

CA²RE+



3 FRAMEWORKS OF DESIGN-DRIVEN RESEARCH

Ignacio Borrego | Ralf Pasel | Jürgen Weidinger (Eds.)



CA²RE+ PARTNERS



A R E N A



Conference for
Artistic and
Architectural
REsearch

CA²
RE+ Collective
Evaluation of
Design Driven
Doctoral Training

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Editors:

Ignacio Borrego

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Content

- 13** **Editor's Note.**
Ignacio Borrego, Ralf Pasel and Jürgen Weidinger.
- 19** **By Design, or Within Culture? A Reflection upon (Artistic and Architectural) Design-Driven Research.**
Johan De Walsche.
- 29** **Commendare (Latin): To Commit to the Care or Keeping (of Someone).**
Andrea B. Braidt.
- 35** **Foreword.**
Ilaria Valente.

LJUBLJANA

43 CA²RE / CA²RE+ Ljubljana 2021.
Tadeja Zupančič.

SELECTED FELLOW PRESENTATIONS.

- 49 Low-Cost DIY Upgrade Strategies for Improved Comfort in Poor Brazilian Houses In Hot Climates Process and Results.
Nadir Bonaccorso.
- 55 Geometries of Time.
Taufan ter Weel and Mariacristina D'Oria.
- 63 Enabling Systems for Open Transformations within the Existing Built Context.
Jakob Grelck.
- 69 Makerlabs Makerspaces in Libraries as Modern Spaces of Urban Belonging.
Mar Muñoz Aparici.
- 79 Belgrade on Screens: Before the War / Before the Truth (Cut 1).
Miljana Niković.
- 87 The Potential of a Tectonic Approach for the Experiential Qualities of Architecture.
Tim Simon-Meyer.
- 93 Approaching Industrial Ruins in a Post-Communist Landscape. A Design-Driven Transformative Rethinking of Industrial Heritage in Romania.
Monica Tusinean

- 99 Embedded Movement – Responsive
Shape-Changing Surfaces.
Paula van Brummelen.
- 105 Reflexive Practice.
Maja Zander Fisker.

OBSERVATIONS.

- 115 Observations on Viktorija Bogdanova's
Presentation.
Jacopo Leveratto.
- 119 Observations on Rose-Ann Mishio's
Presentation.
Mona Mahall.
- 123 Observations on Wiktor Skrzypczak's
Presentation.
Claus Peder Pedersen.
- 129 Observations on Alberto Petracchin's
Presentation.
Maria Topolčanská.
- 133 Observations on Valeria Wiendl and Silvia
Alves's Presentation.
Markus Schwai.

DELFT

- 139 **A Glimpse into the CA²RE+ Delft Conference.**
Roberto Cavallo.

SELECTED FELLOW PRESENTATIONS.

- 149 Moving Images as a Design Method.
Nina Bačun.
- 153 Montage Driven Research Strategies: The Consolidation of Generative, Systematic and Analytical.
Đorđe Bulajić.
- 159 Time-Capsule Transcripts an Experimental Taxonomy of Forms as a Vehicle for a Design Operation.
Gianluca Croce and Mariacristina D’Oria.
- 167 Home: Things & Bodies. A Thing-Based Exploration into Personal Space. Reflections on DDDr.
Marta Fernández Guardado.
- 177 Atlas of Architectural Design in Built Heritage: Contributions From the School of Porto.
Teresa Cunha Ferreira.
- 183 Everyday Practice as Paradigm to Study Architectural Contemporary Codes.
Claudia Mainardi.
- 187 The Materialisation of the Joint. Re-Reading the Brion Cemetery Through The Agency of the Drawing. Design Driven Research and further Reflections.
Enrico Miglietta.

- 193 Interiorities, Embeddedness and the Dwelling.
Marie Porrez.
- 201 Architectural Plug-In Explorative Machine for the Sonic Recomposition of Space.
Taufan ter Weel.
- 207 Sensory Nourishment Consciously Crafting Sensations in Clothing Design to Support Diverse Sensory Needs.
Maureen Selina Laverty.
- 213 Talking House Consists of a Series of Three Buildings, each Conceived as an Experimental Apparatus to Study the Phenomenon of Proximity.
Hinnerk Utermann.

OBSERVATIONS.

- 219 Close Observation as a Learning Moment.
Thierry Lagrange.
- 225 Observations on Mar Muñoz Aparici's Presentation.
Claus Peder Pedersen.
- 231 Record as Observer in CA²RE+ Delft Recommendations.
Edite Rosa.

TESTIMONIAL.

- 237 True Freedom. Observations about Design Driven Doctoral Research.
Sergio Martín Blas.

RECOMMENDATIONS

- 247** **Building a Disciplinary Methodology.**
Matthias Ballestrem.
- 253** **Design-Driven Research by its Ways of
Knowledge Production. On Preliminary
Findings and Future Trajectories for
CA²RE.**
Fabrizia Berlingieri.
- 263** **Design-Driven Research at the
Conference for Artistic and Architectural
Research (CA2RE+).**
Ignacio Borrego, Ralf Pasel and Jürgen
Weidinger.
- 273** **Breaking Contraindications:
Strengthening Design Driven Doctoral
Research.**
Roberto Cavallo.

- 285** **CA²RE+: Strengthening and Improving the Resilient and Resistant Capacities of a Fragile Framework within DDDr.**
Thierry Lagrange and Jo Van Den Berghe.
- 293** **Considerations upon DDDr Reformulation and Recommendations.**
Edite Rosa and Joaquim Almeida.
- 305** **Expanding the Scope of CA²RE+ Cross-Disciplinarity and Post-Doctoral Research.**
Claus Peder Pedersen.
- 315** **Risk and Opportunity.**
Markus Schwai.
- 323** **Reformulating Design and Artistic Practice-Driven Research to Reach Out**
Tadeja Zupančič.
- 331** **Contributors**

Editor's Note

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After the six conferences for artistic and architectural research CA²RE+ has contributed substantially to the fact that Design Driven Research today is a widely established and scientifically accepted research method on most European countries and the number of involved universities is an indicator for a rapidly growing community in the field of practice-based research. We have the feeling of having arrived somewhere. Should it be rather considered as if we had just crossed an intermediate sprint?

This big effort has meant an interchange of knowledge and at the same time the construction of an international net with very valuable connections: 9 universities of 8 countries and 4 international institutions, 247 applications, 346 peer reviews, 136 accepted presentations and 169 registrations, 76 peer reviewers, from 13 countries, 23 universities, 66 texts, 273 research papers, published 54 scientific papers of 7 different disciplines, 207 hours of public conversations summarized by 10 editors in 3 books, 1.320 pages in a total of around 240.000 published words in the time frame of 3 years.

We have created a collective learning environment where we have developed a multidisciplinary approach to a design-driven methodology on scientific research along six steps: observation, sharing, comparison, reflection, reformulation and recommendation, that arrive now to an end, or at least to a preliminary evaluation after this three-year journey.

We would like to thank all universities taking part in this experience: Aarhus School of Architecture (Aarhus), Technische Universität Berlin (Berlin), Technische Universiteit Delft (Delft), Katholieke Universiteit te Leuven (Ghent), HafenCity University Hamburg (Hamburg), University of Ljubljana (LJUBLJANA), Politecnico di Milano (Milano), COFAC – Universidade Lusofona (Porto), Norwegian University of Science and Technology (Trondheim), specially the six host universities of the six events (Ghent, Trondheim, Milan, Hamburg, Ljubljana and Delft), and the following international institutions: European Association for Architectural Education (EAAE), European League for the Institutes of the Arts (ELIA) and Architectural Research European Network Association (ARENA).

In this final book we collect and share the results of the last two events (Ljubljana and Delft) and the recommendations and conclusions from all partners participating in the whole process. We have now an experience to profit from. The race must go on.

MONTAGE DRIVEN RESEARCH STRATEGIES: THE CONSOLIDATION OF GENERATIVE, SYSTEMATIC AND ANALYTICAL

Đorđe Bulajić

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The relationship between design and research is a lively debate in our discipline. Ever since the first issue of the Journal of Architectural Education (JAE) from 1947, this complex but extremely significant relationship has been increasingly questioned. This debate is also hardly unique to architecture, as Groat and Wang underline: “Some of the very same discursive positions are found in many other creative or professional fields, including the visual arts, product design, business and consultancy, planning, landscape architecture, and urban design, among others.”¹ However, even after a broad array of studies undertaken by various scholars, researchers and practitioners, we are repeatedly trying to explain and properly understand this

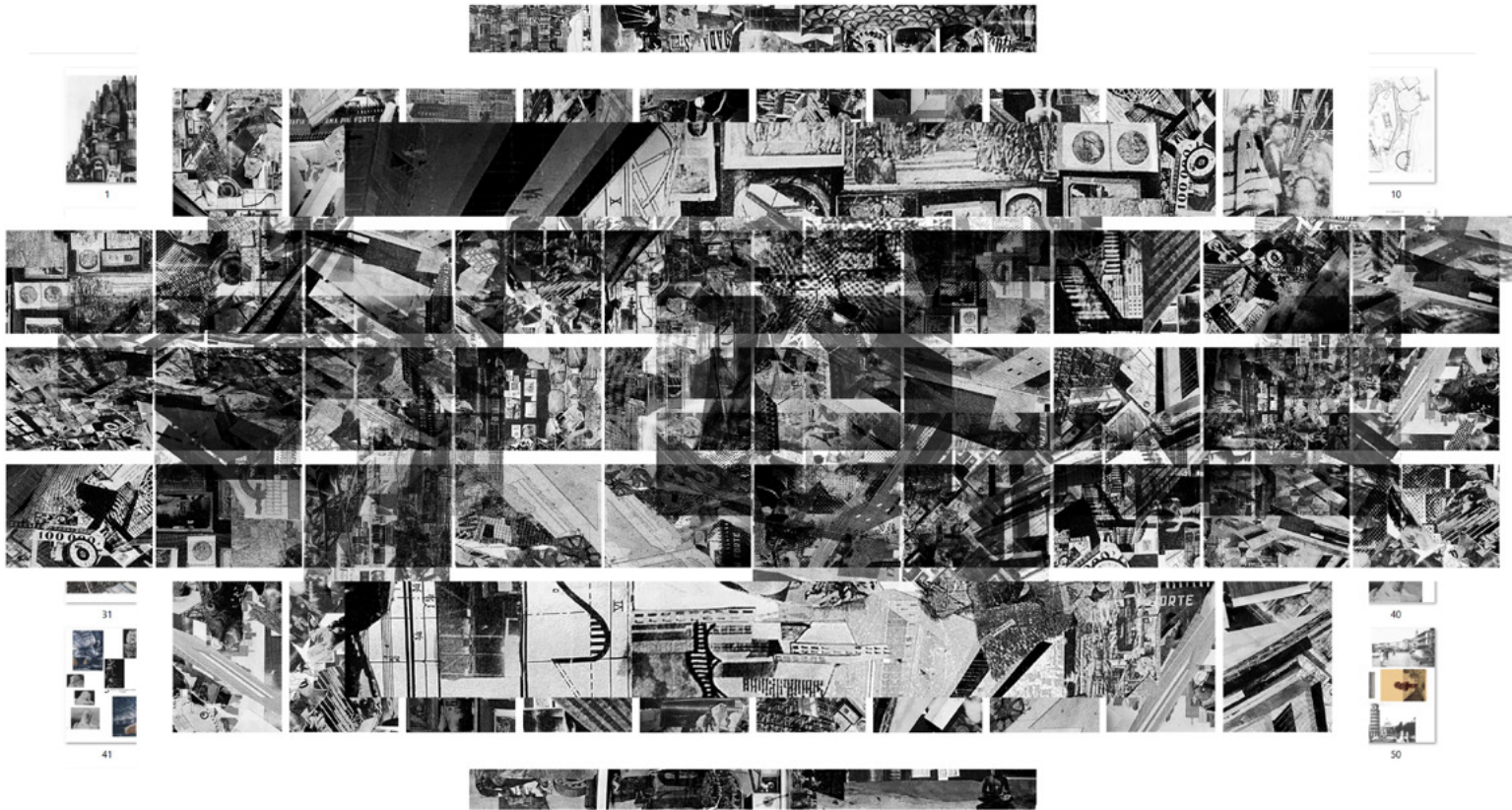


FIGURE 1. Image Representing the Outcomes of First Four Phases of the Research (The Atlas of the Research, Photomontage, Zooming and Framing, Cinematic Montage)

intricate relation. I take the stand that architectural design and research are mutually complementary, hence there is no architectural research without design, and there is no architectural design without research. Nevertheless, this does not mean that every process of architectural design is a *priori* research, to the same degree as not every research within the architectural discipline can be considered as architectural design. The two activities are not equivalent, they are fundamentally distinct, but they embody many complementary and overlapping qualities. I believe this exciting relationship is a focal point of contemporary architectural research, and in a wider perspective, it will substantially affect the path in which our discipline is developing.



FIGURE 2. Image Representing the Outcomes of Last Three Phases of the Research (Hand-colouring / Over-painting, Collage, Montage)

At the *CA²RE / CA²RE+ DELFT: RECOMMENDATION* conference, I presented a part of my research titled *Composing Images: Architectural Montage as Design-Driven Research Tool*. As the title suggests, this research project aims to thoroughly investigate the capacities of architectural montage in the design-driven research framework. The reason for this research derives from the fact that in architectural history and historiography, architectural montage has been mostly perceived as a purely representational technique, neglecting its other enormous potentials. However, with the development of the design-driven research framework, which focuses on the research strategies that are based on design procedures, montage potentially gained another, extremely

important role. Therefore, the main hypothesis of the research is that architectural montage is not merely a representational technique, it is rather a research tool that is able to produce new meanings and new knowledge within the architectural discipline.

As a starting point of the research project, an artistic design-driven research experiment was conducted through seven interdisciplinary phases. All seven phases of this experiment, which all together form a research methodology, included design procedures that were done by hand. Moreover, the whole design-driven research process was uncertain, non-linear, highly intuitive and empirical in nature. It consisted of very distinct operations, from collecting different types of images and constructing the digital atlas of the research, to selecting and hand-colouring images with a brush and watercolours. However, the core element of this process was architectural montage. As montage was present in various forms in all seven phases of the research, it emerged as a comprehensive layer of the whole experiment. Montage was not only employed as a main compositional and logical principle in design procedures, rather the combination and juxtaposition of elements was also used to deliver answers in the same way as any classical analytical method would. Therefore, architectural montage was applied as both design and research technique in the creative process.

The implementation of design into research strategies brings architects back to the familiar territory. We are given a chance to use skills and abilities that we have finely developed through

our architectural education and training. Design-driven research teaches us how to value design thinking and design methodology as research and represents the combination of intuition and science, as Kieran underlines: “Research brings science to our art [. . .]. To move the art of architecture forward, however, we need to supplement intuition with science.”² As architectural montage is mainly a design technique, meaning it aims to “change existing situations into preferred ones”³, this research showed how highly intuitive generative processes can consolidate with both analytical and systematic ones within the research undertaken in the architectural discipline.

2 Stephen Kieran (2007), “Research in Design: Planning Doing Monitoring Learning”, *Journal of Architectural Education* (61) 1, 31.

3 Herbert Simon (1996), “The Sciences of the Artificial”, 3rd ed., Cambridge, MA: MIT Press.

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