

Background Information

Daring Growth

Zurich, 17 May 2016

Dirk E. Hebel, Assistant Professor of Architecture and Construction, ETH Zurich and the Future Cities Laboratory, Singapore-ETH Center has been invited to participate in the 15th International Architecture Exhibition. Hebel will install "Daring Growth" in the Palazzo Mora as part of "Time Space Existence" exhibition – a Collateral Event during the Venice Biennale.

Alternative Building Materials – From Bamboo to Bacteria

Hebel and his research partners including Felix Heisel, ETH Zurich anticipate the need for a radical paradigm shift to a more decentralized, local and renewable production strategies that preserve natural resources and energy reserves. For this reason their exhibition at the Biennale will feature alternative building materials derived from bamboo, mushroom mycelium bacteria, grasses, and waste. Bamboo for example is one of nature's most versatile products. It is a highly renewable and eco-friendly building material that grows much faster than timber. While steel-reinforced concrete is the most common building material in the world, few developing countries have the ability or resources to produce their own steel or cement. Locally grown bamboo presents not only a more economically viable solution, but also is unrivalled in its capacity to capture carbon emissions.

How to "Grow Your Own House"

Hebel proposes the adhesive and bind aggregates of bacteria as an emerging research field into future construction materials. As examples, the exhibit will include Henk M. Jonkers' Self-Healing Concrete and "bio-cement" for flood prevention from researcher, Leon van Paassen.

Hebel and partner Phil Ross, MycoWorks exhibit the research potential for organically grown fungi, like Mycelium and other microelements as a renewable building material. Hebel and his research partners believe organically grown substances have the potential to become sustainable alternatives to established materials in the building industry. Perhaps the future of architecture and construction will include instructions on how to "Grow your own house."

The exhibition shown at the Biennale is an interdisciplinary work of his research team at ETH Zurich and its Future Cities Laboratory at the Singapore-ETH Center and partners MycoWorks Inc., San

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Francisco, as well as, engineers and geoscientists from TU Delft and addresses the overall theme of the Biennale: "Reports from the Front".

www.hebel.arch.ethz.ch →

www.labiennale.org →

La Biennale di Venezia 2016

The 15th International Architecture Exhibition, titled "Reporting from the Front," is curated by Chilean architect and recipient of the 2016 Pritzker Architecture Prize Alejandro Aravena and organized by La Biennale di Venezia. The exhibition opens to the public on 28 May 2016, and its organizers invite journalists and members of the press to preview the exhibitions on 26 - 27 May 2016. ETH Zurich staff will be available on site to assist you with press visits and interviews related to the university's researchers.

Visit La Biennale di Venezia or contact the ETH Zurich media team for more information.

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