



BELGRADE

A large, abstract graphic consisting of several concentric circles and radial lines, creating a sunburst or target-like effect. The colors are various shades of blue, from light to dark. It is positioned in the center-left of the page, partially overlapping the text.

CA²RE / CA²RE+
BELGRADE:
DISPOSITIONS
7-9 November, 2024

DISPOSITIONS

Disposition is the way in which something is placed or arranged, especially in relation to other things, prospects or phenomena. It implies developing, arguing or stating relational entanglements within the approach. Equally, the dis-positioning is concerned with processes of search, questioning and position change through o-position, composition, trans-position, juxta-position, decom-position.

Reasoning on disposition in the architectural and artistic design-driven research comprise learning and mindful engagement. As an argument and as a process, disposition and dispositioning play essential role in the dwelling of critical knowledge and ethical stand in the present-day creative practices. While the exhibited artefacts of the design-driven research could be considered as a distinct dispositive (Haarmann, 2022, p.63), the specific dispositions in artistic and architectural research are meaning much more than representing and organizing, they “add, alter and produce an idea of the real” (Bogalheiro, 2022, p.37).

This edition of CA²RE suggests collective rethinking and a debate on dispositions in the most open and diverse ways. The aim is to unfold various natures of the design-driven approach and to tackle its roles and impacts on today’s societies. The event welcomes examples of multi- and trans-disciplinary thinking and doing. Through lectures and sessions, it looks at examples of original and unpublished contributions related to ongoing and completed works, from academic and non-academic backgrounds. The target groups are researchers, professors, students, practitioners in architecture, design, and art, policymakers and industry representatives.

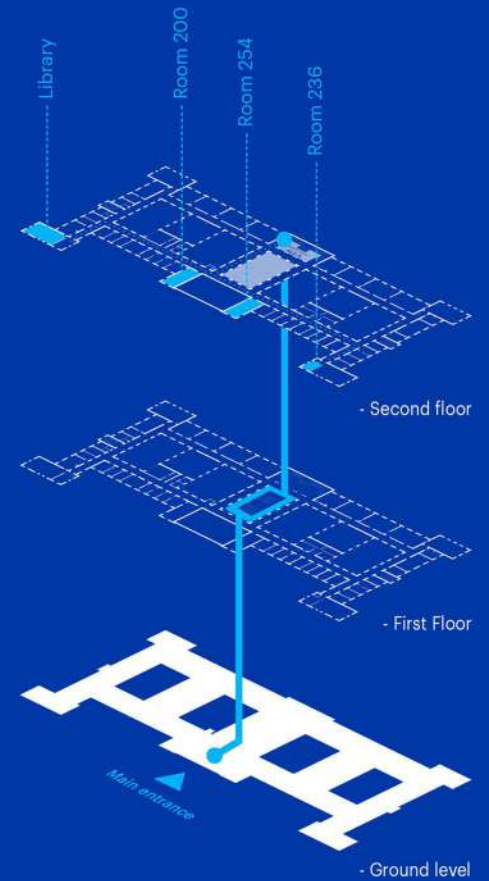
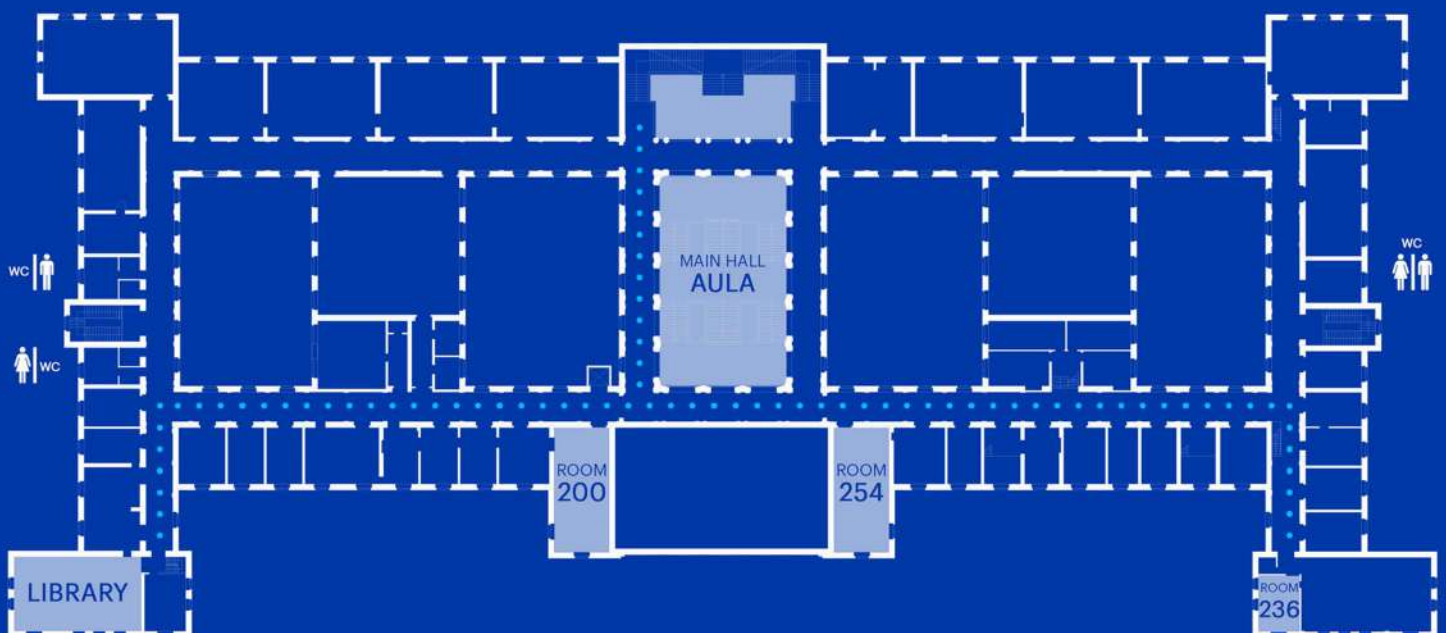
Chairs: Anđelka Bnin-Bninski and Ana Nikezić

References:

Anke Haarmann, “Reflections on Practices”, *In Edite Rosa with Matthias Ballestrem, Fabrizia Berlingieri, Tadeja Zupančič, Manuel Bogalheiro and Joaquim Almeida. CA2RE/CA2RE+ Community for Artistic and Architectural Research: Evaluation of the design-driven research, 2022, pp. 57-64.* https://ca2re.eu/wp-content/uploads/2022/09/ca2re-02_09_22_duplo_compressed.pdf

Manuel Bogalheiro, “When research meets art: from art-based research to design-driven doctoral research”, *In Edite Rosa with Matthias Ballestrem, Fabrizia Berlingieri, Tadeja Zupančič, Manuel Bogalheiro and Joaquim Almeida. CA2RE/CA2RE+ Community for Artistic and Architectural Research: Evaluation of the design-driven research, 2022, pp. 33-38.* https://ca2re.eu/wp-content/uploads/2022/09/ca2re-02_09_22_duplo_compressed.pdf

Rooms 200 / 254 / 236 / Library



DISPOSITIONS / EXHIBITION

ROOM 200

Sandra Nikač
Aleksandar Popović (Karkatag)
Dalia Dukanac
Irena Lagator Pejović

ROOM 254

Sitian Zeng
Ans Nys
Konstantinos Zves
Rasmus Strange Thue Tobiasen
Tim Simon Meyer
Miloš Kostić
Ivana Tutek + Bernarda Lukač
Maja Zander Fisker

ROOM 236

Miljana Niković
Nina Bačun

LIBRARY

Miloš Stojković Minić
Anastasiia Gerasimova
Hristina Meseldžija
Michela Vanda Caserini
Chiara Caravello
Aileen Iverson-Radtke

CA²RE BELGRADE DISPOSITIONS 2024: FINAL PROGRAM

Thursday	7.11.2024.
15:00 Room 200	Reception and registration stickers at the school hall
16:00 – 18:00	CA²RE Opening Opening note: Vladimir Lojanica, dean UB FA Moderator: Anđelka Bnin-Bninski, chair CA ² RE Dispositions Dispositions / Critical Constellations Round table participants: Sandra Nikač, Aleksandar Popović (Karkatag), Dalia Dukanac, Irena Lagator Pejović Moderator: Marija Milinković
Friday	8.11.2024.
08:30 – 09:00 Room 200	Gathering with morning coffee
09:00 – 13:15	Morning sessions, Room 254 + Room 236 + Library
09:00 – 10:00 Room 254	Panel session Presenting author: Sitian Zeng Panel members: Claus Peder Pedersen, Petra Vlachynská, Sofia Salema
10:00 – 11:00 Room 254	Panel session Presenting author: Ans Nys Panel members: Lagrange Thierry, Boštjan Botas Kenda, Markus Schwai
11:00 – 11:15 Room 200	Coffee break

11:15 – 12:15 Room 254	Panel session Presenting author: Konstantinos Zves <div> Panel members: Roberto Cavallo, Mia Roth-Čerina, Boštjan Vuga </div>
12:15 – 13:15 Room 254	Panel session Presenting author: Rasmus Strange Thue Tobiasen <div> Panel members: Yves Schoonjans, Andelka Bnin-Bninski, Lidia Gasperoni </div>
09:00 – 10:00 Room 236	Panel session Presenting author: Silvia Di Mauro <div> Panel members: Pedro Guilherme, Ana Nikezić, Aileen Iverson-Radtke </div>
10:00 – 11:00 Room 236	Panel session Presenting author: Ottavio Pedretti <div> Panel members: Kristina Careva, Sofia Salema, Gennaro Postiglione, Maria Faraone </div>
11:00 – 11:15 Room 200	Coffee break
11:15 – 12:15 Room 236	Panel session Presenting author: Erik Frydenlund Hofsbro <div> Panel members: Petra Vlachynská, Urs Hirschberg, Pedro Guilherme </div>
12:15 – 13:15 Room 236	Panel session Presenting author: Ana Catarina da Silva Antunes <div> Panel members: Sally Stewart, Kristina Careva, Boštjan Botas Kenda </div>
09:00 – 10:00 Library	Panel session Presenting author: Francesco Airoidi <div> Panel members: Yves Schoonjans, Roberto Cavallo, Urs Hirschberg </div>

10:00 — 11:00 Library	Panel session Presenting author: Miloš Stojković Minić <div> Panel members: Tadeja Zupančič, Johan Van Den Berghe, Sally Stewart </div>
11:00 — 11:15 Room 200	Coffee break
11:15 — 12:15 Library	Panel session Presenting author: Anastasiia Gerasimova <div> Panel members: Johan de Walsche, Gennaro Postiglione, Lagrange Thierry </div>
12:15 — 13:15 Library	Panel session Presenting author: Nathan De Feyter <div> Panel members: Lagrange Thierry, Roberto Cavallo, Claus Peder Pedersen </div>
13:15 — 14:00 Room 200	Lunch break
14:00 — 17:00	Afternoon sessions Room 254 + Room 236 + Library
14:00 — 15:00 Room 254	Panel session Presenting author: Tim Simon Meyer <div> Panel members: Boštjan Vuga, Johan de Walsche, Lidia Gasperoni </div>
15:00 — 16:00 Room 254	Panel session Presenting author: Miloš Kostić <div> Panel members: Pedro Guilherme, Tadeja Zupančič, Maria Faraone </div>
16:00 — 17:00 Room 254	Panel session Presenting author: Ivana Tutek, Bernarda Lukač <div> Panel members: Markus Schwai, Sofia Salema, Jörg Schröder </div>

17:00 — 17:15 Room 200	Coffee break
14:00 — 15:00 Room 236	Panel session Presenting author: Miljana Niković Panel members: Mia Roth-Čerina, Petra Vlachynská, Kristina Careva
15:00 — 16:00 Room 236	Panel session Presenting author: Beatrice Basile Panel members: Sally Stewart, Markus Schwai, Boštjan Vuga
16:00 — 17:00 Room 236	Panel session Presenting author: Nina Bačun Panel members: Lagrange Thierry, Lidia Gasperoni, Claus Peder Pedersen
17:00 — 17:15 Room 200	Coffee break
14:00 — 15:00 Library	Panel session Presenting author: Hristina Meseldžija Panel members: Jörg Schröder, Gennaro Postiglione, Urs Hirschberg
15:00 — 16:00 Library	Panel session Presenting author: Michela Vanda Caserini Panel members: Johan de Walsche, Ana Nikezić, Kristina Careva, Johan Van Den Berghe
16:00 — 17:00 Library	Panel session Presenting author: Chiara Caravello Panel members: Roberto Cavallo, Anđelka Bnin-Bninski, Yves Schoonjans
17:00 — 17:15 Room 200	Coffee break

17:15 – 19:30	Workshops Room 254 + Room 236 + Library
17:15 – 19:30 Room 254	<p>Workshop: Epistemology of design-driven research</p> <p>Moderators: Jo Van Den Berghe, Tadeja Zupančič, Claus Peder Pedersen, Johan De Walsche</p> <p>Participants: Sitian Zeng, Ans Nys, Francesco Airoldi, Anastasiia Gerasimova, Tim Simon Meyer, Ivana Tutek, Bernarda Lukač, Miljana Niković, Maja Zander Fisker, Ana Nikezić, Boštjan Botas Kenda, Sally Stewart</p>
17:15 – 19:30 Room 236	<p>Workshop: Dispositions of the discipline(s)</p> <p>Moderators: Roberto Cavallo, Jörg Schröder, Lidia Gasperoni, Boštjan Vuga</p> <p>Participants: Konstantinos Zves, Ottavio Pedretti, Miloš Stojković Minić, Nathan De Feyter, Miloš Kostić, Beatrice Basil, Michela Vanda Caserini, Aileen Iverson-Radtke, Andrea Foppiani, Yves Schoonjans, Kristina Careva, Lagrange Thierry, Sofia Salema</p>
17:15 – 19:30 Library	<p>Workshop: Design-driven research as knowledge production</p> <p>Moderators: Mia Roth-Čerina, Pedro Guilherme, Markus Schwai, Anđelka Brin-Brninski</p> <p>Participants: Rasmus Strange Thue Tobiasen, Silvia Di Mauro, Erik Frydenlund Hofsbro, Ana Catarina da Silva Antunes, Nina Bačun, Hristina Meseldžija, Chiara Caravello, Mari Synnøve Gjertsen, Sarah Javed Shah, Gennaro Postiglione, Urs Hirschberg, Petra Vlachynská.</p>
20:00	Conference Dinner

Saturday	9.11.2024.
09:30 – 10:00 Room 200	Gathering with morning coffee
10:00 – 13:15	Morning sessions, Room 254 + Room 236 + Library
10:00 – 11:00 Room 254	Panel session Presenting author: Mari Synnøve Gjertsen Panel members: Mia Roth-Čerina, Johan de Walsche, Sally Stewart
11:00 – 12:00 Room 254	Panel session Presenting author: Maja Zander Fisker Panel members: Lidia Gasperoni, Johan Van Den Berghe, Markus Schwai
10:00 – 11:00 Room 236	Panel session Presenting author: Sarah Javed Shah Panel members: Jörg Schröder, Sofia Salema, Petra Vlachynská
10:00 – 11:00 Library	Panel session Presenting author: Aileen Iverson-Radtke Panel members: Tadeja Zupančič, Gennaro Postiglione, Boštjan Botas Kenda, Maria Faraone
11:00 – 12:00 Library	Panel session Presenting author: Andrea Foppiani Panel members: Boštjan Vuga, Mia Roth-Čerina, Yves Schoonjans
12:00 – 13:00 Room 200	Lunch break
13:00 – 14:30 Room 254	CA ² RE Closing round table
15:00 – 17:00	Facultative guided walk

Opening discussion with exhibition: **DISPOSITIONS / CRITICAL CONSTELLATIONS**

UB-FA, 7th November 2024, 16h

Round table participants:

**Sandra Nikač, Aleksandar Popović (Karkatag),
Dalia Dukanac, Irena Lagator Pejović**

Moderator:

Marija Milinković

The main subject of the conference and the central theme of the round table debate is framed by the curious term, disposition, and its double meaning: as the simple quote from Oxford dictionary suggests, it denotes a “person’s inherent qualities of mind and character” and, at the same time, refers to the spatial arrangements, that is “the way in which something is placed or arranged, especially in relation to other things”.

Following the short presentations of the round table participants, and related to the broader agenda of the conference, the discussion will be cantered on this duality. The various spatial arrangements extracted from the work of participants, from theatre doll to apartment building, and from interactive installation in public space to artistic/artists book, reflect the distinguished personal dispositions and specific architect’s/artist’s/researcher’s perspectives. The question is how we can think of subjectivity and collectivity in relation to the specificities of spatial qualities we produce/explore? And what is the role of research in each particular case and how does it reflect/subvert/overcome the specific socio-political constellations?

Marija Milinković

Marija Milinković (b. 1973) is an architect, a historian and theoretician of architecture, an assistant professor at the University of Belgrade – Faculty of Architecture. She graduated from the University of Belgrade – Faculty of Architecture and the Moscow Architectural Institute (1998) and obtained her Master of Science (2007) and PhD degree (2013) from the University of Belgrade – Faculty of Architecture. Her work has been published in peer reviewed national and international journals (Arhitektura i urbanizam, Kultura, Architectural Research Quarterly, Arhitektura & Urbanizmus, Sustainability, Urban Planning, Land) and she is the author of the book Nikola Dobrović – The Shifting Modes of Critical Practice in Architecture (The Architecture Observer, UB-FA, 2022).

Sandra Nikač

Sandra Nikač (Belgrade, 1987) is a set and puppet designer. Following two BA degrees – in art history and set design in Belgrade, she completed the MA in theatre design (specializing in puppetry) at the Royal Welsh College of Music and Drama in Cardiff. In 2024 she became Doctor of Arts – Scene Design, at the Faculty of Technical Sciences, University of Novi Sad. She works as a freelance puppet, set and costume designer, mostly in theatre for young audiences, in Serbia and abroad. Her personal visual arts practice evolves in the form of drawing and embroidery.

Awards include 1st prize for puppet design at MarMarionetas festival (Espinho, Portugal 2017), finalist at Osten Biennial of Drawing (Skopje, 2021), two annual awards of Little Theatre Duško Radović (2021 and 2022).

Aleksandar Popović

Aleksandar Popovic, born in 1984, is an artist and cultural worker with a formal background in architecture. He co-founded the Karkatag collective in 2009, focusing on direct artwork fabrication, curating, tutoring and undertaking theoretical work, interactive art and new media, intersecting with performative practices, taking part in various events locally and abroad and winning multiple recognitions and awards. Together with UK collective “Collectif and then...” they got awarded by prestigious “The Oxford Samuel Beckett Theatre Trust Award” and theatre production in “Barbican Center” in London for 2016. Recent project include contributing to the “Hedgehog’s Home – Inventing a Better World” exhibition at the Museum of Yugoslavia (2023-24). Karkatag is running the open workshop “Praksa makerspace Belgrade” that provides a collaborative space for individuals to experiment with tools and machines, bringing their projects, prototypes, props, and creative ideas to life.

Irena Lagator Pejović

Irena Lagator Pejović (b. 1976 in Yugoslavia) is an artist, art theorist and associate professor at the University of Donja Gorica in Podgorica. Her artworks have been exhibited internationally since 2000 and are included in collections of public institutions such as the FRAC Marseille, France; Villa Pacchiani, Centro Espositivo, Santa Croce sull'Arno, Italy; MCAM of Montenegro; MoCA Belgrade, Serbia, and Banja Luka, Bosnia and Herzegovina; the Museum of Money in Belgrade and the National Museum of Montenegro. She represented Montenegro with the solo exhibition *Image Think* at the 55th Biennale di Venezia. Lagator is one of the seven awardees of the UNESCO prize for the Promotion of the Arts that was awarded at the 4th Cetinje Biennial in 2002. Among other awards, she received the award of the Transforming Memory. The Politics of Images 24th Memorial Nadežda Petrović in 2007.

Dalia Dukanac

Dalia Dukanac (1989, Zagreb) is an architect engaged both in practice and academia. She holds a PhD in architecture and urban planning (2023, University of Belgrade – Faculty of Architecture). She co-founded Taktika design studio (2019) which won several international architectural and design competition awards. She represented Serbia at the 17th La Biennale di Venezia (2021, w/ MuBGD). Within the same team she has developed a platform for promoting Belgrade modernist architecture which resulted in a series of exhibitions and awards including “Ranko Radović” award (2020, 2021). She has also published papers in international peer-reviewed journals such as *Planning Perspectives* and *Urban Planning*.

BOOK OF ABSTRACTS

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Ex-ante approaches in co-design strategies for architecture in at-risk contexts

Nina Bačun

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The Architecture of Fragments and Figments

Beatrice Basile

[DIS]POSITION Actions about the Railway.

The infrastructure edge as key to understanding the architectural relationship with the territory

Chiara Caravello

Invisible Landscapes.

Positioning Underground Quarries by Drawing

Michela Vanda Caserini

Hidden orders.

How the other - more than a half- lives

Ana Catarina da Silva Antunes

TAPADAS (royal forests and hunting reserves)

of portuguese royal palaces: resilience spaces.

For a spatial and architectural requalification

Nathan De Feyter

How can I help you?

Navigating Architect's Roles in DD-PAR

Silvia Di Mauro

For a tactical recycling.

Il ruolo architettonico di trasformazione dell'ordinario nella bassa provincia di Bergamo

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A possible tool towards a sustainable place development?

Anastasiia Gerasimova

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Miloš Kostić

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Ivana Tutek, Bernarda Lukač

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Hristina Meseldžija

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Miljana Nikovic

Belgrade on screens in Belgrade:

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Ans Nys

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Ottavio Pedretti

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Tim Simon-Meyer

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Miloš Stojković Minić

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Rasmus Strange Thue Tobiasen

die;cut

The resurrection of the plan(e)

Mari Synnøve Gjertsen

THE ATLAS OF TIME

Creating new fictions of sustainability through aesthetic mapping

Maja Zander Fisker

ARTEFACT: Modes of Polyphony

Konstantinos Zves

Trying to build

Sitian Zeng

Digital Age: Painting Immanent Subjectivity

Francesco Airoidi

PhD candidate

PhD candidate in the AUID program at Politecnico di Milano. Graduated cum laude in Architectural and Urban Design, his doctoral research investigates architectural co-design strategies for the transformation of fragile contexts, risk mitigation and resilience of communities and territories.

«Before, during, and after disasters»¹

Ex-ante approaches in co-design strategies for architecture in at-risk contexts

Francesco Airoidi

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Keywords: Co-design, Risk, Ex-ante [approach].

Risk and uncertainty are often understood in the specialist literature as two distinct entities: the former is calculable, consisting of the components of exposure, vulnerability and hazard (Balducci et al., 2020); the latter, on the other hand, represents the dimension of the unexpected or unknown, related to the lack of knowledge of a circumstance and therefore not measurable (Moroni and Chiffi, 2021, 319-330). However, today, risk scenarios are subject to rapid changes due to the effects of climate change and environmental crisis, which increase their frequency and intensity. This means that to natural hazards – previously considered almost calculable – a latent degree of uncertainty is added related to external phenomena, influenced by cataclysms and meteorological events. Therefore, risk and uncertainty are to be considered two overlapping components in the study of design strategies for disaster risk reduction (DRR), disaster risk mitigation (DRM) and climate change adaptation (CCA),² they add an extra layer of complexity to systems composed of territories and communities.

Within the ongoing doctoral research *Co-design. Theories and practices for transformation, mitigation and resilience*,³ a community-based approach to architectural design is proposed to address issues related to risk and uncertainty, through a design-driven methodology.⁴ Here, the discussion on different temporalities of risk focuses on the arrangement of actions that designers and planners can put in place together with communities «before, during, and after disasters» (Lari et al., 2013, 5), to achieve resilience and preparedness conditions. The objective of the proposed contribution within the Beograd CA2RE conference is to investigate the “dispositions” of interventions over time, identifying in the research methodology the differences between *ex-ante* and *ex-post* interventions, combining them with top-down and bottom-up approaches.

Managing relationships between communities and their contexts requires an approach that can go beyond the post-emergency criteria that have long characterized measures taken against risk. The importance of an ex-ante working scenario is evident in the face of the goals of achieving anti-fragile spatial conditions. These can be pursued through community preparedness, which implies risk education on the one hand, and awareness creation in the practices of transformation of places and care of built heritage, open spaces and landscapes on the other. Preparing for the unexpected demands an understanding of community dynamics: it is essential to recognize not only potential risks but also the possibility that these risks might arise in unpredictable forms, intensities and frequencies. To address this, a combination of large-scale systematic interventions and a bottom-up approach is necessary. This method should blend both popular and scientific knowledge through participatory processes, enabling communities to critically evaluate their roles in the modification of places.

¹ Expression from Lari, Y., Meadows, A., Meadows, P. S. (2013), *Disaster Preparedness Manual*, Heritage Foundation of Pakistan, Karachi, p. 5.

² These are the specific research topics of the PNRR Return project too (*multi-Risk sciEnce forresilienT commUnities undeR a changiNg climate*). The PhD research and scholarship to which the contribution refers is supported by a funding program, the Spoke 7 - TS3 *Communities' resilience to risks: social, economic, legal, and cultural dimensions* (Mission 4, Component 2, Investment 1.3 project). UNIFI, supported by CIMA. Spoke Leader: Fabio Castelli. Co-Leaders: M. Morando, N. Rebora. EURAC, POLIBA, POLIMI (DASTU e DABC), UNIBA, UNICA, UNIMI, UNIROMA1, UNIKORE. Coordinator for Dipartimento di Architettura e Studi Urbani unit: Prof. Emilia Corradi.

³ On-going PhD thesis by the author. Supervisor: Prof. Emilia Corradi. Politecnico di Milano, AUID PhD program, Dipartimento di Architettura e Studi Urbani DASTU.

⁴ The role of a PhD research in architecture within a multidisciplinary project of this kind is to restore the spatial and architectural aspects of the issues analyzed. Considering users not only in an isolated way but also inside a plural dimension – seen in a huge non-anthropocentric way – the thesis aims to investigate effective co-design strategies for architecture in order to reach anti-fragility conditions in at-risk contexts.

Ex-post interventions such as the reconstruction plans for territories affected by natural risks, combined the needs for reconstruction with those of prevention. These top-down plans included integrate measures for DRM and DRR within the system of pathways, safe spaces etc. The effectiveness of them depends, however, on the construction of a common and shared language among communities, institutional actors and experts, through the (bottom-up) training of the target population. Both minor and major approaches – as the view from above and below – must be combined in preparedness to unexpected extreme events.

The proof of concept chosen to test the design-driven methodology for the above issues is the island of Ischia, characterized by a various landscape and overlapping hazards (seismic, volcanic, hydrogeological, flooding, etc.) [fig. 1], where risk and uncertainty led to depopulation. These problems can be effectively addressed through architecture by adopting a community-based co-design approach and redefining its tools. In addition to traditional participatory practices such as decision-making meetings, it is essential to involve communities of at-risk areas in spatial education processes through workshops, self-construction activities and seminars for community self-determination. These design tools have been insufficiently testes in Western contexts, which remain largely influenced by the ideological concept of participation from the 1970s (De Carlo and Marini, 2020 [2013]).

Recognizing the implicit “disorder” in the ways our species lives and interacts with the environment requires that architects accept the challenge of interpreting it. To truly address this complexity, we must move away from the rigid ordering principles that have long defined the discipline and re-examine their role in both the design process and society (Ward, 2016, 90-100). Given the scarcity of co-design experiences focused on community spatial education in Europe, it is crucial to explore case studies in non-Western contexts, where the urgent challenges of climate change and environmental crises have accelerated the need for resilience and preparedness actions. To understand the potential coexistence of various participatory approaches within a project, it is useful to examine recurring experiences of certain architects rather than isolated instances. A design methodology sensitive to these issues can be found in the works of Yasmeen Lari and *Barefoot Social Architecture*, Marta Maccaglia and *Semillas Peru* [fig. 2], Alejandro Aravena and the *Elemental* program, the Mexican *Comunal: Taller de Arquitectura* and many other case studies taken into consideration by the PhD on-going research.

Reinterpreting co-design methodologies through the lens of non-Western contexts can significantly enhance DRR, RRM and CCA, opening research horizons toward identifying aspects that can be declined in all areas subject to risk and uncertainty. To do so, a focus on the temporal arrangement of *ex-ante* and *ex-post* scenarios is critical, within a spatial education-centered approach that should be seen as a collaborative knowledge-building process with a bottom-up directionality: this also implies recognizing oneself within a set of meanings that align the identity of place with the identity of individuals (Norberg-Schulz, 1979).

Bibliography

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Lari, Y., Meadows, A., Meadows, P. S. (2013), Disaster Preparedness Manual, Heritage Foundation of Pakistan, Karachi.

Norberg-Schulz, C. (1979), Genius Loci. Towards Phenomenology of Architecture, Rizzoli International, New York.

Short reflection on the importance and role of the design-driven research approach, methodologies, techniques and tools employed in the research project, referring as well to the conference's main topic of dispositions

Design-driven research is the methodological framework of this contribution, which sees design both as an object of study and as a means of achieving that study. This means considering the act of design as a proper investigation that relates spatial issues to a projective act.⁵ The assumptions stem from a conception of architectural research as «original investigation [...] to generate knowledge»⁶ and from the fact that «architectural design [...] is able to communicate architectural ideas beyond the scope of the project itself»⁷ considering it a way to «make architecture speak».⁸ Often, in the early stages of an investigation, reference is made to the 5Ws rule (Who? What? Where? When? Why?), completed by the sixth question of “How?” and the seventh “What if?”. The practical aspects of the last two show some of the peculiarities of the design-driven research, referred to a practice-based process. Thinking about the concept of disposition within this cultural environment means reasoning about the last two questions: it means investigating the effects of changes on boundary conditions, testing research outcomes, and studying possible changes in scale from the general to the particular.

Images

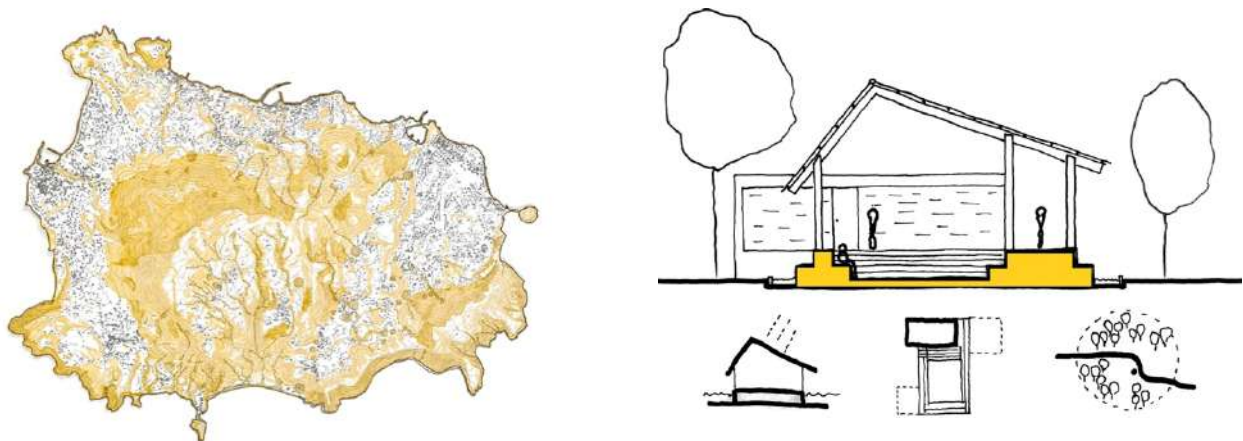


Fig. 1: The overlap of risks on the island of Ischia. Hydrogeological, water and landslide risk in an area of high seismic and volcanic activity. (Graphic elaboration by the author).

Fig. 2: An example of architecture co-designed through community-based and bottom-up processes, self-built in an at-risk context. Marta Maccaglia and Semillas, *Community Center*, Otica (Peru), 2019 (graphic reworking by the author).

⁵ Schoonderbeek, M. (2017), “A Theory of «Design by Research»: Mapping Experimentation in Architecture and Architectural Design”, in *Ardeth*, no. 01.

⁶ Ellefsen, K. O., van Cleempoel, K., Harder, E. (2015), *Research by Design*, Production Facilities, Copenhagen, p. 81.

⁷ Roggema, R. (2016), “Research by Design: Proposition for a Methodological Approach”, in *Urban Science*.

⁸ Till, J. (2008), “Three Myths and One Model”, in *Building Material*, no. 17, p. 3.

Nina Bačun

PhD candidate

Nina Bačun is a versatile designer, researcher, and educator who works in the fields of exhibition and set design, conceptual and speculative design, and film art. Her collaborations with the Zagreb-based Oaza* collective demonstrates her holistic and multidisciplinary approach. She is currently investigating the intersection of architecture, design, the built environment, and moving images, at the doctoral program in Architecture and Urban Planning in Zagreb.

* An all-female collective called OAZA has been actively engaged in art and design research initiatives in the autonomous cultural sector since 2013.

(www.oazabooks.com, www.o-a-z-a.com)

Cinematic Space as Architecture of Disposition: The Architecture of Fragments and Figments

Keywords: cinematic architectural space, diegetic space, liquid space, montage experiments, relational thinking

In contemporary society, Zygmunt Bauman's concept of 'liquid modernity' offers a profound critique of the state of flux that defines modern life. According to Bauman, this 'liquid' phase is not a break from the past, but rather an evolution of early modernity. Unlike the solid structures and ideals that dominated previous epochs, liquid modernity is characterized by fluidity, uncertainty, and continual transformation. Bauman's dichotomy is striking: modernity simultaneously embodies order, prediction, and manageability—the 'idea of a final destination'—while perpetually dismantling established norms and traditions. The distinction between the earlier 'solid' phase and contemporary 'liquid' modernity lies in the nature of change itself. In a world that is constantly shifting, nothing remains fixed, and all forms of permanence are subject to reconfiguration.

This notion of fluidity can be applied directly to the study of architectural space, particularly when viewed through the lens of cinema. Cinematic space, much like Bauman's liquid modernity, is not bound by physical laws or traditional notions of order. Instead, it exists in a state of constant transformation, shaped by narrative, montage, and the viewer's perception. In this regard, the films of Russian Avant-garde directors Dziga Vertov and Sergei Eisenstein serve as early examples of how cinematic space can embody liquid dynamics. Their montage experiments were revolutionary in their ability to fragment time and space, creating new realities from disparate elements. These cinematic techniques laid the foundation for what we can now recognize as 'liquid spaces'—spaces that are mutable, multidirectional, and constantly in flux.

The Ambiguity of Cinematic Space

The relationship between cinema and space is inherently ambiguous. While space is omnipresent in every film, it often remains an unnoticed element unless the viewer's immersion in the plot is disrupted. Unlike traditional architecture, where space is a static, tangible entity, cinematic space is fluid and often invisible. However, this invisibility does not diminish its importance. On the contrary, the way space is used in film can offer significant insights into architectural design, particularly in terms of how spaces are experienced and understood. Cinematic space challenges the rigid boundaries of physical space, offering new perspectives on how ar-

chitecture can be conceptualized and designed.

The aim of this research is to explore the interaction between architecture and film through the medium of cinematic space. By analyzing images extracted from films and experimenting with montage techniques, this study seeks to uncover the ways in which cinematic space can influence architectural thinking. The research is guided by a methodology of relational thinking, which focuses on the relationships between elements within a space, rather than on the space itself. This approach allows for a more nuanced understanding of how space is constructed, experienced, and represented in both cinema and architecture.

Methodology: Relational Thinking and the Agency of Images

The central premise of this research is that cinematic space can be understood from dual perspectives: as both representational and performative. In this sense, cinematic space is not just a backdrop for action, but an active participant in the narrative. Drawing from Javier Fernández Contreras' manifesto on interiors, the study proposes that cinematic space functions as a relational virtual network, comprising landscapes, buildings, objects, and characters. This network is constantly in flux, shaped by the relationships between its elements rather than by any inherent physical properties.

The methodology of this research involves analyzing still and moving images from films, establishing connections between them, and experimenting with their montage. This process is not merely about understanding how images create reality, but also how reality is constructed through images. By examining cinematic space through this lens, the research aims to expand the horizons of architectural theory and design, offering new models for thinking about space. These models are derived from the representations, reinterpretations, and analyses of cinematic spaces within architectural and landscape contexts.

Cinematic Space: An Architecture of Fragments and Figments

Cinematic space, in all its complexity, is defined by its scalelessness and fluidity—key characteristics of contemporaneity. Whether imagined, real, or hybrid, cinematic space exists at the nexus of constructed and lived realities, intertwining elements of the mundane with the extraordinary. It can be understood as an architecture of fragments and figments, where spaces are assembled or constructed through montage techniques. These spaces challenge traditional architectural interpretations, diverging from the static, material understanding of built environments by embracing performativity and relying increasingly on mediated experiences.

In cinema, montage plays a crucial role in shaping space. Through the manipulation of time and space, filmmakers create environments that are not bound by the same constraints as physical architecture. These spaces can be representational, manipulative, or autonomous, depending on how they are constructed and used within the narrative. Montage, therefore, has the potential to enhance or even facilitate the performative aspect of space, particularly in today's context where architecture is increasingly mediated rather than directly experienced.

Diegetic Space: Representational, Manipulative, and Autonomous

André Gardies identifies four key types of cinematic spaces that contribute to the spatial essence of a film: cinematographic space, diegetic space, narrative space, and viewer time. Diegetic space, in particular, is of interest in this study. It refers to the film's reality that exists independently of the story—what Jacques Lévy terms 'anecdotal space.' In many films, diegetic space serves as a backdrop or container for action, lending plausibility to the narrative. However, diegetic space can also be a more active element, shaping the viewer's experience and influencing the narrative itself.

Diegetic space can be representational, mirroring real-world environments, but it can also be manipulative, reshaped through montage to fit the needs of the narrative. In some cases, diegetic space becomes autonomous, existing as a space that is independent of its real-world counterpart. These concepts provide a framework for analyzing how space is constructed, utilized, and interpreted in cinematic storytelling. By blurring the boundaries between representational and performative space, cinematic space challenges traditional notions of architectural design and offers new possibilities for understanding space in a fluid, contemporary context.

Case Study: Alain Resnais' *Last Year at Marienbad*

One of the key examples of diegetic space in cinema is Alain Resnais' 1961 film *Last Year at Marienbad*. In this film, diegetic spaces are architecturally incorrect, with multiple real spaces combining to create one cohesive cinematic space. Resnais explores the spatial dynamics between characters and the environments they inhabit, crafting a cinematic topography that mirrors the complexity of relationships between space, time and memory.

In *Last Year at Marienbad*, space takes on an active role, becoming as significant a character as the protagonists. Resnais uses on-location shooting to emphasize the relationship between characters and their sur-

roundings, while montage constructs a cinematic version of the palace that is both familiar and surreal—a collage of different real-world spaces.

The palace in the film functions as an autonomous space, existing independently of its real-world counterpart. It is not merely a backdrop for the narrative but an active participant in the film's exploration of identity, time, and place. Resnais exemplifies the potential of cinematic space to offer new perspectives on how environments are experienced and understood, both in cinema and in real life.

Conclusion: Reinterpreting Cinematic Space

This study of cinematic space as an architecture of disposition—an architecture of fragments and figments—offers new insights into the relationship between cinema, architecture, and space. By examining the representational, manipulative, and autonomous aspects of cinematic space, the research proposes a new framework for understanding how space is constructed, experienced, and interpreted in both film and architecture.

Cinematic space challenges traditional design principles by embracing fluidity, scalelessness, and relational thinking. It offers a model for understanding the complexities of contemporary space, where physical boundaries are increasingly blurred and mediated experiences are becoming the norm. In this sense, cinematic space provides a valuable tool for architects and designers, offering new ways to conceptualize and engage with the spaces we inhabit in a world defined by change and uncertainty.

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Figures:

Figure 1 Graphic representation of André Gardies's four kinds of cinematic spaces expanded upon using Jacques Lévy's concepts of space, with a special focus on diegetic space.

Figure 2 Montage of still images—screenshots from *Last Year at Marienbad*, a 1961 film directed by Alain Resnais.

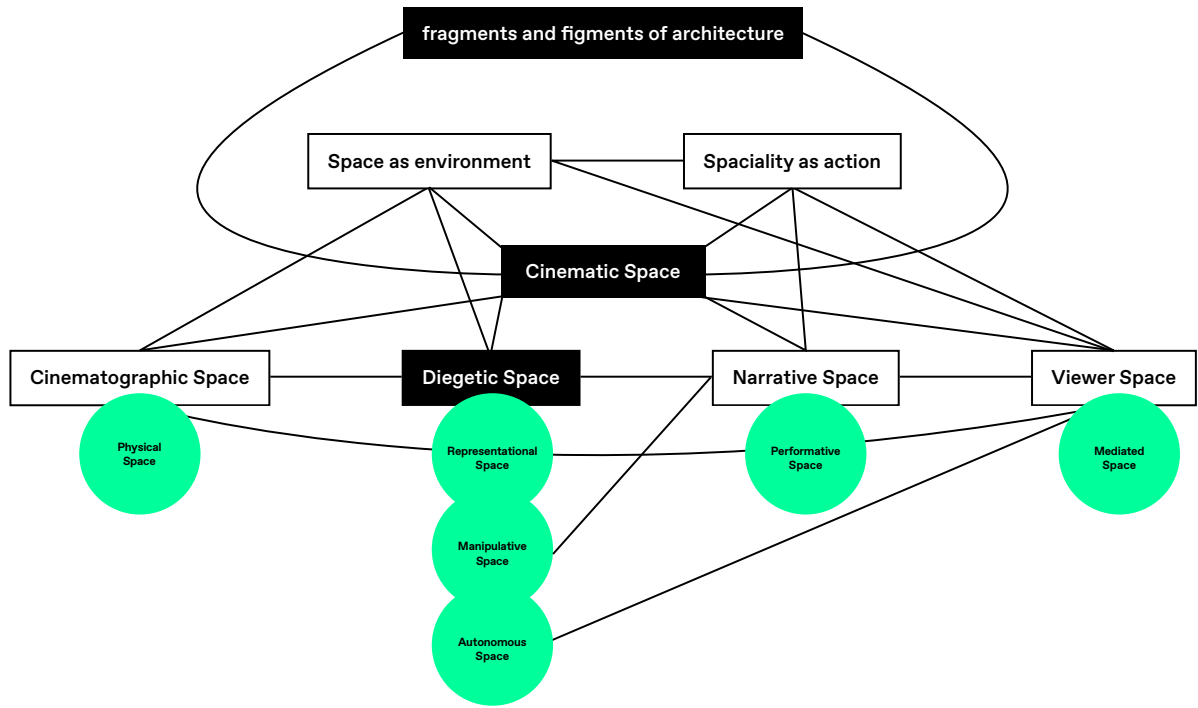


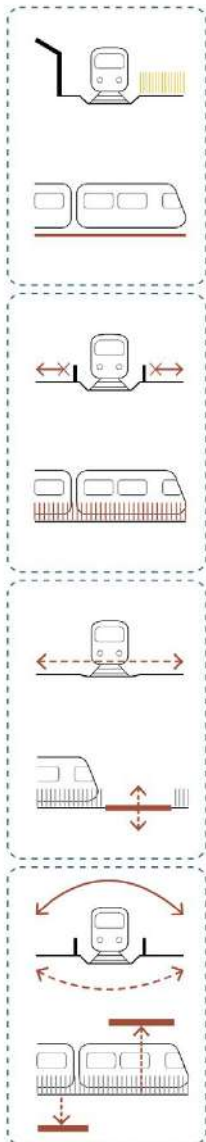
Figure 1 Graphic representation of André Gardies's four kinds of cinematic spaces expanded upon using Jacques Lévy's concepts of space, with a special focus on diegetic space.



Beatrice Basile

PhD candidate

Beatrice Basile is currently a Ph.D. candidate in AUID (Architectural, Urban, and Interior Design) Ph.D. Program at Politecnico di Milano. After the Bachelor's Degree in Architectural Design, she obtained a Master's Degree in Architecture, Built Environment and Interiors from Politecnico di Milano. Here she collaborated with the Department of Architecture and Urban Studies (DASU) for research projects and as a teaching assistant.



[DIS]POSITION Actions about the Railway.

The infrastructure edge as key to understanding the architectural relationship with the territory

The research attributes the railway infrastructure edge a fundamental role in defining the relationship with the territory the tracks cross: the edge can be interpreted as the interface between the infrastructure and its context. It is a linear continuous artefact that follows at a variable distance the railway track, with which it interweaves a direct interdependency.

The infrastructure edge is exclusionary, it denies access from the outside defining its area of relevance and protecting both the railroad operation and people /animals/ things from the intrinsic dangerousness of the railway.

It is the physical border along which the longitudinal dimension of the railway 'encounters' its closest context establishing a transversal point-to-point relationship that determines the continuous variations of the edge itself. Since the context can be significantly different from one side to the other of the railway, the infrastructure-territory relationship determined heterogeneous conditions, thus we should consider not the 'railway edge', but the 'railway edges', as two relatively autonomous borders. They are also the boundary along which the infrastructure deals with different levels of the ground, confronting the morphology of the land.

The railway involves lots of the 'disposition' operations the topic of this conference introduces. Its first 'act' itself is a process of [DIS]POSITION: drawing the railroad path is the first step which definitively changes an entire territory; it is an operation led by the localization of pre-existing historical centres and that simultaneously determines the disposition of future urban settlements. As a strictly designed system, led by its own laws that do not admit exceptions, the longitudinal almost flat line of the railway signs the territory often placing itself in a relation of [O]POSITION, evidently counteracting as hard mark which the built environment and the agricultural textures have to deal with. During the second half of the XX century, the irresponsible way the rapid expansion of the city had approached the already existing railroad often determined the [DECOM] POSITION of the border areas, a disaggregation that generated a series of residual areas

and directly related critical issues.

At a large scale, in fact, the edge is what consolidates the character of margin and caesura, inherent in the railway infrastructure and assumed by the railroad in urban context in relatively recent times. In fact, the railroad was originally traced outside existing historical centres; with the gradual expansion of the built-up area, the railway became an edge of the urban fabric and, with the further development of the city, the infrastructure soon translated into a barrier, a caesura. Even if only in very few examples the line has been displaced from its original footprint, through the expansion of the urban settlements the original relationship between the tracks and the crossed landscape was significantly altered with an indirect effect of **[TRANS]POSITION**.

As a physical, visible explication of the longitudinal dimension of the railway, the edge becomes its vertical border. Analysing a series of cross-sections, one can read other specific disposition actions it involves along the tracks. Dispositioning as an act does not only refer to the plan, but also to the vertical section: to respond to the necessity to be almost flat, the line has to deal with the land morphology, often placing above or under the level of the pre-existing ground. Furthermore, as before mentioned, since the two sides of the infrastructure may present considerably different contextual situations of proximity, the railroad can be read as the line of **[JUXTA]POSITION**, often an edge along which different fabrics meet. When the two sides are homogeneous, the effect of caesura shows more evidently: here the **[DECOM]POSITION** action comes into play, breaking the continuity of the territory and transforming the railway into a physical barrier. Thus, a **[RICOM]POSITION** action is represented by the level crossing and overpasses, underpasses, footbridges, etc. aimed at restoring interrupted transversalities. They also involve an operation of ground modelling, a modification of paths that can be interpreted as **[TRANS]POSITION** of the level of the public space above or under the track elevation.

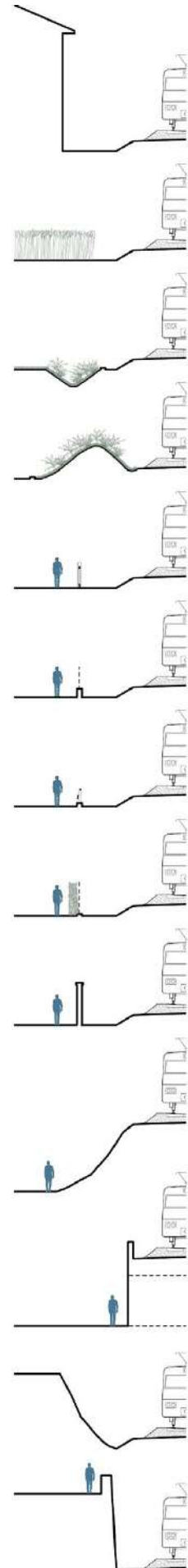
ASCRIBING A TRANSVERSAL DIMENSION TO THE EDGE

Through a multiscale approach, the research aims to outline an interpretative analysis and classification of the complex and heterogeneous condition of the relationship infrastructure-territory that consolidated over time. Analysing and describing the edge, understanding its point-to-point relationship with the crossed landscape, its perception and the closely adjacent areas opens the reflection toward design thinking. It is the first step to define where spaces are available to the project, which room for action can be attributed to the edge.

The purpose is to understand where the infrastructure edge may become more than a simple line by transforming into a place, shifting from being a border to a 'borderscape' (a term borrowed from the political boundaries field). The linear element seeks a transversal dimension and depth within the crossed fabric, a variable extension that transforms it into the place of interaction between the infrastructure and the territory. As final objective, the research aims to understand where and how the architectural project may contribute to the definition of a new role of the infrastructural edge in highly urbanised areas, by being involved in reinterpreting and rewriting different complex and critical conditions along an existing railway line.

Within the framework of Mission 2 (Green Revolution and Ecological Transition) and Mission 3 (Infrastructure for Sustainable Mobility) of the NRP (National Recovery Plan), the research aims to investigate the possibility of inhabiting the 'extended' edge, regenerating residual spaces, longitudinal paths, interrupted transversalities, reconnecting and considering them as a continuous system capable of giving new quality to the infrastructure border. This potentiality lies in the fruition of the linear dimension of the edge and it is sought in a possible threefold declination of the role of the border.

Gaining a transversal variable measure, the edge may assume an urban role within the consolidated fabric: it can offer places to be to the areas immediately adjacent to the railroad; at the same time, the continuity of its longitudinal dimension contributes to



Picture and graphic elaboration by the author

a possible connective role by finding space for a bicycle-pedestrian connection that, in close relation to the railway, encourages sustainable mobility. Finally, the linear dimension can also improve the environmental quality of the infrastructure encouraging the development of a green seamless system along the track, which may contribute to the preservation of the biodiversity the railway verge provides.

The design process becomes effectively a [\[RICOM\]POSITION](#) action along the railway edge: by regenerating residual spaces, longitudinal paths, interrupted transversalities, reconnecting and considering them as a continuous system the architectural project of the edge may contribute to giving new quality to the infrastructure border, rewriting its relationship with consolidated fabrics.

The research is framed into the Italian NRP PhD Scholarships program and it is co-funded by FNM Group, the main non-state integrated Group in sustainable mobility in Lombardy, in the North of Italy, and one of the major in the country. This offers the opportunity to focus part of the research on a specific context that becomes both the starting point of the research and its final testing ground for design strategies/solutions and verifying the outputs of the design-driven approach.

The specific context of the FNM railway network developed in Lombardy frames a widespread rail system characterised by short distances between its stations whose main role is to offer commuters a direct link between the northern suburban centres in the metropolitan area and the centre of Milan. The local context offers a densely urbanised territory, where, with the rapid development of the second half of the XX century, lots of historical cores welded together often presenting an urban sprawl along their fringe areas.

Thus, the research aims to work on an existing railway system to understand how much room for action an architectural approach to the infrastructure edge can find in a densely urbanised territory such as the one above mentioned.





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PhD candidate

Ph.D. candidate in architecture in a double programme between University of Liège (BE) and Politecnico di Milano (IT), funded by FNRS (BE). Her research concerns underground quarries and landscape transformation processes within the cross-border area of the 'Three Countries Park' in the Euregio Meuse-Rhine (BE-NL-DE).

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Invisible Landscapes.

Positioning Underground Quarries by Drawing.

This research in architecture explores the interactions between underground quarries and landscape transformation processes by and for the quarrying industry. The analysed case study is the 'Three Countries Park', at the core of the Euregio Meuse-Rhine (BE-DE-NL), where underground quarries have developed invisibly below national borders over centuries. Here, a strong contradiction emerges between the continuity of geological sedimentation underground and the sectoral and administrative fragmentation on the surface.

What are the links between underground quarries and the surface landscape? How can drawing be used to explore the spatial, cultural and ecological connections between underground quarries and landscape transformation processes? How can existing fragmentary representations of underground quarries and the surface landscape, relating to different scales, techniques and disciplines, be juxtaposed to provide a coherent image of a given territory?

By adopting the *recherche-projet* method (1), drawing is used as a research tool to position underground quarries in relation to the surface landscape, through a careful and diagnostic (2) understanding of the territory and its evolutionary process. The positioning operation is articulated around two groups of actions: topographic modelling and representation of visible and invisible (3) landscape and architectural elements; cartographic analysis and reconstruction of the spatial, cultural, and ecological evolutionary logic of the underground and surface landscape as a whole (4).

These actions follow an iterative method combining the study of cartographies, documents and drawings with an involvement in the field to search, systematize and understand the relationships between coexisting natural and human factors (5). The result is a graphic composition based on a situated knowledge bringing out existing and potential synergies in the landscape as a complex system, a common ground (6) for territorial development projects.

[Drawing]

The need for visual aids (two- and three-dimensional drawings, maps and diagrams) stems from the invisible character of underground quarries and the important administrative, cultural, and environmental fragmentation characterizing the case study. Here, with a significant lack of documents describing the overall position of the underground quarries in relation to the surface, the focus tends to be dichotomous, either the surface or the underground landscape as two 'worlds apart'. Thus, the problem of incomplete or inconsistent representation spills over into ownership, management and development issues associated with underground quarries.

By using axonometry as a core representation method, this research aims to facilitate the positioning process of underground quarries in terms of both disposition and depth underground, taking into account the soil thickness between the quarries and the surface. Furthermore, the tools of architectural drawing and surveying are employed to gain an understanding of the specific spatial characteristics of quarries and their interaction with surface landscape. A spectrum of access and gallery typologies is investigated with a view to comparison. In this logic, the various quarrying methods employed over the centuries can be interpreted as a form of 'construction by extraction', whereby the specific character of the

space is shaped by the technique used (7). This establishes a direct link between the evolution of techniques and the transformation of underground to surface landscapes as a *continuum*.

[Topographic modelling and representation]

The topic of the underground landscape entails the need for a vertical reading, capable of directly relating the visible elements on the surface to the invisible ones in the underground, moving beyond the logic of landscape as a rigid stratification of horizontal layers (8).

The construction of a 3D-printed model consisting of 25 juxtaposable pieces allows for the creation of a dynamic and interactive sequence of sections, enabling the positioning of quarries within the landscape in both their horizontal and vertical disposition (Fig. 1, 2).

The construction of the model is itself a knowledge building process regarding the complex set of human and natural elements composing the landscape. Indeed, a multi-scalar method is applied to build the model by studying simultaneously the territory's micro-dynamics, exploring them *in situ*, and the territory's macro-dynamics, taking the distance while maintaining a global overview (9). Performing this plastic operation alongside a historical analysis allows for a parallel reading of the dynamics of territorial fragmentation and continuity, highlighting the elements of landscape coherence and cohesion as well as those of incoherence and contradiction. The study model aims to reproduce the current geomorphology of the territory by locating both primary hydrographic and orographic elements, and those related to the quarrying industry, altering the landscape configuration through the anthropic geomorphic agency (10). Finally, besides being a descriptive object in itself, the model is a tool for searching, questioning and designing the multiplicity of elements that compose the landscape and their systemic disposition within the territory.

[Cartographic analysis]

Cartography is seen as a way of deriving the value of the territory and establishing a dialogue with it on the basis of experience (11), combining the two-dimensional representation techniques with the ability to retrieve, select and interpret geographical data, displayed and juxtaposed according to different narrative strategies. In this sense, as opposed to the supposed objectivity of geographical data, cartographic representation is always understood as a partial description, constitutive in itself of a specific meaning and depth (12). Recognizing a reciprocity between landscape and socio-cultural practices, cartography is hence used as a tool for questioning and interpreting the territory as a system and can thus be considered as the 'basis of and for the project' (13). In the context of this research, to understand the evolution of the landscape in relation to the development of the quarrying industry, four historical cartographies have been analysed and compared with each other, by re-drawing, composing and juxtaposing specific elements in different historical phases, in particular watercourses, vegetation, opencast and underground quarries.

The juxtaposition of multiple sections, representing at once the underground and surface configuration in different historical phases, enables the correlation and reassembly of elements contributing to territorial transformation processes (Fig. 3). This action unlocks an understanding of the landscape and the urban fabric as complex entities in continuous evolution, whose interwoven histories are, in the first instance, stories of material movements (14). In this way, using drawing as a tool for searching, questioning and understanding the ongoing landscape phenomena, permits the reintegration into a system of 'many parts of the territory that a very rapid and incoherent development has seriously damaged' (15). Drawing as a design-driven research tool is therefore also the basis for a design approach capable of imagining coherent and contextualized scenarios within a given territory, grasping its depth of meaning to place it at the basis of the project.

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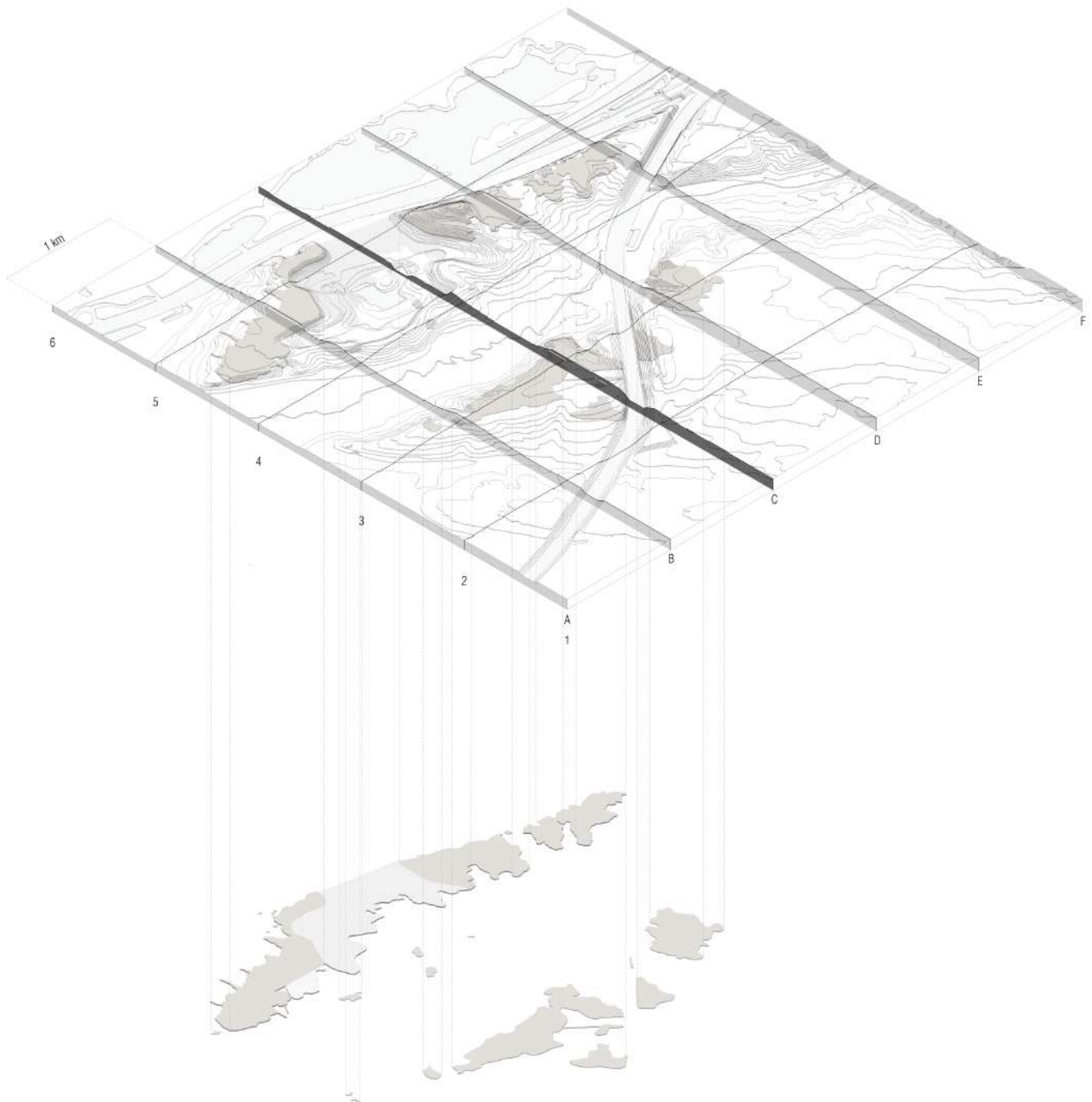


Fig.1
 Axonometry as a design tool to relate surface landscape and underground quarries. The sequence of longitudinal and cross-sections allows for the visualisation of the position and depth of the quarries within the landscape.
 Drawing by the author. Conceptual diagram in progress, the position and depth of the quarries is to be considered as indicative.
 Sources: Orbons, Joep. 'Inventarisatie van de ingangen van onderaardse kalksteengroeven in Nederland 2002-2004'. Maastricht, 2005; IGN (BE); OSMAnd.

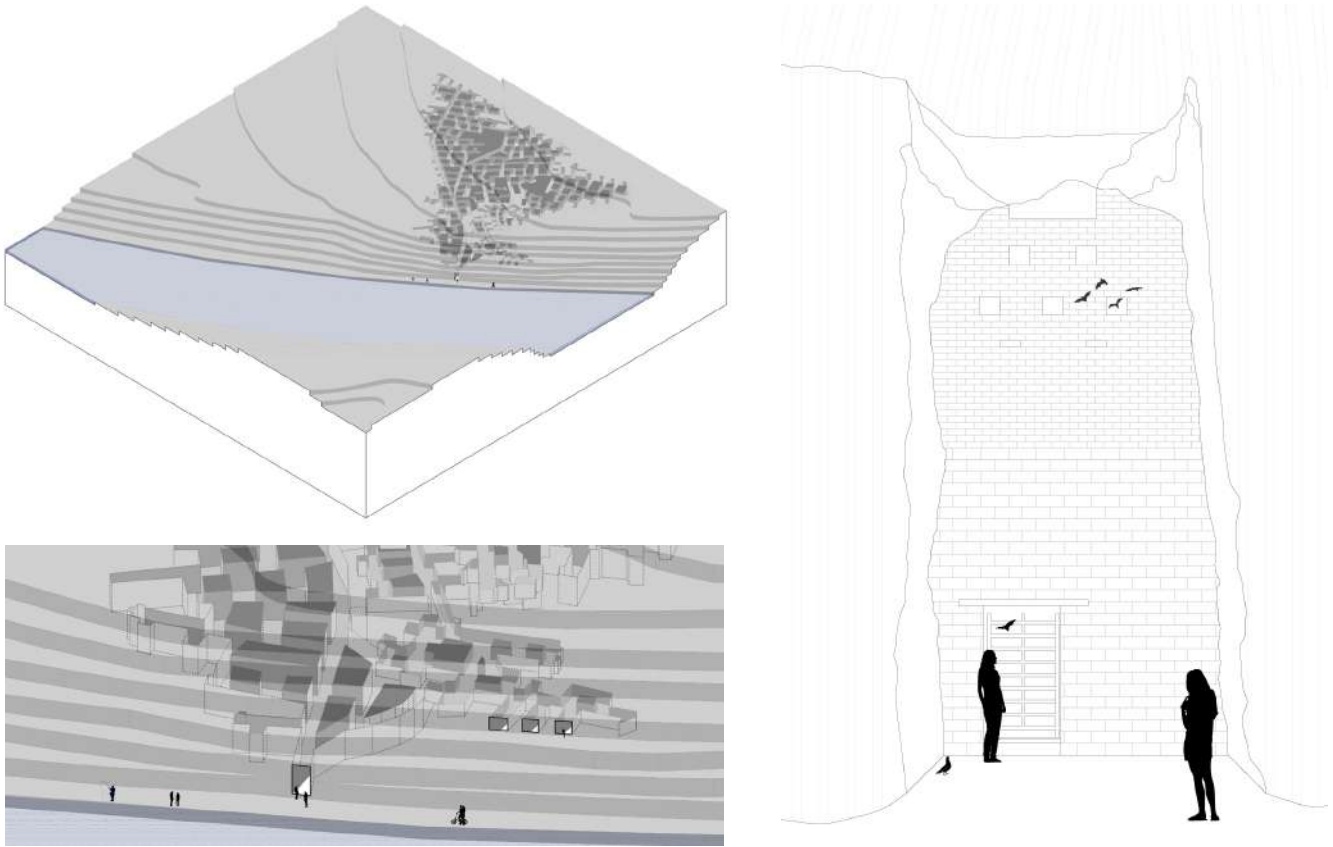


Fig.2
Close-up on a focus area of the 3D model with one quarry's galleries and entrance detail (block B2, south-west quarter). Drawing by the author. Conceptual diagram in progress, the position and depth of the quarry is to be considered as indicative. Sources: Walschot, Luck. *Over Groeve de Keel*, Lanaken: SOW, 2010; IGN (BE); OSMAnd.



Fig.3
Comparison of historical and contemporary cartography (section C; watercourses, vegetation, opencast and underground quarries). Drawing by the author. Conceptual diagram in progress, the position and depth of the quarries is to be considered as indicative. Sources: *Cartes de Vander Maelen* (BE), 1850-1864; *Bonnebladen* (NL), 1900-1925; *Kadaster blad 61* (NL), 1989; *TopPlusOpen - Bundesamt für Kartographie und Geodäsie* (DE), 2024.

Michela Vanda Caserini

PhD candidate

Michela Vanda Caserini is a PhD student that investigates ethnographical methodologies to depict spontaneous settlements using hand drawings and photography as the main tool.

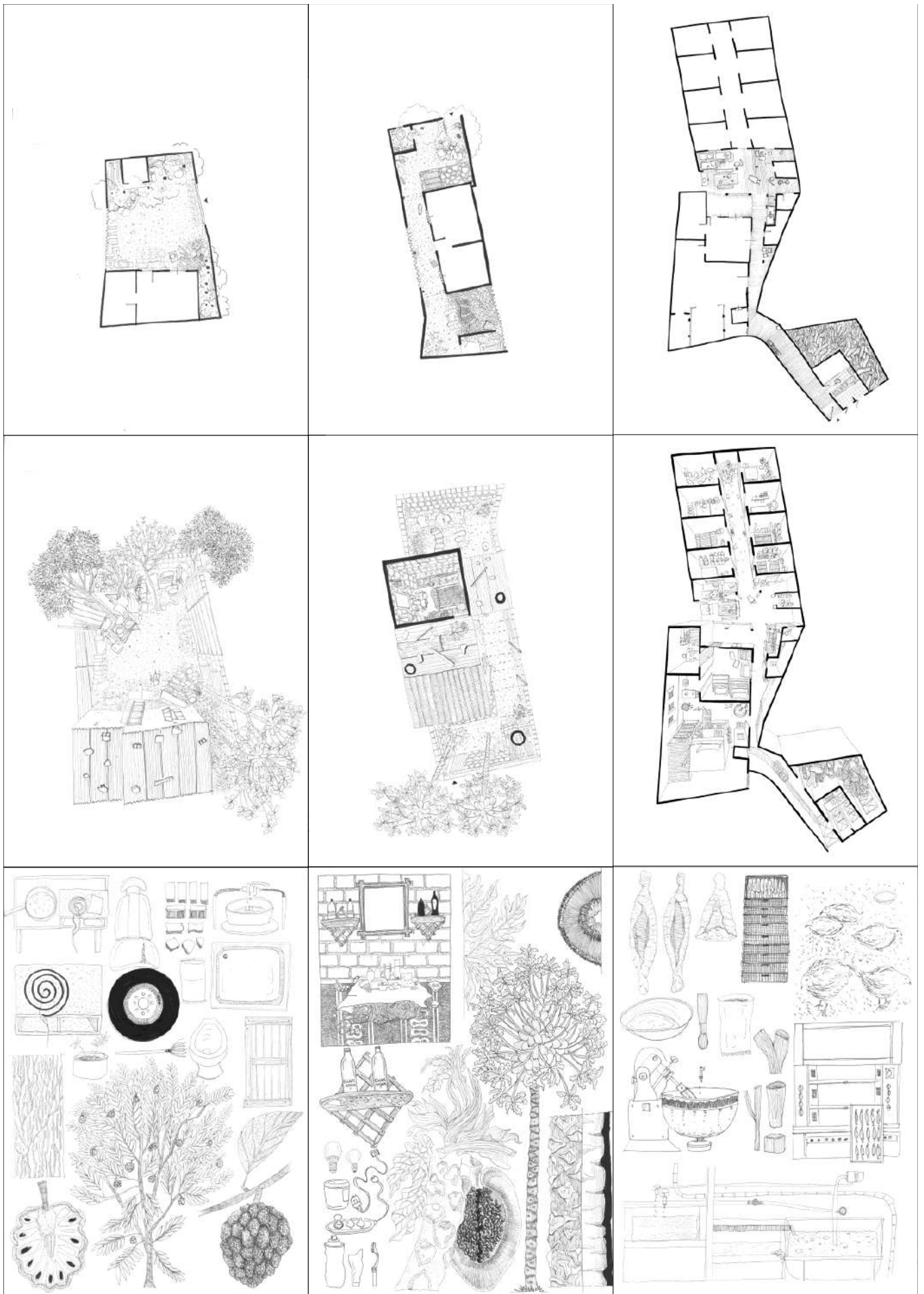
Hidden orders

How the other *-more than a half-* lives

This PhD research presents a detailed portrait of the houses located along the main street of a spontaneous settlement, Chamanculo C, in Maputo, the capital of Mozambique. These houses are slated for demolition as part of an urban regeneration project. Chamanculo C is situated in a vulnerable area, frequently affected by flooding, necessitating a slum-upgrading intervention focused on the urban reassessment of road infrastructure and its drainage system. This intervention, identified and designed by the REGENERA Project, involves the demolition of over fifty houses along the neighborhood's main road and requires the construction of new housing typologies to accommodate in-situ relocation. The research I have conducted stems from an agreement between Politecnico di Milano and Ars Progetti S.P.A., the consulting firm that secured the REGENERA project in 2022, funded by the Italian Cooperation (AICS). Additionally, this research is supported by a scholarship from the National Operational Programme on Research and Innovation, aligning with the European Union's cohesion policy objectives for disadvantaged areas. The aim is to encourage the PhD candidate to combine academic pursuits with practical engagement in a real-world project, promoting a design-driven research approach. Participating in this complex real-world project, both as an architect and PhD researcher, has prompted several key research questions: How do the inhabitants of Chamanculo C live? What approach should I take to be accepted and allowed to visit their homes? How can I accurately represent their living conditions? Understanding how people dwell in an unplanned district implies, as a first step, a comprehension of the literature review related to the informal side of architecture. The focus on the architectural form of spontaneous dwellings and their representation stems from a critical question arising from the disparity between the widespread prevalence of spontaneous urban architecture, as a direct response to contemporary challenges in the Global South, and the limited research conducted on this subject. As Peter Kellet pointed out, spontaneous settlements were often viewed as visual and social pollution, reinforcing negative stereotypes and prejudices about the morals, abilities, and values of the residents. Over time, these settlements have been primarily interpreted through safety and overcrowding lenses, neglecting architectural considerations. While vernacular and rural architecture have gained attention in the last century, spontaneous urban dwellings, despite their extensive prevalence, are still overlooked. This part of the research explains the need to understand and depict the architectural forms of informal architecture as they are becoming the common way of dwelling in the cities of the Global South. Today, the tumultuous development of the cities led to the incessant growth of unplanned districts, and to say that with Colin Ward's words: "limiting the discussion to monuments and squares is akin to reducing botanical science to roses and lilies". For the explained reasons, we might necessitate a shift away from folkloristic, sociological, and process-related perspectives to immerse ourselves in the architectural sight. Beyond the critical examination of the architecture in informal settlements, the question of how to represent unplanned architecture drives the research to find ways to depict an architecture that is usually not represented and that doesn't follow the codes of the official architecture. This leads to experimenting different kinds of drawings aligning with an ethnographical approach, hopefully looking for a more sensitive understanding of the architectural characteristics and, furthermore, creating a base for the design phase. Indeed, the expectation of drawing a subaltern architecture belonging to a fragile context is an attempt to depict something that usually stays in the shadow. Ultimately, doing research on subaltern architectures and making drawings on them means giving a voice to something that is usually silent. This condition raises the relevant issue to understand the technique and tools that could be welcomed by the inhabitants.

Following the path of architectural ethnography outlined by Atelier Bow-Wow, various hand-drawing methods have been analyzed, with the Modernologio theory of Wajiro Kon, who was involved in depicting ordinary lives of common people, and the Uzo Nishiyama Investigation

on living styles, serving as the primary drawing references. The choice of these case studies is influenced by the technique employed, thus the free hand drawing, and even more to the analyzed subject: the ordinary or "trivial" architecture. Additionally, the work of other architects, such as Hayuda Tayob in South Africa and the field survey of Balkrishna Vithaldas Doshi in India, has been studied as reference for the design phase. This part became fundamental to understanding the application of the tool of hand drawings already experimented by other architects. The hybrid nature of the work encourages using a mixed methodology with a documentary phase in the university, followed by fieldwork in Maputo involving hand-drawings, pictures, notes, and analyses taken from conversations with the inhabitants. In June 2023, a preliminary site inspection was possible through a workshop with the students of the Politecnico di Milano's Master Design for Development course, where I worked as an assistant professor. Subsequently, a second site visit was conducted directly with the ARS company. The mission was followed by an on-site verification of data in the neighborhood, which was undertaken throughout August, giving the possibility of preparing assessments, documenting streets, public buildings, facilities, houses, open spaces, trees, communication routes, etc. During this phase, I worked alongside a Chamanculo resident, not only for security reasons but especially to strengthen the relationship between me and the local inhabitants. Parallel to the urban analysis, initial visits to the residences, called "quintal," were made, conducting a preliminary test on how to represent them in the research (see the attached picture). Hand drawings were supported by pictures taken with a camera when inhabitants allowed it. Since January, I have been working extensively with the company and the community in Maputo, awaiting permission to start the official survey of the affected houses. In May 2024, following the public consultation, I dedicated myself to an on-site, in-depth analysis of the houses scheduled for demolition and reconstruction. I began these surveys with the official team, which included sociologists and architects, who conducted regular interviews with the inhabitants. Due to my dual role as a PhD researcher and an architect working for a consulting firm, I found myself caught between two contrasting forces: the voice of the community and the urgent need to produce data and technical drawings for the company. My need to understand, stay, and interact was often sacrificed for the tasks required by the company. Consequently, I decided to leave the company last month to continue my in-depth analysis independently within the community. This decision allowed me to conduct extensive surveys of nearly 70 houses, utilizing hand drawings, photographs, and in-depth conversations, which will form the core of my research. Although the research is ongoing, the next months will be devoted to off-site redrawing and post-production of the materials collected over the past months. My hope is to create a portrait that captures and testifies to the vibrant life and hidden order of Chamanculo C.



drawings of three of the visited houses

Ana Catarina da Silva Antunes

PhD candidate

Born in 1990, she was accepted in Instituto Superior Técnico in 2008, to study Civil Engineering during 3 years. In 2012, she started studying Architecture which concluded in 2017. In her academic path, during her summer holidays, she collaborated at DOCOMOMO International Organization. In 2018, she started working in Grupo Quadrante/Procesl during 6 months. After that, she started her Architect Internship at Atelier João Pedro Falcão de Campos, where she collaborated during 1 year and 7 months. In 2020 she started working in urbanism in the City Hall of Alvito and in 2021 moved to the City Hall of Oeiras as an architect. Started the PhD in 2020 and won an FCT Grant to do the PHD since August of 2023, which is her full time job in the present.

Link with more information:

<https://www.cienciavita.pt/pt/8016-9E62-73DF>

TAPADAS (ROYAL FORESTS AND HUNTING RESERVES) OF PORTUGUESE ROYAL PALACES: RESILIENCE SPACES. FOR A SPATIAL AND ARCHITECTURAL REQUALIFICATION

FINAL ABSTRACT:

The scope of this research aims to study five national green spaces with heritage/artistic value – The Tapadas of Portuguese Royal Palaces – in order to value them as resilience spaces in its rural or urban context (the city), but also aims to reflect about their actual program and will result on a proposal (through a design driven research) of a new program to the space which has more potential to be improved.

This intermediate stage PhD research, started with the study of the Tapadas (Royal Forests and Hunting Reserves) of Portuguese Royal Palaces. They can be divided in two groups, per scale and region - the ones in rural context (Tapada de Mafra and Tapada de Vila Viçosa) which have a bigger area (over 800 ha) and the ones in the urban context, like the capital city of Lisbon (Tapada da Ajuda, but also there will be kept some attention at Tapada/Quinta Real das Necessidades, and Matinha of Queluz) which have a smaller area (less than 100ha).

The open and green spaces in the urban context (Ajuda, Necessidades and Matinha) are exposed to the urban pressure of the capital of Lisbon, even though their wall works like a protection element, it's important to understand them as “resilience spaces”, which enable to return to the past and connects the history of the monumental set to the present needs of **bringing the countryside inside the city**.

The word resilience, comes from the latin “resilientia”, that derives from “resilire”, which means to “to bounce back” or “to spring back”. Resilientia would refer the ability to recover and adapt in the face of challenges. In 1973, C.S. Holling, introduced the word “resilience” into the ecological literature, defining it as the amount of disturbance that an ecosystem could withstand without changing self-organised processes and structures (defined as alternative stable states). Different interpretations of resilience emerged depending on the areas of application, becoming a term widely used lately, especially in the context of urban resilience (Meerow, Newell, Stults, 2016).

In the urbanism context, it's important to promote **resilient cities** that have the ability to absorb, recover and prepare for future shocks (economic, environmental, social & institutional). The resilient cities should promote sustainable development, well-being and inclusive growth, and the **resilient spaces** should create environments that can better endure and bounce back from shocks and stresses, commonly associated to environments or areas that are designed or adapted to withstand and recover from various challenges or stressors (natural disasters, climate change, social or economic disruptions).

Accordingly to the perspective of Domingues (2001), “the traditional landscape was evaluated as a situation of balance, harmony and durability between the conditions of the physical environment and its appropriation by a certain way of life to which specific techniques, values, practices, symbols, etc. were associated. **The violence of change can translate into a “landscape crisis”, as a reference for lost identity, or as cultural impoverishment**”.

Appart from a small theoretical research about “resilience spaces” and the history of each tapada, it's urban or rural context and it's surroundings, this research, is now supported with graphic material which enables a better reading of the landscape of each Tapada,

understanding it's disposition in topography, water lines and in the relations with the city.

Aiming to do an **interpretative reading of the site and landscape of the Tapadas**, each site was visited in different times of the year, and fully registered with pictures, videos (with drone when possible), sketches and notes about it's noise/silent and smell, and also where the fauna was more significant. Due to the different location of each site, there aren't cartography already done that analysis and puts side by side with the same criteria all the Tapadas, so it was necessary to start with the military cartography(1:50 000) as a base, read the Municipal Director Plans and historical plans. After that, it was made an effort to create new cartography that enables to compare and contrast all the tapadas. In the plans produced it was identified their main "layers" of composition of the Tapadas: the buildings (with historic or artistic relevance), the wall and the gates, the topography, the paths, the stairs, the water lines and the hydraulic heritage elements, the sculptural elements, fauna and flora, and also the infrastructures, allowing to create a database with analisys drawings for each Tapada. But furthermore, appart from studying the site itself, it was necessary to read it's context in a major scale, understanding the main water lines that cross them, the valley's and the mountains (topography), the accesses/paths/roads and the most important landmarks which surround them. These **resulting analisys drawings/maps** made through experimentation of graphic reading aim to "talk" by themselves, not pretending only to be rigorous but can also be sometimes more **experimental and less technically-analytical**, in a sense that can show an interpretation of the sensations on the place for example.

"There are landscapes within landscapes within landscapes. **Every landscape feature is both a whole and part of one or more larger wholes:** leaf and tree, tree and forest; garden and house, house and street, street and town, town and region. Every phenomenon, thing, event, and feeling has a context. **A valley is not a valley if it has no ridge or plateau, no up and down, Motion is imperceptible without rest, sound without stillness. Without sense of past and future, there can be no present, without threat no refuge.** The same material, form, or action may have different meanings in different settings – water in desert, water in a sea." (Spirn, 1998)

It's also very interesting to investigate in the perspective of a **transdisciplinary approach**, because even though it may seem harder to reach a result, it can work as a new methodology to understand the site and the kind of program or uses that will enhances it's most beautiful and important characteristics.

Accordingly to Yi-Fu Tuan (1974), "**Human beings have persistently searched for the ideal environment. How it looks varies from one culture to another but in essence it seems to draw on two antipodal images: the garden of innocence and the cosmos.** The fruits of the earth provide security as also does the harmony of the stars which offers, in addition, grandeur. So we move from one to the other: from the shade under the baobab to the city; from a seaside holiday to the enjoyment of the sophisticated arts, seeking for a point of equilibrium that is not of this world." It's between the fields of anthropology, architecture, history, geography that this research is trying to find a way of answering, using experimentation to design hypothesys of program in one of the tapadas, in order to discover how to empower these cultural sites and stimulate our society reflection about adaptative reuse or even landscape design integrating climate action, and yet how an artistic intervention in historical landscapes like these, could mean a positive discourse around public realm.

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DDR STATEMENT I EXPERIMENTATION

This mid-stage doctoral research takes advantage of some tools of the design driven research to read, draw, observe, record, analyze, design and prototyping, but also aims to use architectural design practice's tools and methods.

Accordingly to the website of this conference/call "Disposition is the way in which something is placed or arranged, especially in relation to other things, prospects or phenomena. It implies developing, arguing or stating relational entanglements within the approach. Equally, the dispositioning is concerned with processes of search, questioning and position change through opposition, composition, transposition, juxtaposition, decomposition."

Disposition takes a fundamental role in this research, because one of the main task is the reading of the landscape of the Tapada, in the urban or the rural context, and also understanding it's disposition in topography, water lines and in the relations with the city. It's also important to analyse the disposition of the main buildings and it's articulation with the paths, the fauna and the flora. Questioning if the disposition of the buildings in the tapada changed or decompositioning it's main invariable elements to find elements of comparison between the tapadas are also part of the path of the research.

In the last phase, the reflection phase, conclusions will be draft from the experience of this reflexive design, clarifying the relevance of Design Driven Research approach in my research project.

Nathan De Feyter

PhD candidate

Nathan De Feyter is a teaching and research assistant at the Architecture Department of the University of Antwerp. His research describes an ongoing participatory action project in the Ten Eekhave community in Antwerp, Belgium. Initiated in 2022, the research delves into the spatial practices within a highly diverse neighbourhood, threatened by demolition and gentrification. His research reflects upon the diverse roles the designer-researcher can take within action research. It builds on insights derived from fieldwork in Ten Eekhave to investigate links between experiences in practice and existing theory.

Navigating Architect's Roles



in Design-driven Participatory Action Research

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How can I help you?

Navigating Architect's Roles in DD-PAR

Introduction: Design and Action research

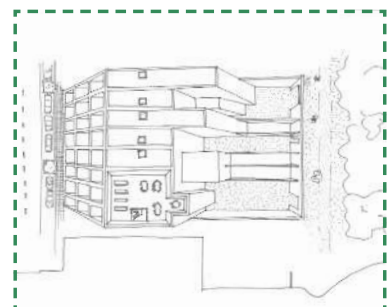
This paper describes an ongoing participatory action research project in the Ten Eekhoof community in Antwerp, Belgium. Initiated in 2022, the research delves into the spatial practices within a highly diverse neighbourhood, threatened by demolition and gentrification. Inspired by the thematic focus of the CA2RE Belgrade on '(dis-) positions', this paper reflects upon the diverse roles the designer-researcher can take within action research. It builds on insights derived from fieldwork in Ten Eekhoof to investigate links between experiences in practice and existing theory.

Relating reflections from practice to theory

From live interactions with the Ten Eekhoof community, three distinct roles reflecting real-world experiences have emerged: instrumentalist, agitator and conceptualist.

Defining these three roles necessitated delving into the action-research literature to validate the findings and prevent reinvention of the wheel. The following sections will explain these three synthesized roles and relate them to existing theory.

Firstly, the 'instrumentalist' role involves the designer-researcher acting as a facilitator, aiming to smoothly integrate within current processes. This includes gradually providing additional tools like technical expertise and visual representations. At the same time, subtle changes are made to prompt small improvements, enhancing understanding of the situation and improving results, all while empowering and amplifying community voices. The 'agitator' role involves challenging the conceptual frameworks and language used by hierarchical institutions, examining traditional narratives and suggesting alternative interpretations. This aims to incorporate local ways of knowing into existing discussions and question established power dynamics. Lastly, the researcher-designer takes on the role of the 'conceptualist' by strategically using the common ideas and reasons supported by



INSTRUMENTALIST

Role / stance

- hermeneutic
- analytic
- inquisitive

Practices / acts

- inscribing in processes
- there is something and they do it themselves
- see something and try to activate
- gradually becoming supportive by providing new/other tools: technical knowledge, drawings....

Language

- architectural drawings
- sketches
- references and stories

Strategy

- empowering the community

AGITATOR

Role / stance

- active role as a designer
- analytic (concepts and language)
- eliciting / provocative

Practices / acts

- doing something to trigger a response
- question current interpretations

Language

- sketches
- photographs

Strategy

- launching alternative interpretations to question the meaning of something

CONCEPTUALIST

Role / stance

- active role as a designer
- analytic

Practices / acts

- infiltration by using the project developers language / logic
- presenting alternatives to expose spatial capital
- visualize advantages of working with 'what is already there'

Language

- architectural drawings
- sketches and schemes
- presentations

Strategy

- launching alternative interpretations to question the meaning of something

facilitator



re-interpreter

local government and urban developers. This involves using designs as channels to infiltrate the neoliberal paradigm that governs real estate markets and identify alternative development paths while visualising the benefits of using existing urban structures to prevent the decline of urban vitality and promote sustainable urban development. In both agitator and conceptualist roles, the researcher-designer acts as a re-interpreter.

In the process of conducting design-driven action research at Ten Eekhave, we delved into the literature to gain a systematic understanding of researchers' roles and activities in action-oriented design practice. Action research dates to the early 20th century (e.g. the work of John Dewey or Kurt Lewin). Dewey's 'Transactional theory' challenged traditional epistemology by critiquing prevailing theories of knowledge, which he collectively labelled as 'The Spectator view of knowledge'. According to this perspective, knowledge is identified as an objective observer who perceives objects and reports phenomena. Dewey argued that this limited understanding falls short in certain domains (Dicker, 1973). In response, he proposed his 'transactional ways of knowing' theory that highlights active engagement, experimentation, and a dynamic relationship between the knower and the environment (Stoller, 2018). This approach promotes active involvement in the process of acquiring knowledge.

In general, action research can be understood as the collaborative production of scientifically and socially relevant knowledge, transformative action and new social relations through an iterative process (Kemmis, 1980; McTaggart, 1991; Chandler and Torbert, 2003; Dick, 2004; Greenwood and Levin, 2007; Reason and Bradbury, 2003 & 2008; Ramos, 2006). Kindon et al. (2008) emphasise the unique roles of researchers in Participatory Action Research (PAR). This approach emphasizes collaboration and active participation, setting it apart from traditional research methods. In PAR, researchers are deeply involved in the community and the research process, fostering mutual respect and shared learning. The book emphasizes that these roles are flexible and may overlap, requiring researchers to be adaptable and responsive to the changing dynamics of the research context.

Based on PAR theories, Wittmayer and Schöpke (2014) delineated five key roles for action researchers to address complex global



that combine action, research, and participation to address the pressing challenges effectively.

1. The 'Reflexive Scientist' focuses on understanding and addressing sustainability challenges while critically examining their assumptions, biases, and methodologies to enhance the quality of their work.
2. The 'Process Facilitator' assists stakeholders in co-creating knowledge and solutions, navigating ethical dilemmas and power dynamics to ensure responsible research conduct.
3. The 'Change Agent' actively participates in initiating and propelling sustainability transitions, engaging with stakeholders to encourage shifts in practices and mindsets.
4. The 'Knowledge Broker' translates complex information into actionable insights, fostering learning and collaboration.
5. The 'Self-reflexive Practitioner' consistently reflects on their practices, methodologies, and the implications of their work, striving for methodological innovation and ethical rigour in their research endeavours.

Linking the insights about shifting roles to design-driven practice

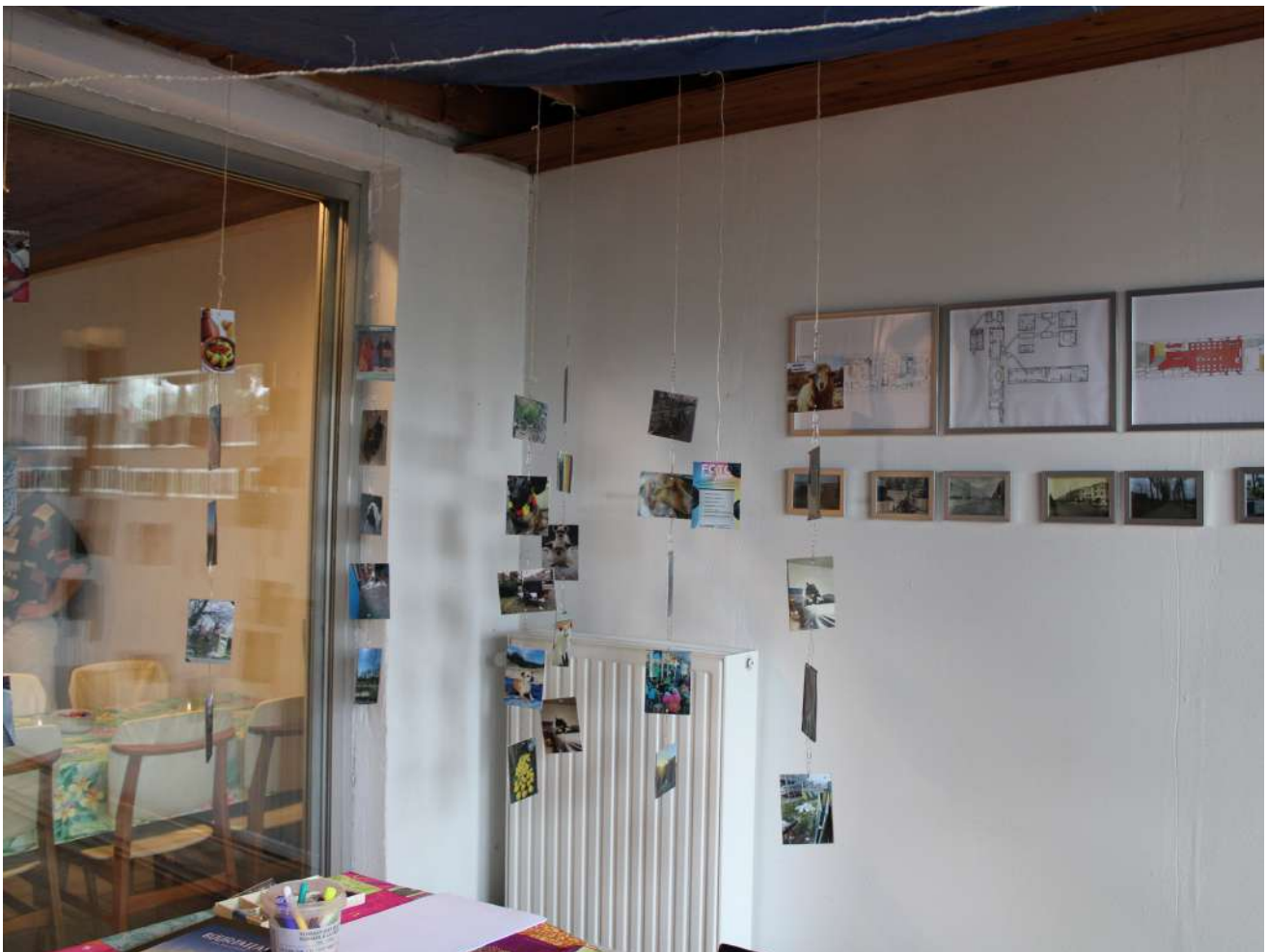
The three roles identified in the Ten Eekhoeve project align with the theoretical PAR frameworks. The 'instrumentalist' role mirrors the 'Process Facilitator' in theory, emphasizing the integration of tools and gradual improvements within existing processes. The 'agitator' role corresponds to the 'Change Agent' and 'Reflexive Scientist', challenging existing narratives and incorporating local knowledge, thus addressing power dynamics. Lastly, the 'conceptualist' role resembles the 'Knowledge Broker', using common ideas to propose alternative urban development paths, aligning with PAR's emphasis on collaborative, transformative action and fostering sustainable urban development. This synthesis underscores the flexibility and adaptability required in action research.

Working with a design-driven methodology within PAR is a more specific approach that has not yet been extensively explored in the broader PAR literature, which tends to highlight social and procedural aspects of the actions, rather than pointing to specific stances, skills and competencies of the (particular) researcher,

in this case an inquisitive architect-designer. Design sciences introduce unique dynamics, where the architect not only facilitates but also takes initiative, contributing specialized knowledge and expertise. Unlike traditional PAR roles, the architect engages as a 'specialist,' actively shaping the process and outcomes. Furthermore, architects employ a distinct evaluative lens, assessing projects from a design perspective. These differences, which will be elaborated on in the presentation, highlight the distinct contributions and potential of design-driven methodologies in PAR.

Conclusion

The value of the paper lies in its specific case study of Ten Eekhoeve, providing concrete examples of how these roles can be enacted in a real-world setting. The practical application and detailed analysis of these roles in a transforming urban neighbourhood effectively apply existing theories to a practical case, offering a robust framework for future research and practice. This practical integration can be considered an important step in applying PAR to design-driven approaches. It involves expanding and adjusting PAR to incorporate a design-driven perspective.



Reflection on the importance and role of the design-driven research in the research project

The design-driven research approach described in this paper is crucial for understanding and addressing the complex social and spatial dynamics in the Ten Eekhoe neighbourhood. This methodology integrates participatory action research (PAR) with design thinking, emphasizing the active involvement of the community and the designer-researcher in co-creating solutions. The roles of 'instrumentalist,' 'agitator,' and 'conceptualist' highlight the multifaceted contributions of designers in navigating community needs and institutional challenges.

The emphasis on dispositions within this research underscores the necessity for adaptability, reflexivity, and responsiveness in design-driven PAR. Dispositions such as openness to community input, willingness to challenge established norms, and ability to envision alternative futures are essential for the effective practice of design-driven action research. This approach not only enriches the theoretical framework of PAR but also demonstrates the potential of design disciplines to contribute to social transformation.

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Silvia Di Mauro

PhD candidate

Silvia Di Mauro is a Ph.D. candidate at DASTU-Department of Architecture and Urban Studies in Politecnico di Milano from 2022. She attained a bachelor's degree in Architectural Design in 2018 and a master's degree cum laude in Architecture Built Environment Interiors in 2021, both at Politecnico di Milano. She has collaborated with three architectural firms between Milan and Bergamo and carried out an internship and an extracurricular internship in the DASTU, the second in collaboration with local public administration. Experience as a didactic tutor in theoretical courses and design studio since 2021.

For a Tactical Recycling.

The role of architectural transformation of the ordinary in the lower province of Bergamo.

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The research illustrated belongs to the PNRR (National Recovery and Resilience Plan, promoted by Next Generation Europe NGEU funds for post-covid recovery) PhD scholarship program and includes collaboration with three Italian municipalities belonging to the province of Bergamo that will be the ground for project experimentation: Bottanuco, Lallio, and Stezzano¹.

Places in the design field of the transformation of the existing stock, current research reflects on the potential of recycling ordinary buildings at the architectural scale as a possible driver of broader processes of ecological transition [Bennet, 2005] stimulated by punctual projects in the territory. The proliferation of abandonment phenomena and the obsolescence of the ordinary is considered a starting point for the reflections and an emergency that the project must confront.

The theme originated from the interest that arose from administrations and citizens, from which emerged the problem of the spread of abandonment phenomena and the need for regeneration from the existing. The context immediately set the scale and critical issues of reference, which, together with the interpretation of the PNRR missions -M2 Green revolution and ecological transition, M2C1 circular economy, M2C3 Energy efficiency and Building Redevelopment, M2C4 land protection- put the circular economy at the architectural scale, understood as architectural recycling, at the center of reflection.

Specifically, the research studied the dynamics related to the network of punctual fragilities inside the productive urban-rural continuity of the metropolitan periphery, widespread throughout the territory. The three municipalities involved and the project buildings are to be understood as paradigmatic cases for similar contexts. The objective is the experimentation of design strategies of architectural recycling able to mend the relationship between community, nature, and architecture by going beyond the concept of protection to take an active role towards the environment. Through a spatial reflection on the ability to activate broader transformations, the research proposes tactics of recycling the ordinary that act at the architectural scale to deposit a new sustainable layer and a vision of the future starting from architectural design.

With 31.75% urbanized land, 18% greater than the Lombardy average², the over exploitation of lands conflicts with the widespread problems of abandonment and underutilization. The 'built expansion between the 1960s and 1980s, coupled with the shift from a rural to a productive-industrial economy, has also broken the balance between the natural and built environment, significantly altering environmental balances and leading to the loss of local resources. The economic push toward the new has also led to a shift of inhabitants out of historic cores and a gradual deterioration of older buildings. While new buildings continue to fill the few available spaces in the existing plot, obsolescence is growing along public spaces and main streets. This trend is partly caused by the lack of constant maintenance and the absence of a solid culture of reuse and partly by the complexity that these transformations encounter from a regulatory and economic point of view. Transformations in the ordinary fabric are mainly polarized between preservation and demolition with replacement, often repeating previous aesthetic and formal features without critical reasoning regarding the deeper reasons for their role in the context.



Fig. 1- Abandonment and urban structure. From the left: Bottanuco, Lallio, Stezzano. Drawings by the author.

Despite the main conditions that push the problem of abandonment, age-related obsolescence, and use-related obsolescence [Wong, 2023], the reflection guide should not be about performance or function but the loss of urban role, connection with nature, and meaning for the community of buildings. Often in a privileged position in the urban structure, abandoned ordinary buildings fail to find a spontaneous sense of use. In the research, these 'wastes' are reclaimed as commons. Ordinary buildings [Forster, 2013] are considered anti-hierarchically and compared asynchronously, favoring a reading to identify their repeated characters.

Starting from the reflections introduced by the Re-cycle Italy research, the term recycling defines, compared to more traditional terms such as adaptive reuse or regeneration, design actions with more substantial reinventive capacities [Bocchi, 2015], capable of giving new meanings and roles to blocked spatial and material resources. If the need to recycle may be seen, in some situations, as the consequent action of a wrong design [Bovati, Cozza 2014], the design of a new life cycle should aim at fixing the relationship between architecture and ecology, actively contributing to establishing renewed relationships with the environment capable of modifying from within the current role of the built fabric.

Recycle turns tactical [De Certeau, 2010] in research because it frames a design methodology that defines an intentional orientation to specific ecological purposes. The approach combines the boost and spontaneity of processes of reappropriation "from below" of neglected spaces typical of tactical urbanism [Lydon, Garcia 2015] with the design tools of reinvention of the existing proposed by Re-cycle [Ciorra, 2011], elaborating urgent but at the same time durable solutions through an approach that can be declined into a series of actions and tools capable of adapting to heterogeneous real-world conditions.

The core of the discussion develops from the interaction between best practices and design experimentation. The methodology involves the development of three projects on existing buildings, one per municipality and selected by public potential.

The three declinations tested in the design experiments refer to observations arising from the selection of best practices in the European context. These are chosen from projects that were able to make transformed buildings proactive in engaging the community and establishing relationships with climate and nature, combining architectural thinking based on deep reinterpretation of existing elements with a clear sustainability-oriented proposal.



Fig. 2- Abandoned ordinary buildings. From the left: Botanuco pink house; Lallio sacristan's house; Stezzano former barracks. Photo by the author.

Going beyond a vision of sustainable construction based on certifications, standards, and purely technical parameters, the research identifies three tactics for activating the ecological transition through design on the individual building that impacts different scales of context: architectural, urban, and local. The three will reason contextually in the proposed declinations to question the general architectural repercussions of the proposed strategies. Projects will be used to extrapolate useful knowledge, actions, and tools to private and public projects with similar goals.

Projects such as the community center Luise 19E of Undjurekrübben, the House in Three Springtimes by David Sebastian Arquitectes, and the Peveril garden and studio by Sanchez Benton Architects with Gabriel Kuri and Nigel Dunnet, show an approach of typological reinterpretation able to propose different ways of inhabiting the ordinary by activating not only a strong relationship with the public space and the local productive context but also by developing sustainable solutions that activate a new and purposeful role for all components of the existing. In the contemporary cultural context of ecological transition, and the progressive

and necessary normalization process of environmentally oriented design actions, architectural recycling is a topic yet to be explored in its implications and design potential. The network of abandoned buildings becomes a possible resource capable of stimulating further transformations with multi-scalar impacts toward the ecological transition of the territory.

Disposition

In the present research, the relational role of small-scale interventions toward the environment and the architecture on which it acts plays a pivotal role. Within the context of the climate crisis, the debate on design and disposition is conditioned by the characteristics of uncertainty and transitoriness characteristic of the contemporary panorama [Setti, 2022]. The search for tactics aims to guide toward the study of design actions capable of adapting to concrete conditions, overcoming the sense of disposition understood as order and the problem-solving-oriented logic, and searching for suitable opportunities to trigger a transformation.

In this sense, in the present research by design methodology, the arrangement tests tools and strategies oriented towards a specific goal. In the discussion, by combining a 'research on design' method, through the analysis of best practices based on theoretical premises, and a 'research by design' process, with projects that test, integrate, and orientate observations, the work emphasizes the need to develop reasoning able to interpret the ecological-transformative potential of places through device processes. The prefix *dis-* often indicates an alteration, and when it concerns the design, the role of this "change" of position is the definition of a precise orientation toward an idea of architecture and future development.

In the relationship between theory and design practice, the mediation between general and particular is revealed in the original interpretation of individual actions. Interpreting and proposing concepts of disposition capable of keeping boundaries open and stimulating further lines of research makes it possible to treat disposition, as understood here, as a foundational character of architecture, open to the interpretation of the author and time.

Notes

[1] This abstract reports the considerations developed in the thesis entitled 'Tactical Recycling. Transformation of ordinary architecture for the ecological transition of the minor centers' supervisor Marco Bovati, cosupervisor Andrea Oldani, inside the AUID PhD program 38th cycle, head Alessandro Rocca, Politecnico di Milano, Department of Architecture and Urban Design DASTU, with PNRR grant 351/PA entitled 'Tactical recycling. Architectural reuse projects for sustainable urban regeneration' in collaboration with the municipal administrations of Bottanuco, Lallio, and Stezzano.

[2] Environmental Indicators. Land cover coefficients by category. SIT province of Bergamo. http://sit.provincia.bergamo.it/sitera3/ot/schede/ind_trend_new.asp?id=343&a=0&d=as&i=7&o=0&g=2&v=c&z=o, accessed 11th September 2022

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Andrea Foppiani

PhD candidate

Landscape architecture researcher Andrea Foppiani is a PhD candidate in Architectural, Urban, and Interior Design from the Department of Architecture and Urban Studies at Politecnico di Milano, where he graduated with honours in Sustainable Architecture and Landscape Design.

His research focuses on post-logistics landscapes and ecologies in the Po Valley, working through more-than-human ecologies to explore future multiscale transformation scenarios through hybrid architecture.

Andrea presented at several conferences, including the latest IASLA (Italian Scientific Society of Landscape Architecture) convention. He also works as a teaching assistant in Politecnico di Milano, where he recently co-organized the “Architecture Unlocks Nature” seminar while yearly co-curating the “Landscape Off[f] Limits International Workshop”.

Transitional Landscapes of Logistics

An Atlas of Shifting Ecologies

If the placement and morphology of logistics architectures and landscapes (Waldheim & Berger, 2008) are subject to constantly evolving research based on economic, mathematical, and dispositional optimisation, their footprint on biological processes related to soil, water, and living communities is relatively ignored, in favour of a colonial paradigm of land appropriation and commodification.

Nevertheless, observing these phenomena across the scales of the pervasive logistics apparatus makes it possible to uncover, along its *folds* (Deleuze, 1988) and in its recent mutations – pushed by social, political, and economic shifts – a hidden ecological potential.

The research aims to draw an up-to-date picture of these ongoing transformations as an atlas of the shifting ecologies of logistics, using architectural and landscape design to describe existing shifts and reactions to consolidated warehousing developments. Within present and near-future shifts in spaces and practices related to the logistics infrastructure, this contribution will investigate how – across scales and reflecting environmental, technical, and computational challenges – such hyper-functional XL (Koolhaas, 1995) settlements are quickly developing symptoms of fragility, generating interferences, evocating trajectories of radical transition towards new layouts and – most interestingly – leaving room to speculate around unexpected dynamics of transition and obsolescence.

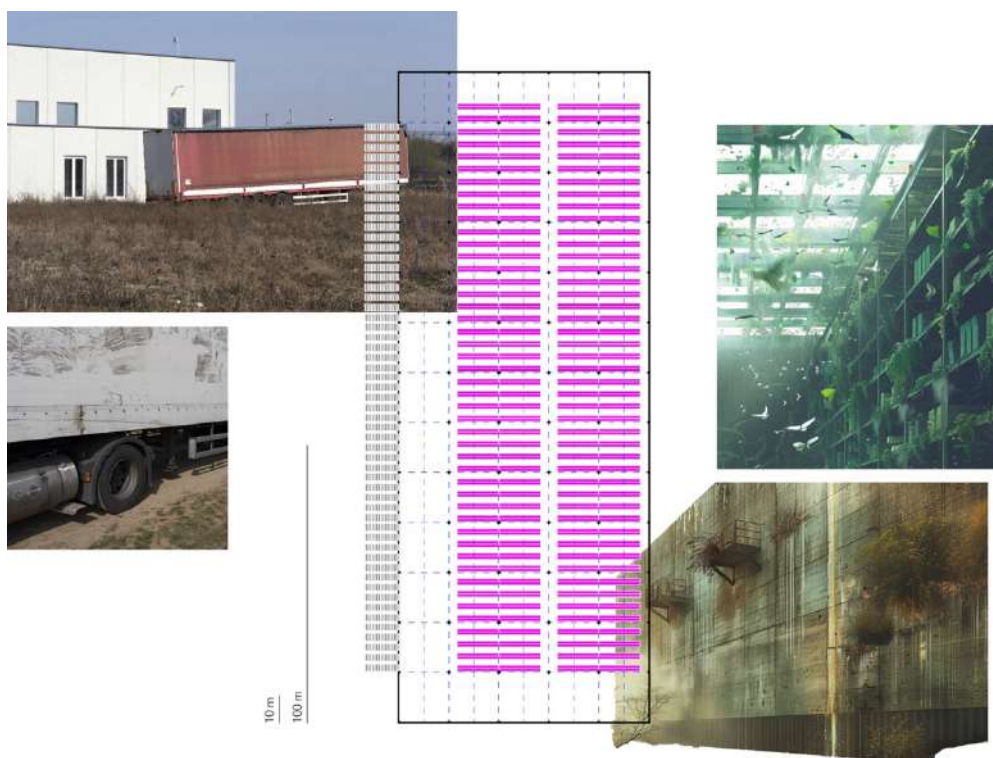


Figure 1: *Logistics and obsolescence* (montage by the author). Sources (from the top left): *Last Mile*, photo series. Northern Italy. 2022; *Warehouse C6*, Piacenza Logistics Centre (redrawn by the author). 2024; *Abandoned and flooded logistics buildings* (AI-generated images). 2024.

These phenomena, observed through a *more-than-human* (Jaque et al., 2021) lens which recognises the relevance of other agents and forms of life, can describe a new narrative: a present phenomenology of muteness (or alienation) with a genealogy rooted in large-scale economy and a potential linked to an unexplored future, where the relationship between spaces for storage and transportation of goods, and spaces prone to dynamics of interspecific co-existence could collide.

Pushing the speculation, global factors – or *hyperobjects* (Morton, 2013) – such as the unprecedented pressure exerted by the new climatic regime on urbanised areas and anthropic systems based on “extractive dynamics” (Otero Verzier, 2021), affect monocultural systems of production and the related spaces.

After a global pandemic and spreading conflict and warfare scenarios much closer to Europe than in recent decades, the globalised model – the economic and geopolitical premise of logistics as we know it – appears to be on the brink of mutation. Flows of goods across regions and continents are yet far from being questioned, but the logistics apparatus supporting them might be close to a structural change. Beyond the short-term scenarios driving its current expansion, the long-term destiny of the *automated landscapes* (Otero Verzier et al., 2023) of logistics remains unclear: their built-up spaces, patterns of growth, flows, and placement are becoming more and more prone to mutations, suggesting that future growth, shrinkage, or transitional patterns can be a worthy object of study.

Elaborating on the narrative trajectory based on *four ecologies* (Banham, 1971) – which pointed towards the diversity of layers through which it is possible to use the term – the interpretative reading of logistics mutations proposed by this research considers the concept of ecology as an open repository of the multiple living dimensions to which the landscape architecture project refers, including systems of spatial, cultural, and biological relations. The field of landscape architecture allows for a study of these phenomena able to comprehend all living entities and their interactions with the trans-scalar spaces of logistics under a seemingly opaque surface.



Figure 2: *Water ecologies* (pictures by the author). Spontaneous vegetation starting to grow on the site of a water retention basin in the logistics hub of Stradella (PV), Italy.

In this context, particular attention is given to the spatial understanding of logistics as a *platform*, “a raised level surface, for example, one that equipment stands on or is operated from” (Oxford Dictionary, 2024). The way warehousing is developed horizontally – following a matrix of ground coordinates orienting flows of humans, trucks, and robots across indeterminate shells – is understood, on the one hand, as a strong act of terraforming. On the other hand, logistics platforms are re-interpreted and turned from forms of land consumption to articulated surfaces: a potentially hybrid substrate, a “base” capable of hosting unexpected ecologies.

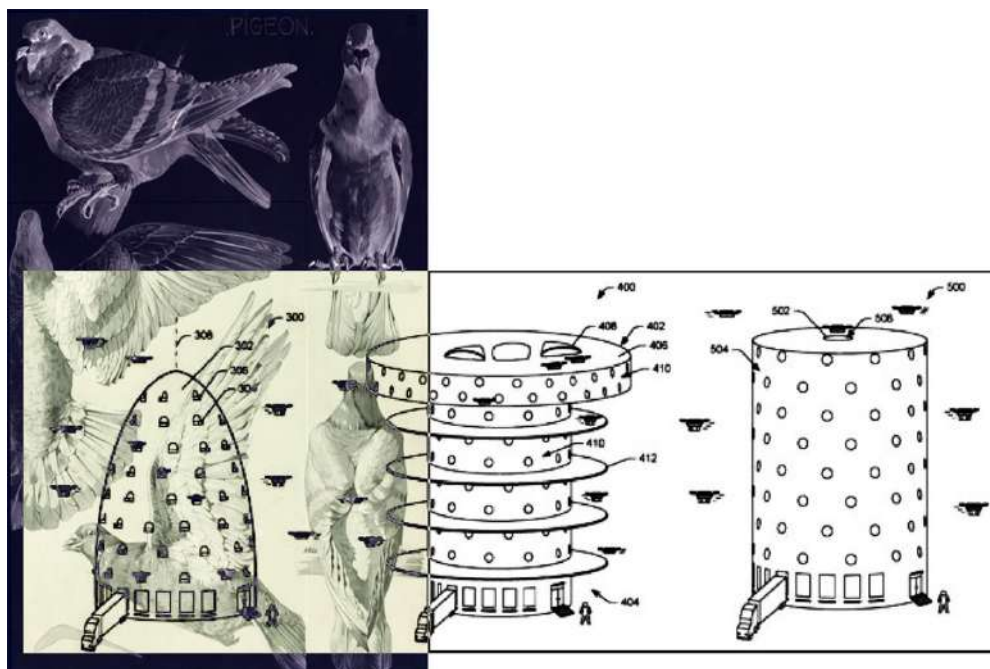


Figure 3: *Drone ecologies* (montage by the author). Sources (from the top left): *Pidgeon*, drawing from The Miriam and Ira D. Wallach Division of Art, Prints and Photographs: Art & Architecture Collection, The New York Public Library. (1911). *Études d'animaux*; *Patent for Multi-level fulfillment center for unmanned aerial vehicles*. Amazon Inc. 2016.

By observing and mapping current mutations of logistics platforms through a selection of relevant case studies across central and southern Europe, we can notice how logistics spaces are becoming increasingly subject to fluctuations in size and adaptive in their setting, with micro-warehousing – micro fulfilment centres and dark stores – being extensively implemented within the urban fabric. Can we assume this will affect the number of large distribution centres?

Looking at XL-sized hubs, new typologies linked to vertical stacking and fully automated transportation systems are determining growth in the warehouses' height. What implications can this trend have on the ground? Amazon's patents for high-rise drone delivery fulfilment centres push this question even more radical: what is the future of ground and road transportation? A shift to hybrid ground-air logistics would imply the obsolescence of any predominantly horizontal spatial layout. Finally, what role can unexpected marginal ecologies – currently unfolding along the edge of paved surfaces, through hedges, and across water reservoirs – have in defining new and transitional *logistics ecologies*?

The result of this investigation draws from the essential body of knowledge of a broader design-driven doctoral research on *post-logistics* ecologies. It will provide a relevant context for its further design-driven focus on the specific setting of the Po Valley and the Piacenza Logistics Center.

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Graduated as an architect from the Norwegian University of Science and Technology in 2018. Have since been teaching at the Department of Architecture and Planning (NTNU), first as a research assistant and later as an assistant professor. Mainly involved in courses on the bachelor and master's level with focus on (rural) planning and "place development". Has since 2022 been a part of the initiative "Planbussen", a hands-on master course in rural planning in close collaboration with selected municipalities. Was the Head of education at the department from 2021 until autumn 2023 when he began his doctoral research in architecture and planning with the title "Place analysis for sustainable place development"

Place analysis in Norwegian municipal planning: A possible tool towards a sustainable place development?

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Introduction. Ever since the report *Our common future*ⁱ came out in 1987 has *sustainable development* been an important goal in Norwegian planning. First as a part of the purpose clause in the *Norwegian Plan- and Building Act*ⁱⁱ, and later through the ratification of the *Paris agreement*ⁱⁱⁱ in 2015, the *Nature agreement*^{iv} in 2022 as well as in other various national guidelines and policy documents.^v Although the sustainability crisis is global it must be solved through local actions and means^{vi}, an obligation and responsibility which in Norway rests upon more than 350 individual municipalities, each with variations in size, population, capabilities, resources and challenges. But despite the strengthened focus on sustainability in planning, many municipalities find themselves struggling with the translation of global sustainability goals into the local context, and there seem to be no clear strategies for how to advance the sustainability work from a strategic level into specific actions and plans^{vii}. Many municipalities are also faced with a decreasing and aging population^{viii}, and in response they have aimed their focus solely towards *attractivity*^{ix} to *attract* new inhabitants, tourism and job opportunities. This have in turn led to a regional in-fighting between the municipalities, where the struggle for the same resources have transformed the question of *local sustainability* into a question of *local economic survival*^x. This is well reflected in the latest reports on sustainability, which show that despite some progress, there are still major challenges to be found on both the global, national and regional level^{xi}. In addition, 1 out of 3 municipalities have less than half a position employed within planning, and 9 out of 10 make use of external consultants to fulfil their planning obligations^{xii}. This raises the questions of how the municipalities are able to fulfil their obligations and responsibilities, and how they together with the external consultants understand and define both place and sustainability development through the local lens. In Norwegian municipal planning, methods for place analysis are perhaps one of the most well-known and widely used tools for knowledge production and information gathering. But little is known about how these methods are used, or how they address the issues and topics of sustainability and place development¹ in the local context, and if the current methods are sufficient for today's needs for a sustainable place development.

Guides and methods for place analysis. Although various methods for place analysis have long been established within Norwegian municipal planning, the first official *guide for place analysis*^{xiii} came out in 1993, made by the Norwegian ministry of environment. The guide provided a methodological description and framework for how to make *a systematization of knowledge to (better) understand the location's history, situation and future possibilities*.^{xiv} At the time, the goal was that the guide would help remedy the current development of Norwegian municipalities and settlements, which were seen to be both aesthetically unpleasant, with loss of local identity and place qualities due to rapid expansion and lack of coherent planning. A *sustainable place development* was then primarily understood as the development of the physical, geographical and aesthetical aspects of place, but due to the changing circumstances and developments within newer place theory², many other perspectives on the

¹ Place development, or *stedsutvikling* in Norwegian, is a commonly used term which refer to the development of the different aspects of place (physical, aesthetic, social, historical, natural, cultural, economic, etc.)

² The *relational concept of place* by the human geographer Doreen Massey have as an example been important for the transmission towards a constructivist understanding of place from the more traditional positivistic one.

different aspects of place have since been brought forward. But these have to a little extent been included as a part the formal planning process^{xv}, and the original guide has not been revised or updated to reflect this. This can be seen as a contributing factor to the plethora of *guides for place analysis* that since have appeared within the Norwegian planning context (see Image 1). The guides vary in themes and approaches, and see *place* both as something physical and geographical, sociocultural, phenomenological, cultural historical, economical, nature and landscape. Despite the many new additions of methods for place analysis, little is known about the actual use and effects of these in today's planning, and there is little to no research to be found on the topic. Given the slow sustainability progress and few viable strategies, it could seem that none of the established methods are able to holistically address and approach the combination of sustainability challenges (and other contemporary problems) which the municipalities and settlements are facing. The question of how or if the use of *place analysis* in today's planning can achieve or contribute towards a *sustainable place development* is the main topic which is being explored through this doctoral research.



Image 1) A selected overview of various methods and guides for place analysis. How they view, approach and understand both place and place analysis varies widely, from the purely physical to the planning processual. (Credit: Author.)

Research methods and design. The main method of inquiry in this research project is a comparative qualitative case study with selected municipalities from two regions in Norway (Trøndelag and Innlandet county)(see Image 2). The study investigates how different methods for place analysis are used by the municipalities and consultants to produce, present and address knowledge and insights about local topics and issues of sustainability. The case study consists of both documents (the place analysis and relevant plans, illustrations and documents) and research interviews with the municipal planners and consultants. The main interest is the correlation between the intentions of doing the place analysis, which issues and topics it is supposed to address (and how these are described or defined), which methods that have been selected, and how the analysis later has been used in or affected the planning and development of the place (either through other plans and policies or as built form). As this is an information-oriented case study, the development of the selection criteria is seen as an ongoing reflexive process, and as of yet there has been one case selected. The selection of cases could include both extreme, critical, deviant or paradigmatic cases^{xvi}, as the goal is to achieve some level of representation or maximum variation within the selection. However, as the aim for the study is not to be able to generalize into theory, but rather to provide transferable and applicable knowledge and experiences for other similar situations, the assumption is that most cases will contain some useful information and representativeness

on some level. However, this is not easily identified without further investigation, and the discovery of possible cases (either through own inquiries or recommendations from experts and informants) and the assessment of (if possible) which situations or issues they can be said to be representative for will be an integral part of the study.

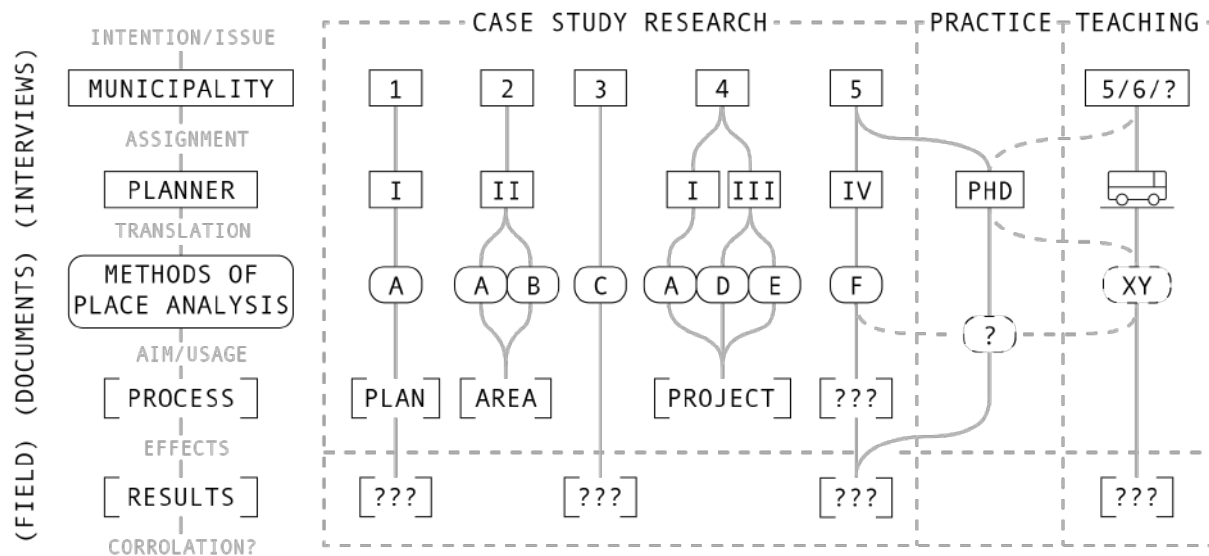


Image 2) A conceptual case study diagram with a combination of different municipalities (1-6), planners (I-IV), methods for place analysis (A-F) and potential usage in the planning process. The aim is to study the correlation between the original intentions, the applied methods and the possible results (impact). The case study research is connected to the candidate's own practice (design) and teaching activities in the master course 'Planbussen'. (Credit: Author.)

Practice and teaching. As the research is practice based, the thesis will also include a design component related to one of the cases from the case study. The design and form of this component will depend on the selected case but will evolve around methods of place analysis and the production of local knowledge and insight. This could include a new or unconventional use of already established methods, a combination of tailored methods to address specific topics, needs and knowledge gaps, or a development and proposal for a new method of place analysis. As both time and resources are limited, it is seen as practical to choose a case where there have already been conducted one or more place analysis, as this will make it easier to relate and compare the practice component to the existing knowledge of the place and situation. As many municipalities already make use of some kind place analysis³, this is seen to be more representative than a case with no prior experience or use of place analysis methods. The goal of the practice component is to do research through design, and not only into design.^{xvii} This could also make the research more applicable and easily available to other practitioners and planners, while simultaneously making use of the dual role of being both an academic and practitioner, without the necessary practical limitations and restrictions of being directly involved as a formal part of the planning process. This possibility of a *free approach* and *outside perspective* is often present in teaching, as in the case of *Planbussen*^{xviii}, a hands-on practical course in planning and place development co-initiated by the candidate. In the course, students engage with local communities through in-situ field work and produce project proposals in direct collaboration with selected municipalities. In connection to the research, *Planbussen* and the students could serve as a viable tool and laboratory to test, develop and apply both existing, new and unconventional methods for place analysis and information

³ In a recent survey done by the candidate, 80% of the respondents said to have used one or more methods for place analysis in today's planning. The survey was sent out to the 84 municipalities of Trøndelag and Innlandet county, with a response rate of approx. 55%

gathering in a real and site-specific context (see Image 3). As the research project and *Planbussen* share many of the same topics, methods and approaches, it is seen as mutual beneficial to make a collaboration through the use of joint activities. In light of the case study, one of the cases could very well be used as a project site for the next rendition of *Planbussen*, which will take place during the spring of 2025. Here, the students could try out and test various methods for participation, place analysis and knowledge production under supervision and guidance of the candidate, while simultaneously engaging the local community and inhabitants by pushing topics and discussions which otherwise would be hard to initiate as a sole researcher, teacher or practitioner. The progress of the collaboration between *Planbussen* and the research project will be the main focus for the presentation during the conference.



Image 3) Interaction between students of *Planbussen* and local inhabitants as a way of testing out new methods for participation, place analysis, knowledge production and information gathering about the local place and community. (Credit: *Planbussen* 2022)

Reflections on (dis)positions

When doing practice based or design-driven research within architecture and planning you might find yourself in a kind of *superposition*, where you try to inhabit two *positions* (or roles) at the same time. On one hand, you strive to be the *objective* researcher or academic who tries to understand and investigate a phenomenon from an *outside perspective*, while on the other hand, you are also the practitioner, the origin of the very things you study and try to achieve. In my case, this becomes apparent when I both investigate existing practice, design and practitioners through a comparative case study, while at the same time being one of the practitioners who produce some of the content of the case. This raises the critical question of *positionality*, to recognize that our previous knowledge, experiences, competences, values, beliefs, views, expectations and assumptions might affect and influence not only what and how we do something, but also why and where we do it. This is perhaps most often seen as a prerequisite for doing qualitative research but could very well be as important for practitioners and practice. Through a conscious awareness and reflection about what might influence my own work I also become critical towards others and their positions and background, and how this might also influence their practice and design. The question of positionality is highly important for both research and design, but maybe even more when doing a combination of the two.

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“<...> the evaporation of certain volatiles and melting of certain metals are still going on in my coils
and crucibles”¹

Vladimir Nabokov, “Speak, Memory”

Why is it important to perceive oneself as an author? The prefix “auto” relates to various meanings in different cultures: identity, self, German *selbst* and Russian *samost*². Particularly in Greek, the term has two meanings: one is about constructing a self and the other is about differentiating yourself from others. However, architecture is a referential discipline, for which objectiveness is a virtue.

Since the Bologna Declaration of 1999, the process of scientization of architecture has started. And with that came, both in education and practice, the obsession with research, collective work, involvement of various experts, dispersed authorship and therefore dispersed responsibility.

As Joan Ockman stated in her work, architectural education is divided into “three traditions: the polytechnic tradition, with its particular scientific focus; the Beaux-Arts tradition, with an emphasis on artistic creativity; and vocational education, with an attention to craftsmanship.”³ However, there is another category of schools -- the independent schools of architecture. These institutes vary in size and recognition, but what they have in common is that they are opposing state universities and challenging the educational system. These are primarily design schools with the important role of the lead designer: Gropius at Bauhaus, Hejduk at Cooper Union, Mario Botta at Mendrisio, etc. All of these figures insisted on an objective worldview, but looking from the historical perspective, one can realize that it was very much a subjective viewpoint. These schools have a single Author. How does the design idea of a single viewpoint grow into the vision of the entire school? Do these institutions produce Authors? Is it even needed to educate and construct the Author in these technology-driven times characterized by the growing alienation of an architect, collective responsibility and shared and over-shared authorship?

Another question is how those processes appear in the peripheral independent schools. An example of such is MARCH Architecture School (2012-2022). MARCH is an independent institute in Moscow that adopted the British system of education. The combination of the influence of Western education and local specificity resulted in the appearance of rather distinctive pedagogies. As in the institutions mentioned above, MARCH has its own unique approach, hence it repeats the ethos of authorship and authority in architectural education.

The motto of MARCH School is to “nurture sensitive, thinking and responsible architects”. “MARCH training is focused on turning an architect into a responsible public intellectual”⁴. It is an example of architectural pedagogy that is focused on producing the author rather than producing a technician.

The research is carried out to find the exact point of inspiration that engages the student with the brief of the studio -- the first impulse, the “auto” part. The propaedeutic methods of working with form, like Hejduk’s “9-square grid” or Kandinsky’s “Point and Line to Plane” are efficient, but they evoke the stagnation of architectural thought and represent the XX century. The other way to “start” the project is research, though it is often general urban or social-economic research, which focuses on data, but lacks specificity. Therefore, this

¹ Nabokov, Vladimir Vladimirovich. *Speak, memory: An autobiography revisited* (Harmondsworth, Middlesex, Eng: Penguin Books, 1969), foreword, Kindle.

² Cassin, Barbara. *Dictionary of untranslatables: A philosophical lexicon*. (Princeton: Princeton University Press, 2014), 69.

³ Joan Ockman, *Architecture School: Three Centuries of Educating Architects in North America*. Boston: MIT Press, 2012.

⁴ Sergey Sitar, “Redefining Architecture as a Move toward Authenticity.”, in *MARCH V*, ed. by A. Ostrogorsky (TATLIN, Ekaterinburg 2017), 52.

research is dedicated to the alternative methods of igniting the first impulse, which in the case of MARCH rarely has to do with architecture. At MARCH the design process is an «existential connection with the subject of research and the task of the project, the depth and completeness of involvement in this task — thought, feelings, body, intuition, etc.»⁵ The methodology of the school is based on autobiographical exercises, personal revelations, individual style of representation. This approach fights automatization, and the design process becomes more relatable to its author.

Distillation is the disposition of certain elements and the reaction between them according to changes in temperature. It usually involves fermenting wheat with yeast, and cooling its fumes, which condense and become distilled liquid. Distillation is the process of purification. The word comes from Old French *dis-* -- “apart”, and *stillare* “to drip, drop”.

If one can do all of those manipulations with liquids, the same process could be applied to the ideas and theories. The principle of distillation is not new to philosophy and theory, starting from Kant’s “The Critique of Pure Reason”, where he attempts to refine the nature of knowledge itself, to Heidegger, who distills the notion of “being” to its essence.

In the case of the research on architectural pedagogies, the distillation method can be a tool to clarify the institutional discourse. Following the claim that MARCH produces “authors”, the research is dedicated to distilling the School’s methodology to make it applicable in other contexts. First of all, it allows us to deconstruct existing concepts into ingredients, purify them and therefore define their essence. Second of all, “distillation” is one of the terms that emerged within MARCH itself. “Studio Novgorod”⁶ is using it as an exercise, they describe it as “going from the type of the building to its archetype.”⁷ Hence, it is a method that is derived from the case study and then applied to it, which makes it a self-referential approach in research.

The first attempt at distilling the school’s discourse was through the vocabulary⁸ since certain tropes are based on the language as a carrier. However, since the words were just triggering the fermentation, meaning the “thinking” process, they could be depicted as the “yeast” of the educational process.

At the same time, there are certain notions that have been shared at MARCH⁹ and yet not named, the notions that induce the first impulse in students: the objecthood, the literature and the autobiography. The notion of “objecthood” relates to the notion of both the mundane and the scale. The autobiographical method in architecture is about the personal memory and bodily experience of an architect that interweaves with professional knowledge in response to the brief and task; it addresses the themes of self-reference, genuineness and estrangement. Architectural references at MARCH are global, but cultural references are local, based on the strong culture of theatre, literature and poetry in this context. Therefore, literature becomes an essential feature of the design process. The objecthood,

⁵ Ibid.

⁶ “Studio Novgorod”, BA3, MARCH Architecture School, 2017-2022

⁷ “Studio Novgorod”: Asse, Kiril, Anton Gorlenko, and Yuri Palmin. Studio Brief. *The Hedgehog and The Fox* 1. Vol. 1, 24.

⁸ Though “distillation” is a scientific term, the formation of the vocabulary of MARCH has mostly derivations from arts and literature. Many terms came to MARCH School from global architectural theory, some were translated, some transliterated, and some rephrased and replaced by new words. This also brings the question of references, since architectural references are always global, but cultural references are often local. The global architectural terms and methods came to MARCH from other architectural institutions, among which the influence of the Architectural Association, Cooper Union, Mendrisio Academy. The local references are based on literature and poetry (especially Futurism, Acmeism and Symbolism). The words like *ostranenie* (“estrangement”) by Shklovsky or *oproschenie* (“simplification”) by Tolstoy are part of the School’s vocabulary. Some terms came from Moscow Conceptualism, like the “critical sentimentalism” by Gandlevsky or the “romantic conceptualism” by Groys.

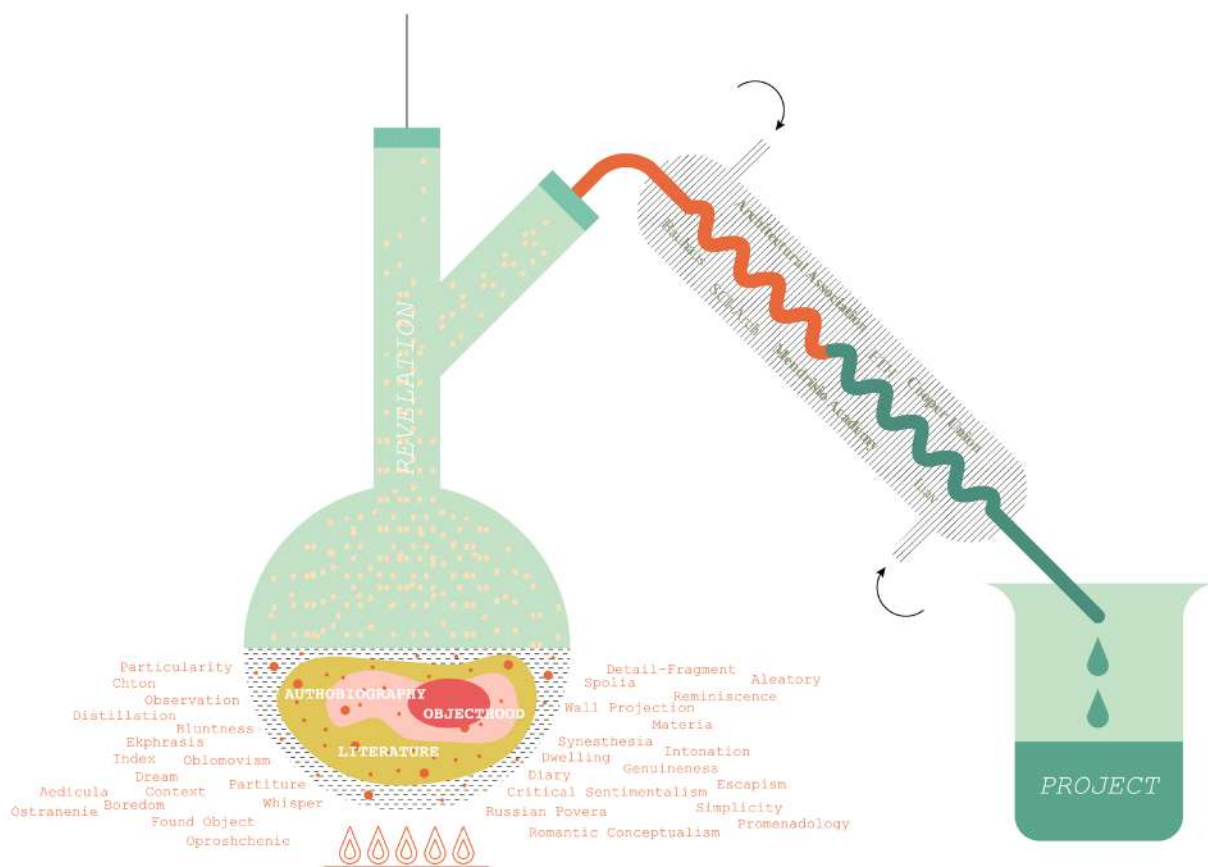
⁹ The three most representative studios at MARCH were selected, analyzed and compared, both graphically and textually: “Studio Vol’naya”, “Studio Novgorod”, and “Rethinking Studio”. The result of this comparison was the overlapping methods, that could be summarized in three main notions: objecthood, literature and autobiography.

the literature and the autobiography are being also studied by the same physicochemical method and each is being distilled through three selected studios at MARCH.

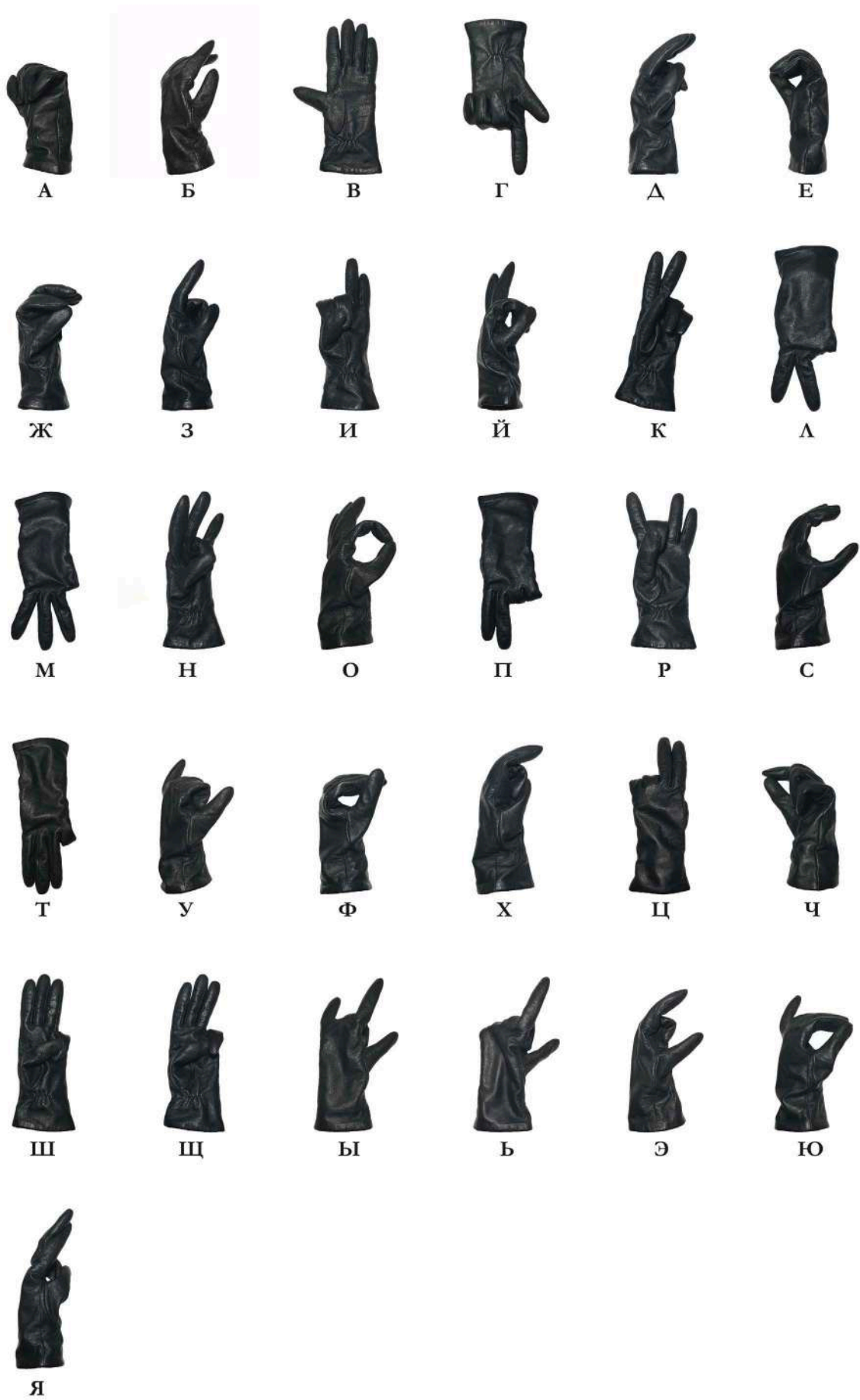
These three instances represent the fundamental principles of the school and the substratum of the “distillation” -- the “wheat”. Since the “yeast”, which is a verbal component of the school, is added to the “wheat”, together it formulates the “fumes”. The metaphor of “fumes” stands for the personal revelations of students, which are usually presented in artistic form. That is exactly the moment that will be meticulously studied through three different studios, as it manifests the moment of engagement of a student with the project.

However, the personal revelation in the representation of an art-form gets further through a “cooling down” process. In the process of “distillation” it is represented by the tube with cold water and it constitutes the architectural discourse through which the personal revelations drift through. The architectural methodologies from schools like Cooper Union and AA have globally affected architectural education and become integral to it. The “cooling” process also includes analyzing this educational heritage and its influence on MARCH.

The result of “distillation” is an architectural project fused with personal narrative. Pedagogically this approach has the value of the deep involvement of a student on a long-term project since the first contact is established through a personal relation.



Distillation, illustration by the author



05
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05
04
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Лучший сезон
Павловска.
Безвременность, пустота

08
04
21

Вписывая лицей в контекст, я продолжаю традицию парка: простой белый параллелепипед, в котором видны лишь наполовину отапливаемые комнаты, окна система применяется при каждом увеличении масштаба: дом разделен на две половины вдоль: на общественную открытую теплицу во всю высоту и на закрытую уютную отведенную под классы. На закрытой части Павловска, как и в Москве, существуют типовые жилые комнаты. Вписывая лицей в контекст, я продолжаю традицию парка: простой белый параллелепипед, в котором видны лишь наполовину отапливаемые комнаты, окна система применяется при каждом увеличении масштаба: дом разделен на две половины вдоль: на общественную открытую теплицу во всю высоту и на закрытую уютную отведенную под классы. На закрытой части Павловска, как и в Москве, существуют типовые жилые комнаты.



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Чистка.

Формулировка принципов в
схемах и стихограмме.



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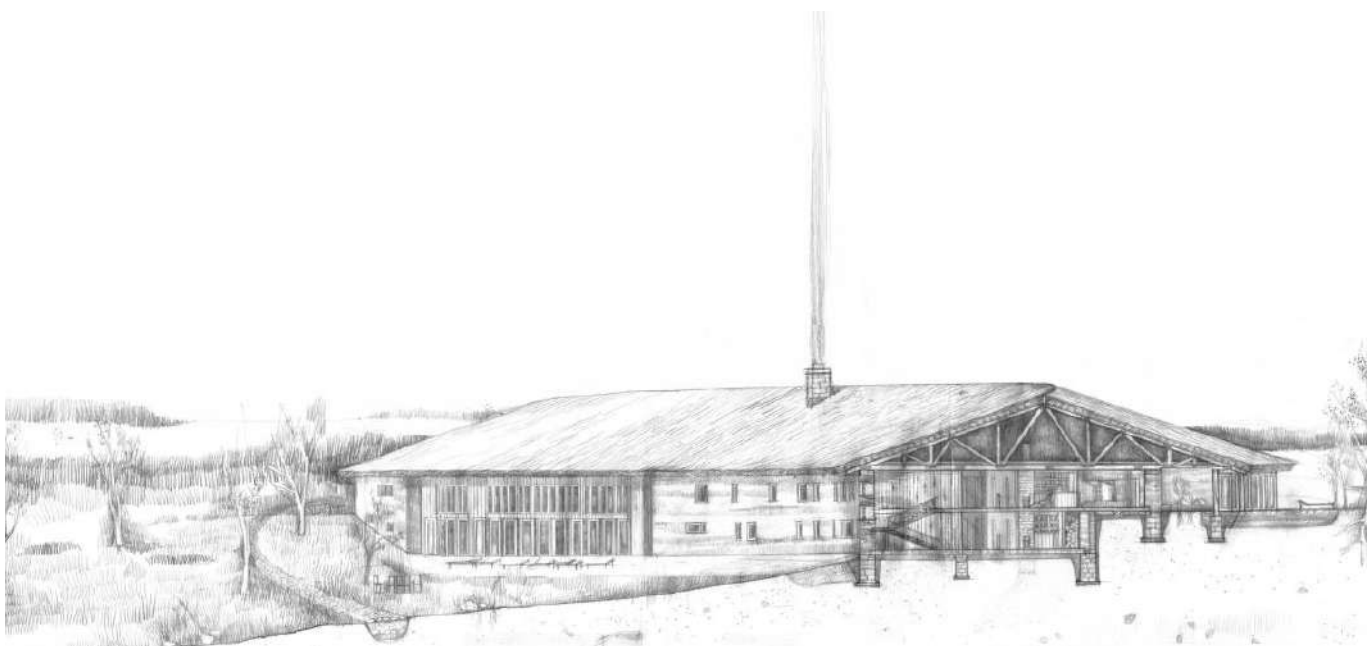
Очевидность необходимости открывающихся
окон в комнатах появляется с приходом в
Москву тепла

11
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На балу в Серебряном бору. Тренировка
экспресс-рассказа журналисту о сути проекта

Autobiography, Fedor Polushkin, BA3, Studio Novgorod



Literature, Alia Khanova, MA1, Studio Rethinking

Aileen Iverson-Radtke

Post-doc

Iverson-Radtke, Aileen, Architect and PhD, is a Berlin researcher and founder of ai-r_architecture. She was Adjunct Prof. at NYIT and AiNYC. Currently she advises PhD students and conducts workshops and lectures on her novel research 'cybermodeling'. Workshop venues include MIT and ACADIA, publications and lectures include Dimensions Journal and conferences: eCAADe, ACADIA, EAAE/ARCC and IASS.

Artefact: the DISPOSITION of Cybermodeling

This proposal is for a CA²RE alumni presentation/ demonstration of Cybermodeling, a novel digital modeling interface developed through Design Driven Doctoral Research (DDDR) completed in 2022. Currently, this research is being advanced in workshops at leading universities and conferences in the field of digital design. The purpose of the presentation is to inspire by showcasing post-doctoral research progress and innovations.

The research seeks to broaden current digital design methods, offering Cybermodeling as a multi-beneficial tool: directly linking digital modeling to real-time site conditions while providing haptic interface to improve sensory understanding of digitally designed objects. Addressing this presentation to the CA²RE Beograd panel aims to examine the value of Cybermodeling methodology in architectural pedagogy, and best strategies for integrating this approach in school curricula.

Short Reflection

As an experienced architect, I returned to academia to explore a question central to my practice: how to improve digital modeling as a tool for critical thought. The DDDR format was crucial, as my question involved modeling, reflecting, and critique—all methodologies familiar to architectural practice.

Early on it was determined that the best way to examine the ability of physical and digital modeling to support thought process, was by combining them into a uniform hybrid analogue-digital modeling engagement (Image 1-3). The substantial role of electronics and micro-sensors/ controllers in connecting analogue-digital modalities gave rise to the name Cybermodeling¹.

The architectural discipline uses making as a means of analysis the way other disciplines use writing, solving equations, or formulating graphs. The important difference between conducting analysis through making is that it engages media with properties and tendencies that ‘interfere’ and significantly influence analysis. Moreover in modeling, media interference is specifically architectural, as it is generated by spatial-material relationships. The research identifies design media in which material properties are connected and reacting to a spatial context of forces and atmospheres as spatiomaterial² media. This spatiomaterial quality animates design media, giving it agency to ‘interfere’, respond, and generate feedback during design process making. The purpose of Cybermodeling is to facilitate digital spatiomateriality by (re)connecting digital media to spatial context.

The current post-doctoral goal is to distribute Cybermodeling methodology within architectural practice and pedagogy through workshops, lectures, and publications. The workshop format is of particular interest as heuristic platform (Images 4, 5) encouraging adoption while developing the methodology through the expertise of participants/ digital design practitioners (Image 6).

¹“... cyber ... generically and universally adopted in popular culture to evoke almost anything related to electronics and computers ... a moniker for any technologically mediated alternative to physical space” ‘ In Carpo, Mario (2023). ‘Digitally Intelligent Architecture Has Little To Do With Computers (And Even Less With Their Intelligence)’, ARQ113, Santiago, Chile, Conditions for Change: 19-31. https://www.scielo.cl/pdf/arq/n113/en_0717-6996-arq-113-18.pdf (Accessed on 8 Jan. 2024)

² Refers to the inherent connection and interactions of physical spatial and material properties which create a third, *spatiomaterial* state of media which is active and animated due to these interactions. Iverson-Radtke, A. (2022). *rabbit hole to hybrid: Finding Digital Spatiomateriality Through Hybrid Modeling* [Doctoral Dissertation, Technical University of Berlin]. Germany. DOI: 10.14279/depositonce-15983, <https://depositonce.tu-berlin.de/handle/11303/17204>

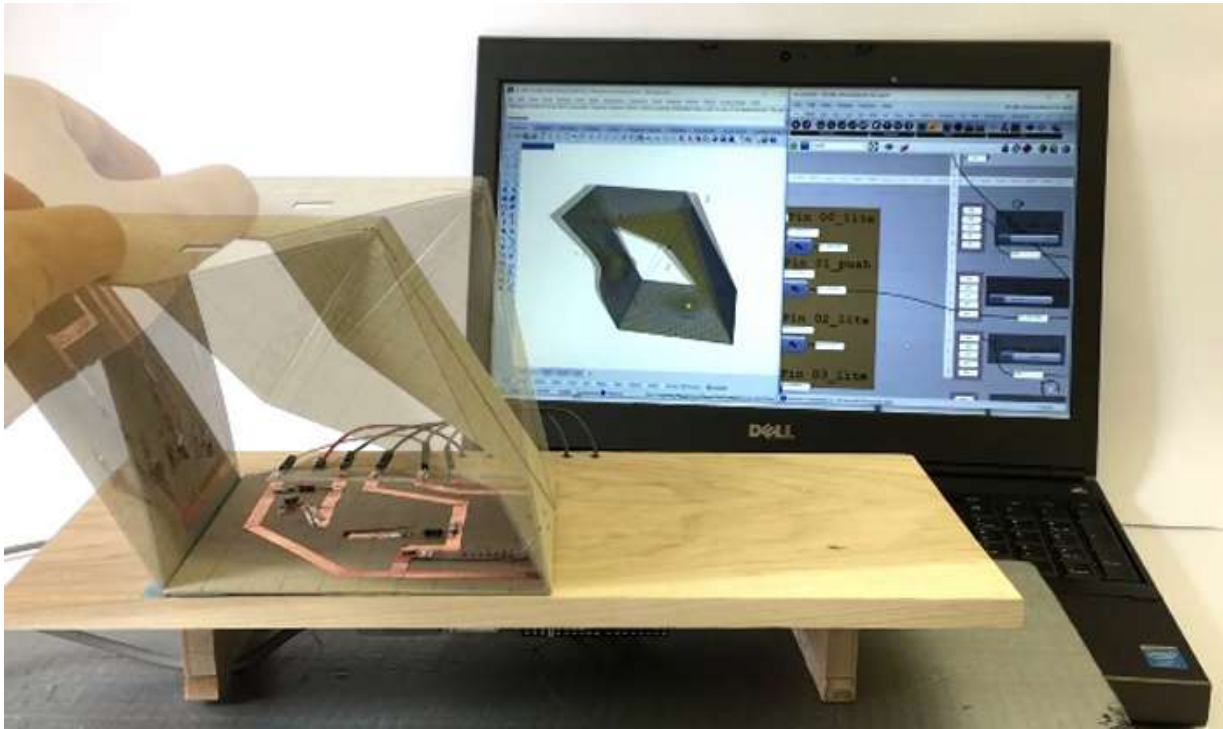


Image 1: Case Study o2, cybermodeling interface

Rapid advances in AI and automated digital manufacturing compel us to take a position with regard to the computational and its role in how we examine, operate—thereby understand and design solutions to ongoing urgent sociopolitical and climate challenges.

Cybermodeling utilizes microsensors to link digital modeling with site-specific conditions and human sensory access. The methodology operates through an analog smart model interface to relay environmental data (humidity, turbulence, light, etc.) directly to digital materials.

What happens next is unexpected and astonishing!

Linking dynamic real-time environmental inputs creates ‘live’ digital models that interact and adapt to their surroundings, engaging designers in the process. Cybermodeling allows us to model digitally with local site conditions and the design object’s material qualities. This leads to design solutions integral to the dynamic ecologies of which they are part.

The disposition of Cybermodeling is

- (in) op-position: to autonomous or automated design, thus facilitates human corporeal intelligence in digital making; to notions of the superior complexity of computational over the natural, thus cultivating spatiomaterial interactions in computational making
- com-position: of design objects that are simultaneously physical and computational
- trans-position: of physical material logic into computational systems and visa-versa, exporting computational material logic in physical making; of human corporeal intelligence in computational environments
- juxta-position: of physical and digital material behaviors, as catalyst for composing computational materials as non-neutral, spatiomaterial media with agency, thus
- decom-position: and gradual erosion of the view of hylomorphic computational design

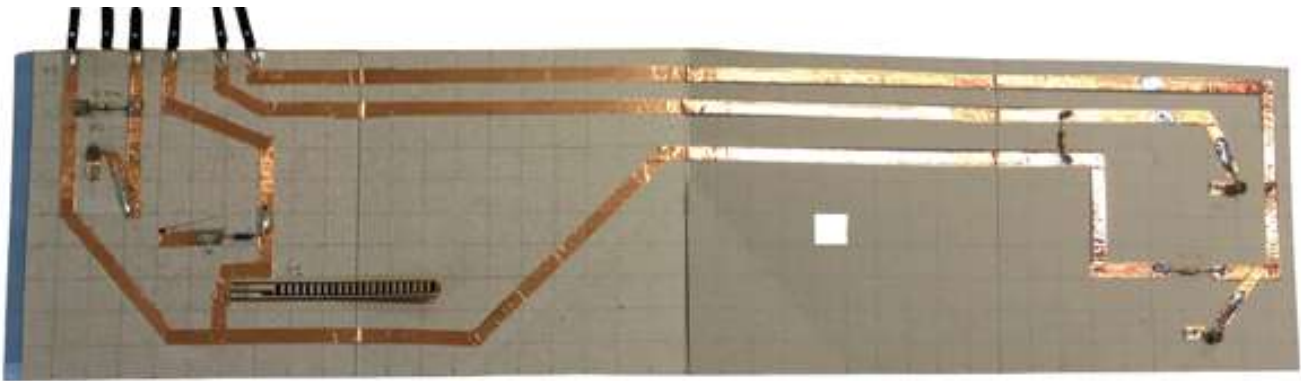
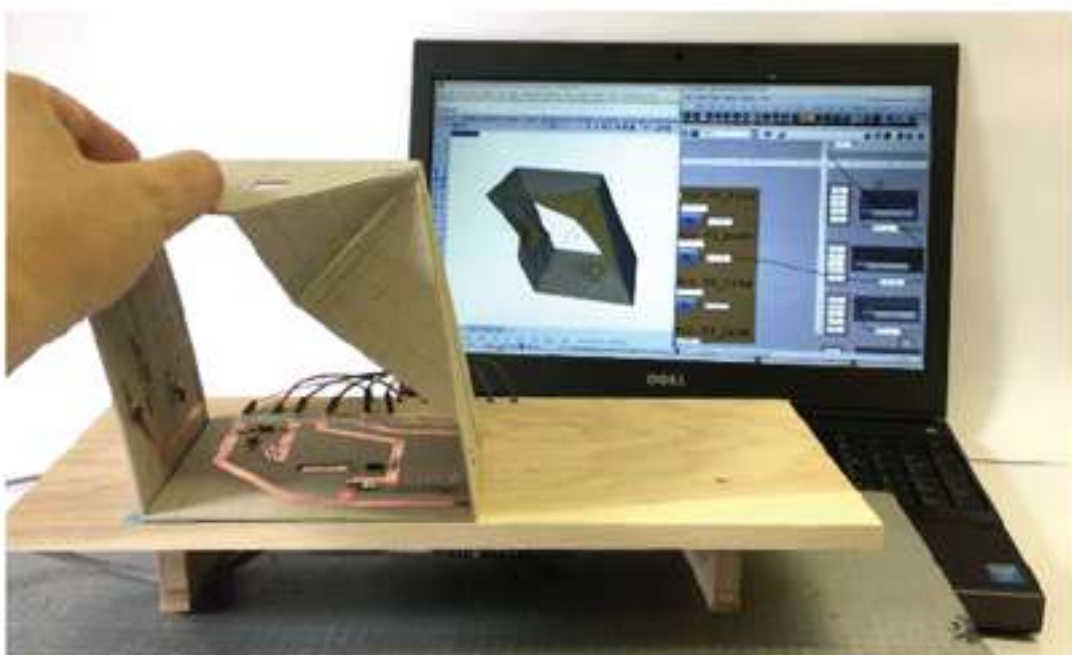


Image 2: Case Study o2, analogue 'smart' model (above and middle), as interface to cybermodeling (below)

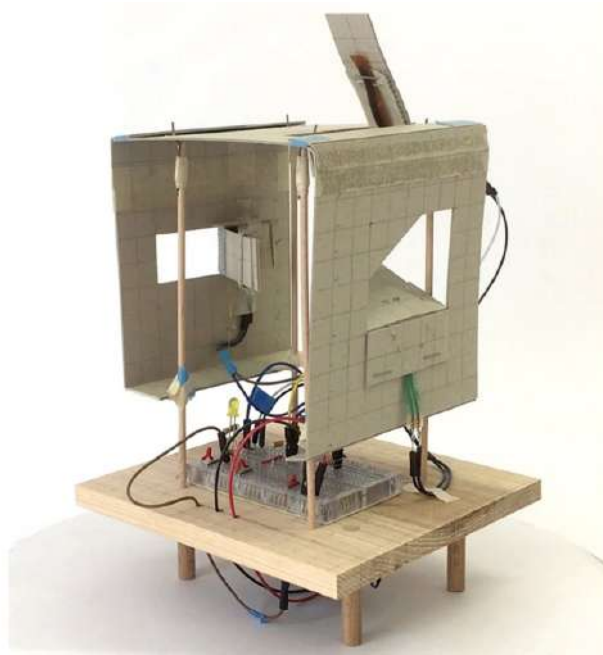
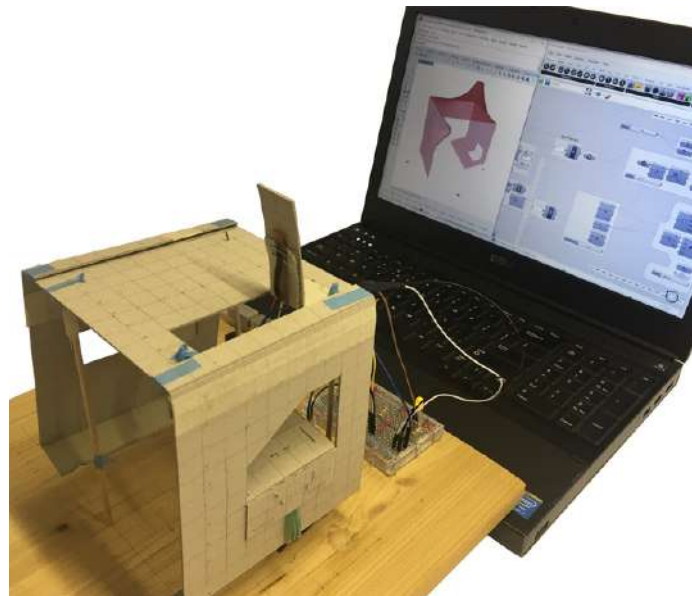
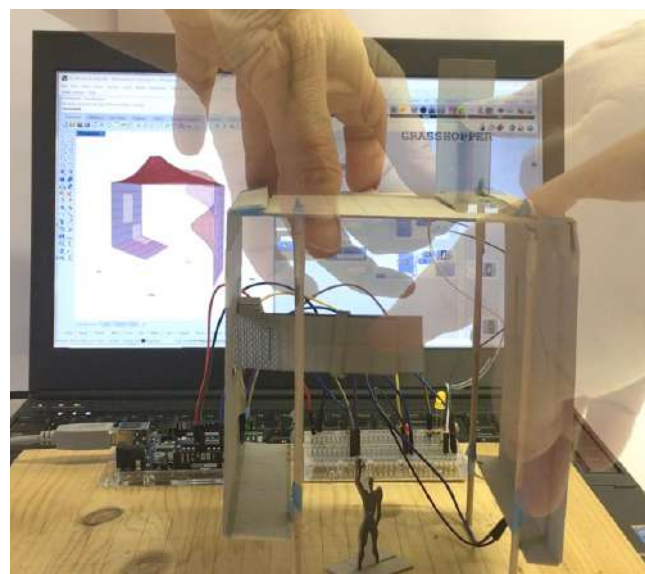


Image 3: Case Study o5, analogue 'smart' model (above), set-up (middle), cybermodeling interface (below)

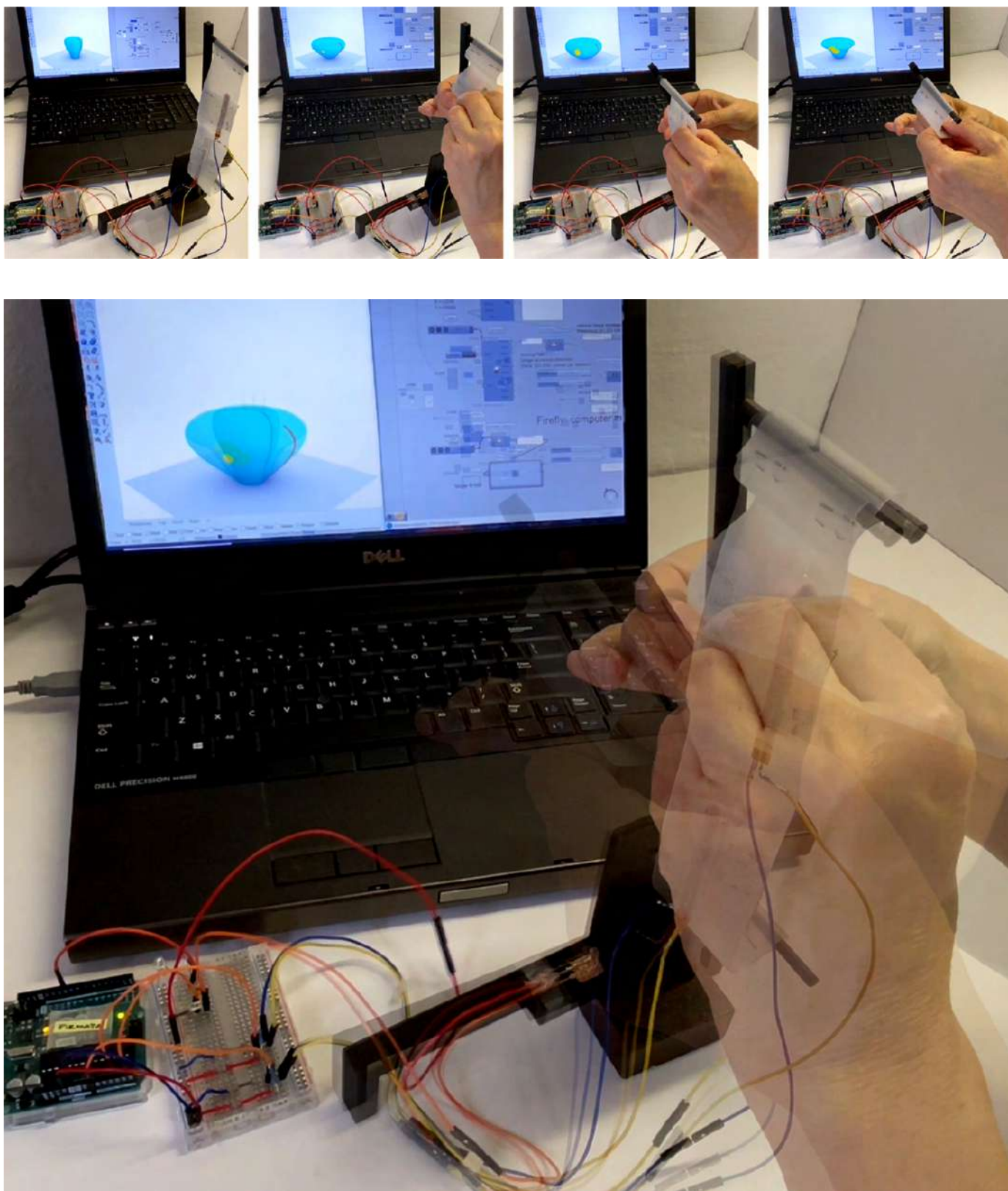


Image 4: workshop cybermodeling interface – 'Rubber Vase Project'

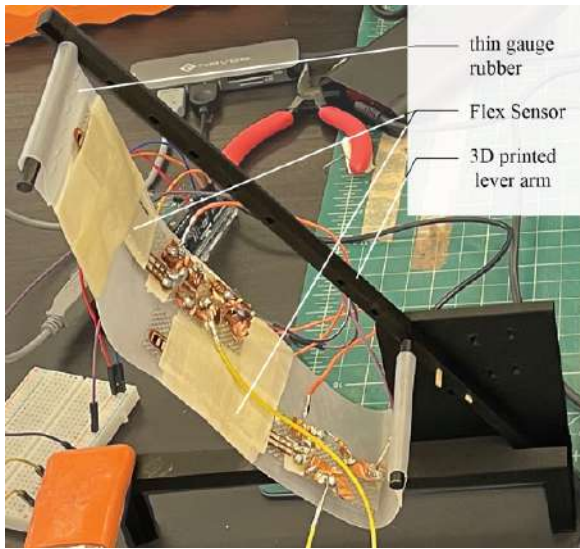
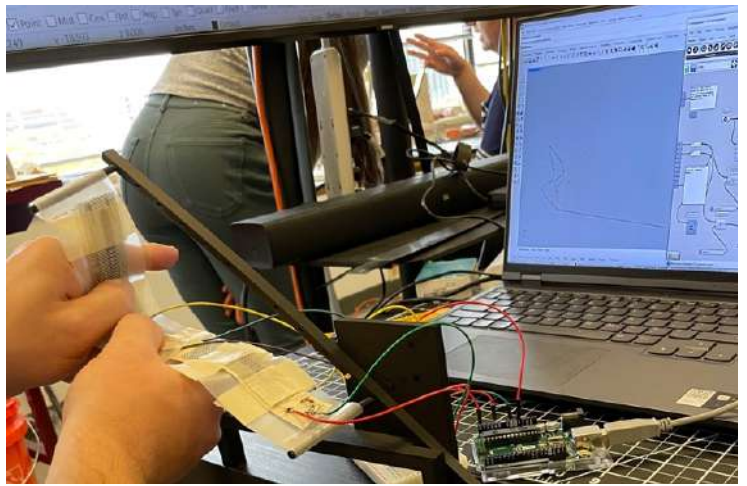
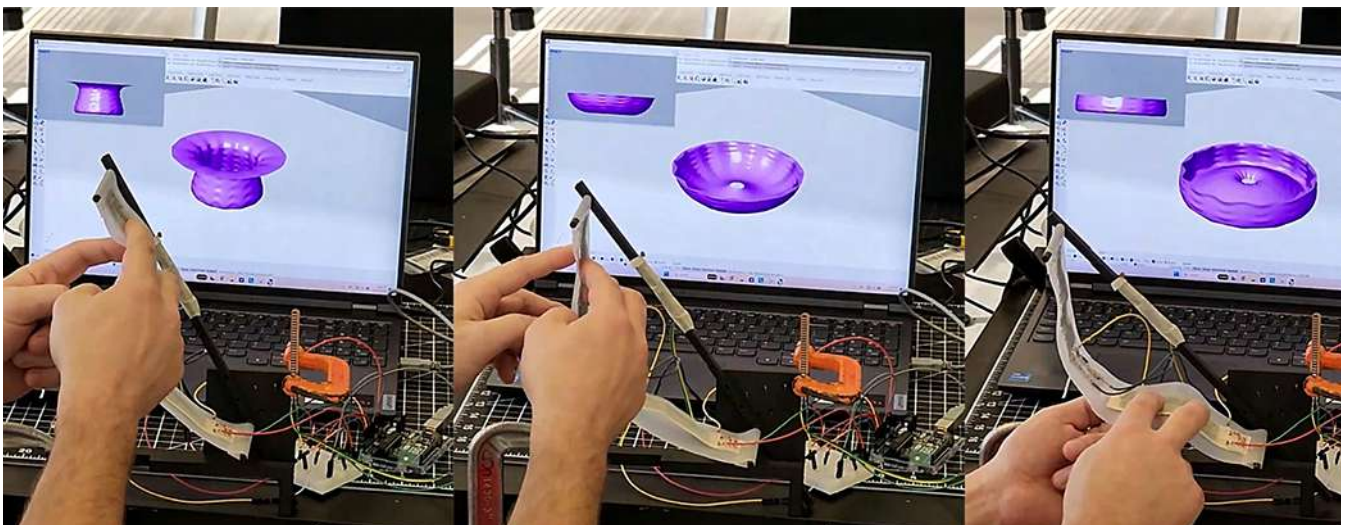
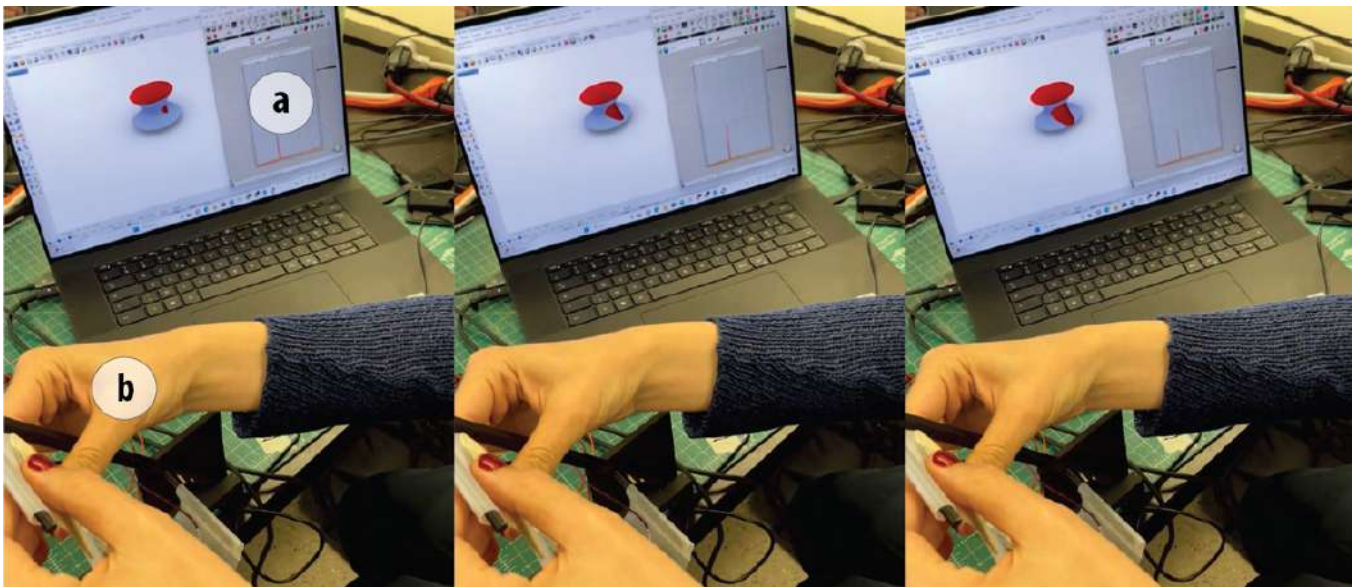


Image 5: (above left) analogue 'smart' model components (above right) transfer manual manipulations and contextual data to inform digital modeling; (below) modeling a digital 'Rubber Vase' using sensor data detecting light, sound, and manual forming of the analogue model interface

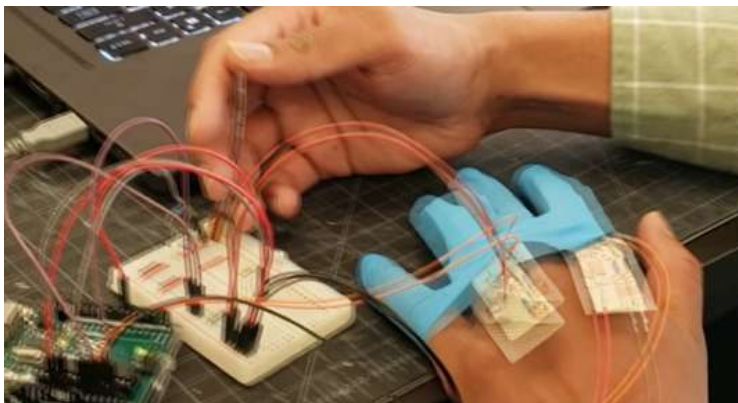
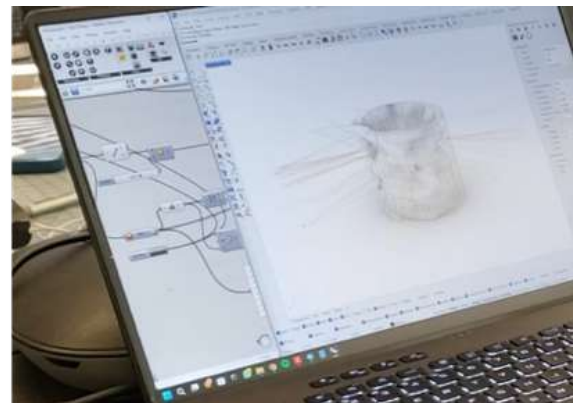


Image 6: additions to the cybermodeling interface contributed by workshop participants digital design expertise
(above) AR equipment experience, (below) D.I.Y. VR glove

Sarah Javed Shah

PhD candidate

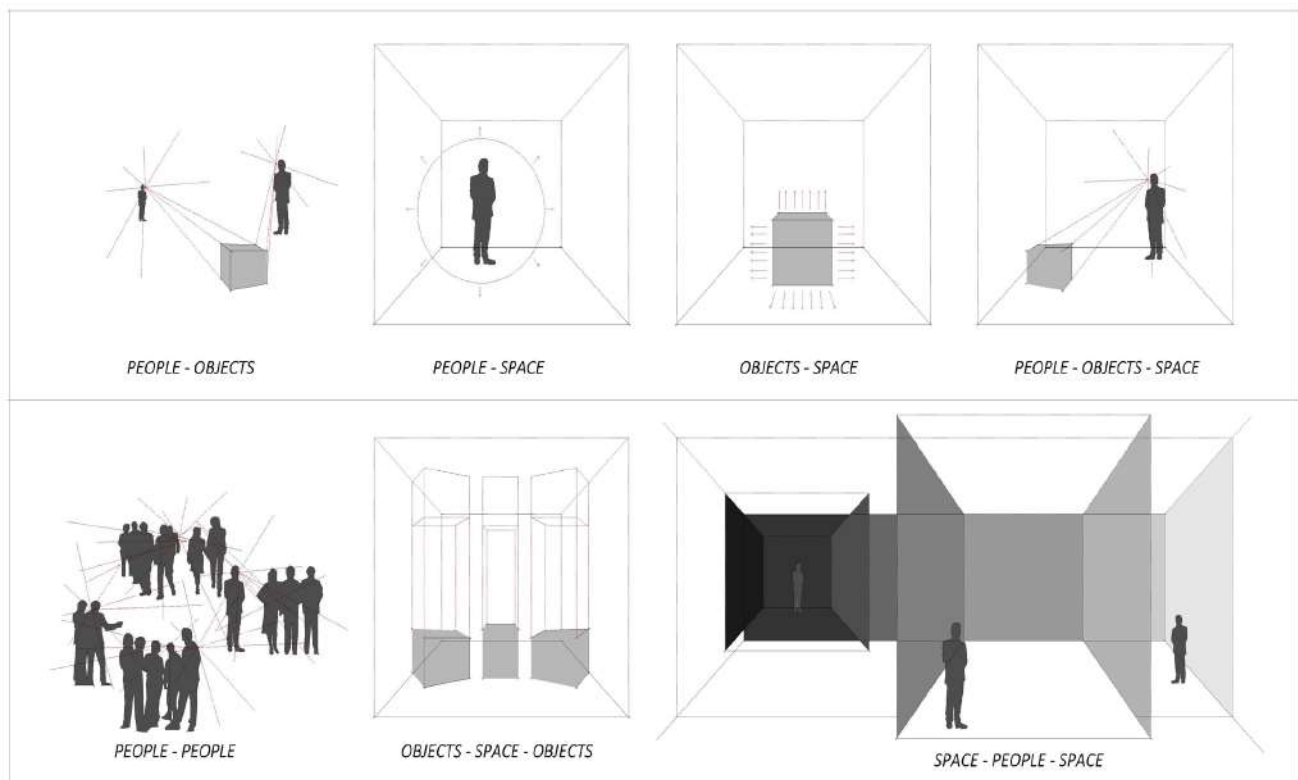
Sarah Javed Shah is a PhD candidate in Architectural, Urban and Interior Design at the Department of Architecture and Urban Studies [DASU], Politecnico di Milano, Italy, where she works as a PhD tutor. Sarah received her Master's [2013] and Bachelor's [2008] degrees in Architecture from UET Lahore. She is also affiliated as an Assistant Professor [on study leave] at the Department of Architecture, UET Lahore. With over fifteen years of professional practice and teaching experience, she has designed architectural and interior projects, taught courses, and supervised thesis and design projects. She has authored publications in peer-reviewed academic journals, reviewed international journals, edited and co-authored books, and presented at international conferences.

REFLECTION

DISPOSITION IN DESIGN RESEARCH

Emerging design-driven (exploratory) research methodologies focus on drawing comparative relationships between identified elements, aspects, or phenomena. In this context, ‘dispositioning’ is an effective process for searching, questioning, and developing a nuanced understanding of relational complexities. This doctoral research moves in a symmetrical direction and ‘positions’ into the distinct paradigm of the conjunction of urban and interior realms. However, it does not set upon differences and contrasts but instead identifies similarities—overcoming polarities, developing relations, establishing connections, and fostering continuities. The research proposition “urban interiority as spatial continuum” transcends the conventional oppositions of space: inside/outside, urban/interior, and public/private.

Design research profoundly relies on the visualization and representation of hypothesized concepts, with designers and design researchers bringing their own perceptions to interpret visual information. While subjectivity influences outcomes, it can be neutralized if every observer reads the space through specific lenses or spectacles. Therefore, this research constructs a set of lenses to explore urban interiority’s spatial formations beyond conventional understandings of space and recognize the intertwined nature of urban and interior conditions. The methodology includes the ‘dis(-)position’ of the ‘pro(-)position’ in a structured and strategic manner through ‘o(-)positioning’ in the contemporary architectural field of urban-interior. Subsequently, it relies on the ‘com(-)position’ of a (visual) design taxonomy to elaborate the lenses. It involves organizing and categorizing data to enhance understanding of the theoretical framework by identifying recurring patterns of spatial practices. This categorization allows for a comprehensive and structured presentation of visual narratives by developing people-centric drawings to illustrate the interaction between people, objects, and space.



EXTENDED ABSTRACT

Keywords: Disposition; Design Taxonomy; Urban Interiority; Collective Space; Threshold

DIS(-)POSITION OF PRO(-)POSITION: URBAN INTERIORITY AS SPATIAL CONTINUUM

This doctoral research positions in the contemporary design field of the conjunction of urban and interior realms. It interprets (collective) space as a continuity of urban and interior conditions, not as an alternative, but as a potential of one another. Urban and interior do not stand in stark opposition in their experiential definitions; instead, they exhibit parallels. They are the counterparts of space and cannot be separated, as their experience relies typically on their mutual presence and influence of one upon the other. With an expansion in the range of perception, the interior becomes an extension of a larger urban space, while interior experience is often considered a microcosm of urban experience. This relational paradigm can be traced back to the ichnographic map of Rome, drawn by Giambattista Nolli (1748), who represented the interiors of public buildings in the same way as the urban squares and streets. Subsequently, an often-cited example in the discourse is Camillo Sitte's (1889) argument for approaching cities as a series of continuous, furnished, and decorated spatial enclosures. Thus, making relations between interior and urban is not new; however, the question is still pertinent today, but the conditions are different (Attiwill et al. 2015, 2). Contemporary notions of (collective) space rely on redefinitions of private and public, spatial and temporal relations, and socio-cultural practices transformed by globalization, commercialization, and the adoption of neo-liberal models of cities.

This research develops a holistic framework through the proposition, "urban interiority as spatial continuum", encompassing spatial attributes, social constructs, perceptions, and experiences of collective space. It attempts to transcend the spatial polarities of inside/outside, urban/interior, and public/private. Conventionally, urban entails the public or collective realm, while interiority refers to the individual (subjectivity) and conditions of the interior— privacy, intimacy, and retreat. Stepping out of the confinement of interior space, the notion of interiority repositions into the urban context, emerging as "urban interiority" beyond the fixed boundaries of interior and urban (or exterior) (Shah 2022, 311). The proposition might seem like a provocation a few decades ago; however, the contemporary city has profoundly "(...) transformed a dichotomous and hierarchical relationship between public and private into a close and mutually implicating association (...)" (Di Palma et al. 2008, 1). It reveals coherence in apparently opposing conditions more than often, which is evident through the contemporary practices of urban interiors and the propagation of theories of interior urbanism.

The spatial continuum of urban and interior is perceived to be configured with several sub-spaces with attributes of interiority, exteriority, and in-betweenness. It refers to the continuous flow and connection of spaces, an organized spatial hierarchy ranging from large-scale urban spaces like streets, squares and plazas to interior spaces like atriums, lobbies, or alcoves. This hierarchy establishes a sense of order and movement, enabling smooth transition with varying degrees of publicness (public, semi-public, private). A certain degree of ambivalence is found in the nature and character of certain (in-between) sub-spaces, such as thresholds. In-between spaces might be physically present in urban space but represent conditions of interiority, or these might contain the elements of urban environments while physically bounded by enclosures. These spaces encourage creative exploration beyond binary thinking (Shah and Zhu 2024).

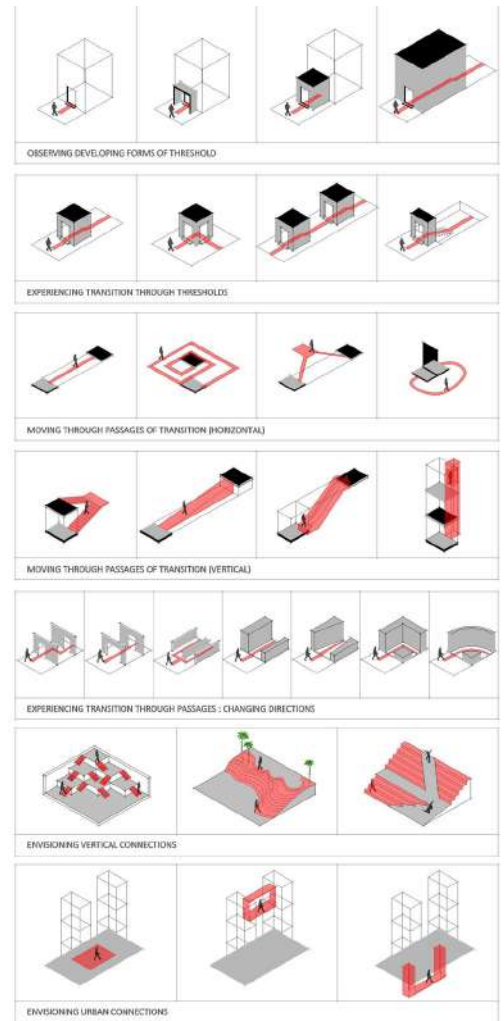
The notion of urban interiority offers a novel approach and is emerging as a productive lens to understand and analyze space, trying to avoid certain commonplaces (Shah and Muro 2023, 196). This research attempts to validate the proposition by defining a set of interconnected lenses to read, observe, and analyze collective space, allowing multiple potential narratives. The interconnectedness of these lenses aims for a holistic experience of space, where many instances and conditions overlap. This research translates these lenses into a visual design taxonomy, using drawing as a tool to pursue a design-driven iterative research process. The emphasis lies in how various design components and ideas are structured and composed to communicate a cohesive narrative of the experience of space. The taxonomy serves as a groundwork for analyses and is expanded upon in each case study within the broader scope of the doctoral research project. It will also serve as a pedagogical resource for discussing, understanding, and refining design proposals in a systematic way.

1. Spatial Liminality: Thresholds and Transition

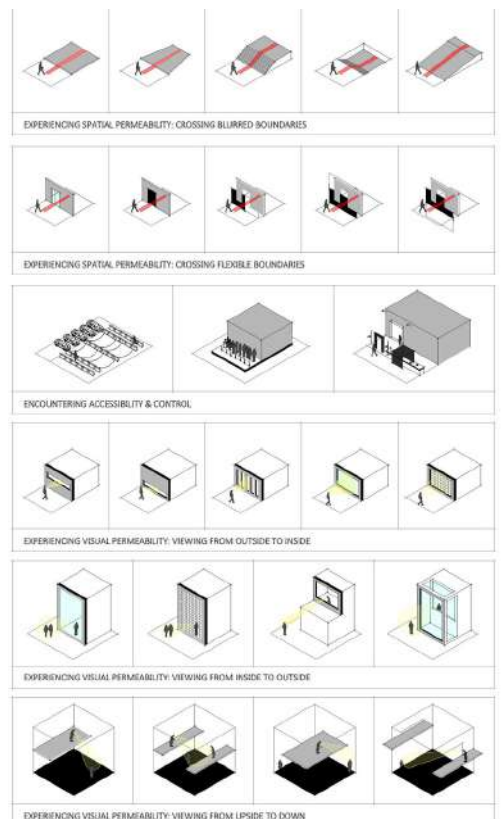
Jonathan Hill (1998) relates space to the concept of “liminality” and defines it as the conceptual, transitory relationships between people and spatial environments, often associating with the intermediate passage between alternative conditions. This notion of intermediary experience is linked with ambiguity in both ways, between here and there, inside and outside, suggesting neutrality or in-betweenness. The root word “limen” is derived from the Latin word for threshold and literally means being on a threshold, more explicitly understood as a transgressive space, a point of entry into another zone. The term is used to designate any number of limits, representing an end, the outer boundary, or the mark of an enclosure. However, in contrast to the enclosed space, defined by its perceived boundaries, the liminal space embodies a sense of “opening, unfolding, or becoming” (Tally Jr. 2016). Thresholds, as well as passages of transition, are associated with intermediate experience and perception of spatial in-betweenness. The experience of liminality occurs instantaneously at thresholds and continuously while traversing through the passages of transition.

2. Permeability: Boundaries and Blurring

Permeability, as a metaphor in design, refers to entrenched spatial conditions that appear at various levels, from the external interface to the internal spatial layout. It addresses the interior and exterior tension, significantly impacting spatial continuity. In everyday spatial settings, there are diverse degrees of inside-ness and outside-ness, as well as the spatial permeability of the boundaries and various forms of traversing boundaries (Atmodiwirjo et al. 2015). Two significant parameters include (physical) accessibility and visibility (or visual accessibility). Accessibility refers to the capacity of space to allow the flow of people, which is a time-movement interpretation, forming an experiential layer over the spatial layer. Visibility is a time-space interpretation that alters the flow and forms another layer of spatial experience. Collective spaces have a hierarchy from public to semi-public to private spaces; these zones are permeable to each other at different levels. The nature of this hierarchy is primarily determined by the configuration of boundaries and their blurring.



Spatial Liminality: Thresholds and Transition



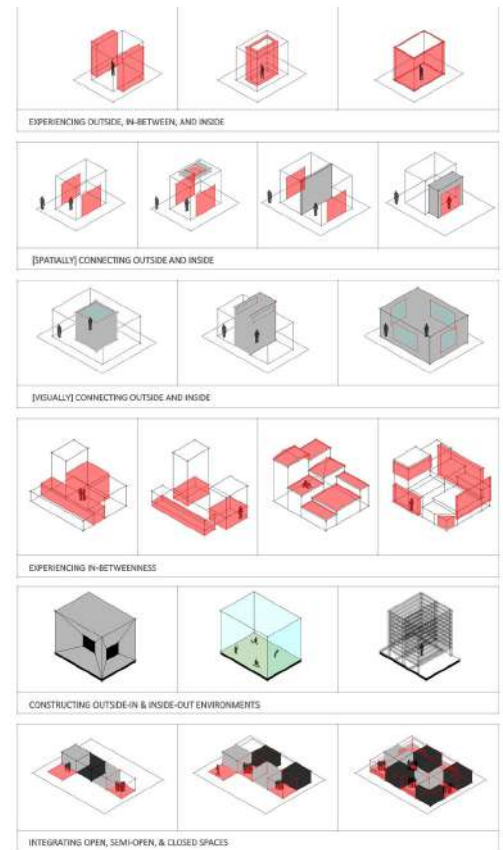
Permeability: Boundaries and Blurring

3. Intermingling of Inside and Outside

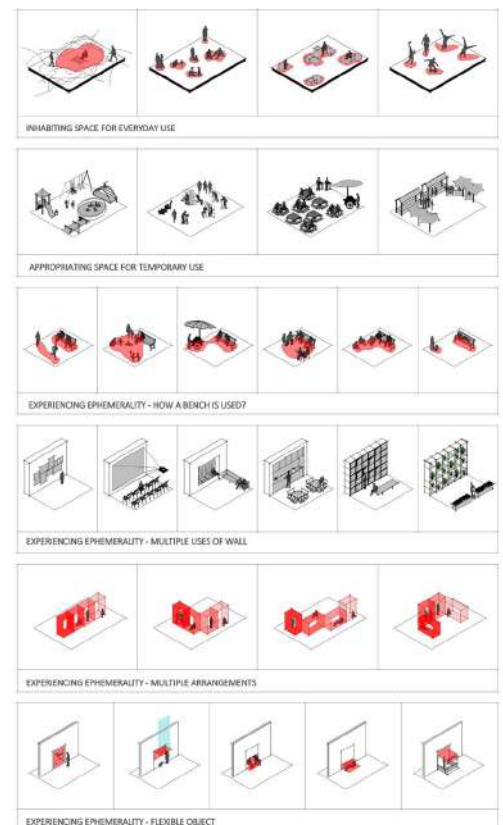
Gaston Bachelard (1964, 217) explored poetic images of space and expressed outside-inside dualism; he stated, “(...) outside and inside are both intimate, they are always ready to be reversed”. Intermingling refers to the rhetorical use of tangible or intangible elements of an environment to bring the meanings of outside-in or inside-out. For instance, bringing the natural elements of the outside environment to the inside creates a remembrance of being outside. Interpretation generated by inside is the spatial, psychological or environmental interiority created by inside, such as creating a sub-enclosure within the interior or wrapping walls around an inner courtyard. Viewing inside and outside as complementary necessitates a deeper exploration of the nature of their interaction, the intermingling of conditions and boundaries delineating them. “Several characteristics have been suggested to illustrate the nature of such interaction: as interweaving relationship, contiguous, porous, and interpenetrating” (Atmodiwirjo et al. 2015, 78). With these characteristics, boundaries between inside and outside become neither fixed nor limiting; instead, inside and outside become entities that can be traversed (Grosz 2001, 65).

4. Ephemerality and Appropriation

Ephemerality refers to the quality of being transient, fleeting, or temporary. Everyday space of collective use may transform over time, experiencing shifts in design, function, and usage patterns, as it often serves as venues for temporary activities, interim gatherings, or provisional installations. It has the character of ephemerality, fostered by the acts of spatial inhabitations and appropriations. For instance, the temporal practice of street vendors with moving carts fosters a flexible relationship between people and space (Shah and Muro 2023). This approach opens avenues for understanding how individuals inhabit and interact within collective spaces, fostering a more nuanced understanding of human experiences in the built environment. It implies that urban interiority also arises from spatial and micro-spatial practices, characterizing a spatial continuum by the events that occur through inhabitations and appropriations. As Treadwell (2005, 222) states, “Patterns of practice as much as spatial inhabitation might be said to construct interiority”.



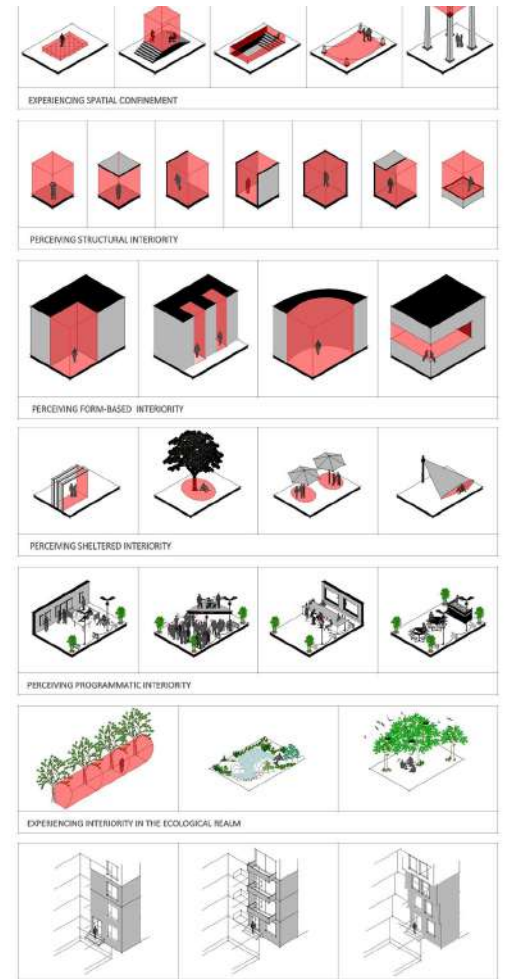
Intermingling of Inside and Outside



Ephemerality and Appropriation

5. Complex Conditions of Interiority

In contemporary discourse, there are attempts to define interiority and its multiple interpretations (Shah 2022), including, but not limited to, subjectivity and individuality (Sennett 2016), spatial and temporal conditions (Attiwill 2011), beyond the traditional dualities of interior-exterior (Poot et al. 2019), placemaking (PPS 2007), qualitative attributes (Power, 2014), and simply an all-inclusive public interiority (Teston 2020). Hence, the conditions of interiority can be experienced within interiors and in urban environments through the placement of objects defining a space, a precinct, a territory, or a place within a place. Sennett (2016) proposed that interiority is not necessarily linked to merely a private interior space but instead allocated to an exterior public space. Collective spaces provide settings for multiple interpretations of space and place. Interiority is a conditional relationship that does not “depend on a restrictive architectural definition” (McCarthy 2005, 112). Various interiorities, such as spatial, form-based, programmatic, and psychological, can be experienced in the organization, formation, functionality, and characteristics of collective spaces.



Complex Conditions of Interiority

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Miloš Kostić

Post-doc

Miloš Kostić (1990), M.Sci,Architecture, received his doctorate in 2021, on the topic of architectural detail design methodology in contemporary tectonic practice. He is actively engaged in education and theoretical work. From 2017 to 2022, he worked as an assistant at the Department of Architecture of the University of Belgrade - Faculty of Architecture. In 2023, one of the winners of the award in the field of education for innovative instructor by the HERSUS consortium at the University of Seville. He is actively engaged in architectural practice within the group _petougao_, as well as within cooperation with various teams and offices in Serbia and abroad. Awarded at numerous architectural and urban planning competitions and exhibitions, as well as in the field of architectural photography. From 2022, he continued his professional career in Munich.

ARCHITECTURAL DETAIL BETWEEN DISCURSIVE IMAGES AND NETWORKS

Abstract

What are the alternative ways of building that are hidden behind professionally recognized architectural projects, which point us to new and unusual ways of using local knowledge, materials, skills, and labor in creating quality spaces and built environments? How do these projects speak about new sustainable ways of planning, building, and realizing architectural ideas? How does this practical experience reposition an architect's role in the common linear design and building process, and opens the field for its critical review? How knowledge from current practice in the context of third countries can help us to discover new alternative ways to create a relationship between the micro and macro levels of architectural thinking and doing?

The presented study is the application of a methodological-interpretive model, developed as a part of the author's Ph.D. Thesis "*Architectural detail in contemporary tectonic practice: Methodological-interpretive Model*", defended at the University of Belgrade-Faculty of Architecture in 2021. The focus is on the contemporary tectonic practice in the context of Serbia and the possibility for a wider interdisciplinary reading of the development of discourse in architectural detail in the 21st century. Firstly, 22 projects nominated by the national committee of the Republic of Serbia for the *EU Award Mies van der Rohe* in the period between 2009-2021 were selected as the main case studies, followed by interviews with the 18 authors. The projects were selected according to temporal, spatial, and typological criteria. The EU Award Mies van der Rohe was recognized as an eligible framework for the affirmation of contemporary architecture in the local and global context, as the aim of the award is to understand the importance, complexity, and quality of architecture in relation to technological, construction, social, economic, cultural, and aesthetic achievements. Starting from the details, the research moves through the individual author's narratives to the understanding of the wider socio-cultural context that shapes what we get as the final representation of the architectural object.

The theoretical ground of the presented part of the research builds on the thought of Robin Evans, that architects are primarily concerned with the creation of drawings of buildings, and not the buildings themselves (Evans, 1997). The creation of images and drawings remains the primary medium for conveying an architectural idea, but also its simultaneous articulation through the application of disciplinary knowledge in a logical and intuitive manner. The drawing and planning of the object could be regarded as a permanent decontextualization and contextualization of the subject of work and a demonstration of narrow disciplinary techniques, by which the author positions himself and his act of design and building within the given context. In that sense, this study assumes that the representation of an architectural detail through a technical drawing as a part of project documentation can be treated as a discursive image in itself. Discursive images in architecture can be considered constructed representations of architecture that are filled with data, spatial articulations, conventions, and procedures,

which at the same time imply precision, and refinement in graphic expression and aesthetics, but also a wide interpretive possibility (Kulper, 2013). If based on Foucault's structuralist thought, we understand discipline as a section of practice that produces specific knowledge, by distinguishing "fields of objects" and defining protocols, procedures, and effects directed towards the object of knowledge (Foucault M., 1995), then the use of drawings in architecture can be understood as a form taking a position through the articulation and transfer of knowledge, by which architecture itself as a discipline is decomposed and recomposed within a certain socio-cultural context. This research explores the phenomenology of architectural drawing details, treating these drawings as a medium that embodies both the poetic and technical aspects of architectural design and construction. Addressing the challenge of translating architectural concepts into material practice, the research proposes a method to decode the poetic aspects of construction by transcending conventional representation techniques associated with construction drawings. This perspective highlights the poetic protocols in the individual conceptual narratives of selected authors, treating the details in their work as representational discursive images that reflect macro ideas on a micro-scale. The goal is to reposition the architectural detail from the realm of technical construction drawings to a methodological perspective by establishing a theoretical framework for a new, design-driven research approach.

Reflections on conference topic / Dispositions

Regarding the topic of the conference, *disposition* is understood from the perspective of design-driven research on architectural details, considering its position between the author's design methods, drawings, and building. Following Jeremy Till's notion that even the earliest marks of architectural drawings are shaped by prior experiences and current expectations (2009), architectural detail is viewed as a container of both the poetic and technical aspects of design. It embodies traces of collaboration, communication, exchange, and adaptation, as well as disciplinary knowledge, skills, and the resilience of architectural ideas.

Design agility, in this context, involves a degree of adaptability and the integration of given conditions into proposed solutions, alongside the practical skills necessary to address requirements and unforeseen circumstances. In line with this, the concept of *disposition* in relation to architectural detail can be understood as a transition from the static nature of design-execution drawings to the dynamic development of an idea. Here, the reality of realization and design is a complex network of relational entanglements, reflective of the inherent contingency of architectural practice.

Reflections on design-driven approach

Processing of the results of the survey was done through the formation of a set of graphic representations and diagrams in the form of *discursive networks* of methodological-interpretive analyses, which illustrates the relationships between the respondents' views on the process of designing and realization of selected architectural details.

The data from the interviews, graphic material, and information on projects, are systematized in the form of individual *identity cards of details* for each of the examined

authors. This representation form links relevant aspects at the level of the methodological and interpretative framework that appear in the explanations of the design process and realization of details and enables the comparison between the presence and absence of different criteria in each of the projects. The ID cards of details visualize the design and building process and expose certain knowledge and conditions from the practice, which significantly determine the design direction and the final form of the architectural object.

methods: digitization of archival material, methods of content analysis, comparative analysis through qualitative and quantitative criteria, as well as 3D interpretive modelling and graphic analysis of content through a series of digital models, diagrams and sketches

Illustration 1: Discursive network_Comparative study of the questionnaire results

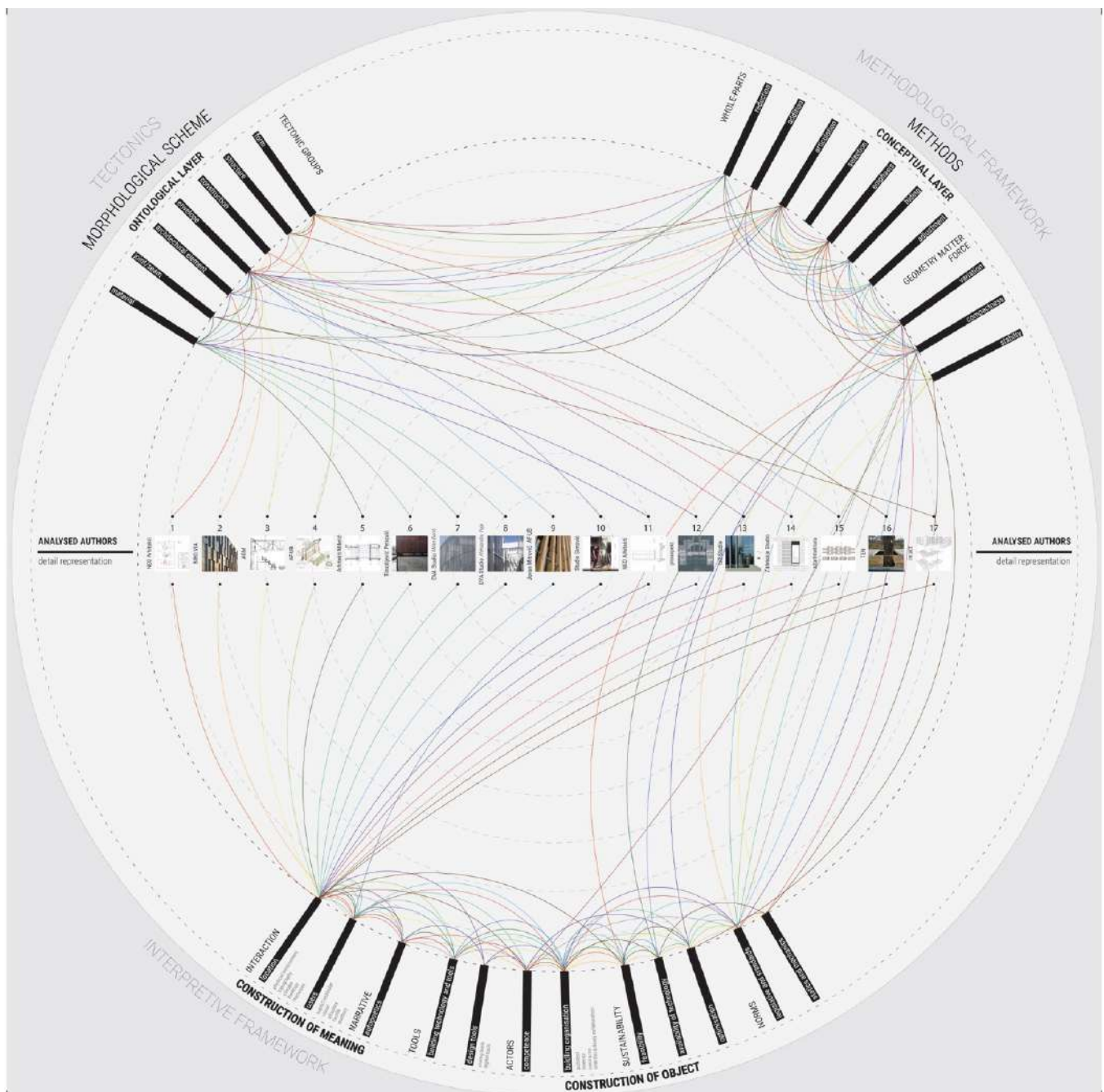


Illustration 2: Methodological-interpretive model

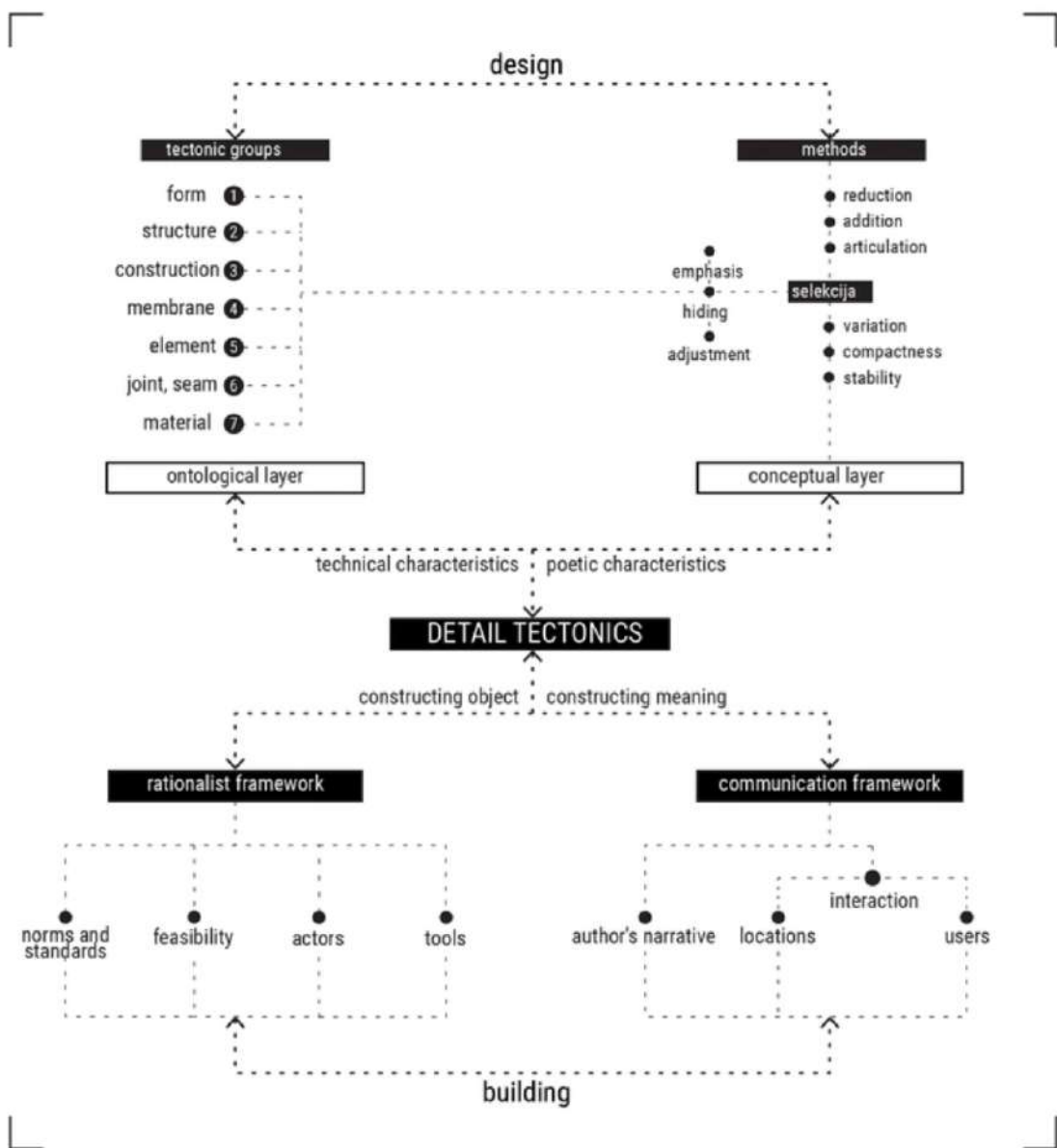
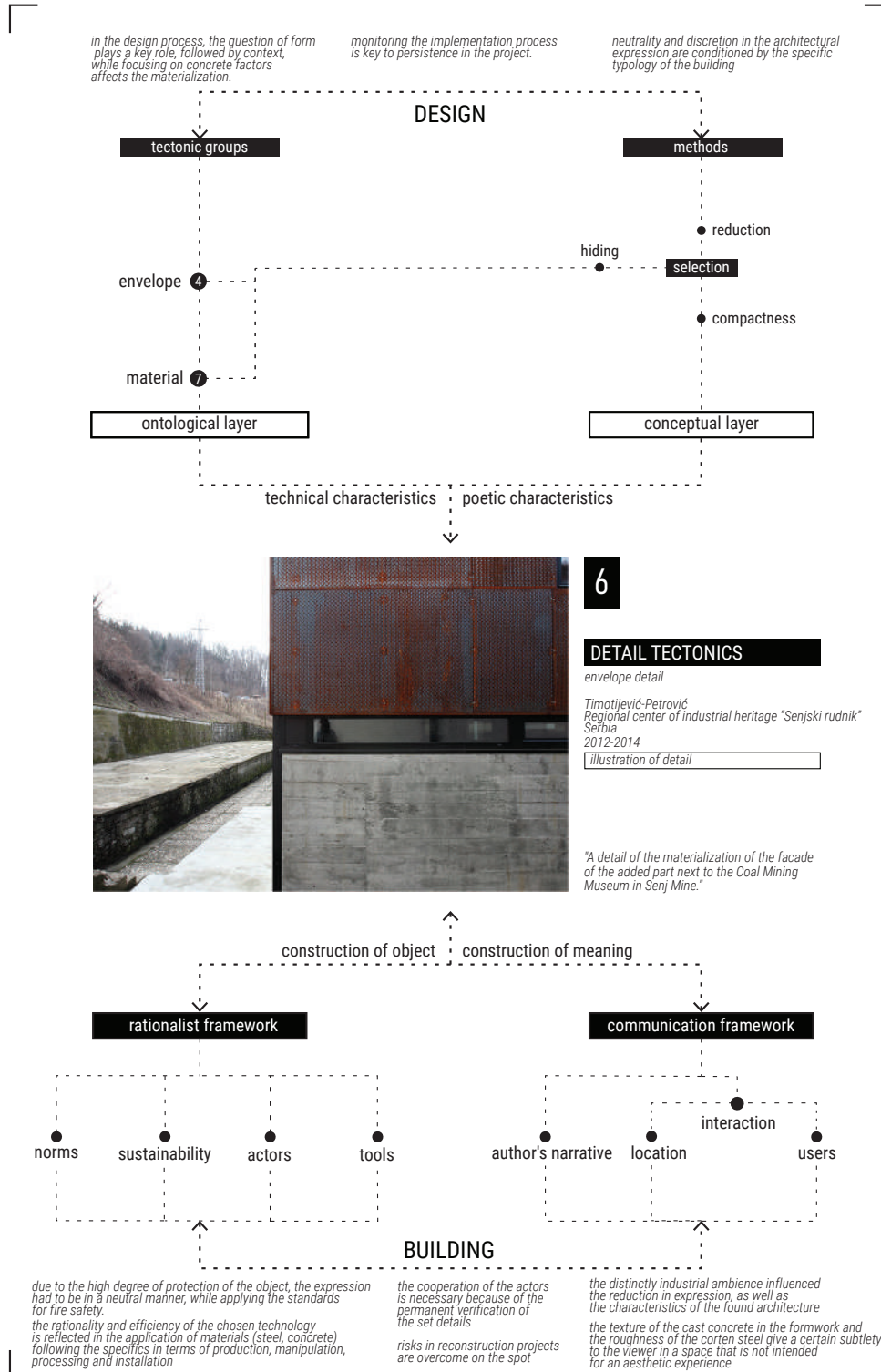


Illustration 3: ID card of the Detail



**Ivana Tutek,
Bernarda Lukač**
Research in practice

Ivana Tutek, Ph.D., architect / Faculty of Architecture, University of Zagreb, associate professor at the Freehand Drawing and Modelling Department /, participates in tender projects of architecture and urban planning and in scientific-professional studies, exhibitions, workshops, publications, research and design of the compositional diagrams / Atelier Minerva /.

Bernarda Lukač, mag.ing.arch. / Atelier Minerva / participates in exhibitions, workshops and publications, architectural and urban planning projects. Her fields of interest include graphic design. She is also active on the music scene as part of the post-punk band DDR.

DISPOSITION 2020 - 2024 _dialogue diagram

Ivana Tutek, Faculty of Architecture, University of Zagreb

Bernarda Lukač, Atelier Minerva, Zagreb

Stanislav Habjan, independent artist, Petikat, Zagreb

The difference between the two membranes where our world extends is noteworthy: the first (real world) and the second (meta-world of ideas and abstract meanings). The first membrane is the skin of the Earth, and the second skin is the diagrammatic inscription to the first membrane (R. Bunschoten, 1991).¹ The behaviour of each membrane affects the other and provokes a specific reaction. In metaspace, diagrammatic models create stability in time and continuity between different positions (R. Bunschoten, 1998).² It is an open dialogue space between science and various kinds of art. Contemporary architecture is progressive and more open, non-finished, without restrictions on dynamics. It is the architecture capable of expressing its movements and different requirements and shaping them, working beyond borders and traditional divisions (M. Gausa; V. Guallart; W. Muller; F. Soriano; F. Porras; J. Morales, 2003).³ A diagram is, therefore, a description of potential relationships among elements, it does not map or represent already existing objects or systems. It anticipates new organizations and specifies yet to be realized relationships.

The composition of the 21st century is characterized by disposition – flickering a number of possible positions within a given parameter. A compositional diagram is an abstract machine – the routine of execution is not clearly defined, but the diagram creatively participates in creating the plot (G. Deleuze, F. Guattari, 2013).⁴ According to Deleuze, the a priori historical "suprasensible diagram" is un non-lieu, a non-place, i.e., a place that is nowhere but nevertheless acts, establishes an impossible relationship (G. Deleuze, 1986).⁵ It is precisely the aim of the psychoanalytic concept of phantasm.

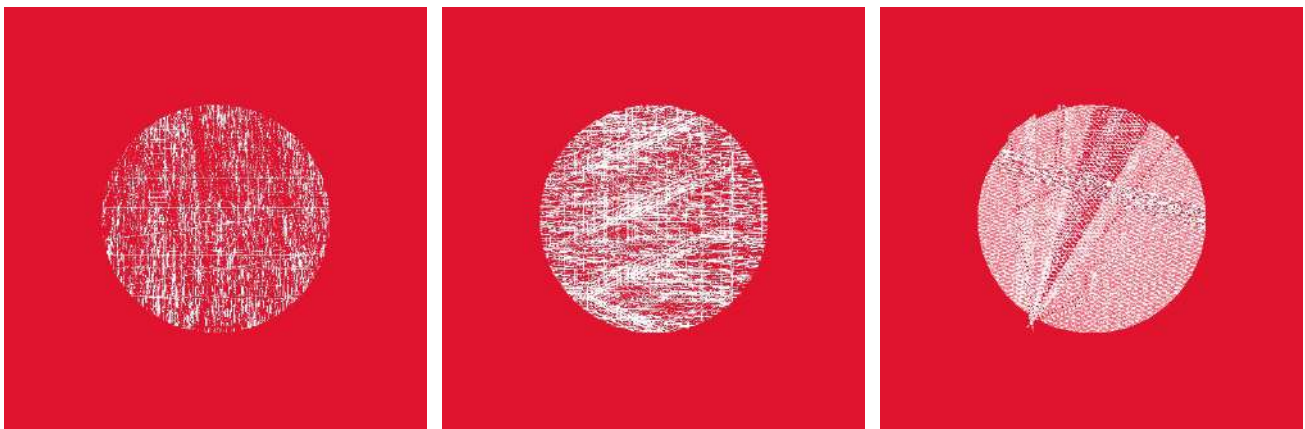


Fig. 1 *Imagine mmxx_cir.co.lo* /authors: Ivana Tutek and Bernarda Lukač/ _diagrams on transparent plexiglass panels show an abstract collage of the process (place, time, overlaps, dedications, emotions, meditations, sensations...), the duration of the architectural project and realization. It is the concept of merging and superimposing: real and imaginary time, abstract and real space, internal and external, static and in motion – the project and emotions present in the process of creating, images, sounds, and music in the background /poetry, rhythms, noises, reflections of light and shadows enter the space of the diagram/.

¹ Bunschoten, Raoul. *The Skin of the Earth*, 21:55-59. In: *AA files, Annals of the Architectural Association School of Architecture*, 1991

² Bunschoten, Raoul. *Stirring the city, CHORA's diagrammatics*, 72-82. In: *OASE Architectural journal*, 1998

³ Gausa, Manuel, Guallart, Vicente, Morales, Jose, Muller, Willz, Porras, Fernando, Soriano, Federico. *The Metapolis Dictionary of Advanced Architecture*. Barcelona: Actar, 2003

⁴ Deleuze, Gilles, Guattari, Felix. *Capitalism and schizophrenia 2, A thousand plateaus*. Zagreb: Sandorf i Mizantrop, 2013

⁵ Deleuze, Gilles. Foucault. Paris: Minuit, 1986

The diagram – and this is its primary function – squeezes this dispersivity and plurality into one centralized structure and arranges the multiplicity and variety of micro-relationships with an invisible, so to speak, suprasensible hand. The central phantasm of editing ultimately holds together a multitude of particular strategies in the most diverse institutions and dispositifs (M. Kopic, *From diagram to phantasm*, 2024). These are anonymous strategies embodied in heterogeneous devices and diagrams of forces. Foucault's notion of diagram can be translated into the psychoanalytic notion of phantasm – it preserves the establishment of an impossible relationship; the diagram is a "non-place," but it works: it points to the necessity of the centre and also its illusory nature. The phantasm fills that central void while enabling us to think of some mode of the centre that is not the institutional centring. Without a phantasm – the phantasm of the Centre, the phantasm as a centre, the phantasm as a relationship between something between which no relationship is possible – power cannot work (J. Lacan, 1964).⁶

Now is the time to introduce the person of the Poet. One of the possible embodiments of the idea is that there is a man with a capital M, the individual, therefore, who is not turned on by power, who is not interested in material possession, who primarily exists for us to find out that there is someone who has got his heart on fire for us, who is interested in us, and who only through us, singing, comes to himself. Such a man is the Tzar – because he has got the air. And imagination, of course. To be able to survive, he must first have imagination. (S. Habjan, *Imagination or nothing*, 2024).

Design-Driven research (DDR) through the project *DISPOSITION_dialogue diagram* began in 2020 as part of the experimental interdisciplinary cooperation between architects Ivana Tutek and Bernarda Lukač with the poet and multimedia artist Stanislav Habjan on various projects: architectural projects and realisations, workshops with students of the Faculty of Architecture, as well as exhibitions, performances and publications related to the execution of the project, which is being implemented from 2022 as a part of institutional research at the Faculty of Architecture in Zagreb.



Fig. 2 Workshop *DISPOSITION_dialogue diagram* / Architecture and film; student: Petra Omazić

⁶ Lacan, Jacques. Les quatre concepts fondamentaux de la psychoanalyse, Le Seminaire, livre XI. Paris: Seuil, 1964

The *Disposition* project explores and shows the move from architecture to other arts and vice versa (architecture, design, literature, poetry, music, film, dance, performance, etc.) through abstract compositional diagrams presented at exhibitions and in publications or through a performance form. Such process compositional models present in the structure and design of any work of art enable communication between artistic media and creative, scientific and technical disciplines as a whole while transforming and upgrading the basic structure in the domain of the new medium – *supersensible diagrams* that connect the seemingly incompatible. The undergraduate students design an event diagram, scenario of action – an abstract mechanism that activates a given segment or the entire space in the selected desired way. By establishing a relationship between the realistic world and the meta-world of ideas and abstract meanings, diagrammatic models are enabling various art forms' dialogue.

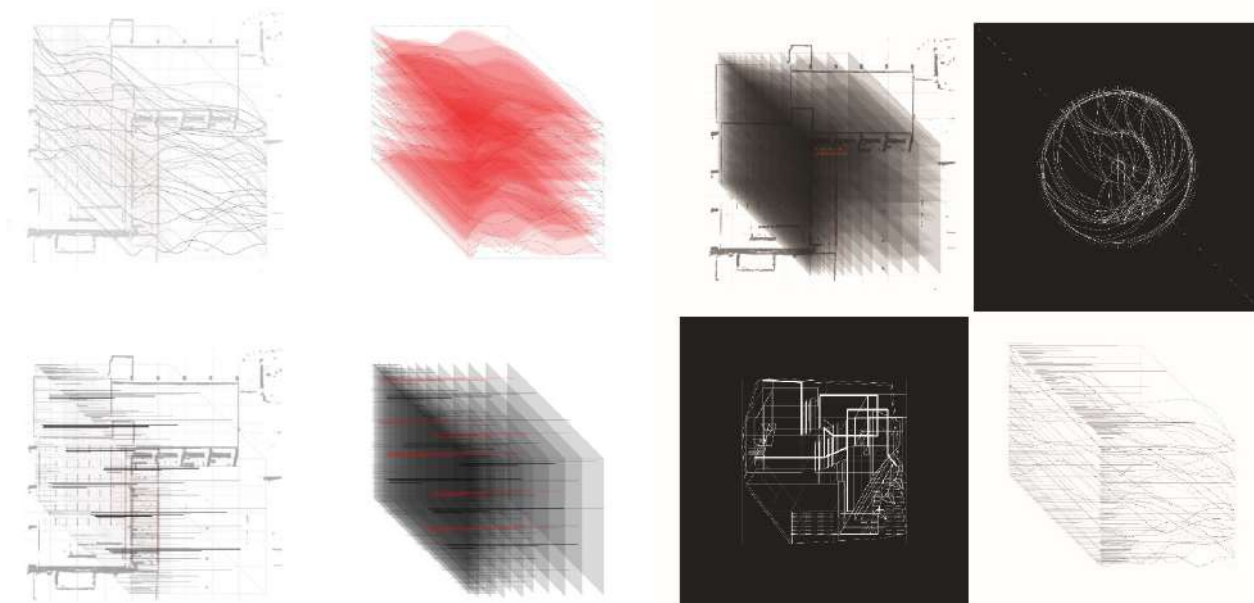


Fig. 3 Workshop *DISPOSITION_dialogue diagram / Architecture and literature*; students: Franka and Petra Omazić; Architectural project diagrams; authors: Ivana Tutek and Bernarda Lukač

The architectural realisation of *Poljana* Square in Šibenik (Atelier Minerva, 2020)⁷ is designed as a diagram between the past and the future, imagination and reality, life and art. The diagram of the square superimposes two networks – a classic orthogonal grid and a square field of points of flexible organisation directed by the logic of the library building and historical ramparts, with accents that introduce the surrounding contents to the *Poljana* space and timelines of movement. Spatial folds in the folding zones of the mesh form an expanded raised square field. Instead of taking over the design methods and patterns represented in architecture, Stanislav Habjan, during the realisation, inscribes a new layer somewhere between the historical diagram and the diagram of the architectural project's future – the idea of continuous development of ludic visual identity and its integration into everyday life. It's not a decoration, a decorative addition to the project; it is already about the performance of urban space that combines architecture, design, literature and performance (M. Mrduljaš, 2021).⁸ The proposed concept is of an open type; it establishes dialogue in the modern city and directs future use towards new scenarios in discrete transformation while preserving the existing identity.

Architectural realisation has become the basis and starting point for the reflection and development of architectural culture, which the authors carry out and document. Adaptation to the new fluid and dynamic

⁷ Authors: Paula Šimetin, B.Sc.Arch. and Asst. Prof., D. Arch Ivana Tutek, B.Sc.Arch. (tender, elaboration, project execution); Iva Dubovečak, B.Sc.Arch. (tender, elaboration); Source Simonović Majcan, B.Sc.Arch. (tender). Architectural office: Atelier Minerva d.o.o. (chief designer Nedjeljka Bobanović, RA), in cooperation with the Department of Architecture, Faculty of Architecture, University of Zagreb

⁸ Mrduljaš, Maroje. She 2 Art Project, a Monograph. In: *Prostor* vol. 29(2021) no.2 (62), Zagreb, 2021

system of action and orientation to defining processes that generate satisfactory spatial relationships through positions, directions, fields, and force interrelationships is visible. Contemporary architecture contains the effect of expression, decision and action. It requires energy, decision and possibility – disposition (M. Garcia, 2010).⁹ The architecture of action is defined by the desire for interaction, by launching events, spaces, and concepts. Disposition is a "device that arranges or places in a certain row" – machine or diagram. The challenge for architects is to produce a new device that works and is adapted to the stimuli of a new global order in constant uncertainty – a compositional diagram, an abstract machine that participates in project creation thou the routine of execution is not clearly defined and the phantasm fills the central void of the diagram.

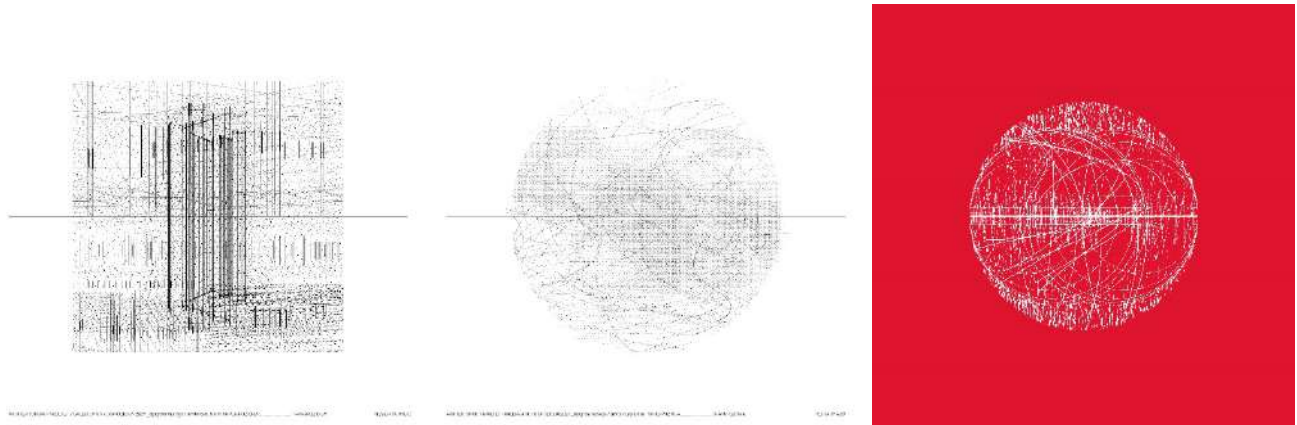


Fig. 3 Workshop *DISPOSITION _dialogue diagram / Architecture and film*; students: Neven Šuvalić; Petra Omazić; *Dialogue diagram*; authors: Ivana Tutek and Bernarda Lukač

⁹ Garcia, Marc, ed. *The Diagrams of Architecture*. London, UK: John Wiley & Sons Ltd, 2010

Hristina Meseldžija

Research in practice

Hristina Meseldžija (born Stojanović), PhD, was born in Belgrade in 1991, where she lives and works. She graduated from the Faculty of Architecture in Belgrade (2015), where she is currently employed as a teaching assistant at the Department of Architecture (since 2017). Through her academic and practical research she examines various roles of architectural drawing in the contemporary process of architectural design.

Hristina Meseldžija, PhD
Teaching Assistant with Phd,
University of Belgrade – Faculty of Architecture

JUXTAPOSING HYBRID MODELS OF CONTEMPORARY ARCHITECTURAL DRAWING: THE 8TH KILOMETRE EXPERIMENT

Extended Abstract

This project relies on the analytical methodologies developed for the PhD research that resulted in discovering specific models of drawing that have shaped the design process during the twenty-first century: **representational-transcriptive** and **speculative-simulative model**.¹ These two models, considered hybrid forms of the architectural drawing, emerge as a result of the application of digital tools in architecture in response to the critical perception and problematization of global socio-cultural phenomena. The research discusses the position of the developed models of drawings between two standpoints – first, presuming the drawing as a final result of the research process and second, understanding the drawing as a research tool. In the contemporary context shaped by the digital tools, the architectural drawing as part of the architectural design process has become a versatile, multi-layered and hybrid tool which, in addition to its primary role of distributing information, has an increasingly important position in design-driven research and artistic approaches of exploring architectural design concepts. The main aim of this work is focused on *dispositioning* the developed drawing models and integrating them within a single design-driven process. Proposed dispositioning develops around and builds on the project of the Eighth kilometre of the city of Bor that represented the Republic of Serbia at the 17th Architecture Exhibition La Biennale di Venezia in 2021.

The Eighth kilometre project represents a qualitatively new layer of the the city of Bor, a mining town in Eastern Serbia, suggesting directions of its further development beyond the mining industry. Geographically positioned within a non-ferrous metal mining basin, this town was urbanistically and architecturally developed during the post-war industrialization period, thus further upgrading its multicultural character previously developed through the town's core economic activity—mining. In everyday language the residents of Bor refer to the individual places of the town through a measure of their distance from the open-cast mine, which they take as a starting point – “kilometre zero”. Furthermore, the inhabitants' system of orientation is analogous to the methodology of planning and construction of the town itself by way of seven city kilometres. In this sense, the eighth kilometre represents a qualitatively new layer of the town, suggesting directions of its further development beyond the mining industry. Each of seven kilometres correspond to one of the themes predominantly present on the given kilometre. These themes include industry (1st kilometre), cultural spaces (2nd kilometre), planning (3rd kilometre), housing standard (4th kilometre), everyday life (5th kilometre), ecology

¹ Meseldžija, H. (2023). *The Role of Architectural Drawing in the Design Process at the Beginning of the XXI Century*. Doctoral Dissertation. Belgrade: University of Belgrade – Faculty of Architecture.

(6th kilometre) and demography (7th kilometre).² For the purpose of this work, drawing was used as a research tool with the aim of questioning the predominant theme of each kilometre and introducing new perspectives on the town as its physical framework.

Part of the project that will be examined and further researched contains two drawing models representing the Eighth kilometre of Bor – first is the speculative-simulative model of drawings that were a part of the Architecture Biennale Exhibition, and the second is the representational-transcriptive model that will be developed for this purpose using the already established methodology of transcribing architectural space.³

1. Speculative-simulative model represents the architectural drawing as a generator of spatial processes. It develops in the final stage of the design process with the intention to face existing built environment with the possibilities of re-examining it through a sequence of narrative drawings that build on each other displaying proposed projections of the future and its accompanying changes. These drawings used as a medium for exploring an open narrative, act and communicate with realistic, sometimes satirical, potential and problematic spatial and functional elements representing simulations that, instead of striving for a final result and preferential author's vision, seek to examine the design capacity of proposed projections of the future. Since this drawing model characterizes the process of simulating a fictitious spatial-programmatic situation based on images of the everyday world, with the aim of extending thought processes and contemplating on the proposed work, it can be discussed that it can also engage the use of drawing as an initiator of the design process, that is, a constructor of the environment as a spatial framework in which architectural thinking develops. This model particularly tends to expand the thematic framework of the architectural project and position the process of architectural design as an interdisciplinary methodological procedure.

Speculative-simulative model of architectural drawing will be presented in a series of fragmentary drawings representing the reimagined future of the City of Bor. This model contains drawings representing the transformation of different thematic zones interpreted in seven city kilometres, as well as the integral drawing of the eighth kilometre containing a juxtaposition of drawings, that is at the same time a perspective drawing and an elevation, cross-section and floor plan.

2. Representational-transcriptive model of architectural drawing develops as a result of the artistic research process of exploring and combining techniques of hand-drawing and digital drawing tools, and is predominantly concerned with the representational role of the architectural drawing and its materialisation and expression. This model of architectural drawing focuses on researching the representative characteristics of the existing or designed architectural space. The development of this model is aimed at re-examining different forms of drawing (combining drawing techniques, different types of drawing and methodological procedures) and expression of drawing (its analogue or digital representation). Although this model mostly engages drawing in a process that is primarily experimental, its focus lies in architectural drawing as the final product of architectural thinking. This drawing model is characterized by the use of drawings as the final but uncertain result of the process of representing existing or designed architectural space. The process of transcription as the

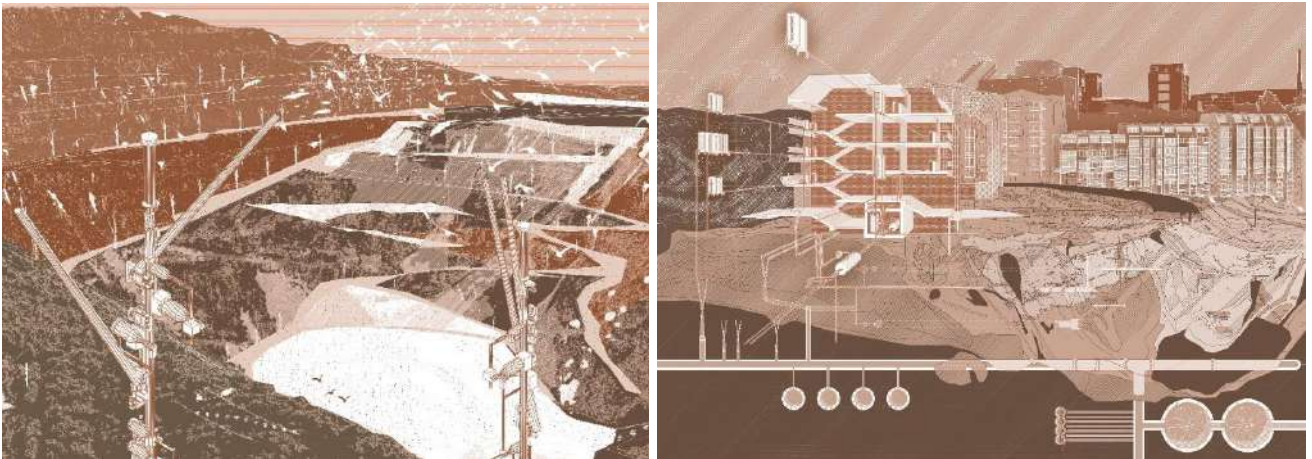
² Bekić, I., Cigić, P., Dukanac, D., Đorđević, S., Gajić, I., Ješić, M., Stojanović, H. & Zlatković, S. (2021) *8th kilometer: Pavilion of Serbia at the 17th International Architecture Exhibition – La Biennale di Venezia*, 22.05.-21.11.2021. Belgrade: Birograf Beograd.

³ Meseldžija, H. (2022). *Methodology of Representation and Transcription of Architectural Space: Discovering the Hybrid Model of Architectural Drawing*. STRAND Tenth International Conference; On Architecture: Philosophy of Architecture. Belgrade: STRAND - Sustainable Urban Society Association, 201-209. [Available at: https://raf.arh.bg.ac.rs/bitstream/handle/123456789/2135/bitstream_7547.pdf?sequence=1&isAllowed=y]

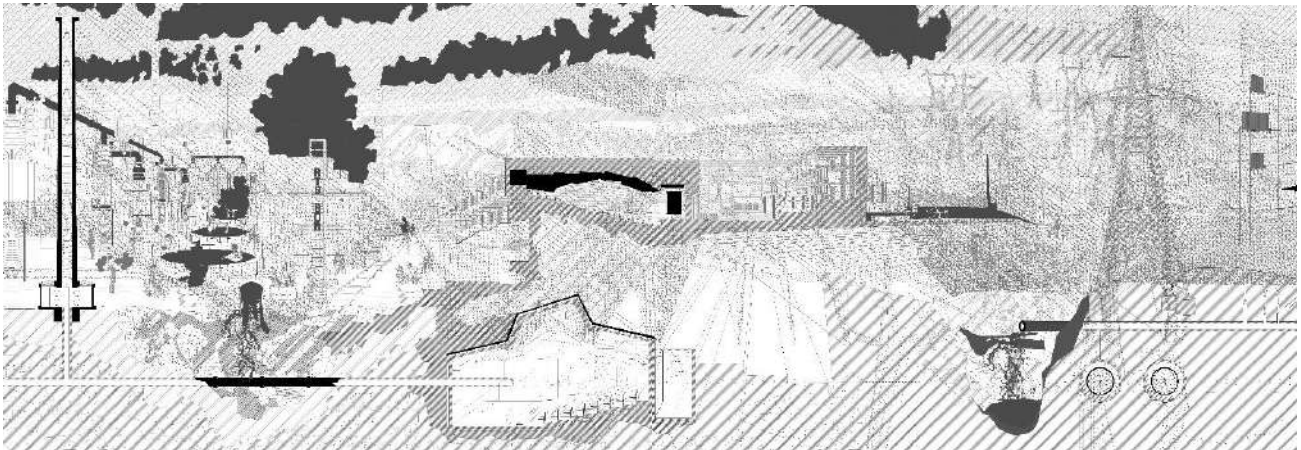
chosen methodology, is understood as an experimental process of transmitting information about visual forms from the real world, assigning them new connotations and reinterpreting them as a new visual form.

Representational-transcriptive model of architectural drawing will be represented in form of a large format photo-spheric drawing representing 360x180° panoramic view of the City of Bor that can be perceived in a two-dimensional layout or inside a three-dimensional virtual reality environment. This model develops from the methodology of transcribing architectural space with the use of virtual reality tools and applications that the author developed for the purpose of her PhD research titled *The Role of Architectural Drawing at the Beginning of the XXI Century*.

By dispositioning these two models, this work tends to question drawing's complex manifestations of its dualities and contingencies – in terms of research/creative potential, hand/drawing techniques, analogue/digital representation of the drawing, manifesting as a result of a complex methodology that starts with multiple intentional narrative drawings and ends with a conjoint heterogeneous proposal of a city's physical structure.



Speculative-simulative model: Drawings of the 6th ("Ecology") and 4th ("Housing Standard"), "8th Kilometer" project at the 17th Architecture Exhibition La Biennale di Venezia, 2021. Source: Moderni u Beogradu



Speculative-simulative model: Fragment of the integral drawing for the 8th kilometer of the City of Bor, "8th Kilometer" project at the 17th Architecture Exhibition La Biennale di Venezia, 2021. Source: Moderni u Beogradu



Representational-transcriptive model _360x180° panoramic view of Bor from the open-cast mine (0 kilometer). Source: Dejan Motić.

Miljana Niković

PhD candidate

Miljana Niković (Belgrade/Berlin) is an architect and researcher experimenting with audiovisual forms and words combining multiple languages. She currently works on her doctoral thesis and archival video project about filmed urban spaces and their perception through collective memories and sociopolitical transformations. Her experimental video-poems have been screened at various international film festivals and cultural events. Her most recently published texts deal with found-footage techniques and re-appropriation of film archives in the context of Yugonostalgia.

BELGRADE ON SCREENS IN BELGRADE: DIS/CONTINUOUS DIS/POSITIONS

The doctoral-artistic research project *Belgrade on Screens: Visions of Continuous Discontinuities* explores audiovisual representations of a location chosen as Belgrade's chronotope: the Terazije Square. The thesis and videos question the impact of moving images on cognitive awareness, collective versus individual memories, and how they produce new interpretations of urban, historical and sociopolitical transformations.

Beyond undeniable interest in showing this type of research to a local academic and artistic assembly, the main relevance is to activate the local film material by using fragments stored at the Yugoslav Film Archive—Jugoslovenska Kinoteka—in Belgrade. Presenting this type of material at the Faculty of Architecture offers a unique position to open multi-layered discussions between experts in many fields: urbanism, film, history, and many more intertwined disciplines. By juxtaposing the dialogues with the local and the international community, it will be crucial to establish the main differences in the acknowledgment and interpretations of both "sides" as their respective pre-knowledge and thus, their pre-positions, are opposed by their very geographical presence. While some of the observers live in Belgrade and most probably have been working on topics directly related to Belgrade's position, other spectators are perhaps visiting Belgrade for the first time and for a short-term stay. Each of these positions are valued to test one more time the effects and affects created by a speculative set of video assemblage.

In the previous audiovisual essay, scenes from a film shot in 1922 have been obtained from the EYE Filmmuseum in Amsterdam and used as a 4-channel short performance based on Deleuzian philosophy: movement, time, difference, repetition. With films shot before 1945 but collected through the Yugoslav Film Archive, it is now time to bring additional camera-perspectives, marking the main progress through acquisition and access. Most of the film material comes from national commemorations, royal celebrations, and public gatherings during historical events. Sometimes shot by foreign filmmakers who documented the world with their cameras such as urban postcards, sometimes shot by local filmmakers to promote political activities in the region, it is already a transposition from an external to an internal position (outsider's versus insider's viewpoint). In that sense, the positionality of film archives—including their respective institutions and right-holders—influence the interpretation of a place and its inhabitants. For instance, the wording used in the accompanying text of the film shot in 1922 testifies a fascination of the Balkans as an exoticized place in the context of a colonial gaze.

Disposition is a physical or psychological inclination, tendency or arrangement. If the disposition of ice is to melt when heated, the disposition of history is to continuously reproduce its discontinuities. But disposition in a legal sense is a transfer of ownership by gift or sale, as well as the final power to make decisions about use or disposal. This type of disposition can be applied here in the context of working with public film archives that are kept and distributed by institutions who control and regulate the access to the film material.

Consequently, the positioning of the researcher implies situating the research in a more specific context (local, historical, artistic, architectural, institutional, ideological). This positioning strongly coincides with employed methodologies and theories taken as reference points. Finally, the entire set of results depends on the disposition of the given exhibition space, as the spatial constellation directly imposes the disposition of the multi-channel video installation.

Within practice-based academic research in film studies, a growing phenomenon appears in the circles of audiovisual essayists. Film scholars nowadays publish more often their video essays online to demonstrate their analysis of a given topic related to cinema or subjects represented by cinema itself.

Combined with desktop cinema (1) and expanded cinema (2), these emerging forms of media-making shape alternative types of positioning the screens spatially. Indeed, videographic criticism as research methodology is recognized within videographic or audiovisual PhD's—a practice-based form becoming the actual research, and not seen anymore as being only a "supplement" to the written thesis. In fact, the academic community of audiovisual researchers increasingly produces considerable amounts of progressive methodologies, sharing these interdisciplinary topics at international conferences, publishing video essays at online journals, by connecting film history and film theory to sociopolitical, spatial, historical, financial matters, and many more. For instance, Will DiGravio explores in his doctoral research how videographic criticism animates experimental film archives of the american avant-garde film, while Jemma Saunders questions Birmingham's on-screen identity through popular film and television.

By mixing different types of film material and genre (feature films included), the concept is to bring the images and impressions in an immersive environment. Proposing diverse montage techniques, fragmented past narratives are to be exposed in a spatial arrangement for phenomenological experiences, through pre/supposed multi-channel video installations. Once "released" from their institutional boxes—where they might be forgotten, hidden, lost, inaccessible—the films get a physical reality. By decomposing and recomposing fragments of *Terazije*, its disposition will be generated by the disposition of the cameras that filmed it, the disposition of the film archives, and the disposition of provided material and room.

Similarly to the previously proposed video experiments (3)—while exploring oppositions, compositions, juxtapositions or decompositions in their cinematic forms, language is essential to understand the images. Therefore, another playful approach will be proposed by pairing several types of positionality or positions towards films showing *Terazije*. The multi-screen video installation will be arranged according to the room where the panel will take place. If more than one projector or screen can be given (regardless size or type), that would facilitate the logistics, otherwise additional technical apparatus will be brought. However, minimal technical support will be highly appreciated for an easier setup. Alternatively, the video installation can also be imagined outside of the Faculty of Architecture, in a gallery, an art institution, or... *Terazije*.

1

Visual and essayistic storytelling presenting narratives through the interface of a computer, tablet, smartphone screens, or saved on similar backgrounds. Reflecting our digital age, this innovative type of filmmaking uses digital tools, online material and platforms that we tend to interact with on a daily basis.

2

Form of immersive constellation aiming to create dynamic and interactive viewing experiences, engaging the audiences through audiovisual installations of multi-screen projections spatially coordinated within the physically occupied location.

3

- *Cut 1: Before The Truth / Before The War* (2-channel, 15min) establishing a set of comparable and categorized discontinuities detected in two movies shot in Belgrade in the 1960s
- *Almost White City On Barely Black Screens* (3-channel, 15min) and
- *Cities On Screens Or Screens Of Cities* (3-channel, 14min), both thematizing the making-of process of the research by reflecting on the challenges of working with film archives, information overflow, and multi-screen projections
- *Cut 2: Squares* (several channels & lengths) dissecting selected scenes out of cult feature films showing the main location of the research
- *Cut 3: Eccentric In The Center* (3-channel, 15min)
- *Cut 4: One City, Four Discontinuations* (4-channel, 3min) reflecting on Deleuzian theories about notions of repetition, difference, time, movement as dis/continuities seen in the film from 1922

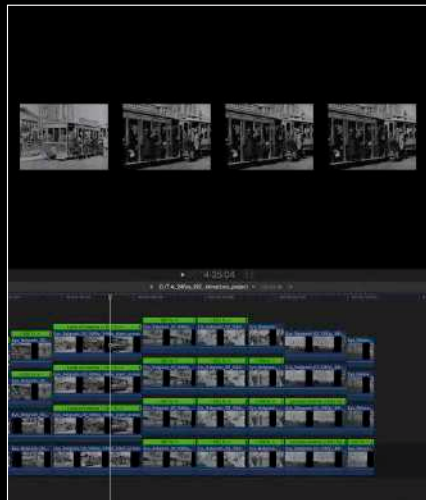
A



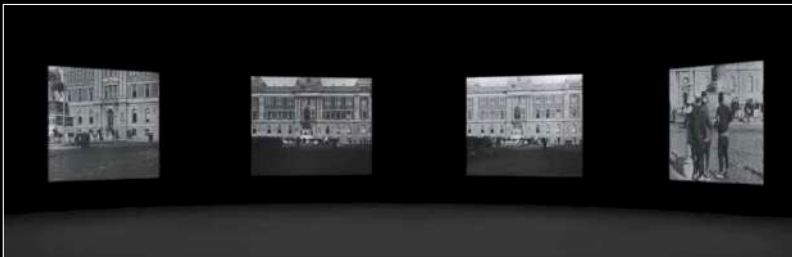
B



C



D



E



A

Disposition of shots —

Selected scenes filmed at Terazije in popular feature films used for a series of experiments *Cut 2: Twenty Squares*.

B

Disposition of cameras —

Overview of points where the cinematic eye was placed during film shooting in selected movies, including their trajectories and vertical placement (from the roof, a moving car, a window, or static, panoramic, etc.).

C

Disposition of technical tools & skills —

Screenshot of the editing / research process with Final Cut Pro during the making-of of *Cut 4: One City, Four Discontinuations*.

D

Disposition of spatial context —

3D simulation using film archives of Terazije from the EYE Filmmuseum for the 4-channel immersive video installation of *Cut 4: One City, Four Discontinuations*.

E

Disposition of new film material —

Still from one of the films showing Terazije before World War II: *Beograd, prestonica Kraljevine Jugoslavije* (JUG, 1932) digitized and stored by the Yugoslav Film Archive, accessible on Kinoteka's official Youtube and Vimeo channels.

BELGRADE ON SCREENS

Miljana Niković
HafenCity University Hamburg
Abstract / Artefact
—

DDr statement: Importance, role, and dispositions of design-driven research in the project

While starting the final stage of my doctoral research, the next CA2RE edition is a great occasion to present, once again, some of my most recent theoretical and artistic production. Conceived around the topic of dispositions, the upcoming conference challenges my own positionality because it will be taking place in Belgrade: my hometown and a city which became the main subject of my research partially due to the fact that I barely lived there. Automatically, my methodologies are influenced by personal values and views, as much as my spatio-temporal location and experience. Although not fixed, these and other features of my identity indicate social and spatial positions, generating knowledge mostly by a subjective and qualitative approach. Thus, my background and current positions produce academic and artistic knowledge that critically questions my motivations, assumptions, and decisions during every research phase. By understanding the language and shared collective memories, I am able to study and connect sociopolitical, historical, and cultural aspects of my constructed realities or origins.

The initial motivation of my research was the willingness and need to combine two disciplines—architecture and cinema—in a spatial and audiovisual disposition. Belgrade being my long-term case study, the goal is precisely to decompose, recompose, pre/suppose, propose, and expose its various images through selected films. Inspired by the techniques used in experimental video essays and expanded cinema, I combine various design-driven tools such as discontinuous montage and editing, sonic-aesthetic effects, and multi-channel installations or lecture-performances.

—

Ans Nys

PhD candidate

Ans Nys is an artist working in the field of drawing. She is a lecturer in drawing since 2000 at LUCA Ghent and a member of the Research unit Image. <https://luca-arts.be/en/research-unit-image>

She is finishing a PhD in the arts at LUCA School of Arts/ KU Leuven.

<https://research.kuleuven.be/portal/en/project/3H180591>

She organised several symposia and lectures on drawing. She participated a.o. in exhibitions in MSKA (BE), CC Strombeek-Bever (BE), The museum of Childhood (UK), Voorkamer (BE). Recently she showed new work in Croxaphox (BE).

My practice-based PhD, “Drawing as a mourning love letter”, investigates drawing as a mourning act and the potentiality of the medium to transform the repetition and narcissistic lamentation adherent to mourning into the form of a visual letter, thereby addressing the spectator in various ways.

Although drawing is already a fragile and unstable medium with its qualities of directness and transparency of figure versus ground, when it comes to a mourning drawing act, the medium is driven to an even more unstable, insecure condition. Three reasons are accounted for this condition: 1) a loss of variation on the subject matter (leading to a compulsive repetition); 2) a loss of control of the drawing material and technique (using an extreme handling of the paper resulting in stains, cracks, wrinkles); 3) a loss of a balanced composition. Instead of denying these losses which entail a crisis of autonomy over the medium and its subject by trying to conceal or to overcome it with an aesthetic or formal solution, this lack and instability are taken in this research as a disposition, both as the starting point of the artistic research and as a function in the methodology as well as in the form. I call this form of drawing a ‘disaster drawing’ to paraphrase Blanchot’s “Écriture du désastre.”

The methodology I developed can be divided into four stages. Firstly I engaged in repetitively drawing hands and eyes, either at life-size or at more than life-size. The drawn hands have designating, pointing, or gripping gestures, evolving into a wider range of different gestures such as making ocular forms with the thumb and index finger, or another finger thereby creating holes, as demarcated - but empty - spaces. The eyes are depicted in an isolated state, with no connection to other facial features. Eye and hand are both objectified by their separation from the drawing body of the subject and multiplied by a repetitive, reflecting drawing act, leading to a proliferation of drawings.

Together with the hand, the eye functions as an agent during the drawing act: they are the ‘points-source du dessin’ to borrow Jacques Derrida’s words. The relation between hands and eyes in the drawing act is traditionally acknowledged as a coordination between both: the eye leads the hand as the hand leads the eye. In mourning labour however, the gaze of the mourning subject has become a staring one and the hand is an agent that seems no longer of use. Its mere presence is felt as a strange remainder, as an agent doing non-sensical gestures, gestures circumscribing the void of the surface: the paper where no longer any subject or object seems relevant to be represented. Although both - eye and hand - still function in their gazing and gesturing acts, both are no longer signifying the subject as a drawing subject, but reflecting on the mute and melancholic mourning. These drawing acts conjured to amorphous figures reminiscent of the eyes and holes between the hands.

The second stage consists in extracting these figures by cutting them from the original paper ground which gave them all different and capricious forms. This made clear that despite the repetitiveness of the motive, the drawn fragments were always differing. In this cut-out form, they gained an object-like status which makes me call them ‘draw-th-ings’. Although two-dimensional they were now movable in any direction and were not dependent on any frame or support. The possibility to juxtapose, superpose, and oppose different parts was now endless: the ‘draw-th-ings’ function as words that can be infinitely combined or altered into neologisms. With this in-between ‘acting as objects’ and ‘functioning as words’ the ‘draw-th-ings’ have obtained a new status incorporating qualities of an image, discourse and a situation that provokes an attitude. These are respectively the realms of the imaginary, symbolic and the real in a Lacanian sense.

The third stage consisted of unifying the fragments, albeit not in a traditional way of making a composition by way of collage or translation into another two dimensional medium, but by treating the parts as objects in the sense of subjecting them to a horizontalisation. This horizontal arranging is performed on two different supports: mirror trays and existing floors of the exhibition space. Positioned horizontally - in contrast to its typical vertical arrangement - these surfaces become an earthly “support” for the hitherto endlessly floating fragments, thereby making *supportable* what was till then unbearable.

Through the ‘terrestrial’ demarcation and order, I gain a fourth stage in the process: it allows me to act again as an aesthetically judging subject, somewhat like a chess player who changes the rules of the game whilst

playing. This changing of the rules is what happens in poetry, wit and puns. By treating the draw-th-ings as words apt to be changed into new ‘fusions’ by opposing and superposing, suddenly an array of rhetorical devices present themselves, such as repetition, metonymy, ellipsis, pleonasm, syllepse and metaphor.

The non-directional horizontal positioning together with the repetitvity at stake enforces an endless metonymical character upon the viewer: there is simply no fixed point of view when looking down on a tray or on expanding compositing on the floor, with no top or bottom, no left or right. Moving around the viewer’s perspective never comes to a standstill. Moreover, the spectator sees himself reflected in the remaining mirror parts or in the non-ending character of the arrangements as an accomplice in this metonymical play of abysmal mourning. The mirror stresses the narcissistic and metonymical character of mourning.

Then again, its abysmal void parts sneaks into the metonymical game itself, creating new mobility and playfulness, opening up the possibility of de- and re-composing the draw-th-ings in endless variations, both according to the specificity of the space and the situation of the light, giving in to the constraints of ever-failing judgment and incidental creative ‘Stimmung’.

Thus the status of autonomous drawing is questioned. Most importantly, the non-autonomous position of the artist, artistic creation, in its alleged unifying efforts, is acknowledged. The impossibility of securing a definite position as artist/designer, of obtaining a finished, therefore inevitably pretended perfected work, is coming to light.



fig. 1

fig. 2

Exhibition view at Croxaphox, Belgium, 2023

Figure 1:

Left: S-Ans

dimensions: 70 cm x 50 cm

materials: drawing parts (gouache, pastel chalk), mirror glass, glass, cast iron

Right: L’Oeil à la main

dimensions: 70 cm x 50cm

materials: drawing parts (gouache, pastel chalk), mirror glass, glass, cast iron

Back: Champ d’yeux

dimensions: 110 cm x 50cm

materials: drawing parts (gouache, pastel chalk), mirror glass, glass, cast iron

(English translation of the French titles: ‘Field of eyes/gods’ with ‘d’yeux’ as an equivoque combining ‘des yeux’ (‘eyes’) and ‘dieux’ (‘gods’), ‘The eye in the hand’, and ‘S-Ans’ is, of course, a pun on my first name and refers to the French homonymous words ‘sans’ (‘without’) and ‘sense’ (‘meaning’)

Figure 2 (back wall) & 3: ‘sic’ (dimensions: 300x320cm; materials: gouache, pastel chalk)

Fig. 3 & 4 show a work compound of a set of currently of 44 drawings entitled 'sic'. The aim is to let the set grow onwards. According to the exhibition space the drawings are arranged in different variations and installations. In the exhibition as in fig. 3, 36 drawings are exposed using the corner of the room and filling the wall from bottom till top.

In fig. 4 the drawings are arranged on the existing wooden floor of the library of the old Cistercian monastery. Dimensions: 300 cm x 280 cm



fig. 3.

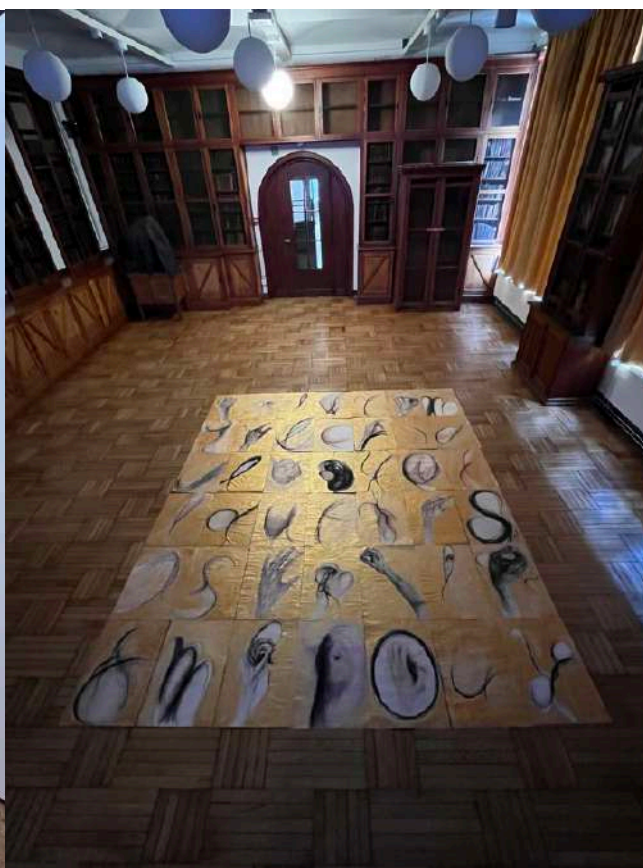


fig. 4

Ottavio Pedretti

PhD candidate

Ottavio Pedretti, architect, Ph.D. candidate in the Architectural Urban Interior Design program at Politecnico di Milano. His PhD research, funded by the PNRR program, is titled *Pioneering Infrastructure. Experimentation on Design Strategies for Urban Air Mobility In Italy*, which focuses on the challenge of Urban Air Mobility.

Since 2018, he has been working at SANAA (Tokyo), Onsitestudio (Milan), and ION Fund (Milan). Since 2020, he has been a tutor in various Design Studios for the B.SC. degree program at Politecnico di Milano. He graduated from Politecnico di Milano, in 2019, with a thesis on the relationship between abandoned industrial buildings, cotton mills, and slums in India.

Pioneering Infrastructure: Architectural Design Strategies to Explore Urban Air Mobility in Italy

The Ph.D. Thesis contributes to the research funded by the PNRR¹ within Spoke 1 air mobility², part of the hub “MOST - *Centro Nazionale per la Mobilità Sostenibile*.”³ The PhD research⁴ is rooted within a broader framework on Urban Air Mobility at Politecnico di Milano. Specifically, the research is related to Aerospace Science and Technology, underscoring the importance of a multidisciplinary approach. The investigation field regards the Italian territory and how Urban Air Mobility could affect and be integrated into the existing context.

The research explores the architecture of vertiports: new physical infrastructures fundamental to Urban Air Mobility (UAM) development. UAM represents a new approach, initially developed in 2016 (Holden and Goel 2016), to urban transportation, aiming to reduce travel time and improve city connectivity. UAM involves electric vertical take-off and landing (eVTOL) aircraft, capable of taking off and landing vertically and designed to be quieter, more efficient, and safer.

From a scientific standpoint, studying vertiports as architectural entities is a new design topic. Few buildings have been built, and most are still in process, necessitating a comprehensive inquiry⁵. Available literature predominantly derives from disciplines such as aerospace engineering and air traffic management (Bacchini and Cestino 2019; Schuchardt et al. 2023), reflecting the necessity of an interdisciplinary approach, for example, architecture and urban design. This lack of dedicated architectural studies underscores the topic's novelty within architectural research, highlighting the investigation's relevance.

The emergence of vertiports necessitates a comprehensive understanding of the architectural design field. Vertiports present unique architectural challenges due to their vertical take-off and landing capabilities and their disposition according to the surrounding built environments. Architectural strategies emerge as fundamental in defining the integration by addressing design, functionality, and urban aspects. Additionally, architectural strategies can enhance the spatial qualities of vertiports. Transcending their utilitarian nature to become points of interest capable of integrating with diverse public and local community functions, such as workshops, tourism offices, public space, playgrounds, and transportation hubs.

One of the key objectives of the research is to investigate how vertiports can be effectively integrated into the existing urban environment. This includes examining their potential to become flexible architectural entities capable of adapting to diverse conditions and improving their relevance and functionality within the urban context.

The Ph.D. research is organized into two parts and eight chapters, each addressing critical aspects of UAM infrastructures and their design.

The first part delves into the reading of the UAM ecosystem and the imaginary related to the flight in architectural history. It defines a typological atlas of vertiports, fostering a deeper understanding of their spatial and functional qualities. The second part concentrates on the design-driven research approach, exploring strategies and their implementation within a selected series of case studies.

To understand what vertiports are, it is crucial to examine the framework in which they are integrated. The review of existing research from sectors such as aerospace and air traffic management identifies relevant concepts, methodologies, and best practices that can direct the architectural design of the vertiport. By synthesizing findings from these disciplines, the aim is to provide a comprehensive understanding of the factors influencing the design of the ground infrastructure.

On the other hand, complementing the compendium on the technical aspects of exploring vertiports, it is represented by the imaginary and cultural perceptions surrounding flights (Pearman 2004), mainly as manifested during the 1930s but also analyzing the role of architecture in the development of pioneering infrastructure (railways, airports). This historical period provides a rich backdrop, revealing how flight was envisioned as a potential urban transportation system despite technological limitations that prevented its realization.

If the 1930s represent the backbone period for structuring the idea of flight, the reading must be extended to include relevant cultural artifacts from outside this period. Remarkable examples include the movies *Metropolis* (Lang, 1927) and *Blade Runner* (Scott, 1982), as well as the series of French chromolithographs *En l'an 2000*⁶ (Côte, 1910).

By examining this imaginary and cultural scenario the research gained an understanding of the historical context that shaped early conceptions of flight and the potential of its role in the city.

To understand the complexity of the vertiport, the first step is to build an abacus of the existing projects organized on the dimensions. The primary objective is to recognize architectural configurations and identify the design strategies applied, such as repetition, rhythm, symmetry, and hierarchy. The development of the abacus allows the categorization of vertiports through their design to define the architectural elements (Aris, 2021). The abacus reading tools are drawings in plan and elevation to discover recurring patterns and spatial configurations and to find insights into the emerging typology of vertiports (Moneo, 1978).

As part of the methodology, the abacus was produced through a re-drawing process using available materials like commercial renderings.

A curated selection of case studies, such as the projects for Orlando (USA), Sao Paulo (Brazil), Shenzhen (China), and Singapore, will be examined to enhance comprehension of the principles guiding vertiport design and outline insights from their diverse architectural compositions. By dissecting these cases, the aim is to decode their variations and delineate the essential elements that define vertiports. The relation between the roof plans and elevation drawings is fundamental, unveiling the interplay between terrestrial and aerial configurations.

The research has formulated three distinct design strategies. These strategies serve as methodological frameworks for investigating various sides of the design process, thereby contributing to advancing knowledge in this emerging field (Berlingieri and Setti, 2022).

The design strategies define the role of vertiports in urban environments, clarifying their potential. The first one, vertiports, as an ecological integration strategy, represents an approach where the infrastructure for air mobility is integrated into landscapes, enhancing ecological functions, improving microclimates, and supporting biodiversity. The second, vertiports as enablers of adaptive reuse propose repurposing existing structures, converting them into multifunctional vertiports, thereby extending the life cycle of urban buildings and infrastructure. Lastly, the concept of vertiports as enhancers of hybridization underscores the potential for integrating them with existing urban functions, particularly through rooftops, maximizing spatial efficiency and optimizing the urban landscape.

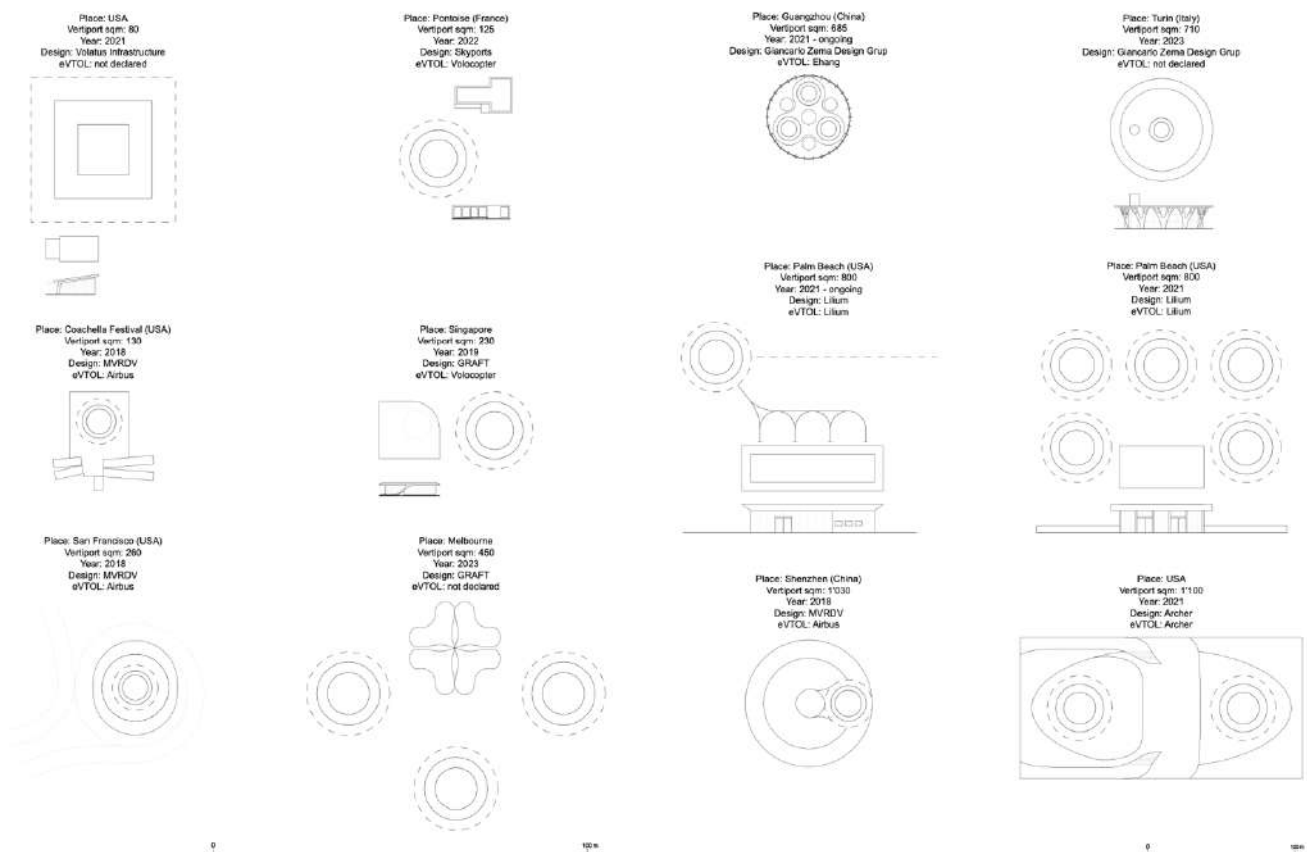
Together, these strategies serve not only as design approaches but as broader frameworks for reimagining the future of urban environments, contributing to a deeper understanding of the potential for vertiports to reshape contemporary cities.

The second part is supported by a design-driven research approach that critically explores the relationship between architecture and integration into urban environments. The vertiports cover

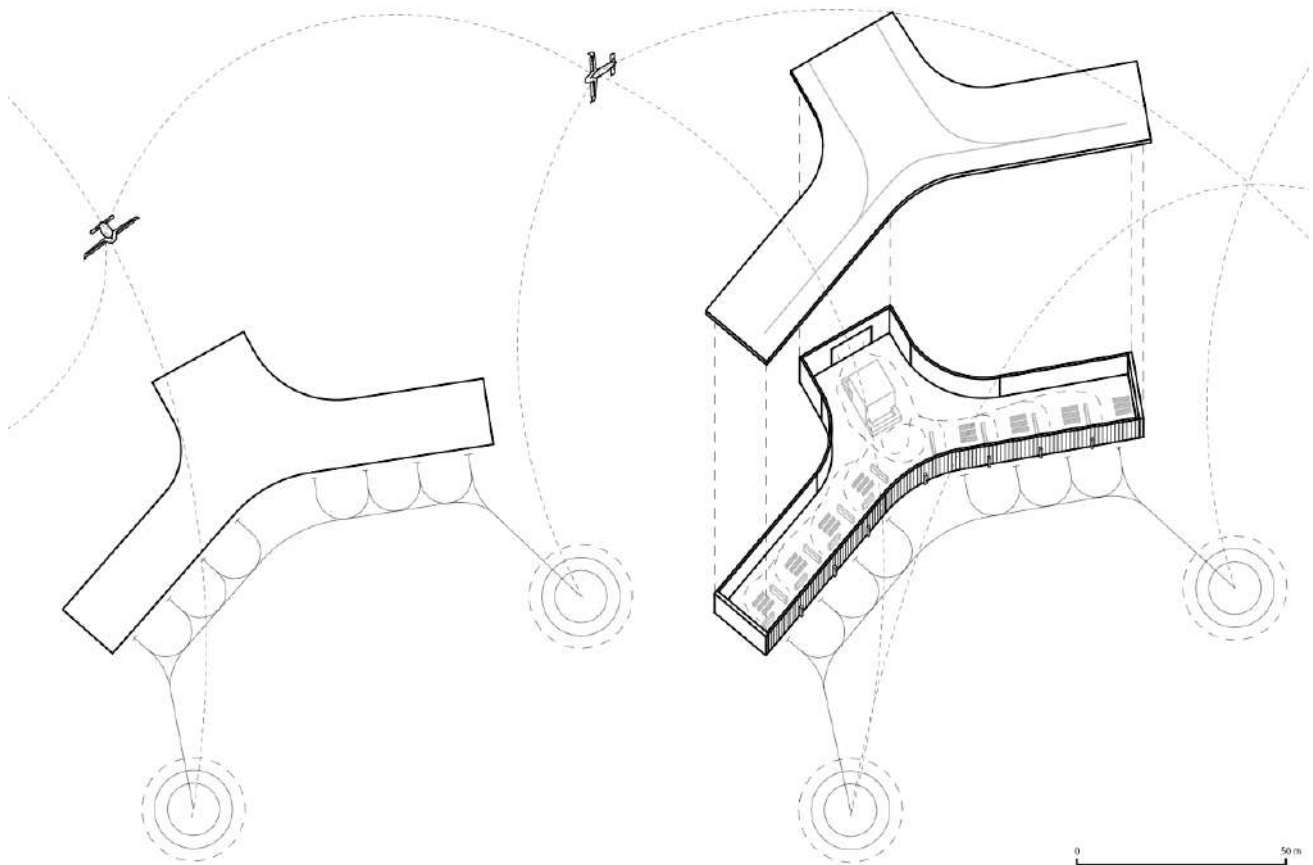
different uses following successive implementations: from the first phase for critical emergency responses to parcel transportation to passengers.

It tests theoretical design strategies, using the Golfo di Napoli region as a case study. This area serves as a model applicable to Italy due to its relevance within the dimensions of the city and inner areas, considering the region's distinct geographical and infrastructural features. The definition of prototypes aims to provide experimental insights into the adaptation and optimization of vertiports to suit various environmental conditions. The goal is to pinpoint suitable sites within the Golfo di Napoli region. By illustrating how each strategy can be tailored and applied to address this coastal region's unique challenges and opportunities, the goal is to guide future actions in urban development. The experiences and insights from design-driven research conducted in Golfo di Napoli offer a new perspective on the design of the infrastructure.

The research aims to precisely define vertiports as a typology, enabling the adaptation of spatial designs across diverse contexts while providing strategies for their integration into the city, ensuring these infrastructures harmonize with the urban fabric and contribute to its functional and aesthetic coherence.



Ottavio Pedretti, Abacus of Vertport (selection), 2024.



Ottavio Pedretti, Manifesto of the Urban Air Mobility reading process, Lake Nona (Orlando), 2024.

Notes

1. PNRR is Piano Nazionale di Ripresa e Resilienza, the National Recovery and Resilience Plan. The PNRR is part of the European Union program known as Next Generation EU, a fund for European recovery. The PNRR includes three transversal priorities shared at the European level: digitalization and innovation, ecological transition, and social inclusion. The PNRR has six missions: digitalization, innovation, competitiveness, culture, green revolution and ecological transition, infrastructures for sustainable mobility, education and research, inclusion and cohesion, and Health.
2. Spoke 1, Air Mobility is one of the 14 spoke around the hub of the MOST. The activities will leverage cutting-edge technologies to improve the competitiveness of the Italian aerospace industry worldwide. Spoke 1, provides guidelines for the deployment of advanced/urban air mobility arising from new technologies.
3. MOST - *Centro Nazionale per la Mobilità Sostenibile* is the National Center for Sustainable Mobility. The aim is to implement modern, sustainable, and inclusive solutions for the entire national territory through collaboration with 24 universities, CNR, and 24 large companies.
4. The abstract is a synthesis of the Ph.D. research conducted within the AUID (Architectural Urban Interior Design) Ph.D. program in the Department of Architecture and Urban Studies (DASU) at the Politecnico di Milano is supervised by Prof. Giulia Setti (DASU), with co-supervisors Prof. Fabrizia

Berlingieri (DASTU), and Prof. Giuseppe Quaranta from the Department of Aerospace Science and Technology (DAER) at the Politecnico di Milano.

5. The data obtained from primary sources, supported by visual documentation, underscore the growing global interest in vertiport infrastructure development. The vertiport in Singapore, originally constructed in 2019 as a demonstrator, has been dismantled. A fully operational test vertiport, completed in 2022, remains active in Pontoise, France. Plans for new vertiports have been announced in several international locations, including Melbourne (Australia), Hezhou and Guangzhou (China), Rome, Turin, and Varese (Italy), Dubai (UAE), as well as Orlando and Palm Beach (USA).

6. *En l'an 2000* is a series of chromolithographs printed by the French printing house "Litographie Villemard & fils, rue de Glacière 16, Paris" registered copy on 21 June 1910, depicting the year 2000 as imagined by the author. The only known set of these postcards was owned by Isaac Asimov, who published them in his book *Futuredays: A Nineteenth Century Vision of the Year 2000* in 1986.

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Tim Simon-Meyer

PhD candidate

Tim Simon-Meyer is an architect, professor, and researcher based in Schleswig-Holstein, Germany. He studied architecture at the UdK Berlin and the UAL Lisboa and gained practical experience in the architectural offices of Pezo von Ellrichshausen in Concepción, Chile, and Max Dudler in Berlin, Germany, among others. From 2015 to 2017 he was research and teaching assistant with Prof. Uta Graff at the Technical University of Munich and from 2017 to 2022 with Prof. Matthias Ballestrem at the HafenCity University Hamburg where he is also working on his doctorate “The Potential of a Tectonic Approach for Experiential Qualities of Architecture”. From 2022 to 2023 he led the design studio Studio SM/S at the HCU together with Daniel Springer. Since 2023 he is assistant professor for constructive design and experimentation at Bauhaus-Universität Weimar.

Together with the Portuguese architect João Quintela he founded the German-Portuguese architectural office Atelier JQTS in 2012.

The Potential of a Tectonic Approach for the Experiential Qualities of Architecture

Tim Simon-Meyer

Introduction

In an ever-changing world, places with strong identities (re)gain new significance by offering tangible moments of sensory engagement. These spaces engage our senses - we smell, taste, hear or feel —and our bodies are invited to act - we climb, dance, move or relax. Experiences that are making us aware of our presence in time and space. This research explores Tectonics, understood as “the poetics of construction”, as a mean to create such places with distinct experiential qualities. It investigates how tectonics and limited materials can provoke bodily and sensual response.

Background and Research Questions

This focus of the investigation emerged from observations made in various DesignBuild projects I've realized over the years, which were characterized by limited materiality and an architectural expression that is directly determined by the used materials and its joining.

The observation showed a high degree of user interaction (fig. 1) with the architecture which led to the research question of how architecture can invite action and bodily engagement. Additionally, the design process across these projects revealed a particular design methodology, where material limitations played a central role in determine the architectural expression. Thus, a second focus of research arose that investigates how tectonic qualities can emerge from this methodology.

Accordingly, the research focuses on two core questions:

1. *How can architecture express an invitation for action through Tectonics?*
2. *How can tectonic qualities be created through a design methodology rooted in material limitations and construction?*

Methodology

The research is grounded in both theoretical study and practical experimentation. The theoretical framework draws from seminal figures like Gottfried Semper, Eduard Sekler and Kenneth Frampton to examine how construction can influence the experiential qualities of architecture by investigating the concept of tectonics. Within the research the concept of Tectonics is being reviewed for its relevance in the present day through the confrontation with contemporary architecture as well as my own projects.

This theoretical framework is complemented by a practical investigation of DesignBuild projects, which serve as case studies. These projects are documented through so called Process Notebooks, which document key decisions and actions during each project, allowing for comparative analysis. By evaluating these notebooks, the research identifies recurring actions and strategies that define the Tectonic Approach.

Findings

The research reveals that starting with limited materials—whether for economic, ecological, or creative reasons— can significantly influence the resulting architecture and create places of strong sensual experiences. While, in the first projects, it was a question of low budget, in the more recent projects it also became a question of sustainability. The Tectonic Approach embraces the scarcity of resources by using discarded or reused materials, transforming them into aesthetic and functional elements that enhance the sensory experience of the architecture.

Transmission and Reflection

My research on Tectonics is not primarily interested in the structural rationality of construction, but rather in its metaphysical capacity to generate physical and sensory experiences. Inspired by O.M. Ungers' method of analogy from his book “City Metaphors”, this research juxtaposes

images of tectonic moments with images of human effort, inviting the viewer an imaginative interpretation of architecture beyond its physical rationality (fig. 2-4). By inviting such interpretations, the research links Tectonics with bodily experiences, enriching the dialogue between architecture and human.

Outlook and Sustainable Tectonics

The Tectonic Approach focuses on the properties of materials, irrespective of whether they are old or new, biobased or artificial. Placing the choice of building materials at the beginning of the design process makes it possible to respond to a scarcity of resources. The Tectonic Approach can therefore also go hand in hand with sustainable intentions to architectural design and in this sense creates a Sustainable Tectonics - a Tectonics that can transform strategies like the use of discarded elements or biobased materials into a physical and sensual quality of experience.

¹ Frampton, Kenneth (1995): *Studies in Tectonic Culture: The Poetics of Construction in Nineteenth and Twentieth Century Architecture*. US: MIT Press

² Ungers, Oswald Matthias (2011): *Morphologie. City Metaphors*. Germany: Walther König



fig.1 VERTIGO Pavilion, Lisbon, Portugal, 2014



fig.2 ALBERTO Pavilion, Minde, Portugal, 2019





fig.3 POVERA Pavilion, Almada, Portugal, 2015



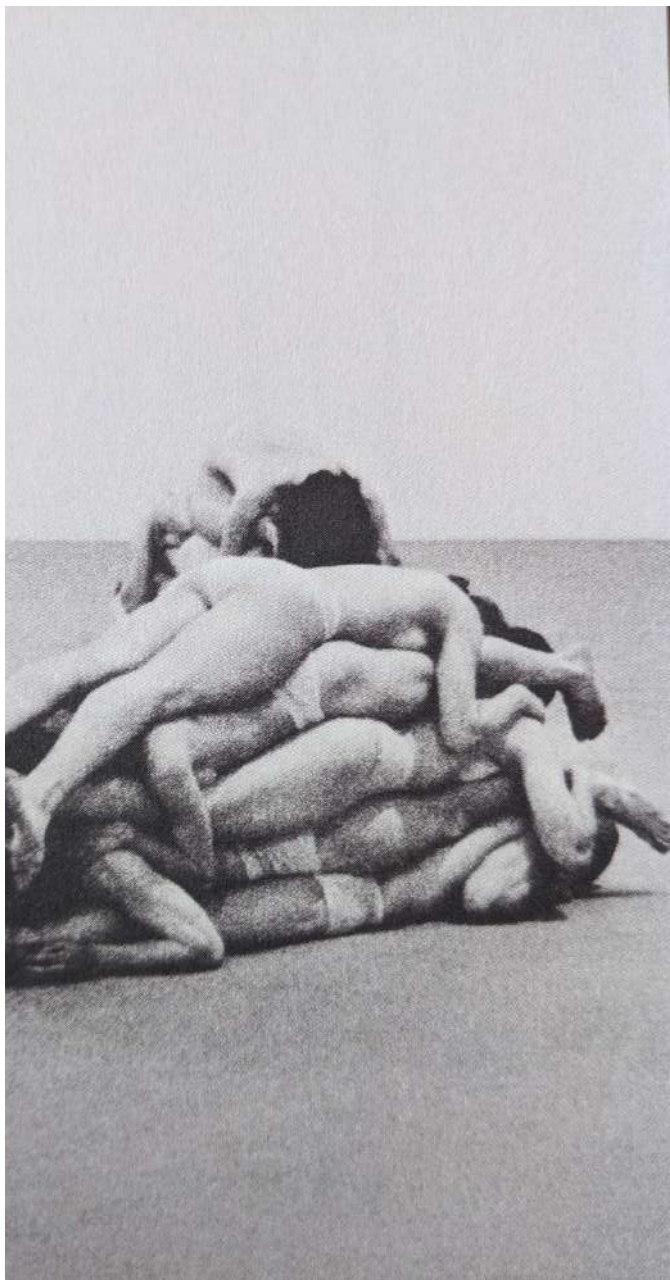


fig.4 KAIROS Pavilion, Lisbon, Portugal, 2013

Miloš Stojković Minić

PhD candidate

Master of Architecture, graduated in 2016 at the University of Belgrade – Faculty of Architecture. At the same faculty he is a student of the Doctoral Academic Studies of Architecture and Urbanism. In addition to the development of professional practice and teaching experience, he is also engaged in scientific research work related to the topic of water in architecture – Aquatecture. He regularly and very successfully participates in architectural competitions, workshops, art and architecture exhibitions and conferences.

Miloš is the founder of the Atrio group for architectural and artistic operational practice and the author of the original H3O2 Art project, and the founder of the MISTArh architectural studio.

Disposition of water in Architecture: Design method of Aquatecture

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Abstract

The research questions Disposition of Water in Architecture, and how water as architectural (and artistic) element forms a way of thinking in architectural design, in order to obtain certain answers necessary for my current PhD research which deals with the topic of water in architecture. This complex topic is viewed from different aspects: space, time, poetic and meaning, structure, technology, materials, colors, shape and form in artistic and architectural design, with the intention of presenting a vision of water application. The possible design model is illustrated in the form of a seven-part research *Tableau*, which in such form was and constituted during my doctoral studies, and applied in some competition projects, spatial Installations and experiments. Now, during its final definition it can imply developing, arguing or stating relational entanglements within the previous approach, in order to improve. Equally, a new design model should be set up by questioning and position change through o-position, com-position, trans-position, juxta-position, and decom-position of the described process itself within the presented methodological procedure – in order to result by defined its final form for future use and application in the design process. The resulting artifact research Tableau for application of design model of Aquatecture, would be displayed during the presentation, in a way that best fits its final form.

Shapes and colors of water are interpreted as complete or apparent freedom that remains to us in architecture, and whose stimulus of uncertainty can often flow into an unstable, barely present form – one that can be change through disposition of water and emphasizing its importance as integral part in the architectural design process (Stojković Minić & Ilić Gajić, 2023). The purpose of the research is to provide an insight into a possible design model that should enable the uniqueness of the architecture through the integration of water, and to propose possible principles of application and the operationalization of the element of water in architecture.

The research *Tableau* consisting of seven parts illustrated the practical application of water as a methodological tool in the processes of architectural design and the use of water in the process of the space structuring. The hypothesis is that one drop of water contains information important for architectural design process (such as shape and colors, from which the idea of a real is driven by desired form and spatial experience). The procedure of the research can be described as poetic and artistic experimental research accompanied by analytical drawings and colors, which arose and resulted from the analysis of the water sample under the microscope (Stojković Minić 2022). The result of the research is to defines possible principles of water application and Design Model of Aquatecture. Aquatecture is interpreted as a kind of neologism and a discursive field of action within the framework of which a design model is set with the aim to enable the application of principles and the integration of the element of water in the process of space structuring.

This methodological experiment, that is Design model of Aquatecture is illustrated with graphical representations of the process itself, in which the colors and shapes of water

are analyzed through the observation of water droplets under the microscope. Following research hypothesis that one drop of water contains information important for architectural activities, and therefore the Tableau offers a set of procedures and methods that can be applied and controlled through the creative act of coloring and shaping, or more precisely through the creation of Spatial Images (Bachelard, 1964). Techniques and tools employed in the research project include a scientific element in the analysis and observation of the water sample under the microscope. All other visual perceptual observations and results in the interpretation of the observed images of the water droplets, as well as their colors and shapes, are offered as extremely intuitive. The research is presented in the form of a Tableau consisting of seven parts and a set of photographs, drawings and images, as well as tone maps (color palette), according to which the results are applied through Spatial Images (Stojković Minić, 2022).

The *Tableau* consists of seven parts, as series of graphic displays that illustrate the process that begins with sampling the water from the location where we intervened (first part – Sample and Location ID, Photo 1). This is followed by a part of the water analysis under the microscope (second part – Water droplets and water sample under the microscope, Photo 2), then by parts where the obtaining of the shape is displayed (parts third and fourth – Digital linear drawing of the observed (analyzed) water drop and the photo on the basis of which the drawing is created, Photo 3), as well as the extracting of the tone map – the color palette of the water (parts fifth and sixth – Photo of the observed drop of water from which the color palette was obtained, and color raster, Photo 4), so that in the seventh, final part (*Aquatecture Drawing – The Spatial Image of Water Colors and Shapes*, Photo 5). The culmination is shown through the Aquatecture drawing as the resulting shape obtained from water that is applied in the design, but also the accompanying unique tone map of water's colors (Photo 5), which complements the entire design process and define Spatial Image of Aquatecture by its drawing enabling a special ambience and atmosphere of the space structured in that way (Stojković Minić & Ilić Gajić, 2023).

Research Tableaus from the first series of research in which the method of extracting shapes and colors from water is established (Set of Tableaus illustrations No. 1), by observing a drop of water under the microscope (Stojković, 2020). Water samples were taken for the first set of research at locations in Zagreb and Belgrade, as specific sample from a specific location. The goal of this first set of research was to establish a method for further application in the design process during the development of competition projects (Stojković Minić 2021; 2022, Set of Tableaus illustrations No. 2).

The design process behind Tableau involves carefully structuring visual and conceptual elements to further interpret abstract and practical design principles in the design process. In the beginning, the location is observed and the context in which the architectural work is done is analyzed, then a water sample is taken from the location and examined under a microscope while making sketches and photographing the samples for further elaboration and digital processing. Key stages include extracting shapes and colors from observed water samples and finding ways to further apply them to the design process through specific characteristics of the water element respecting the values and principles of water application.

To better contextualize the principles (which mainly referring to artistic and sensorial aspects rather than to ecological or infrastructural ones) represented in the *Tableau*, a structured reading ways could be developed: (a) Spatial Organization – viewers should start by interpreting the layout of the Tableau and how the vertical or horizontal arrangement reflects hierarchies in the design process, and the phase of obtaining certain shapes or determining a certain color palette; (b) Sequential Narrative – the Tableau should guide the viewer through a sequence, much like a storyboard, where each part unfolds a specific part of the principle or its application in the design process; (c) Contextualization of Principles – the principles must be tied to specific architectural challenges or contexts of defining works and its precedents by structuralization of the open space of aquatecture. For example, how the possible principles of "interculturality", "rhythm" or "layering" applies differently in dense urban environments versus surrounding natural settings (Schultz, 2023; Yutaka, 2004; Júlbez et al., 1997;).

By elaborating Tablo through such ways, it can effectively communicate not only through design and visual (artistic) representations, but also through methodology and theoretical foundations that inform and supplement the design process with new inspiring visions through the application of the received shape and color information that follows the principles of water application in the process of structuralization of space.

While Tableau follows certain intuitive or authorial aspirations of the architect author (extracted from personal ways of observing and analyzing the context in which architectural action is expected), there are several authorities and international references on which further research could be based, in order to indicate its conceptual basis. Like OMA's Urban Projects – using diagrams to contextualize large-scale urban interventions can inspire Tableau's approach to complex spatial relationships (Koolhaas, 1994). Or Chumi's Architectural Notation – exploring the relationship between space and movement through diagrams could enrich the depth of interpretation of Tableau (Tschum, 1994; 2004). There are also current researches by authors who deal with a similar or the same topic of water in architecture in the field of architectural theory, as well as in the field of architecture practice, in the part of architecture called aqua-ecture (Moore, 1994; Bachelard, 1964; Barker & Coutts, 2016; Heckenast et al., 2021; Colomina, 1996; 2004; Milenković, 2014; Holl et al., 2006; McCarter & Pallasmaa, 2012; Böhme, 2017; Matos Silva, 2020).

It is necessary today, more than ever before, for new design methods to emerge by redefining the disposition of Water in Architecture and its accompanying liminal reflections.

The importance and role of the design-driven research approach, methodologies, techniques and tools employed in this research (project) are: (1) Water (drops of water) observed under a microscope, as the analysed sample, contain information on shape and colour that can be used in the water-space structuring; (2) It is possible to get an applicative palette of *Colors of Water*, a unique colour grid, and use it as a one of kind of tone map of the visual language of aquaecture to structure the space; (3) If we interpret the colors and shapes of water as a kind of perceptual visual language, such a language-method can be applied in shaping the spatial structures and ambiances, and thus in shaping the space of aquaecture; (4) Water taken as a sample for analysis from a specific location and its water droplets contain and carry information about a specific space and landscape, or place, and as such can be used in operational art, architectural and urban practice, and especially in shaping public areas of or private spaces; (5) Comparative analysis of colors: tone maps of observed colors at the location and those obtained after the analysis shows a very small colour difference. Which proves that that analysis of water under a microscope can lead to an applied tone map that can colour the newly designed space and thus directly load the colors from the environment (which the water carries within itself) into the newly formed structures of the aquaecture, thus becoming extremely close to the environment from which they originate (Stojković Minić, 2022;2021;2022).

Water in architecture applied in this way can play an essential role in the dwelling of critical knowledge and ethical stand in the present-day creative practices, leading to nature-inspired solutions and the creation of new and unique Images of Space. Possible lessons of spatial metaphysics and poetics for creative disciplines that such structured spaces reveal to us are reflected in the fact that things are not fully constituted and that the whole reality is exactly at the point we constantly approach, but never reach. This scientific research moves from the known to the unknown, interpreting the possible application of water within its own tools and techniques, both experimental and theoretical. But moving within the realm of the known makes it difficult to discover the new or the unknown, so this research goes a step further in interpreting water as a methodological tool that has the power to structure the space around us and creating a new design model for Aquaecture through the harmony of its colors and shapes.

Key words: **Water, Shapes, Colors, Research Tableau, Design Method, Aquaecture, Art and Architecture.**

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Illustrations

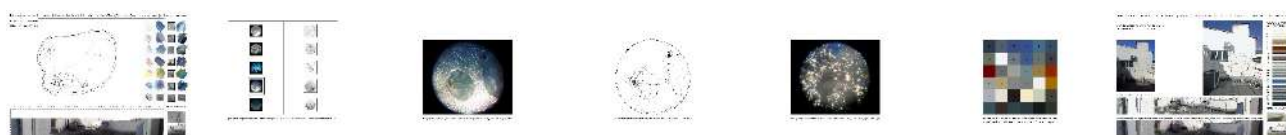
Set of Tableaus illustrations No. 1: Research Tableaus from the first series of research and experiments, 2017/2018:



Research Tableau – *Park for adults in Zagreb*, (2017,9x21 cm) 2017.



Research Tableau – *The confluence of the Sava into the Danube in Belgrade*, (2017,9x21 cm) 2017.



Research Tableau – *Cabinet 344, terrace, UB-FA, Belgrade*, (2017,9x21 cm) 2018.

Set of Tableaus illustrations No. 2: Research Tableaus from several previous competition projects and experiments created in the period from 2020 to 2022:



Linear Park Belgrade, Zone 8 (project under implementation), (2017,9x21 cm) 2020.



FAP Square in Priboj (purchase prize), (2017,9x21 cm) 2021.



Blue Green Park (EuPolis competition project, 2nd Price) on Zemun Quay in Belgrade, 2022.



Urban Green Hall of Faculty of Music Arts – competition project (entry) for the new buliding of Faculty of Music Art (FMA) in Belgrade Linera Park, (2017,9x21 cm) 2023.

Water sample ID | location: Blue Green Park on Zemun Quay, Belgrade, Serbia | day, date and time: Thursday March 19, 2022/15h41 | COLORISTICS of the location

Water droplet sample | Analysis

DROP OF WATER

Slight drinking



The place where the water sample was taken for analysis



observed colours

dark blue
tamno plava

light blue
svetlo plava

grey
siva/bež

green
zelenka

green
zelena

beige
bež/zuta

Photographs from the location from which the Water sample was taken for analysis | The view from the Zemun Quay in the immediate vicinity of the taking place



* DETAIL from the location

Photo 1. Water Sample ID representations initial sketches and location observation and collecting water samples from the site for further analysis under a microscope (1st, initial, part of *Tableau*)

Sample representations [water drops] on a microscope plate

посматрани узорци методолошког огледа | observed samples of methodological experiment
photographs of the samples under a microscope | digital drawings of the samples

Shape of water

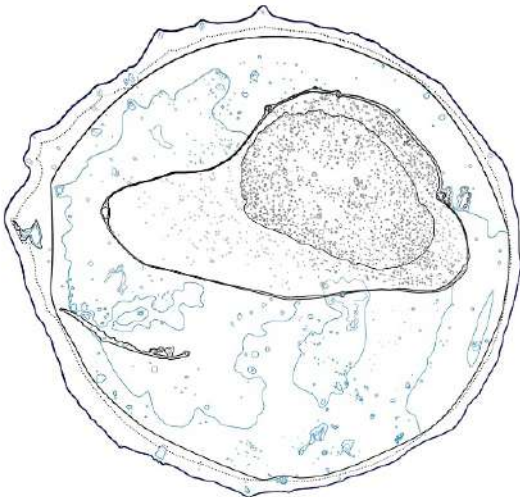


Photo 2 & 3. Sample representations (water drops) on a microscope plate & Digital linear drawing of the observed (analyzed) water drop – Shape of water (2nd and 4rd parts of *Tableau*)

Colour palette [the raster of colours] - obtained by pixelizing a photograph of the observed water drop – *Colours of water*

Colour palette | color raster [14x14 fields] created from a photograph of an observed drop of water, obtained by pixelation in Picasa software

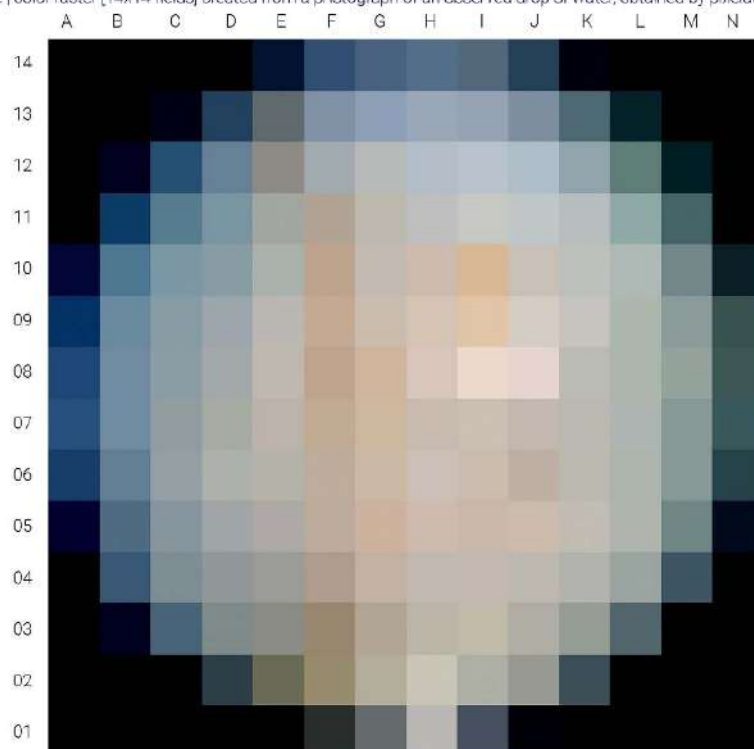


Photo 4. Color raster – Colors of water (6th part of *Tableau*): color raster enable the application of principles and the integration of the element of water in the process of space structuring

Aquatecture Drawing – The Spatial Image of Water Colours and Shapes: FACADE SINGLE GLASS PANEL OF WATER FOR FNU BUILDING IN BELGRADE

Legend:
Used Colours of Water
(color palette)

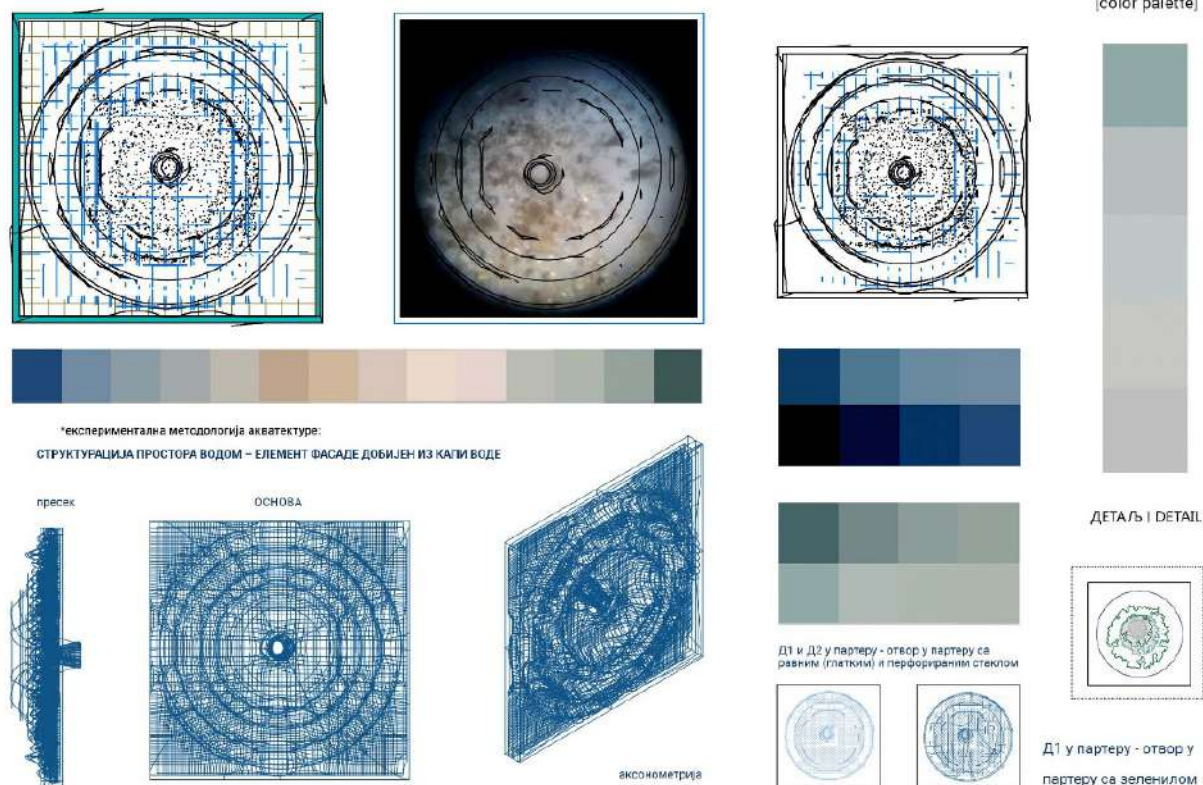


Photo 5. *Aquatecture Drawing – The Spatial Image of Water Colors and Shapes: 7th, final, part of Tableau for the new building of Faculty of Music in Belgrade in the Belgrade Linear Park*

Methodological experiment in the design of the new building of Faculty of Music art in Belgrade in the Belgrade Linear Park

structuring the space with water – an element (detail) of the facade obtained from a drop of water

basis and sections of the resulting research detail of the facade



and ambient of the new building of Faculty of Music art in Belgrade in the Belgrade Linear Park

Colour palette (the raster of colours) – obtained by pixelizing a photograph of the observed water drop

Digital linear drawing of the observed (analyzed) water drop / water sample



Water Space Structuring

same 2 colour of water

-- Co-ours o' wate' --
HISTOGRAM DATA

SAMSUNG GT-I900
Real height: 1.0 m.

HISTOGRAM DATA



SAMSUNG GT-I9100
Focal length: 4.0 mm

SAMSUNG GT-I3900
Total time: 4.0 min
1.00-1.05: 1.00-1.00: 00:00

Representative illustrations of research (project and artefact – Tableau)

Rasmus Strange Thue Tobiasen

PhD candidate

Rasmus Strange Thue Tobiasen is teaching associate professor at the Royal Danish Academy School of Architecture. Since 2021 he has been working with artistic research (KUV) with a focus on investigating architectural tools, techniques, and pedagogy. Rasmus is head of the 1. semester at the bachelor level at the Institute of Architecture, Landscape and Urbanism.

Rasmus run his own architectural studio, working within the fields of architecture, art, stage-design and transformations. Since 2015 he has been working with the Danish artist and post.doc Lea Porsager and has been contributing to major works like Gravitational Ripples and Klit among many others.

die;cut

the resurrection of the plan(e)

The research is based on a wondering that keeps haunting me: that the work of the architect, through its representations, has created an illuded and a distanced (abstract) relationship to the object it conceives - to how houses are fabricated and used. The relationship is dying.

The aim of the research is to resurrect representation as site and vehicle between several dimension within the practice of architecture, to create an embodied practice of representation.

In 1960 the Brazilian neo-concrete artist Lygia Clark wrote the essay; *The Death of plane*. Thinking through the plane is problematic, she argues, as the plane is a “conceptual invention by man” that produces “abstract figures” destroying our sense of totality. By “demolishing the plane as a support of expression is to gain awareness of unity as a living and organic whole”.

The research departs in Clarks statement and research of the dyadic relationship between plane/space, life/death, by suggesting an alternative representational-form, to the ‘plane’, that I call die;cut. The die;cut tries to resurrect a productive relationship through representation as a “site for ontological continuity between universal ideas and specific things” as an embodied representation. Die;cutting is an abstraction based upon an idea of the mechanical process of ‘die cutting’ and specifically the production of foldable cardboard boxes. The basic concept of die cutting is that a die (template) cuts out a shape from a flat sheet of material. This “cut-out” makes the sheet able to transform, through bending and folding, into a spatial configuration, a cardboard box.

As a fabrication-form, the die;cut entails dyadic plane/space relationship, closing the gap between drawing and building. In this light, the die;cut might be seen as supporting the Albertian paradigm of creating indexicality between projection and building as Mario Carpo reveals in his book *The Alphabet and the Algorithm*. Carpo describes how this paradigm was an “ideally indexical operation, where the architect’s design acts like a matrix that is stamped out in its final three-dimensional result” and in this sense mechanical. However, while the Albertian principle was based on a “separation between notation and construction” the die;cut is “designing and making” at the same time – suggesting a reversed Albertian paradigm. The die;cuts notational system, its lines, are directly tied to at material manipulation and in this sense material embodied.

“Tools of representation are never neutral” as the architectural historian Alberto Pérez-Gómez states. Implicit techniques and ways of organizing in the forms of representations yields power over our thinking. In orthographic projection and sections, some of the most used representational tools in architecture, we find aspect of cutting (sectionlines) and separation (layout of the orthographic projection). Cutting a plane and the non-material lines it produces, is a conceptual cut, like the ‘plane’, it produces abstract lines, that never physically appears in the object. This kind of abstraction or projection is dead.

The simple fact that the die;cut is based upon the principle of production, ties its representational technique to “materiality” and “craft” – two aspects that Alberto Pérez-Gómez points out as “primary phenomenological dimension of meaning”. Lines in die;cutting are more like “verbs”, they represent a material manipulation, bending and cutting. The die;cut composition is like patchworks, adding up “walls” by connected seams. Through this, it embodies an operational/temporal aspect; erecting architecture (montage) connecting drawing and house-erection. The die;cut privileges process, rather than trying to depict the final image of the object it represents – and by doing this it engage in the what Pérez-Gómez names the “dark space between dimensions”. as a “delay” or distance, a place to discover “tactics” of a compassionate production of architecture.

So how does the user of architecture become a part of this?

In the essay “Rewriting Abstraction”, Andrew Antwood thinks about how abstraction might become a productive device, that delays a stable reading of architecture. Antwood is responding to the essay ‘Abstraction’ by

Morgan Fischer, who points out that abstraction in painting is made possible by the fact that we can see everything at once; the image of the painting and its materiality is visible within the same frame.

For a painting to be abstract, our perception of it must oscillate between looking at the painting as an object and seeing the image that the painting is trying to portray. If the image represents something too faithfully we will never see the painting as a thing. If the process of creating a painting is too visible, we will never see the image. We must always see the thing and the image at the same time. Or, as you (Morgan Fischer) pointed out, it must continue to oscillate: thing, image, thing, image, thing....

To obtain abstraction in architecture, is however different as Antwood points out, because architecture does not exist in single frame, as a single thing. To overcome this circumstance, Antwood suggest “to compulsively push into the buildings the techniques and specific qualities found in the forms of representation we use in architecture”, and through this create a kind of “self-congruence, bringing image and object together.” This self-congruence has the potential to produce architecture that “delays a stable reading”.

The die;cut, or the research as such, aims to unfold an ontological continuity between the dimensions of architecture through the representational-form of die;cut as its vehicle. Based on a mechanical production technique, it ties representation to matter and material manipulation as way of engaging its author in the world mediated through the line. The “open corners” seen in the artefacts, happens as the lines acquires another dimension, by becoming spatial. By intentional ‘pushing’ this dubious quality, due to its illogical construction, the die;cut objects reveals, to its user/observer, an aspect of “how it is produced” achieving a ‘self-congruence’, by bringing production and object together – resurrecting the representation through embodied abstraction.

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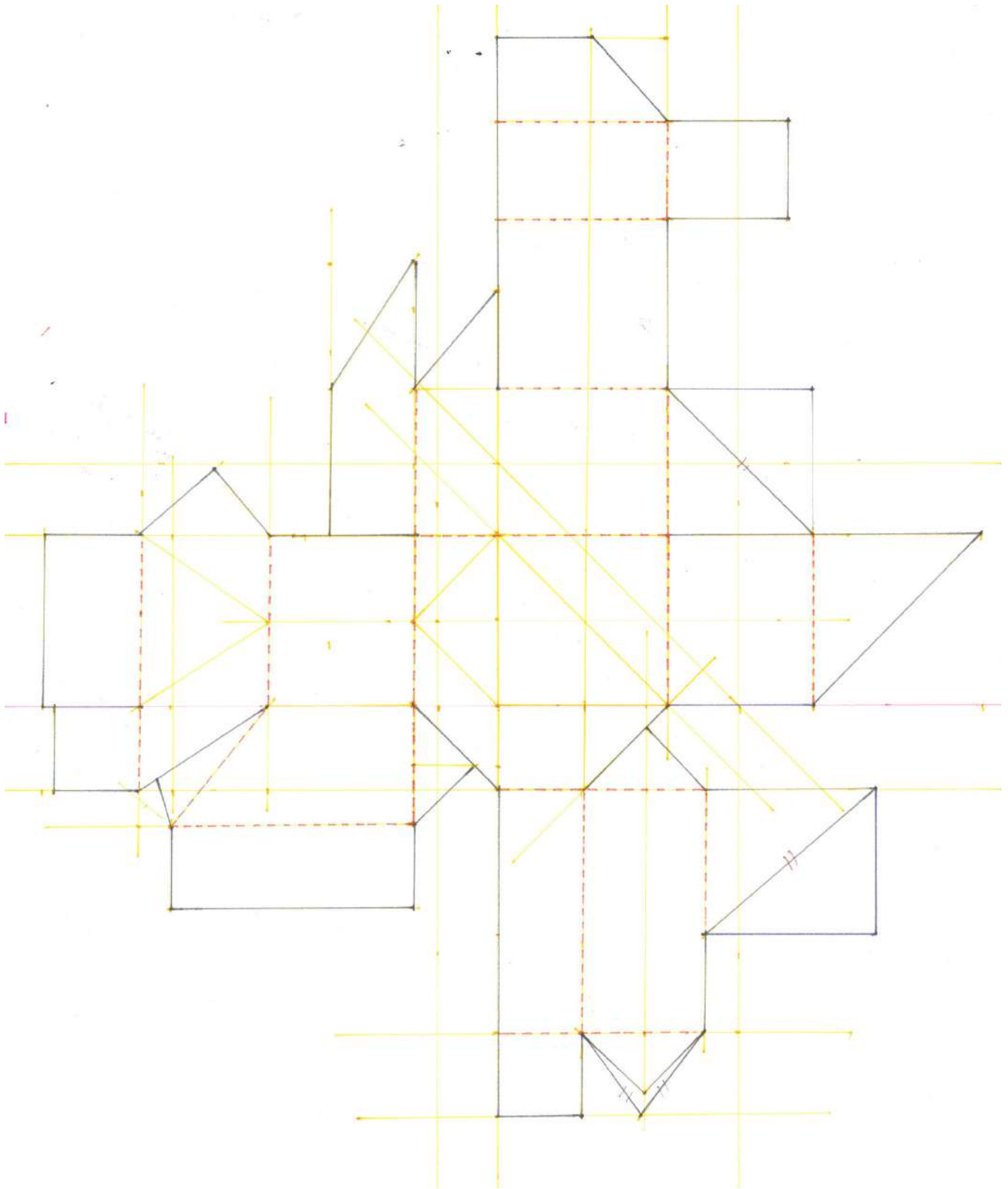


Figure 1: die;cut drawing / plan(e)



Figure 2: die;cut object // (gypsum-12,5mm)



Figure 2: die;cut object // (cardboard and wood)

Mari Synnøve Gjertsen

PhD candidate

Architect and PhD student with a master's degree in architecture from NTNU (2017). As a practicing architect I have worked with housing projects in urban or semiurban contexts, cultural buildings, graphical design, urban furniture, and cross-disciplinary projects with artists and writers. Since 2021 I have been teaching at NTNU in the course's City and Town Planning and Large Buildings, where we have explored time as a thematic approach to sustainability in architecture and planning. I started my PhD-project in 2024.

THE ATLAS OF TIME

Creating new fictions of sustainability through aesthetic mapping

My artistic research project is based on the notion that our understanding of reality is subjected to fictions, stories we connect to things and actions that make up our understanding of the world. These stories shape, and are being shaped by, our built environment and they are constantly reimagined and reinvented. However, the currently prevailing fictions will always try to pass itself off as *The Truth*, thus creating an artificial separation between itself and the world of (other) fictions¹, making it hard to imagine other possible realities – or societal (economic, cultural, political) dispositions. Both the climate and biodiversity crisis are a result of several so-called truths about the world and how we as human beings need to inhabit and dominate nature. We cannot, although many are trying to do just that, hope to solve these problems using the same fictions that created them in the first place.

The symbiotic evolution of fossil fuel-based technologies and other societal developments over the last 300 years has locked us into an unsustainable status quo that seems almost impossible to escape. A condition that the human ecologist Andreas Malm refers to as a carbon lock-in². I suggest there exists a carbon lock-in of fictions, or fossil fictions, that is carried from the past into the future by our built environment, proliferated daily by our failure to address them and our continuation of status quo thinking in planning, design and construction processes. Discussing future emissions without taking these fictions into account will not be enough to trigger the immense change we need. This artistic research project will expose several fossil fictions that contributes to the current crisis and give form to new possible stories of sustainability. To achieve this, I will employ aesthetic map-making as a method of research, because of its inherent ability to combine the tacit knowledge of sensate experience and the specific knowledge of science.

Map-Making as Artistic Research

Mapping is a fundamental spatial endeavor to understand the complexity of (human) reality by connecting concepts and ideas to graphical abstractions of space and time, which in turn can reveal new knowledge. It might be precisely this dichotomy of realism and abstraction that make maps so effective as evokers of the imagination, be it imagined pasts, presents or futures. This will be an essential part of both the process and the outcome of this artistic research project – to imagine possible futures, in order to shift perspectives, re-position and trigger new stories.

By aesthetic map-making I am referring to the extended understanding of the aesthetic, derived from the Greek term *aísthēsis/aisthētikós*, as *what is experienced, and evaluated, through the senses*.³ The maps might include all types of sensate experience, and will in this project not be restricted to visual representations on a flat surface. They can become moving and living works, evolving through a continuous process of creation, experience, reflection, and recreation. I will use the familiar format of maps in unfamiliar ways to explore the spatial implications of current fossil fictions and in what way they might be both a result and a cause

¹ Rancière, 2012

² Malm, 2016

³ Bøe, 2021

of a society where these stories are so engraved in our common consciousness that they seem to be above change.

Anthropocene Fiction

The term Anthropocene, coined by the Dutch chemist Paul Jozef Crutzen in 2000⁴, embodies the role of time in climate change – the impact of human activity is so great that it could name a geological era. However, it also implies that all of humankind are responsible, when in fact they are not. Which is why Malm proposes the term Capitalocene, explained as “the geology not of mankind, but of capital accumulation.”⁵ It is the economic, social, and cultural structures based on the endless race for surplus value that exhausts our shared resources, this is not caused by all of mankind – or at least not by the fact that we are human.

Using the term Capitalocene makes it easier to recognize the possibility that we are deceived by stories of progress and that there is room for change. We cannot alter the fact that we are human, but we can change the system by which we organize our societies and the stories that creates and proliferates this organization. The story of the Anthropocene can be seen as a fossil fiction because it minimizes the possibility for change. If human nature was the cause of the current crisis, we would be trapped in climatic determinism.

Capitalocene Typology

Normally a typology is a categorization of buildings, or urban spaces, that share the same main characteristics, either of formal or programmatic character, although they often overlap. Architects address the way we live through typological innovation⁶, but we also reproduce the status quo of society through typological norms. Therefore, investigating Capitalocene typologies could be especially relevant to reveal the architectural reproduction of fossil fictions.

There are several examples of such typologies, and a possible point of departure for my research is the factory. This typology emerged during the industrial revolution and represent “the idea of productive operations that do not stop, of profit generating work that can function 24/7”⁷ It created an environment where the worker was cut off from the natural rhythms of the day, week, and seasons. Incorporating technology that made the production more efficient, and eventually, in the Fordist production line, dividing the production into several minute and repetitive tasks, to produce as much as possible as efficiently as possible. It essentially changed the narrative of time and labor. Labor was no longer connected to seasonal weather conditions or circadian rhythms, instead it became a fundamental part of the capitalist story of progress - where efficiency is always good, and profit is a measure of success. This re-fictionalization was made possible by a (new) built environment, not new technology or building materials, *but an invention of a spatial organization*.

Plans are in essence maps of buildings and urban spaces, and to a certain extent typologies, and their planned reproduction, can be thought of as maps for conditioning ways of living. By using typologies as a point of departure it is possible to investigate the link between fossil

⁴ Hofstad & Delsett, 2024

⁵ Malm, 2016

⁶ Iturbe & Giudici, 2023.

⁷ Crary, 2014

fictions, space, and time. However, it is important to recognize that it is neither possible nor desirable to create new typologies in tabula rasa situations – we need to create new sustainable stories within the urban forms of the past. This project will endeavor to do just that, through aesthetic map-making, with a hope to contribute to a sustainable urban disposition.

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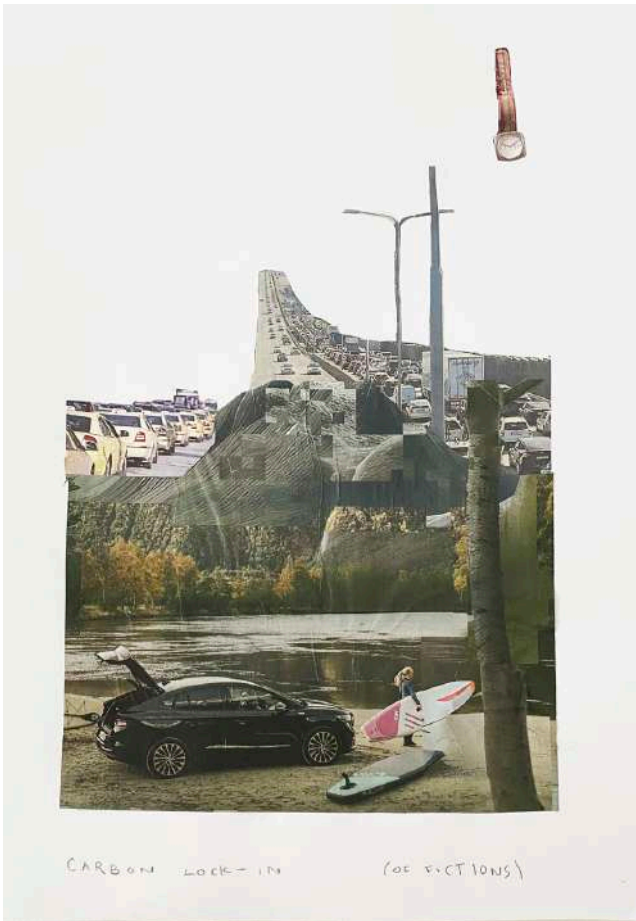
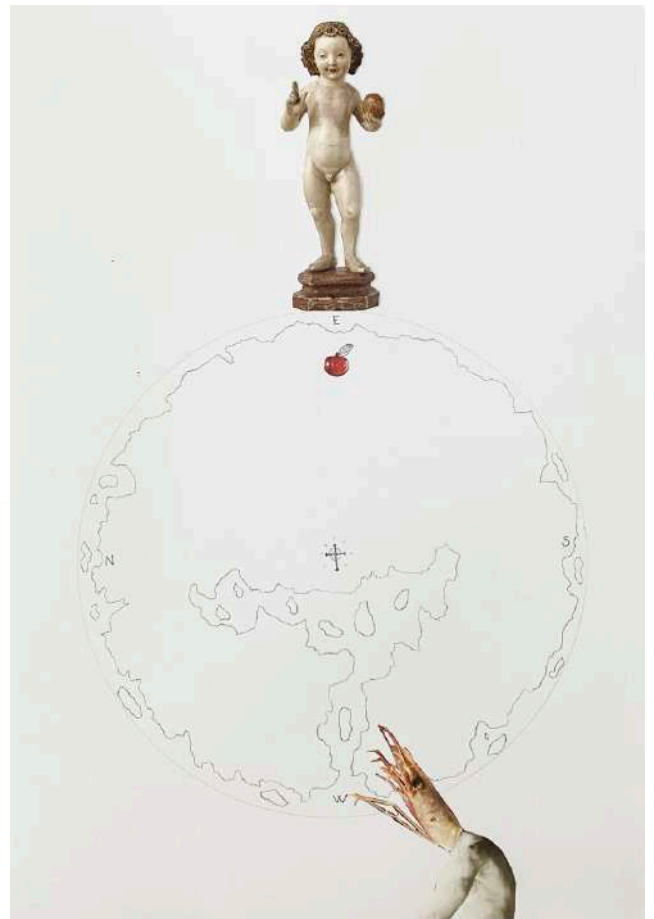
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Maja Zander Fisker

Research in practice

Maja Zander Fisker, Architect, Associate Teaching Professor, PhD, affiliated The Royal Danish Academy since 2011. Defended her PhD Dissertation 'Transpositions – Transmedial practice in Architectural Education' in 2024. The project was funded by the Independent Research Fund Denmark.

ARTEFACT: Modes of Polyphony (*Heterochronies*, video montage, 2022)

The presented work comes out of my dissertation *Transpositions – Trans-medial Practice in Architectural Education*. Focus is on the medial forms of articulation involved in the creative architectural practice, and my presentation examines the relationship between such forms and their polyphonous interactions in the creative process. These examinations refer to Bruno Latour's concepts of *translation* and *articulation* as a question of meaning production: how translation works as a process of meaning formation between different expressions (or articulate beings) across categories.¹

The conference theme *Dispositions* – regarded an inter-relational matter – is here pertinent to the concept of *polyphony* both as a *means of* and a *mode of* articulation. In the trans-medial process – i.e. the transpositions between various media – a variety of medial expressions, or *voices*, occur, and the claim I want to make with the submitted artefact is that different medial expressions can interact and merge into an articulate polyphony.

Discussing the work I have submitted, the video montage *Heterochronies*, I intend to outline the concept of polyphony in relation to the creative process on two different levels. On one level as a question of an interdisciplinary collaboration (between an architect and a composer): how can different aesthetic practices challenge and engage in each other's modes of expression (methods, media, techniques)? And on another level as an act of medial transposition: how do different media form a polyphonous mode of articulation across categories?

Artefact: *Heterochronies* (video montage, 2022)

The artist and filmmaker John Akomfrah works with multiscreen montage and considers it a means of bringing different ontologies together. He states: "(T)he manipulation of temporality can be ordered to serve (...) the coexistence of different renditions of time itself."²

Allowing situations of different time and space to unfold simultaneously is an orchestration of time as a kind of coexistence, he claims. Accordingly, I work with similar conditions. Different situations are brought together in a video montage consisting of selected photographic series and recordings of a specific location, cast models and drawings. The thematic focus is the simultaneous constitutive aspects of a place, including how medial articulation affects the perception and creation of place as a phenomenon: what makes a place a place.³

Working with sound adds another temporal and spatial aspect to the video montage as a hetero-medial and polyphonous statement. The sound montage consists of several tracks, with audio recordings of different durations and at different intervals. All audio clips are recorded on geographical locations which either appear in image, in the video montage or has to do with the elicitation process and its localities.

The composition of the sound montage relates to but does not follow the changing intervals of the images. Sound and image act as parallel tracks, not subordinated each other in a hierarchical order; they each produce and convey specific series of local events.⁴

The places, situations and events brought together by sound and image are displaced in time and space. They do not refer to a procedural chronology but create in their juxtaposition a heterochronic order of its own, a temporal event of its own right. In relation to Akomfrah's quote, one can speak of a polyphonic mode of articulation in the form of the relationship between image and sound montage. Image and sound mediate different life worlds that constitute local situations. Together they create a polyphonous expression that not only connect to medial planes of articulation but also include the many local articulations that appear within the video montage.

Artefact illustration: stills from *Heterochonies*, video montage, 2022.



Artefact illustration: stills from *Heterochonies*, video montage, 2022.



Artefact illustration: stills from *Heterochonies*, video montage, 2022.



¹ Latour, Bruno (2013). *An Inquiry into Modes of Existence. An Anthropology of the Moderns*. Translated by Catherine Porter. Cambridge: Harvard University Press.

² A. Løgstrup, Johanne, *Co-existence of Times – A conversation with John Akomfrah* (Berlin: SternbergPress, 2020), 15.

³ Massey, Doreen. *For Space*. London: Sage, 2005.

⁴ Deleuze, Gilles. *Cinema I. The Movement-Image*. Translated by Hugh Tomlinson and Barbara Habberjam. London: Bloomsbury Academic, 2013.

Konstantinos Zves

Research in practice

Zves Konstantinos is an architect, artist and educator based in Athens, Greece. His practice engages architecture through design, supervision, construction, image making and teaching, exploring a unified viewing of spatial problems that is expressed through small and large scale projects, attempting to work with buildings, spaces, environments and objects with a conceptual and aesthetic integrity that manipulates the existing context by radically reshaping it. Z.K. is interested in the creative, philosophical and epistemic viewing of the design and building process for the production of space, and the conception of design as a universal tool with multiple media and possibilities of expression, through which something can emerge, having the existing urban building stock and the city as the main field of action and thought. He has studied architecture in the Department of Architecture, Volos, University of Thessaly, and followed the Critical Philosophy Program of the New Centre for Research and Practice. The last two years he has taught design studios at the department of Architecture, Aristotle University of Thessaloniki, Greece.

Trying to build

Zves Konstantinos

Building is an action that produces a terrain of instances that afford/allow a structure to emerge. While this structure can be regarded either as theoretic or practical, the very action of this affordance produces numerous sets of thematics, activities and relations ad infinitum, as if more production emerges through production. Building, conceived in its most general sense encapsulates the concept of disposition in a manifold manner. Firstly by being a multi-faceted and complex process of situating things in the world (putting them in a position) that comes with numerous affordances, frictions and types of knowledge production. Secondly, the knowledge accompanied by the act of building corresponds to a Spinozist conatus, as a very material and continuous tendency of examining the possibility to edit the world and as an effort to understand the extents and results of its malleability through trial and error. Lastly building can be thought of as a continuous procedure, that does not begin or end on the conceived or constructed artefact but corresponds to various constructions and time scales issuing and instituting problematics across artefacts. Through this procedure it is difficult to delineate between research and practice as they seem to be firmly entangled as the face of a method that activates the possibilities of inventing/issuing tools. Building can then be conceived as a continuous grounded research of what is to be done and thought of, acting as a science for the study of creativity.

Under the rubric of disposition, this presentation seeks to delineate a continuous effort of building through a series of projects from my personal creative practice that as a sum interject the disciplines of architecture, design and art but can be described as building, multimodal operations that use the scope of those disciplines and form a built result as a compilation of heterogeneous forms of knowledge. More importantly these acts can be perceived as small systems that inevitably combine planning, conflict, expression, capital, management, drawing, painting, talking, collecting etc. that any delineation between theory and practice is rejected from the get go (a condition that could also be understood in geographical terms, i.e. Building in the South). The format of the presentation will show built results juxtaposed with processes, elements, artefacts, anecdotes, offshoot projects, problematics that 1) highlight the creative excursion as a research encounter rather than a process that matches a fixed research interest and 2) delineate the generic condition of knowing how to learn - as a fundamental common condition of the creative fields of arts, architecture and design and 3) as the title suggests, a personal account of instances, notions and things that derive from trying to build. In this manner the built results form an archive of hypotheses and the idiosyncratic interrogation of the artefacts at hand results into the naming of toolkits used illicitly or explicitly, consciously or unconsciously throughout, such as:

Erratics

Referring to movement, openness and to thinking through other means, erratics utilise the former aspects as a way of grounding into an existing framework and as an alternative way of reasoning. An academic research thesis on the topics of nomadology and the metropolis accompanied with a field experiment in Belgrade in 2013, the design of a four part exhibition regarding local labour in Grevena, the use of *dérive* in the streets of Athens as a means of collecting architecture and producing new images. This set of works posits the already built environment as the motive for building itself and is composed from a multimodal para-architectural toolkit. It seeks to better understand what is the matter at hand and produce new topics of inquiry.

Filling the blanks

An ethical question of what to do becomes essential in attempts to construct environments and meaning while simultaneously it can be a numbing question counteracted by a tendency of problematising emptiness. If architecture mainly works within the scope of deductive reasoning - working from the general to the specific (i.e. scales) - the following set of works explore an area

where a linear and progressive 'solving' of the matter at hand is betrayed in favour of an intense coexistence of scales (as epistemically provided by a software's vector space or by an issue on the construction site). What comes out of this process is a continuous change in medium, a utilisation of a wide array of drawing techniques as well as a set of statements that produce will. Will then can be understood as an outcome of being in the world carrying questions of how to fill a surface, how to occupy space, how to manage the energy exchanged between various actors and environments.

Hyperspecificity or '1000 Drawings'

Planning and drawing in detail create the conditions for situating knowledge in the world through the built object by imbuing it with a practical know-how. It is also a tool in itself for extracting knowledge from the environment by training the eyes to search for how something works, stands and looks. As a process by initiating a hands-on understanding of our surroundings it posits the terms for a radical sustainability and a structural honesty. This section looks into drawing and detailing as a knowledge production tool and investigates its capabilities while positing the promises and betrayals that come with it in the profession. Furthermore it takes into consideration how extreme particularities constitute an important role in the process of building.

Objects from hell

Instances of any scale that are a conglomerate of many things. Combined architectural typologies and gestures, intense descriptions and actions that define form and an unclear context. It can be said that most of architecture produced in Athens the recent years has inevitably handled the matter of the existing building stock. Most of the new architecture is happening inside existing buildings. In this section I want to present a series of projects with their process and offshoots that handle objects and environments as an unconditional site for architecture to happen, oversized architectural elements or gestures that create new space inside or outside an ever present building envelope.

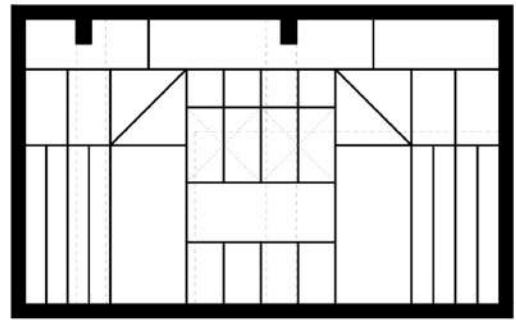
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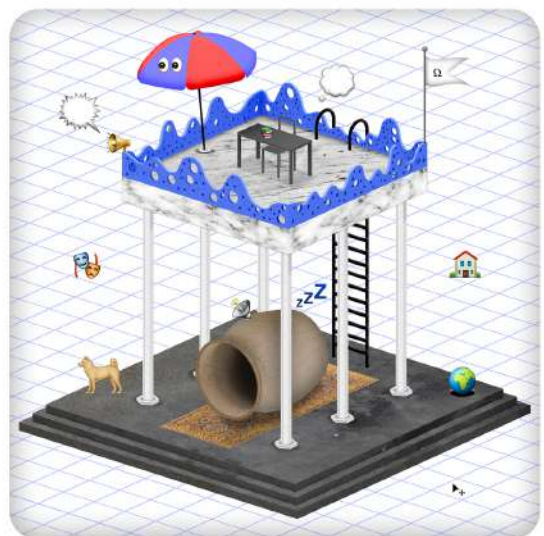
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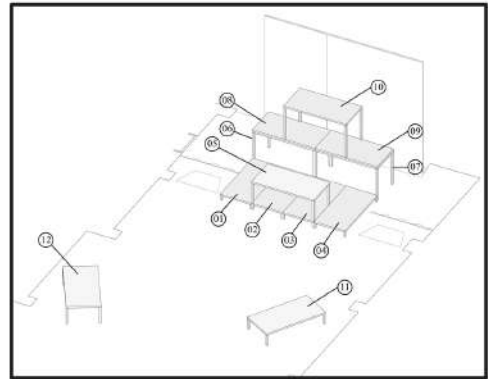
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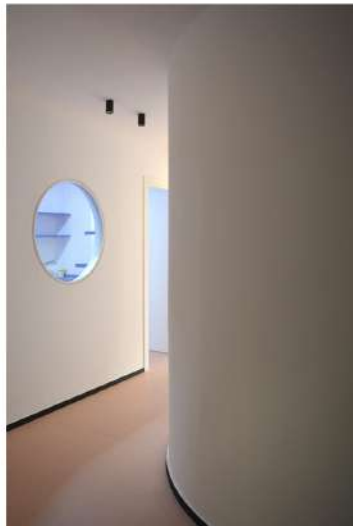
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Sitian Zeng

PhD candidate

Sitian Zeng (b. 1995, China) is a Glasgow-based artist and researcher who is currently a doctoral researcher at the Glasgow School of Art. Sitian's artworks involve painting, mixed-media art, and moving images, while her research interests lie within interdisciplinary contexts, crossing painting in the expanded field, subjectivity, identity, mass media, and the power structure in the (post)digital age. Through painting, she establishes a dialogue with herself to explore the as-yet-unknown impacts of the digital age. Sitian's artworks have received recognition in various awards and have been exhibited in different cities across China.

Digital Age: Painting Immanent Subjectivity

Sitian Zeng

Doctoral research, School of Fine Art, The Glasgow School of Art

Artefact

Regarding the ambiguity and complexity of subjectivity in interdisciplinary contexts, this practice-led project attempts to re-examine subjectivity in the digital age through painting practice, seen as a response to the current challenges of the study in subjectivity to emphasise the affective perspective (Kirschner, 2013). Today, we perceive the digital world in a distributed way as there are many invisible data operations in collection, analysis, and prediction (MacKenzie and Munster, 2019); pervasive virtual information penetrates and shapes individual subjectivity. By reconstructing digital graphics (3D models, screenshots, pixels, etc.) and transferring them to physical paintings, this project considers this process as a reflection on the digital world, exploring the imperceptible engagement between invisible digital operations and human behaviour, examining how individuals exist from within.

This project argues that painting can reveal *immanent subjectivity*. It utilises Gilles Deleuze's *immanence* and Brian Massumi's *affect* as the philosophical foundation. *Immanence* emphasises the process of how the virtual manifests itself in reality (Deleuze, 1997); *Affect* implies an immediate, preconscious reaction to external stimuli that is registered by the body before it is processed consciously. It exists in virtuality, and individuals' reflection has the potential to actualise it (Massumi, 1995). Painting involves the artist's reflection process, which may bring the virtual into the actual. Thus, viewers may catch a glimpse of *immanent subjectivity*, which suggests unconsciousness that is waiting to be actualised. In this case, this project treats 'multiple paintings' as one rather than a series, highlighting the process of actualisation, which is shown in Figure 1.



Figure 1. Sitian Zeng, Entanglement, Watercolor on paper, 2024, 520cmx228cm

Painting can be seen as the external stimuli to the artist that keeps evoking their unconsciousness. In support of the above, this project deploys Deleuze and Guattari's rhizomatic theory (1987) to develop a painting method characterised by spontaneity and fluidity, with the support of the montage method. The rhizomatic painting practice allows each painting step to influence the next steps in a spontaneous way, following the lead of the unexpected brush marks, the result of materials, or the emerged ideas evoked by the juxtaposition of depicted digital graphics.

This project deploys montage not as a way of making but as a way of reflecting, emphasising how the juxtaposition of images creates new meanings. Whenever the painting process is suspended, I switch my perspective from the artist to the audience, attempting to find traces of *immanent subjectivity* through juxtaposed figures in the painting and even by reflecting on why I juxtapose certain images. This project argues that through the reconstruction of digital graphics, the figures chosen to paint, and the traces subconsciously left in the painting imply the unconscious dimensions of my digital experiences.

This project further argues that the juxtapositions of figurative elements that embody montage may present an emergence of multiplicity. It is distinct from the narrative embedded in montage in a common sense.

The film director H.G. Wallbott mentioned that the basis of montage is related to a psychological phenomenon: individuals constantly tend to complement the insufficient number of frames by themselves and form their interpretation of the content through contextual connections (1988). However, this statement emphasises the narrative when individuals interpret and perceive the contents of edited films. In painting, the simultaneous display of all the juxtaposed images undermines the narrative's validity. This project may argue that montage deployed in painting has the potential to present the 'spliced figures without the narrative' stated by Deleuze (2003): are there different characters deriving from the same fact, belonging to the same unique fact, rather than telling a story?

The painting *Entanglement* presents how this project utilises the rhizomatic method and montage to explore immanent subjectivity, which contains multiplicity. It compares the painting presenting juxtaposed figures with the interface of 3D modelling software. 3D modelling interfaces are often divided into screens to show different perspectives of the same subject; a painting with multiple figures can be seen as pointing to a particular *immanent subjectivity* through different representations or metaphors. For example, the pixelated figure in Figure 2, the distorted falling human body in Figure 6, and the bird in Figure 7 all point to how subjectivity is pervasively entangled with dense digital information. These different figures have no causality but are connected in a perspective of multiplicity.

Although *Entanglement* uses figurative digital graphics as channels to explore immanent subjectivity, it has the potential to go beyond representation. It follows Deleuze's viewpoint that overcoming representation means rejecting figurative givens, while sensation is crucial as figures sensually painted are not derived from experience and act upon the nervous system. Paul Cézanne and Francis Bacon are examples of this approach (Deleuze, 2003; Ponty, 1964; Junutyte, 2014). Similarly, in this project, the digital graphics intuitively selected and painted are driven by the artist's sensation. Meanwhile, it follows Massumi's affect theory (1995) by acknowledging that *affect* connects what is normally indexed as separate. Thus, it is beyond semantic and semiotic orders; it sometimes brings paradox and potentiality. The potentiality manifests as multiplicities in the painting. The exploration of juxtaposed digital-related figures aims to break the latitude of experience, examining the imperceptible digital experience and multiple potentials of subjectivity.

Overall, expressing the *immanent subjectivity* encompassing multiplicity could more accurately depict the individual condition in the digital age. No other era presents so much virtual and fragmented information as the digital era; underneath the visual information are invisible digital operations and codes we cannot see. People are often confronted with digital information from a single point of view, interacting only with the information in front of them. However, this project hopes to explore a panoramic view of people's interaction with digital information, including invisible operations, by showing the immanent subjectivity encompassing multiplicity.



Figure 2. Sitian Zeng, *Entanglement details 1*, Watercolor on paper, 2023, 104cmx76cm



Figure 3. Sitian Zeng, Entanglement details 2, Watercolor on paper, 2024, 104cmx76cm



Figure 4. Sitian Zeng, Entanglement details 3, Watercolor on paper, 2024, 104cmx76cm



Figure 5. Sitian Zeng, Entanglement details 4, Watercolor on paper, 2024, 104cmx76cm



Figure 6. Sitian Zeng, Entanglement details 5, Watercolor on paper, 2024, 104cmx76cm



Figure 7. Sitian Zeng, Entanglement details 6, Watercolor on paper, 2024, 104cmx76cm



Figure 8. Sitian Zeng, Entanglement details 7, Watercolor on paper, 2024, 104cmx76cm

Keywords: painting, immanent subjectivity, affect, montage, multiplicity, the digital age

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Reflection

In this doctoral research project, the design-driven research approach is considered as the practice-led approach, emphasising the leading position of painting practice. I identify the key points of research by reflecting on the process and stages of the painting, building up the research route through painting practice.

In this project, the enquiry into subjectivity requires me to interrogate myself, my connection to the other, to the digital age. This process implies *reflexivity*. It is the ability to 'position' oneself in the picture, to be able to understand and consider how what they are seeing is affected by their ways of viewing. This concept is used in the rhizomatic methodology, supporting how I connected heterogeneous factors in an interdisciplinary project whilst emphasising my personal experiences and affective perspectives as both a researcher and an artist.

Montage is one of the methods. This project argues that the juxtaposition of representative figures in montage has the potential to express 'multiplicity', which points to the various possibilities in how individuals react physically and psychologically to external stimuli in reality. In this case, the project argues that it can express a panoramic view of individuals in the digital age. The potential of how the juxtaposition of representative figures expresses multiplicity is matched to the conference's main topic of dispositions.

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