



Conference for Artistic and Architectural
Research & Collective Evaluation of Design-driven
Doctoral Training Programme





Book of Proceedings

Rec me tion

Conference for Artistic and Architectural Research & Collective Evaluation of Design-driven Doctoral Training Programme

Faculty of Architecture and the Built Environment, Delft University of Technology

The Netherlands, Delft, March 28 - April 1 2022

Recommendation Book of Proceedings Colophon

CA²RE+ Delft RECOMMENDATION: Conference for Artistic and Architectural Research & Collective Evaluation of Design-driven Doctoral Training Programme

Editors

Roberto Cavallo¹ Alper Semih Alkan² Joran Kuijper³

- Delft University of Technology, Faculty of Architecture and the Built Environment, Department of Architecture, R.Cavallo@tudelft.nl, https://orcid.org/0000-0001-6534-120X
- ² Delft University of Technology, Faculty of Architecture and the Built Environment, Department of Architecture, A.S.Alkan@tudelft.nl, https://orcid.org/0009-0003-4233-4033
- ³ Delft University of Technology, Faculty of Architecture and the Built Environment, Department of Architecture, J.A.Kuijper@tudelft.nl, https://orcid.org/0000-0003-4323-5267

Keywords

Design-driven doctoral research, design-driven research recommendation, architectural research, artistic research

Published by

TU Delft OPEN Publishing, Delft University of Technology, The Netherlands

ISBN 978-94-6366-660-2

DOI: https://doi.org/10.59490/mg.61

This work is licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence Copyright clearance made by the TU Delft Library copyright team
© 2023 published by TU Delft OPEN Publishing on behalf of the editors

Design concept, layout, and typesetting

Marko Damiš

Disclaimer

Every attempt has been made to ensure the correct source of images and other potentially copyrighted material was ascertained, and that all materials included in this book have been attributed and used according to their license. If you believe that a portion of the material infringes someone else's copyright, please contact R.Cavallo@tudelft.nl.

Scientific Committee

As mentioned in Section 05, p. 476

Contributors

Sergio Martín Blas, book proposal review Anđelka Bnin-Bninski, book proposal review

Special thanks to

Michele Puddu, text editing
Mimi Cepic, text editing
Luísa Ferreira Martins, text editing
Szymon Kaniewski, text editing
Lilani Oei, text editing
Nicolette van Dongen, event organization
Nathalie Kooijmans, event organization





Conference hosts



CA²RE in association







CA²RE+ Partners

Univerza v Ljubljani

























Co-funded by the Erasmus+ Programme of the European Union



Contents

01——Recommendation

12

Roberto Cavallo, Alper Semih Alkan, Joran Kuijper The CA²RE+ Delft conference in a nutshell Roberto Cavallo
Carrying on Design
Driven Doctoral research
18

02—Program

24

03——Keynotes——and Workshops

36

Nathalie de Vries
Research by Design in
Education and Practice
38

Kees Kaan

Connected Brains for Collective Knowing

46

Milica Tomić
Art Cannot Be Taught

Workshop CA²RE+ Partners Institutions

Presentations and Discussion on Design Driven Doctoral Research

Joran Kuijper
Walking Tour Delft
80

Workshop CA²RE+ Delft Participants

Wrap-up Debate on Design Driven Doctoral Research

04—Artefacts, Extended Abstracts—and Papers

Greta Allegretti
Design Models for the
Enhancement of
Archaeological Fragile
Sites

96

ipek Avanoğlu
Navigating Into a Venture
of a Research on an
Architecture Without
Verticals

104

Nina Bačun

Cinematic Space as Constructed Memory in the Essay Film Bonding Humanity (Perhaps Manifesto)

94

Ana Belčič

Analysing the Socially Enhancing Elements of Space in Four Senior Cohousing Sites

124

Dorđe Bulajić
Composing Images
Architectural Montage as
Design-Driven Research
Tool
136

Carla Bulone
The Use of Graphene in
Building Construction
Potentiality and Questions
142

Jose Carrasco Hortal, Benito García Valero, Francisco Francés García

Floodlands

Landscape Design
Experience With
Boundary Methods and
Lessons One Can Draw
From Stories Concerning
Rural Backgrounds
152

Enrico Chinellato, Or Haklai **Double Feature**A Design-driven Inquiry into the Counter-practices of World City

Monumentality
164

Gianluca Croce, Mariacristina D'Oria **Time-capsule Transcripts** An Experimental Taxonomy of Forms as a Vehicle for a Design Operation

Teresa Cunha Ferreira
Atlas of Architectural
Design in Built Heritage
Pedagogies from the
School of Porto
186

Ana Catarina da Silva Antunes
Tapadas (Royal Forests
and Hunting Reserves) of
Portuguese Royal
Palaces

Resilience Spaces. For a Spatial and Architectural Requalification

Marta Fernandez Guardado
Home: Things & Bodies
A Thing-based Exploration
Into Personal Space
200

Adrian Fuhrich
Reflexive Palimpsest
Designing Curatorship of
Post-war Modernism
Architecture
212

Sara Ghirardini

Designing Preservation
Integrating the
Architectural Project to
UNESCO Tools to Tackle
Territorial Fragility: the
Tivoli Case as a Pilot
Experience
220

Anastasia Gkoliomyti
Towards a Non-neoliberal
Design Paradigm
ISHINOMAKI 2.0 – a
Network of Grassroots
Community Building

Stefan Gzyl **Caracas, Departure City**Ethnography of

Caretaking

240

Jure Henigsman
Innovations in Prof.
Stanko Kristl's Health
Space Designs, Their
Humanity, and Today's
Relevance

250

Maria Høgh-Mikkelsen
Poetic Expressions
Video and Artefact as
Phenomenological
Reflection in Constructive
Design Research
258

Maureen Selina Laverty
Sensory Nourishment
Consciously Crafting
Sensations in Clothing
Design to Support Diverse
Sensory Needs
264

Jiaxi Li
Coastal Ecological
Passage (CEP) as an
Innovative Nature-based
Defense to Tackle Rising
Sea Level

270

Claudia Mainardi
Everyday Practice as
Paradigm to Study
Architectural
Contemporary Codes
280

Heidi Sørensen Merrild Reversible Tectonics Learnings From the Past 286

Enrico Miglietta
The Materialisation of the
Joint

Re-reading the Brion Cemetery Through the Agency of the Drawing

Rose-Ann Mishio
Healing Homes
A Search for the Design of
Housing to Foster
Wellbeing

Mar Muñoz Aparici
Design Factors for
Cultural Building
Activation:

Experiments Between Public Space Theory and Architectural Practice 310

Miljana Niković **Belgrade on Screens**Cut 2: Dis/continuous

Location(s)

320

Mariana Pereira Guimaraes
The Evaporative City
Bioclimatic Adaptation
and Regeneration Using
Water
326

Bogdan Peric
The Hidden Potential of
the Dvor
Reshaping Semi-private
Spaces in Moscow
334

Marie Porrez
Interiorities,
Embeddedness and the
Dwelling

342

Climate Change and
Design Form
Operative Research on the
Morphological Role of the
Ground Level

Sara Anna Sapone
Precision Wildland
Designing Third
Landscape Within the
Smart City
360

Felix Schmidt-Kleespies
Rule-Based Design of
Prefabricated, Hollow
Section Plywood Wall
Units
370

Renzo Sgolacchia
Housing Migrant Workers
An Exploration of the
Rotterdam-Venlo Logistic
Corridor
378

Wiktor Skrzypczak
Bodily Movement in
Architectural Theory and
Its Implications for
Spatial Composition
384

Isabella Spagnolo
Sharing Landscape:
Beyond the Urban-rural
Dialectic.
The FARM
392

Asha Sumra, Arijit Chatterjee
Ecologies of Residue
Material Movement and
the Thinness of Things
400

Yağız Söylev Schools With Future Value

412

Berilsu Tarcan Exploring a Craft-Design Relationship Through Felting

A Process of Making-with **Elements of Traditional** and Contemporary Culture 418

Taufan ter Weel **Architectural Plug-In Explorative Machine for** the Sonic Recomposition of Space 426

Georgios Triantafyllidis Building Information Modelling (BIM) Beyond an Efficiency and Costs' Saving Method.

The Use of BIM as a **Mediator Towards** Collaboration, Sustainable Design and Design Exploration.

432

Hinnerk Utermann Talking House 442

Halina Veloso e Zarate **Data-supported Design** in Architecture and **Urbanism:**

The Use of Geospatial **Data for Transport Node** Design

448

Valeria Wiendl Schoolyards I The Impact of Architecture on Child Development

Children From 3 to 10 Years Old in Education Spaces in Portugal 456

Xin Xu

Program in Architectural Design of Contemporary Art Museum

Focusing on the Contemporary Art Museum Architectures Designed in Shanghai Central Area since 2010 464

| 05- | —Scientific Committee | 476 |
|---------------|-----------------------|-----|
| 06——Panelists | | 486 |

The Materialisation of the Joint Re-reading the Brion Cemetery Through the Agency of the Drawing

Enrico Miglietta, Politecnico di Milano

Final doctoral stage

Supervisors: Gennaro Postiglione, Politecnico di Milano; Annalisa de Curtis, Politecnico di Milano; Jo Van Den Berghe, KU Leuven; Thierry Lagrange, KU Leuven

architectural joint, materiality, design attitude

Starting from the investigation of three works, exemplary of a way of proceeding through the fragment, the research intends to demonstrate how interpretative analysis can extract essential principles for the design of the new. Following a rationale of *passionate criticism*, it sees in the work on the material carried out by Carlo Scarpa, Sigurd Lewerentz and Juliaan Lampens the possibility of 'drawing' insights that are still relevant to the work of architecture. Observing their buildings through full-scale drawings, it is possible to speculate how the projects were conceived (and built) starting from a reflection on the minimal elements of architecture and on the expressive value embedded in the materials.

The joint can thus become, if not only observed as an element of connection of disparate elements but as an agent of the design process, a form of transcendental scheme, through which we can reorganise a reflection on the whole process.

This exploration of drawing artefacts is positioned within an ongoing doctoral research through design. Starting from the investigation of three works – exemplary of a way of proceeding through the fragment – the research aims to demonstrate how interpretative analysis, understood as the analytical disassembly and synthetic reassembly of the constructions, can extract a series of essential principles for the design of the new, according to a principle of *passionate criticism*¹ that sees in the particular work on the material carried out by architects such as Carlo Scarpa, Sigurd Lewerentz and Juliaan Lampens the possibility of 'drawing' insights that are still relevant for the work of architecture.

In particular, the observation of Carlo Scarpa's Brion Cemetery is proposed as a paradigmatic example of a way of seeing and a way of doing. The visit to the architect's work is a bodily and emotional experience, through which we are guided by the medium of detail. By breaking down the work into its fragments, and observing them through a full-scale redrawing, we can speculate how the project itself was conceived (and built) out of reflection on the minimal elements of architecture and the expressive value somehow embedded in the used materials. From the refined decorative elements in bronze, sacred and non-sacred furnishings, to the exposed concrete walls and foundation elements overflowing into the water, whose formworks can be seen as works of 'cabinetry', the project reveals obsessive care for each element, and the non-existence of elements subordinate to the general composition, but rather a poetic intention originating from them. If we take a close look at a certain number, analysing the relationship between material definition and geometric constitution, we can begin to glimpse how the work's vectorial intentions have their point of onset starting from the joints, from those structures that relate different components, materials or uses of the project. In these, it is possible to find a condensation of principles, from musings on the measure-module to complex symbolic stratifications and meanings, which form the complex stratigraphy of the whole, and therefore its internal coherence precisely from the scale of the tangible.

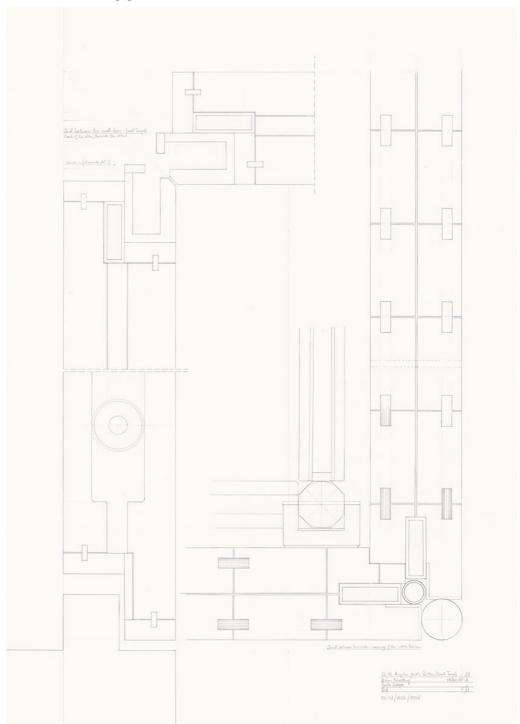


Figure 1: Brion Cemetery. Junction between orthogonal sides of the crowning and with the panels of the velarium (Meditation Pavilion), comparison with the 'water gates' behind the altar (Tempietto). Drawing by Enrico Miglietta. Pencil on paper, 700×500 mm, scale 1:1

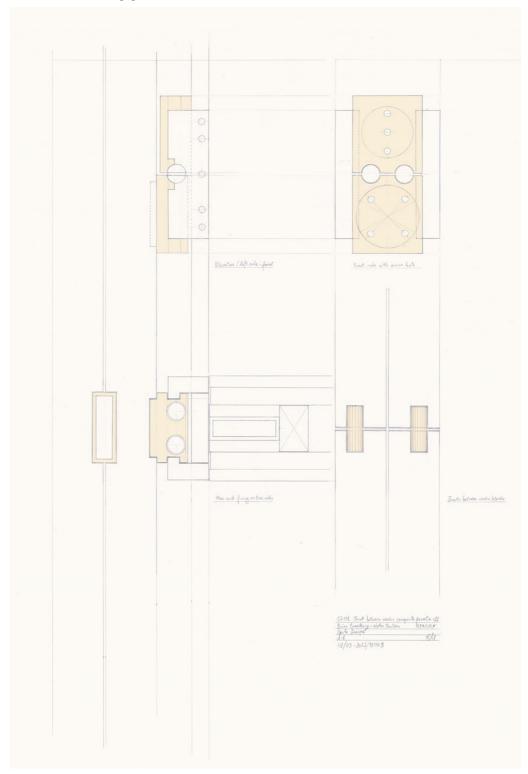


Figure 2: Brion Cemetery. Junctions between panels on the same plane (Meditation Pavilion – crowning). Drawing by Enrico Miglietta. Pencil on paper, 700 × 500mm, scale 1:1

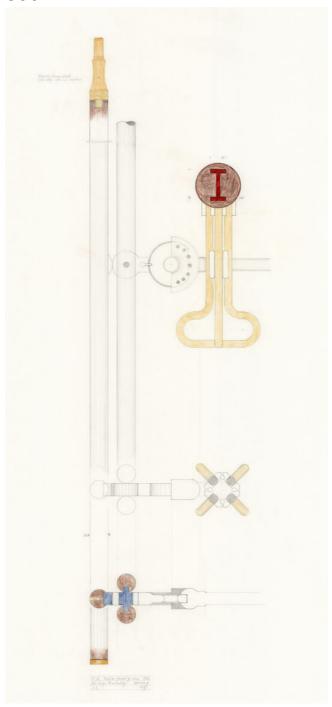


Figure 3: Brion Cemetery. Structure of the crucifix and connecting elements between the wooden rods (Tempietto). Drawing by Enrico Miglietta. Pencil and coloured pastels on paper, 930×430 mm, scale 1:1

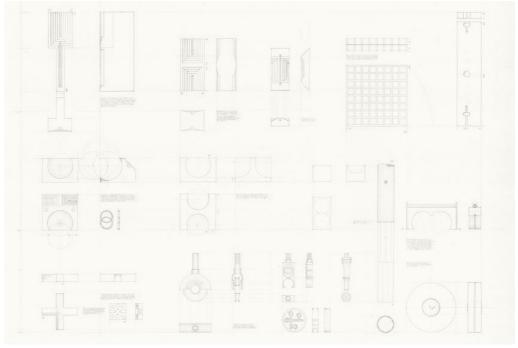


Figure 4: Brion Cemetery. Abacus of joining elements at full scale, materialised as autonomous entities. Drawing by Enrico Miglietta. Pencil on paper, 1285×875 mm, scale 1:1

Thus, by shifting the inquiry from single objects to partial systems, we can physically describe that series of operations aimed at defining the vectors according to which architectural space is articulated. Proportional or analogical systems are derived as sets of rules for the combination of parts that make structures intelligible, beginning to reveal in most cases a secret harmony made up of tracings, regulating figures of the different stratifications of the project. The nature and points of onset of the latter are thus interrogated through the logic of the drawing, in which the structure is stratified through components that should each time verify the mereological correspondence between the part and the whole. In the Brion Cemetery, the relationship between construction and representation is brilliantly resolved. The redesign of a section is permeated by vectorial intentions always aimed at resolving the joints, the mouldings, showing extraordinary tension in each one. The construction does not work from a general scale to the particular, but reverses the process, presenting itself as a systematic stratification of 'moments' in the cyclical time of the project, remeasured through an elaborate use of geometry as an ordering element. It shows a constant search between constructed and perceived form, in which the constant "manipulation of discrepancies" is the method used to achieve expression.²

The joint, observed as a singularity within the architectural organism – to say it a la Mandel'štam – "breaks the reins of time" and, as a supra-historical and supra-cultural element, defines the intelligibility of the whole of which it is part, making explicit the character of the work, its cipher. In the same way, it sets in motion that "playful game" of fragments and figures, a constellation of gestures that embody artisan experiences, historical and aesthetic dimensions.

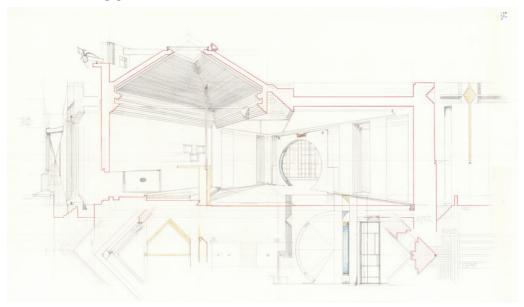


Figure 5: Brion Cemetery. Diagonal perspective section of the Tempietto. Drawing by Enrico Miglietta. Pencil and coloured pastels on paper, 1800×1000 mm, scale 1:10

If the research process reveals some findings that can be seen as 'embedded' in the work, at the same time it outlines some potentialities inherent to the drawing methodology defined for the investigation, and the one employed by Scarpa (through the reading of the original drawings). In fact, starting from the full-scale drawing obliges a reflection on the physical and constructive qualities of the materials: in the correlation between different elements it is necessary (or at least desirable) that they are linked by more or less complex relationships, as well as for the assembly, that their position is determined by precise correlations. From the outset, this produces an awareness of production and construction processes, which are, together with the definition of a calculation system and beyond arid technological reasoning, design themes that make it possible to give expressive value to the specific potential energy of the employed resources.

The joint can thus become, if not only observed as an element of connection of disparate elements but as an agent of the design process, a form of transcendental scheme, through which the reflection on and stratification of the project can be organised. The implementation and development of the practice of *critical sequential drawings*⁵ (cyclical practice of hand-drawing, reflection and critical questioning of what the drawing shows, how it was made, and how it can be improved) and of *chronological drawings* (production of drawings that reflect on the relationships between the phases of the site, its logic, and their relationship with the production of architectural poetics) allow the theoretical reflection to be accompanied by practical tools for the development and control of such a project, and thus the definition of a personal reflective practice.

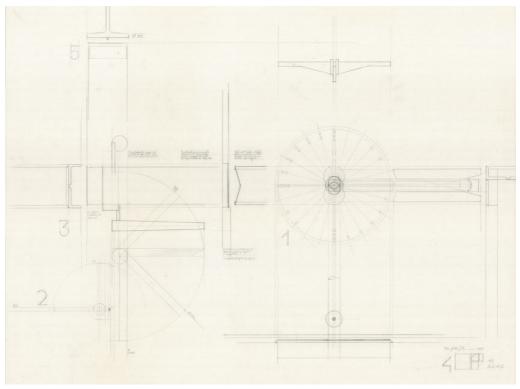


Figure 6: Research by Design. Door joint and pivoting mechanism (own design). Drawing and project by Enrico Miglietta. Pencil on paper, 1000 × 760 mm, scale 1:1

| 1 | Cf. De Fusco, Renato (1999): »La storiografia è progettazione«, in: Op.cit. issue 104, pp. 5-13. | |
|---|--|--|
| 2 | Frascari, Marco (1983): »The Tell-the-Tale Detail«, in: Deely John N./Lenhart Margot D. (Ed.), Semiotics 1981, Massachussets: Springer, pp. 325–336. | |
| 3 | Cfr. Tafuri, Manfredo (1984): »Il frammento, la "figura", il gioco. Carlo Scarpa e lacultura architettonica italiana«, in: Dal Co, Francesco and Mazzariol, Giuseppe (Ed.), Carlo Scarpa 1906–1978, Milano: Electa, pp. 72–95. | |
| 4 | Rogers, Ernesto N. (1997): Esperienza dell'architettura. Milano: Skira. | |
| 5 | Critical sequential and chronological drawings methodologies are based on the studies carried out by Johan Van Den Berghe (2013) and the KU Leuven Faculty of Architecture Research Group "The Drawing and the Space". | |

Roberto Cavallo

Faculty of Architecture and the Built Environment, TU Delft; EAAE, ARENA

Alper Semih Alkan

Faculty of Architecture and the Built Environment, TU Delft

Daniel Rosbottom

Faculty of Architecture and the Built Environment, TU Delft

Kees Kaan

Faculty of Architecture and the Built Environment, TU Delft

Salomon Frausto

Faculty of Architecture and the Built Environment, TU Delft

Angeliki Sioli

Faculty of Architecture and the Built Environment, TU Delft

Mark Pimlott

Faculty of Architecture and the Built Environment, TU Delft

Esther Gramsbergen

Faculty of Architecture and the Built Environment, TU Delft

Maurice Harteveld

Faculty of Architecture and the Built Environment, TU Delft

Heidi Sohn

Faculty of Architecture and the Built Environment, TU Delft

Anders Kruse Aagaard

Aarhus School of Architecture

Joaquim Almeida

Departamento de Arquitectura, Universidade de Coimbra

Naime Esra Akin

Aarhus School of Architecture, EAAE

Oya Atalay Franck

Director of the ZHAW School of Architecture, Design and Civil Engineering; EAAE, ARENA

Matthias Ballestrem

HafenCity University Hamburg; EAAE

Michela Bassanelli

Department of Architecture and Urban Design, Politecnico di Milano

Fabrizia Berlingieri

Department of Architecture and Urban Design, Politecnico di Milano

Anđelka Bnin-Bninski

Faculty of Architecture, University of Belgrade; ARENA

Inge Bobbink

Faculty of Architecture and the Built Environment, TU Delft

Manuel Bogalheiro

Departamento de Arte dos Media, University Lusófona of Porto

Ignacio Borrego

Institute of Architecture, TU Berlin

Boštjan Botas Kenda

Academy of Fine Arts and Design, University of Ljubljana

Marco Bovati

Politecnico di Milano

Laura Cipriani

Faculty of Architecture and the Built Environment, TU Delft

Graça Correia

Departamento de Arquitectura, Universidade Lusófona Porto

Johan De Walsche

Faculty of Design Sciences, University of Antwerp; EAAE, ARENA

João Paula Delgado

Department of Architecture and Civil Engineering, University of Beira Interior

Débora Domingo Calabuig

Universitat Politècnica de València; EAAE

Dan Dubowitz

Manchester School of Architecture

Riet Eeckhout

Faculty of Architecture, KU Leuven

Paolo Fusi

HafenCity University Hamburg

Lidia Gasperoni

Institute of Architecture, TU Berlin

Pedro Guilherme

Departamento de Arquitectura, Universidade de Évora

Christoph Heinemann

HafenCity University Hamburg

Urs Hirschberg

Faculty of Architecture, Graz University of Technology, ARENA

Matevž Juvančič

Faculty of Architecture, University of Ljubljana

Sergio Koch

University Lusófona Porto

Thierry Lagrange

Faculty of Architecture, KU Leuven

Fabio Lepratto

Department of Architecture and Urban Design, Politecnico di Milano

Jacopo Leveratto

Politecnico di Milano

Mona Mahall

HafenCity University Hamburg

Sergio Martin Blas

ETS de Arquitectura, Universidad Politécnica de Madrid

Michael McGarry

Queen's University Belfast

Ida Nilstad Pettersen

Faculty of Architecture and Design, NTNU Trondheim

Ralf Pasel

Institute of Architecture, TU Berlin

Maria Rita Pais

Universidade Lusófona Lisbon

Claus Peder Pedersen

Aarhus School of Architecture; EAAE, ELIA

Gennaro Postiglione

Department of Architecture and Urban Design, Politecnico di Milano

Paul O Robinson

Faculty of Architecture, University of Ljubljana

Alessandro Rocca

Department of Architecture and Urban Design, Politecnico di Milano

Edite Rosa

Departamento de Arquitectura, Faculty of Architecture, University Lusófona of Porto

Mia Roth-Čerina

Faculty of Architecture, University of Zagreb; EAAE

Sofia Salema

Departamento de Arquitectura, Universidade de Évora

Markus Schwai

Department of Architecture and Planning, Faculty of Architecture and Design, NTNU Trondheim

Sally Stewart

Mackintosh School of Architecture, Glasgow School of Art, UK, EAAE

Eli Støa

Department of Architecture and Planning, Faculty of Architecture and Design, NTNU Trondheim

Ana Telles

School of the Arts, University of Évora, Portugal; ELIA

Maria Topolčanská

Akademie výtvarných umění v Praze, Czech Republic, ELIA

Manuela Triggianese

Department of Architecture, Faculty of Architecture and the Built Environment, TU Delft

Johan Van Den Berghe

Faculty of Architecture, KU Leuven

Esther Venrooij

LUCA School of Arts, Ghent

Liselotte Vroman

Faculty of Architecture, KU Leuven

Boštjan Vuga

AA School of Architecture, London

Jürgen Weidinger

Institute of Landscape Architecture, TU Berlin

Gesine Weinmiller

HafenCity University Hamburg

Katrina Wiberg

Aarhus School of Architecture

Tadeja Zupančič

Faculty of Architecture, University of Ljubljana



CA²RE / CA²RE+, the Conference for Artistic and Architectural Research, is dedicated to promoting Design-Driven Doctoral Research (DDDr) through its conference series. This initiative aims to strengthen and expand the community of researchers interested in this subject. The Faculty of Architecture and the Built Environment at Delft University of Technology has gladly provided the platform for this noteworthy conference.

The central theme of this event revolves around the "RECOMMENDATION" for Design-Driven Doctoral Research. This theme is a natural progression from the main topics explored in the previous CA²RE+ conferences, which included OBSERVATION, SHARING, COMPARISON, REFLECTION, and FRAMEWORK. The CA²RE+ Delft conference seeks to scrutinize the progress made thus far and endeavors to formulate guidelines and recommendations for the establishment, introduction, development, and evaluation of DDDr.





