

**LAVA**  
LABORATORY FOR  
VISIONARY  
ARCHITECTURE

### **LAVA's Y-shaped Sports Youth Hostel opens**

It's the new generation of youth hostels – **innovative, integrative and international** - and has recently opened in Bayreuth, Germany. The fluid structure is integrated into the landscape, with contemporary materials and holistic sustainability – a place for active people of all abilities.

LAVA's concept for the sports hostel is:

1. **Innovative** – inventive new spatial configuration of the whole facility, including individual room modules, material use and design
2. **Integrated** – inclusive 'barrier-free' building, with sporting areas merging directly with the building, and accessible spaces, facilities and grounds
3. **International** - the design from creates a feeling of place and combines it with contemporary elements Bayreuth's global partner cities

Tobias Wallisser, LAVA director, said: "LAVA chose a 'Y' shape for the 180-bed hostel because it cleverly generates a connective central space and interweaves the interior and exterior spaces, offering expansive views and multiple accessible openings to the sports fields and gardens."

"Our research showed that Gen Y travellers want funky design, a special identity, access to community and unique experiences. Not just a clean bed and shower! So our reinterpretation of a youth hostel features **innovative spatial configurations that encourage interaction and accessibility; sustainability at functional, constructional and social levels; and integrated sporting facilities.**"

The **rooms, grounds and facilities** are all **fully accessible** and especially equipped for active people of all abilities. A whole wheelchair basketball team can stay here. Fourteen rooms on the ground floor are wheelchair accessible by lift or ramps, and there are walk-in showers, wheelchair-accessible sinks, more space and technical aids. Doors, terraces, sports and parking areas are accessible and there are customised way-finding systems with strong graphics. Inclusion is also seen in the staffing with about one third of employees having disabilities.

The **guest room typology** is new – LAVA designed an intelligent wall system with modular contemporary custom built-in furniture – toilets, showers as well as bed niches. These three-dimensional wall modules facilitate different room configurations through partially rotatable beds creating two, four and six-bed rooms. They maximise room usage for a broad range of guests – from individuals to families to wheelchair teams.

The **multipurpose central atrium** is a surprising element with its play of materials and colours. It fulfills the youth hostel motto 'Experience the Community' serving as a hub for (digital) entertainment, interaction and communication. The amphitheatre in the middle is lit by a skylight above and connects to the different levels in a playful way, whilst giving horizontal and diagonal sightlines guiding visitors through the building.

Reception, seminar rooms, bistro, kitchen, sports and game facilities are spread out over two floors and connected to each other via this central atrium. Each

wing of the Y has access to the exterior at its end, and many 'loops' combining inside and outside come together at the central point of the Y.

Parts of the building double as grandstands for cultural events and encourage community interaction. Terraces allow direct access to the green fields and sports areas of the ground floor zone, all accessible.

Another feature is **no fake surfaces**, just authentic materials – wood looks like wood. Much of the structure, including wooden trusses, is exposed, giving a 'raw' space. The wood, concrete floors and ceilings create an industrial robustness with brightly coloured infills and strong graphics referencing sports activities or natural elements like tree canopies. Using local materials and techniques there is a focus on **solidity and functionality** rather than relying on the latest technology.

**Holistic sustainability** includes environmental - local materials, highly insulated facades, renewable energy, pollution reduction etc. But it also includes social and structural sustainability. Universal design allows everyone to work and to stay and integration sees more potential users, resulting in optimum use of the facility. There are different utilisation cycles for various parts (construction, façade, technical development) - for example only along the corridors and the facades are there load-bearing components - room wings are freely dividable inside. So future reuse/change of use is possible – one day the youth hostel could become a kindergarten, a school or a retirement home.

"This is a major built project by LAVA, a fully inclusive place, and we are pleased to see our designs, based on sustainable principles, coming to fruition."

Alexander Rieck, LAVA director, added: "It's all about intelligent organisation, making it easy to connect, socialise, creating a stage for individual and group activities." LAVA Director Chris Bosse also said: "It shows that old typologies can be reimagined sustainably with careful research."

**Watch a 'road test' of the hostel:** <https://www.zdf.de/gesellschaft/menschen-das-magazin/menschen---das-magazin-vom-7-oktober-2017-100.html>

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**More info over ..... with project data**

## **MORE INFORMATION**

### **BACKGROUND**

LAVA won the international competition commissioned by DJH Bayern to design a new 180-bed youth hostel in Bayreuth, Germany and the planning and construction period for the youth hostel took five years. This involved the development of new architectural guidelines by the Bavarian Youth Hostel Association to redefine their hostels to meet contemporary expectations. The Association's hostels each have a different focus and Bayreuth caters for physically active guests. LAVA had successfully remodelled the 1930s Untersberg house in Berchtesgaden, Germany's first designer hostel in 2011. In June 2015 the groundbreaking ceremony for Bayreuth took place and prototypes of the bed and room modules were produced and made accessible.

### **CONCEPT**

The concept is based on:

#### **International:**

The design takes influences of the place and combines them with modern design elements. Inside and outside are thought of as a whole experience: parts of the building become stands for the events in the sports facilities outside and various events can take place both inside and outside.

#### **Integrated**

Rooms, grounds and sports fields are fully accessible and especially equipped for active people with disabilities, both guests and employees. A whole wheelchair basketball team can stay here -14 rooms on the ground floor are wheelchair accessible with ground level showers, under sinks, increased space and technical equipment. Doors, terraces, sports and parking areas are accessible and are designed with appropriate guidance systems. The principle of inclusion is also implemented in the personnel of the youth hostel, about 1/3 of the employees have disabilities.

#### **Innovative**

New spatial configuration of the whole building and room modules includes material use and design, e.g. integration of graphics. The hybrid wood combined with solid construction allows the use of local materials and techniques.

### **DESIGN CONCEPT**

LAVA chose the letter 'Y' shape because the geometry creates a building shape that interweaves interior and exterior space. It offers views to three directions, creates natural openings to the sport fields, terraces and gardens, and creates a central community space.

The designer age of the 21st century means young travellers and backpackers want a special identity, community and unique experiences, not just a clean bed and shower.

Bayreuth provided a stunning location and a unique opportunity to develop the prototype of a new sports hostel, a benchmark, that further develops the traditional hostel through innovative spatial configurations, sustainability at environmental, structural and social levels and integrated sporting facilities directly adjacent to the building: a place that invites active use and relaxation.

The Y shape also creates a central atrium, a hub for offline as well as online interaction, a meeting space that provides entertainment, interaction, comfort and communication. An amphitheatre in the middle connects the different levels in a playful way. A skylight provides natural daylight whilst horizontal and diagonal sightlines direct guests to different functions in the building such as reception, seminar rooms, dining, kitchen, spread out over two floors and connected to each other via this central atrium.

Each wing of the Y has access to the exterior at the end, and many 'loops' combining inside and outside come together at the central point of the Y. The wider arm houses public functions: kitchen and canteen on ground level, seminar rooms on first floor; and both are connected via the hall and stairs and have direct access to outside.

The visionary design is marked by intelligent organisation (easy to find things, get in contact, spend time together, connect inside to outside activities, rooms become viewing spots for sport activities).

This integrated concept fulfils the hostel motto: 'experience community' and goes beyond it:

'experience the unexpected' – not the youth hostel as people know it. It's this organisation – creating a stage for activities – separating individual from group spaces but bringing people together in an open internal landscape that is unique. This is budget accommodation, but it offers spatial fluidity and other spatial experiences not available even in expensive hotels.

Sports fields, adventure playgrounds and volleyball terraces are complemented by local vegetation. A grand staircase doubling as an amphitheatre is used for cultural events such as outdoor movie screenings and theatre performances.

The fluid structure is integrated into the landscape, with contemporary materials and a 'no frills' interior – a powerful place for active people.

### **LOCATION**

The new building for the JH Bayreuth is located in a landscaped situation in the surroundings of the university and a swimming pool. The building reacts to this by dividing and zoning the exterior space. Starting from a central atrium, individual two-storey functional areas develop in a Y shape into the terrain. The 30-metre-long room wings are facing north and south. Between the building parts, the associated functions such as a sports field, adventure playground and vegetation zones are integrated. The low building height underlines the topographical integration and counteracts the urban planning dominance of a multi-storey building on the large, green plot. The upper floor of each wing is connected via an outdoor area with stairs to the landscape level.

## **SUSTAINABILITY**

Sustainability is environmental, as well as social and structural.

The innovative structural and social organisation creates a stage for activities, separating individual from group spaces, but bringing together people in an open internal landscape.

The room typology is new – LAVA designed a highly flexible modular wooden wall system with modular contemporary custom built-in furniture accommodating washrooms and bed niches.

Individual rooms feature concrete floors and ceilings, niches with beds on either side, integration of furniture in the walls. Highly flexible walls between the rooms in the wings can be replaced. These separation walls are fabricated as modular 'furniture' elements.

Environmental sustainability includes the application of local materials, highly insulated facades and the use of renewable energy.

## **MATERIALS**

Wood, concrete floors and ceilings create an industrial robustness with bright infills of yellow and green on ceilings and floors, black and white neutral areas and strong graphics. It is an unusual mix of concrete slabs and wooden supports.

The geometry of the wooden roof is unique as the upper beams follow the curves of the roof and the lower ones follow the straight spacing of the rooms resulting in a three-dimensional truss system visible in the central part of the building.

Colour patterns on ceilings and floors make reference to sports activities or natural elements like tree canopies.

## **ACCESSIBILITY**

This is a 'barrier-free' building, a hostel suitable for all abilities including disabled sports teams such as whole wheelchair basketball teams. All rooms are accessible by lift or ramps, 'universal' bathroom sinks and the grounds and sports fields are wheelchair accessible. Two thirds of the rooms on the ground floor have special bathrooms suitable for wheelchairs.

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## **PROJECT DATA**

**Program:** Sports Youth Hostel with 45 rooms, 180 beds, dining room, seminar rooms and sports facilities

**Client:** Bavarian Youth Hostel Association

**Area:** 3.800m<sup>2</sup> BGF

**Cost:** 10m euro

## **PROJECT TEAM**

**Architecture:** LAVA (Laboratory for Visionary Architecture), Berlin with WENZEL + WENZEL, Frankfurt

LAVA: Tobias Wallisser, Alexander Rieck, Chris Bosse

Team: Julian Fahrenkamp (PL), Angelika Hermann, Jan Kozerski, Mikolay Scibisz, Nicola Schunter, Paula Gonzalez, Güley Alagöz, Elise Elsacker, Myung Lee, Yuan Ma; competition team: Sebastian Schott, Stephan Albrecht, Stefanie Pesel

Wenzel+Wenzel: Matias Wenzel, Sven Becker, Thilo von Wintzingerode, Erik Muth

**Structural planning:** Engelsmann Peters, Stuttgart

**Building services:** IBT.PAN, Berlin

**Fire protection:** Bau.art, Munich

**Kitchen planning:** b.o.b

**Wayfinding:** Space Agency, London

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## **ABOUT LAVA**

LAVA was founded in 2007 by directors, Chris Bosse, Tobias Wallisser and Alexander Rieck. LAVA recently completed a company showroom in Eindhoven; and under construction is a new university master plan and headquarters in Riyadh, airport shopping precinct in Frankfurt, and mixed-use developments in Berlin, HCMC and Hanoi. LAVA merges future technologies with the patterns of organisation found in nature to build a smarter, friendlier, more socially and environmentally responsible future. LAVA combines digital workflow, nature's structural principles and the latest digital fabrication technologies to build MORE WITH LESS: more (architecture) with less (material/energy/time/cost). [www.l-a-v-a.net](http://www.l-a-v-a.net)