

Press Release

Matter Design, Boston with CEMEX Global R&D, Brügg b. Biel

CARBS – Concrete Kinetics

Three phases of choreographed demonstrations and discussions



Walking Assembly © Matter Design and Cemex Global R&D

Programme

CARBS is presented as a digital forum consisting of a series of three online events including introductions and demonstrations from Matter Design and Cemex and discussions at ANCB The Aedes Metropolitan Laboratory in Berlin with Gabriele Brandstetter, Elke Buhr, Roger Bundschuh, Brandon Clifford, Lukas Feireiss, Franka Marlene Foth, Werner Frosch, Kaye Geipel, Alicja Kwade, Rasa Weber, Matthias Wemhoff, Davide Zampini.

Dates: 4, February 2021, 4.30pm (CET), 12 and 26 February 2021, 6pm (CET)

Live-stream: [Aedes-Facebook](#)

CARBS – Concrete Kinetics is a choreographed demonstration of megalithic elements made from concrete. Although weighing between 400 and 1800 kg, the ***Massive Concrete Masonry Units (MCMUs)*** are designed to be manipulated by a single person – they sway and roll as they are walked around or joined together like a huge 3D jigsaw puzzle with very little energy. This megalithic process of construction aims to change the energy input from fossil fuels to carbohydrates (***CARBS***) as humans more intimately facilitate the construction process. Conceptualised, designed and developed by the Boston based firm Matter Design in collaboration with Cemex Global Research & Design (R&D), this poetic and experimental choreography explores the physical potential of human interaction with innovative concrete technology and ancient transportation methods of megalithic structures. ***CARBS*** is both a breath-taking

demonstration and digital forum about the potentials of physically engaging with mass, material and movement. In a series of recordings the concrete units are presented in three phases: *Scatter*, *Assemble* and *Split*. Each phase includes a recorded demonstration and a discussion on creative research, sustainability, balance, performance and innovation. This online programme manifests the potentials of collaboration between industry and culture, between Matter Design, Cemex Global R&D and Aedes, and underlines the importance of experimental research and transdisciplinary partnership in innovation.

Background

Within building and urban planning, the architectural profession explores the reciprocal relationship between design, technology and materials in order to advance the knowledge of constructing. With this, the US design research firm Matter Design looks at the engineering of the architectural wonders of the ancient world, such as the Moai Statues on Easter Island or Inca stonework in Cuzco, to create something for the future. Led by director and co-founder Brandon Clifford, Matter Design has been developing with Cemex Global R&D team, led by Davide Zampini, large and complex construction choreographies that engage material as well as human bodies in the built architecture. The collaboration between Matter Design and Cemex Global R&D, consisting of scientists, engineers, architects, anthropologists and business professionals, showcases eight pieces in *Walking Assembly* and a pair of two interlocking forms called *Patty & Jan*.

Massive Concrete Masonry Units: Walking Assembly and Patty & Jan

The *Massive Concrete Masonry Units (MCMU)* are a puzzle-like construction technique that consists of eight interlocking pieces made out of variable density concrete. Known as the *Walking Assembly*, each MCMU has rounded edges so the units can be easily rocked, tilted and rolled into place. A weighted tool can be inserted and removed in order to change the movement behaviour by shifting the centre of mass. *Patty & Jan* are two MCMUs that resemble the letters “P” and “J”. The duo are also made with variable density concrete, which allows them to balance and bounce into one another as they automatically assemble. With this performative engagement *Patty & Jan* prove the flexibility of concrete material and ask what kinds of architecture could emerge by revisiting the act of construction.

Demonstrations and Discussions

CARBS – Concrete Kinetics playfully presents us with the moving character of massive construction elements. In three recorded demonstrations, *Walking Assembly* and *Patty & Jan* engage both a human scale, showcasing their unique characteristics, and an architectural scale by physically transforming the space. Coinciding with the demonstrations, discussions can be seen via live-stream on the Aedes website. Speakers from various fields and disciplines will discuss the architectural, economic, physical and social implications of the MCMU.

Since its founding 40 years ago, the Aedes Architecture Forum continues to present young and innovative spatial practices through exhibitions, publications, research and debates. With this notion, Aedes moves beyond traditional architectural topics constantly emphasising the importance of transdisciplinary discourse. The collaborative partnership between Cemex Global R&D and Matter Design highlights this dialogue and simultaneously opens new doors for ideas to be explored.

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All events will be live-streamed and also be available as edited videos on the Aedes website from 16 February 2021.

Phase I

Scatter

Date: Thursday, 4 February 2021, 4.30pm (CET)

Live-stream: [Aedes-Facebook](#)

Welcome

Hans-Jürgen Commerell, Director, ANCB The Aedes Metropolitan Laboratory, Berlin

Introduction

Davide Zampini, Head of Cemex Global R&D and IP Management, Switzerland

Brandon Clifford, Director and Co-founder of Matter Design, Boston

Participants

Franka Marlene Foth, Choreographer and Performance Curator, Berlin

Alicja Kwade, Conceptual Artist, Berlin

Roger Bundschuh, Architect, Berlin

Moderated by **Lukas Feireiss**, Curator, Writer and Educator, Berlin

Phase II

Assemble

Date: Friday, 12 February 2021, 6.00pm (CET)

Live-stream: [Aedes-Facebook](#)

Introduction

Davide Zampini, Head of Cemex Global R&D and IP Management, Switzerland

Brandon Clifford, Director and Co-founder of Matter Design, Boston

Participants

Matthias Wemhoff, Archaeologist and Director at the Museum of Prehistory and Early History at the Staatliche Museen zu Berlin

Werner Frosch, Partner and Managing Director of Henning Larsen Architects, Munich

Moderated by **Elke Buhr**, Chief Editor of Monopol, Berlin

Phase III

Split

Date: Friday, 26 February 2021, 6.pm (CET)

Live-stream: [Aedes-Facebook](#)

Introduction

Davide Zampini, Head of Cemex Global R&D and IP Management, Switzerland

Brandon Clifford, Director and Co-founder of Matter Design, Boston

Participants

Gabriele Brandstetter, Professor of Theatre and Dance Studies at Freie Universität Berlin and Director of the International Research Centre “Interweaving Performance Cultures”, Berlin

Rasa Weber, Designer and Co-founder of They Feed Off Buildings, a design and architecture collective from Berlin

Moderated by **Kaye Geipel**, Architecture Critic, Bauwelt, Berlin

We would like to thank:

CEMEX Global R&D

- Davide Zampini - Global R&D Head
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- Valentina Rizzo – Visual Communication & Design Analyst

CEMEX Germany

- Alexandra Decker – Manager Public Affairs Germany & Central Europe

Matter Design

- Brandon Clifford - Director, Co-founder
- Tyler Swingle - Research Lead

Choreographers/Dancers

- Tizia Sansonnens, Biel/Bienne – Rythmician
- Laure Jolissaint, Biel/Bienne – Visual and Performance Artist

Thank you to CEMEX for the generous support

Further information:

www.aedes-arc.de

Aedes

We would like to thank the Aedes cooperation partners

Zumtobel, GEMEX, CAMERICH, Carpet Concept

Download Press Images

<https://www.dropbox.com/sh/5jlmensypagrsdm/AACMv4C5Y4CsFDfAvZ9BSxDCa?dl=0>

For more images and information, please contact

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Press Pictures



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