditioning uses a minimum of primary energy and utilises the principles of night-time cooling and waste heat recovery. The fundamental central idea for the energy concept was: to minimise the demand, and meet and generate the remaining demand through efficient use of local and renewable resources. The Heidelberg Congress Center was planned to Passivhaus specifications, and it is endeavoured that the building will receive the gold standard certification presented by the Deutsche Gesellschaft für Nachhaltiges Bauen (DGNB – German Society for Sustainable Building).

Degelo Architekten was founded in 2005 by Heinrich Degelo. Among his most famous works are the *National Art Gallery in Vaduz*, Liechtenstein, and the *Messturm* (Trade Fair Tower) in Basel, Switzerland, which he designed together with his former partner Meinrad Morger. In 2010 Degelo Architekten modernised and extended the *congress centre* in Davos, Switzerland, together with the current partner Florian Walter. In the German town of Freiburg they remodelled the *university library* between 2011 and 2015 and in 2018 they completed the renovation of the *St Jakobshalle* sports arena in Basel. The latest residential project to come to international attention was the affordable and environmentally friendly *Wohnatelierhaus Erlenmatt Ost* in Basel, Switzerland, a live-in studio house build in 2019.
www.degelo.net (in German)