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‘Radical Entanglements: Architectures, Societies, Environments, Politics’

Book of Abstracts

Radical Architecture Practice for Sustainability
Second international conference
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The doughnut economic approach in architecture

Piero Medici, Roberto Cavallo and Henri van Bennekom | Delft University of Technology, The Netherlands

In 2017 Prof Kate Raworth from Oxford University and Amsterdam University published the book *Doughnut Economics: seven ways to think like a 21st century economist*. The Doughnut, the core concept at the heart of Doughnut Economics (DE), is a tool for human prosperity in the 21st century to meet the needs of all people within the means of the living planet. It consists of two concentric rings, a social foundation and an ecological ceiling, and in between lies a doughnut-shaped space, the safe and just space where humanity can thrive.

In 2018, at the Faculty of Architecture TU-Delft (BK), Henri Van Bennekom supervised the graduation projects of four students who developed the AREA-Framework, a tool to guide the design interventions in the built environment, addressing DE. In Raworth's doughnut-shaped space, the AREA-Framework introduced the following qualitative eight categories (and subcategories) to address a resilient built environment. From 2019 until 2021, Van Bennekom adopted the AREA-Framework in the AREA Design Studio at BK, TU-Delft. Most involved researchers, practitioners and students' feedback highlighted its limitations of being only qualitative and its categories and subcategories being not enough quantitative and measurable.

In 2020 several architectural practices from the Ex'tax-network, (e.g. RAUArchitects, CityFoerster, SuperuseStudios, Space&Matter) involved in the TU-Delft project 'Circularcity' expressed the need for guidelines and toolkits to address the Circular Economy (CE) challenges comprehensively. Space&Matter proposed to develop a research specifically focused on a tool similar to the AREA-framework, reckoning that DE is part of the Amsterdam policy to achieve a fully circular city by 2050; other practices from the Ex'tax-network agreed on its importance. The following research question originated from the practices involved in Circularcity: how to develop a tool similar to the AREA-Framework further, from a quantitative and qualitative perspective, to support the architectural practices to implement DE in the built environment?

The goal of this paper is to proceed with the first step to develop the framework further through literature review and interviews with practitioners and academics. The framework will contribute to positioning the architectural practices concerning both DE and CE.