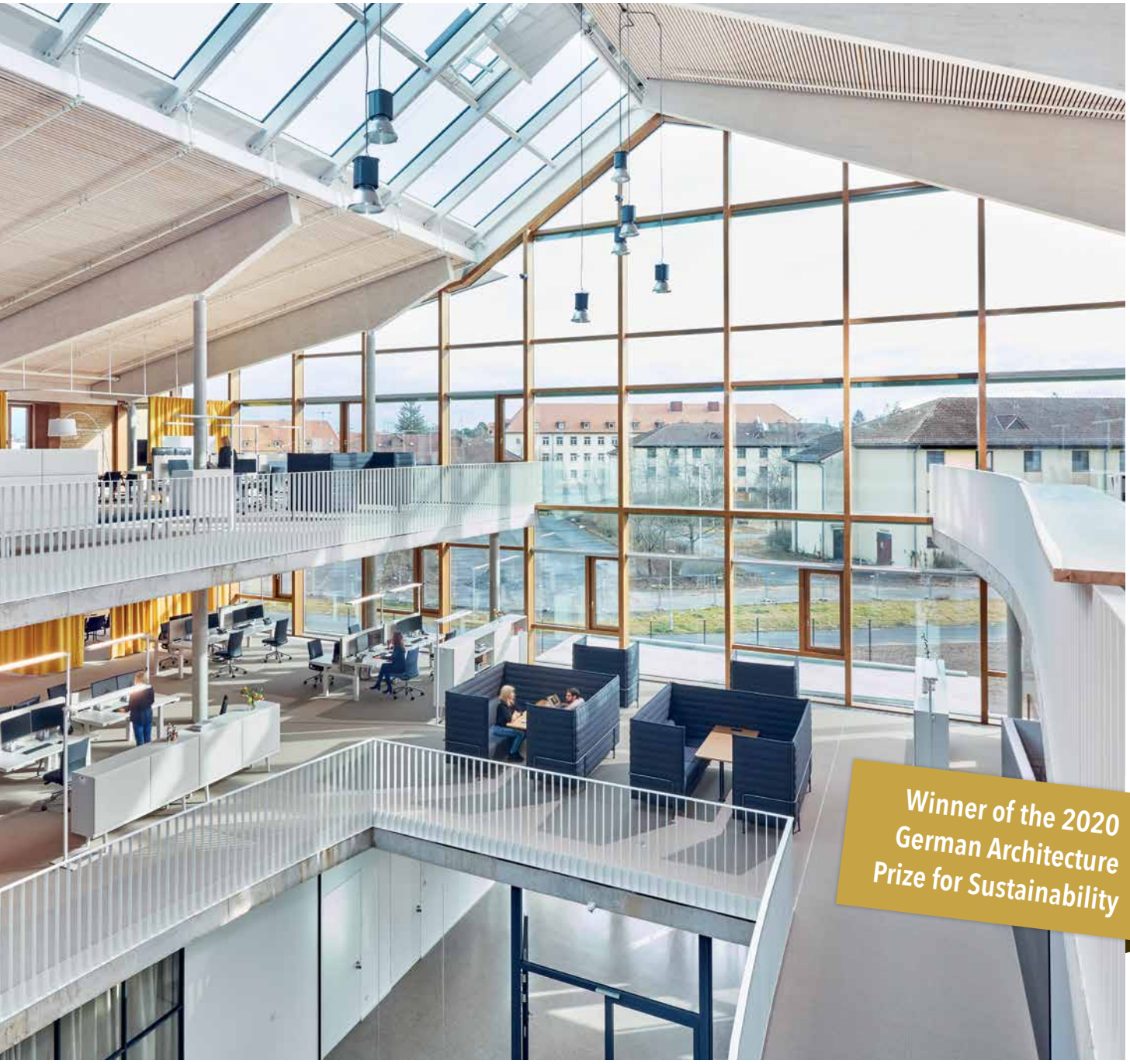
RAICO

OBJEKT INSIDE

The "Alnatura World of Work" | Darmstadt



MORE SPACE FOR ORGANIC PRODUCTS

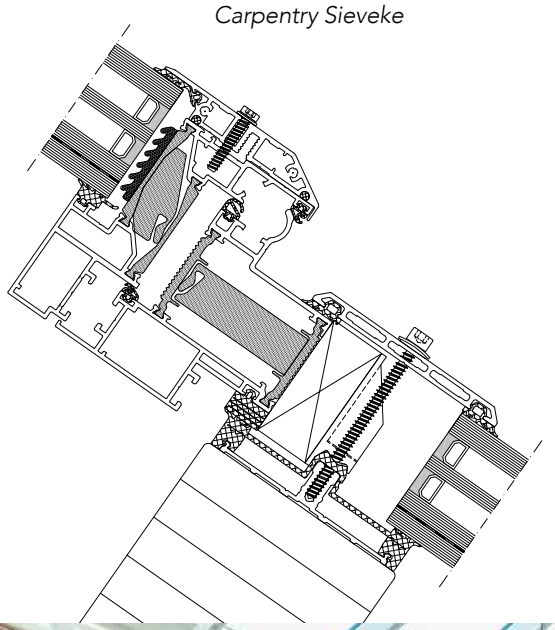
Health and nature over 55,000 square metres, embodied into the Alnatura Campus and the Alnatura World of Work in Darmstadt in the state of Hesse. The project is at once an ecological trailblazer, a sustainable company headquarters and a trendsetting workplace for 500 people. We show just what makes this award-winning building so outstanding, besides its RAICO THERM^{+} H-I façade and the FRAME^{+} 120 RI rooflight windows.

Text: Tobias Schneider

As human beings eat, so they build. In keeping with this motto, the organic food brand Alnatura has built an ecologically unique company headquarters made of natural materials such as wood and clay from scratch. Add to this plenty of daylight and a work atmosphere that can be described as completely healthy. The 13,500 m² Alnatura World of Work is the central building at the heart of the Alnatura Campus. It consistently translates the attitude and the values of the company into a sustainable "corporate architecture" concept. The design is the creation of the architect's office haascookzemmrich STUDIO2050 of Stuttgart. The Sieveke carpentry firm from Lohne processed the RAICO façades and window elements.

„With its 96-mm cross section, the RAICO system is unique on the market."

Roman Koditek, Project Manager Carpentry Sieveke



Façade – window – façade

Like the organic products of the natural food pioneer, the new company headquarters is also meaningful for human beings and nature. The 90 x 40-metre main building of wood and compressed clay elements is completely free of any materials that are problematic from a building biology standpoint. Instead, natural materials ensure a sustainably good atmosphere – both inside and outside. This is largely due to the 1,500-m² RAICO THERM$^+$ H-I vertical façade of varnished spruce at both gable ends of the building, facing east and west. It creates transparency and openness, inviting staff and visitors to enter.

It also connects: people to nature. Comfort to climate protection. And, through the RAICO THERM$^+$ H-I glass roof with the FRAME$^+$ 120 RI rooflight windows, even heaven to earth. Like a horizon of light, it runs along the asymmetrical gable frame at a height of 19 metres, from one RAICO façade to the other. During the cold season, the high thermal performance triple glazing allows plenty of natural heat into the climate-friendly building, while at the same time ensuring that hardly any energy escapes.

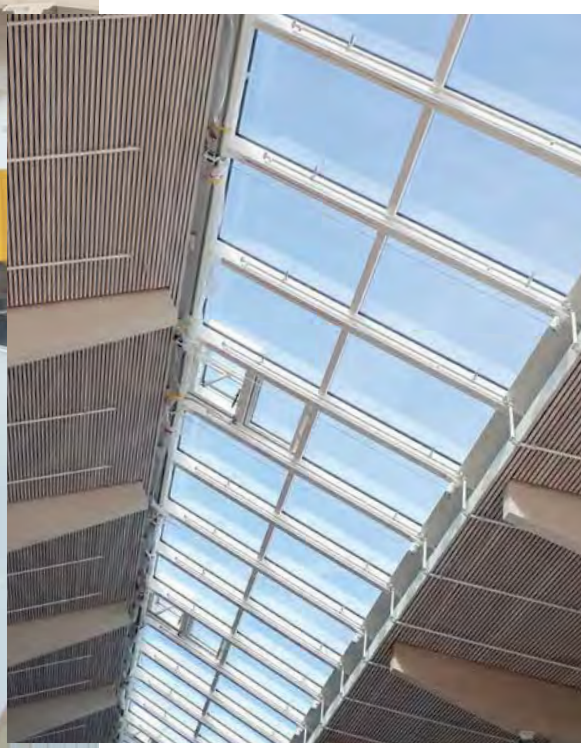
From clay to ventilation

The transparency of the extensive glass elements is interrupted only by the longitudinal façade on the south and north side.

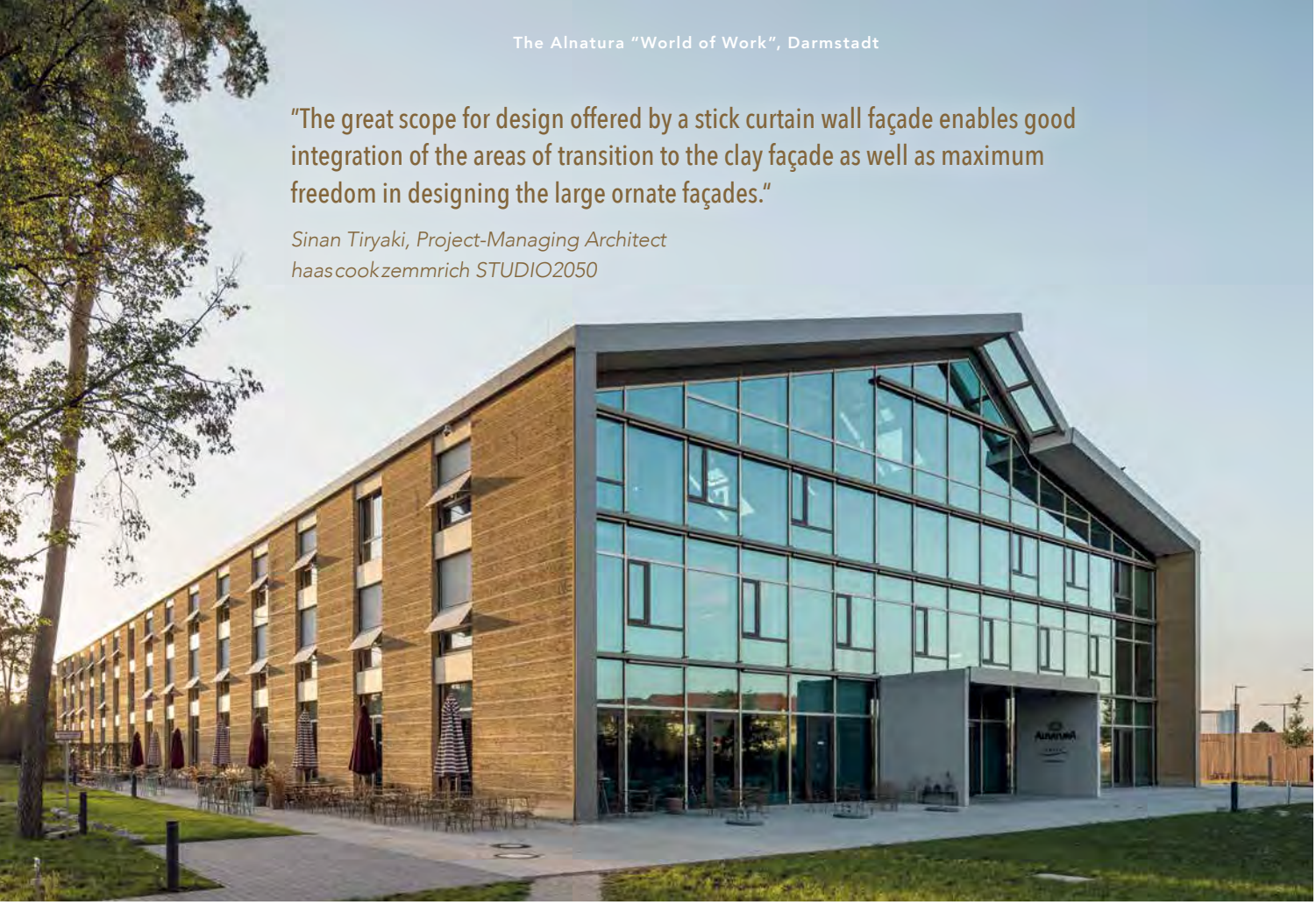
32 self-supporting compressed clay elements, each twelve metres high, were manufactured directly on the building site. Among other things, material from excavating the tunnel for the Stuttgart 21 rail project was used as filling for them. In addition, a 17-cm-thick core insulation of recycled foam glass gravel sustainably insulates the wall elements. The result: a 69-cm-thick wall structure with optimal ecological, static and thermal attributes. The clay mass, comprising 900 cubic metres in all, stores thermal energy in winter. During the hot summer months, the specific thermal capacity of the clay regulates the temperature, keeping it pleasantly low.

Between the façade elements, symmetrically arranged vertical glazed façade strips of RAICO THERM^{+} H-I connect the workspaces inside to nature outside. The window elements are clad with laminated spruce-and-pine timber, in keeping with the stick curtain wall construction and treated with an environmentally friendly, water-based window varnish. The production hall is naturally air conditioned by creating thermals. When the windows are open, the skylight strip in the roof creates a flue effect. While fresh air whose temperature has already been pre-adjusted flows into the building via two ground ducts, the stale room air can escape upwards. You won't find any resource-guzzling air-conditioning and ventilation units here.

The stick curtain wall construction of the longitudinal walls with their vertical façade strips was entirely pre-assembled at the Sieveke carpentry firm.



PROJECT	The Alnatura "World of Work"
LOCATION	Darmstadt, Germany
ARCHITECTS AND PLANNING	haas cook zemmrich STUDIO2050, Stuttgart
CONSTRUCTION	Carpentry Sieveke, Lohne
CONSTRUCTION PLANNING	I.F.F Dreising, Messing
SIZE	1.500 m² vertical façade, 570 m² glass roof, 13.500 m² gross floor area
DURATION	Sept 2016 to Jan 2019
RAICO SYSTEM	FRAME^{+} 120 RI rooflight window, THERM^{+} H-I curtain wall and glass roof
AWARDS	Winner of the 2020 German Architecture Prize for Sustainability, The German Sustainable Building Council (DGNB) Certificate in Platinum



The Alnatura "World of Work", Darmstadt

"The great scope for design offered by a stick curtain wall façade enables good integration of the areas of transition to the clay façade as well as maximum freedom in designing the large ornate façades."

Sinan Tiryaki, Project-Managing Architect
haascookzemmrich STUDIO2050

A model of excellence

The Alnatura World of Work is currently the largest clay office building in Europe. The grey energy of the wall sections is practically zero. A 90-kWp photovoltaic system on the roof fully covers all energy requirements. This makes the overall concept not only almost climate-neutral, but also particularly exemplary.

We at RAICO are proud to have been able to contribute to the ecological qualities of the Alnatura World of Work and should like to congratulate all project participants on the numerous awards won by the building. These include a German Sustainable Building Council (DGNB) Certificate in Platinum, the 2020 German Architecture Prize for Sustainability and a huge thank you from our environment.

PICTURE CREDITS

Eduardo Perez (Cover) | Lars Gruber (p. 3, 4 & 6)
Roman Koditek (p. 5)

Published by

RAICO

Bautechnik GmbH

Gewerbegebiet Nord 2
87772 Pfaffenhausen/Germany
www.raico.com

T | +49 8265 911 0
F | +49 8265 911 100
E | info@raico.com