



PRESS RELEASE

"one&twenty": "The Essence of Biocement" receives "Best of Best" award of the young talent competition by German Design Council in Milan

Milan, April 17, 2023

As "Best of Best", the German Design Council today honored the German designers Julia Huhnholz and Friedrich Gerlach for their project "The Essence of Biocement." The seating furniture they developed is made entirely of self-produced biocement. As part of their design studies at the Bauhaus-Universität Weimar, the award winners were looking for more climate-neutral manufacturing processes for their product designs. The project has produced a piece of furniture with an impressive design language that exemplifies how forward-thinking design can increasingly emerge from the research impulses of young designers.

Every year, the German Design Council awards the international newcomer prize "one&twenty" in Milan, previously known as "ein&zwanzig," for outstanding designs by young designers. Among the 545 submissions by design students and graduates, a renowned jury awards the 21 best product and project ideas. One of the projects also receives the special accolade of "Best of Best."

Best of Best: Biocement - Building Material from the Lab

Biocement, which is still relatively unknown in many places, has several advantages over traditional cement, which is widely used in the construction industry and has immense consequences for the climate. Firstly, its production requires large amounts of heat and thus energy. Secondly, during the chemical reaction in the cement kiln, carbon dioxide is released. Biocement does not need to be burned and emits less CO₂, as it is produced using bacteria that break down urea and produce calcium carbonate. A raw material such as sand mixed with calcium chloride hardens without burning through this process. For their design, Gerlach and Huhnholz also avfdfoided sand. This raw material is becoming scarcer due to the high cement and concrete production worldwide - approximately 50 billion tons of sand are consumed annually, according to a UN report. Instead, the designers recycled bricks that were no longer needed on their university campus.

Research Project: From Material to Furniture

Julia Huhnholz and Friedrich Gerlach focused on biocement as part of their design studies, without any prior experience in microbiology. Initially, the duo researched the cement alternative and then developed a complex machine in months of experimentation to simplify the multi-stage production process. Among other things, the bacteria need to be "fed" every two hours. Subsequently, Gerlach and Huhnholz developed methods for shaping biocement. They achieved the curved contours of their furniture through custom-made molds, which they produced using 3D printing - the biocement mixture hardens in these molds. "Our goal was to make this material tangible and understandable through our object," said the duo.

Lutz Dietzold, CEO of the German Design Council, is convinced: "More and more companies have to follow the call for resource-efficient material alternatives and rethink their production processes. That is why the impulses of young designers are also relevant and groundbreaking for the furnishing industry."

"The Essence of Biocement" as well as the other 20 winning projects will be on display until April 23 at the Zona Tortona in Milan (Via Tortona 31, Opificio 31). The exhibition design is by the Danish studio TABLEAU.

The one&twenty winners 2023:

Best of Best:

Project: The Essence of Biocement

Designer: Julia Huhnholz and Friedrich Gerlach/Germany

<https://www.friedrichgerlach.de>

<https://www.instagram.com/ju.huhn>

Winner:

Project: NakedPak

Designer: Naama Nicotra/Israel

<https://naamanicotra.com>

Project: Woven Change, Shifting Expressions

Designer: Sophie Jungkvist/Sweden

<https://sophiejungkvist.myportfolio.com>

Project: E2022

Designer: Tim Schütze/Germany

<http://timschuetze.com>

Project: cellular - the breathing facade tile

Designer: Vivian Tamm/Germany

<https://viviantamm.com>

Project: GRAT

Designer: Jan Wagemann und Julia Ribic/Germany and Croatia

<https://www.jan-wagemann.de>

<https://www.instagram.com/juliaribic/>

Project: Individualisierbare Urnen

Designer: Cora Schmidt/Germany

Project: Urban Coolspot

Designer: Julia Sulikowska/Poland



<https://kh-berlin.de/projekte/projekt-detail/3630>

Project: Maßbandleuchte
Designer: Josua Roters/Germany
<https://josuaroters.de>

Project: NOMAD - solar lamp
Designer: Moritz Walter und Michelle Müller/Germany
<https://www.moritz-walter.com/nomad.html>
https://www.instagram.com/m_miclle/

Project: DSR_o1
Designer: David Blumberg/Germany
<http://davidblumberg.de>

Project: Vaask: System zur Liegend-Haarwäsche immobiler Menschen
Designer: Helena Kiefer/Germany
<https://www.instagram.com/helenakiefer.design/>

Project: Woven Forms
Designer: Leonie Burkhardt/Germany
<https://leonieburkhardt.com>

Project: teg-radio
Designer: Justus Hilfenhaus/Germany
<http://www.justushilfenhaus.com>

Project: AIROLID
Designer: Magdalena Fahrner/Germany
<https://www.instagram.com/magdalena.fahrner/>

Project: scoria
Designer: Marc Roman Page/Germany
<https://marcromanpage.com>

Project: Philips One - Products as a Service
Designer: Jakob Kohnle and Stijn van Cuijk/Germany and the Netherlands
<https://stijnvancuijk.com>

Project: Expandable rug
Designer: Emma Tietze/Germany

<https://www.linkedin.com/in/emma-tietze-9a3823249/>

Project: Elevation Lamp
Designer: Alexander Schul/Germany
<http://alexanderschul.com>

Project: Bing!
Designer: Manuel Steffan/Germany
<https://www.instagram.com/manuelsteffan/>

Project: 2Light
Designer: Felix Pape/Germany
https://www.instagram.com/felix_pape/

one&twenty

Since 2017, the German Design Council has been supporting young design talent with the “one&twenty” competition, which calls for entries internationally. The competition is aimed at design students and graduates with innovative and trendsetting work in the categories of interior design, lifestyle, eco design, social design, medical and rehabilitation, material and textiles, techniques and processes for design, public design and digitally supported design. An international jury of experts will select 21 outstanding works from the entries, 20 of which will be awarded as winners and one as “Best of Best”. <http://one-and-twenty.de/en/>

The jury

The 12-member jury consists of international and renowned designers: Eva Marguerre and Marcel Besau (Studio Besau-Marguerre, Germany), Nina Bruun (Nina Bruun Design Studio, Denmark), Uli Budde (ULI BUDDE DESIGN OFFICE, Germany), Mathias Hahn (Mathias Hahn Design Studio, Germany and UK), Philipp Mainzer (E15, Germany), Nils Holger Moormann (Nils Holger Moormann GmbH, Germany), Daniera ter Haar, Christoph Brach (Raw Color, Netherlands), Hanne Willmann (Studio Hanne Willmann, Germany), Chen Min (Chen Min Office, China), Yoko Choy (China Editor at Wallpaper* & Co-founder of the Collective Contemporisist, Netherlands).

German Design Council

The German Design Council has operated as one of the world’s leading centres of expertise in communication and knowledge transfer within design, branding and innovation since 1953. It is part of the worldwide design community and has always contributed to the establishment of global exchange and networking thanks to its international offering, promotion of new talent and memberships. With events, conventions, competitions, jury sessions and expert committees, the German Design Council connects its members and numerous other international design and branding experts, fosters discourse and provides important stimulation for the global economy. Its membership currently includes more

than 350 enterprises.

<https://www.german-design-council.de/en/about-us>

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