

2. SYMPOSIUM ON SUSTAINABLE CONSTRUCTION

grow.build.repeat.

from breeding, cultivation, seeding, and harvesting
of biological building materials

New
Date

KIT Karlsruhe
Professorship of Sustainable Construction

Thursday, 03. December | 18:00 – 20:30

Friday, 04. December | 09:30 – 18:00

Egon-Eiermann Lecture Hall
Englerstrasse 7, Building 20.40
76131 Karlsruhe

With the kind support of:



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More information at <http://nb.ieb.kit.edu>

The symposium **grow.build.repeat.** at the KIT Faculty of Architecture deals with one of the most urgent questions of our time: how can we drive forward a radical change of the existing construction industry while increasingly considering the breeding, cultivation, seeding, and harvesting of biological building materials and their system cycles? The symposium is the second in a series on the topic of sustainable construction. The first event (take.build.repeat. in autumn 2018) dealt mainly with mineral and metallic material cycles in the field of urban mining and its potential for sustainable construction. The second symposium, **grow.build.repeat.**, now addresses the biological material cycle and presents future-oriented examples from construction practice and research. Representatives from science and industry, research, practitioners, decision-makers within our democratic society, as well as teachers and students will come together to discuss the future of construction in lectures and discussions and subsequently to actively participate in shaping it.

The event is being held with the kind support of
Wacker Chemie AG.

grow.build.repeat. Symposium on sustainable construction.

03 December 2020 / 18:00 - 20:30 / Keynote by Mitchell Joachim

04 December 2020 / 09:30 - 18:00

Professorship of Sustainable Construction
KIT Karlsruhe Institute of Technology
Egon-Eiermann Lecture Hall (HS 16)
Englerstr. 7, Building 20.40

Accredited as further training course of AKBW: 2020-151695-0001 (4h).

Short description

The symposium **grow.build.repeat.** at the KIT Faculty of Architecture deals with one of the most urgent questions of our time: how can we drive forward a radical change of the existing construction industry while increasingly considering the breeding, cultivation, seeding, and harvesting of biological building materials and their system cycles? The symposium is the second in a series on the topic of sustainable construction. The first event (**take.build.repeat.** in autumn 2018) dealt mainly with mineral and metallic material cycles in the field of urban mining and its potential for sustainable construction. The second symposium, **grow.build.repeat.**, now addresses the biological material cycle and presents future-oriented examples from construction practice and research. Representatives from science and industry, research, practitioners, decision-makers within our democratic society, as well as teachers and students will come together to discuss the future of construction in lectures and discussions and subsequently to actively participate in shaping it.

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Detailed description

The symposium **grow.build.repeat.** presents pioneers of a future building industry and their visions, ideas, future-oriented research projects and first examples of application of bio-based building materials. The symposium offers the opportunity for joint discussion and exchange on this rapidly developing field of architecture.

Whether in the form of residual or waste materials from soil-bound agriculture or from other types of cultivation - for example in the form of bacteria or fungi - biological resources are available in manifold and basically unlimited ways. As tempting as this prospect may be, the aim of the construction industry must be to use these materials in pure form in constructions without destroying natural cycles. Only in this way they can be returned to the biological cycle as a valuable source of raw materials after their utilisation phase and represent an antipole to the currently practised throw-away mentality of inseparable mixed waste. Not only new material concepts but also new (deconstruction) technologies play a decisive role. The construction industry must offer ecologically valuable and biologically safe solutions for socially relevant issues in the future.

Digital fabrication takes traditional materials out of their niche and helps them to reach new heights. Well-known properties of traditional materials such as ceramics or clay are intelligently used in 3D printing, for example.

The symposium is dedicated to the question of how we can use our natural resources responsibly in times of climate change and an increasingly glaring shortage of resources and pollution of our environment by non-biodegradable and artificially manipulated materials. Representatives of science and economy, research, practitioners, decision-makers of our democratic society as well as teachers and students will come together to discuss the future of construction in lectures and discussions and to actively participate in shaping it. Speakers will be Martin Rauch, Prof. Dr. Marie-Pierre Laborie, Dr. Henk Jonkers, Dr. Alireza Javadian, Werner Schmidt, Prof. Eike Roswag-Klinge, Andrea Klinge, Natascha Hempel, Jun. Prof. Dr. Hanaa Dahy, Diana Drewes and Dr. Michael Sailer.

The symposium will take place as part of a newly conceived innovation platform for sustainability in the construction industry, supported by Wacker Chemie AG. The event on December 03 and 04, 2020, is organized by the Professorship of Sustainable Construction of the KIT Faculty of Architecture Karlsruhe and is recognized as a further training course of the Baden-Württemberg Chamber of Architects with 4 hours (Recognition No.: **2020-151695-0001**).

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Registrations and information at:

<http://www.arch.kit.edu/aktuelles/grow-build-repeat.php>

Accredited as further training course of AKBW: **2020-151695-0001** (4h).

Agenda

03 December 2020, 18:00 - 20:30

- 18.00 **Welcome**
- 18.20 Mitchell Joachim (Keynote – Design Against Extinction)
- 19.00 Get-together / Exhibition

04 December 2020, 9:30 – 18.00

- 09.30 **Registration**
- 10.00 **Welcome**
Peter Summo, Wacker Chemie AG
Prof. Dirk E. Hebel, KIT Karlsruhe
- 10.10 **Thematic Introduction**
Prof. Dirk E. Hebel, KIT Karlsruhe

- 10.20 Martin Rauch, Lehm Ton Erde Baukunst GmbH (Stampflehm)
- 10.50 Prof. Dr. Marie-Pierre Laborie, Uni Freiburg (Lignin & Tannin-based Materials)
- 11.20 Prof. Dr. Henk Jonkers, TU Delft (Concrete solutions for liveable cities)
- 11.50 Dr. Alireza Javadian, KIT Karlsruhe (High-Performance Bamboo)
- 12.20 Werner Schmidt, Atelier Schmidt GmbH (Vielfalt Strohballenkonstruktionen)

- 12.50 **Panel discussion**
- 13.10 **Lunch**

- 14.30 Prof. Eike Roswag-Klinge, TU Berlin (Architecture from Nature)
- 14.50 Andrea Klinge, ZRS Architekten Ingenieure (Reuse statt Recycling - Holz)
- 15.20 Natascha Hempel, Thoma Holz GmbH (Bauen mit Massivholz – Holz100)
- 15.50 Jun.-Prof. Dr. Hanaa Dahy, Uni Stuttgart (Biomaterials and Automation)
- 16.20 Diana Drewes, Haute Innovation (Mycelium based Material Innovation)
- 16.50 Dr. Michael Sailer, Xyhlo p/a Xylotrade (Mycelium based Material Innovation)

- 17.20 Panel discussion
- 17.45 Closing words