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, com-position, 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 Through lectures and sessions, it looks at examples of original and unpublished contributions related to ongoing and completed works, from academic and non-academic backgrounds.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.
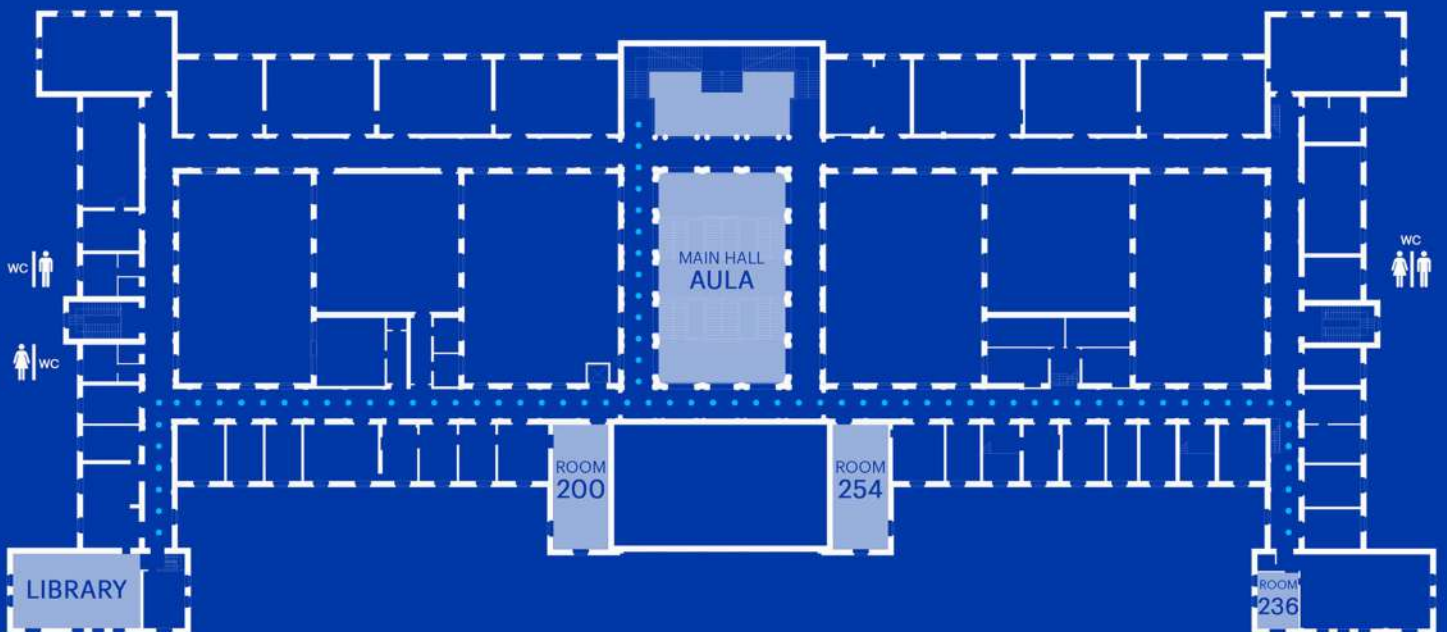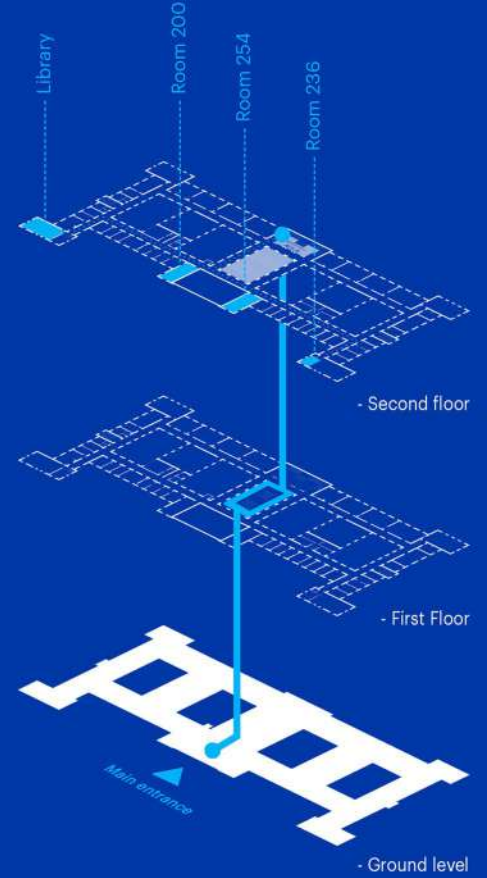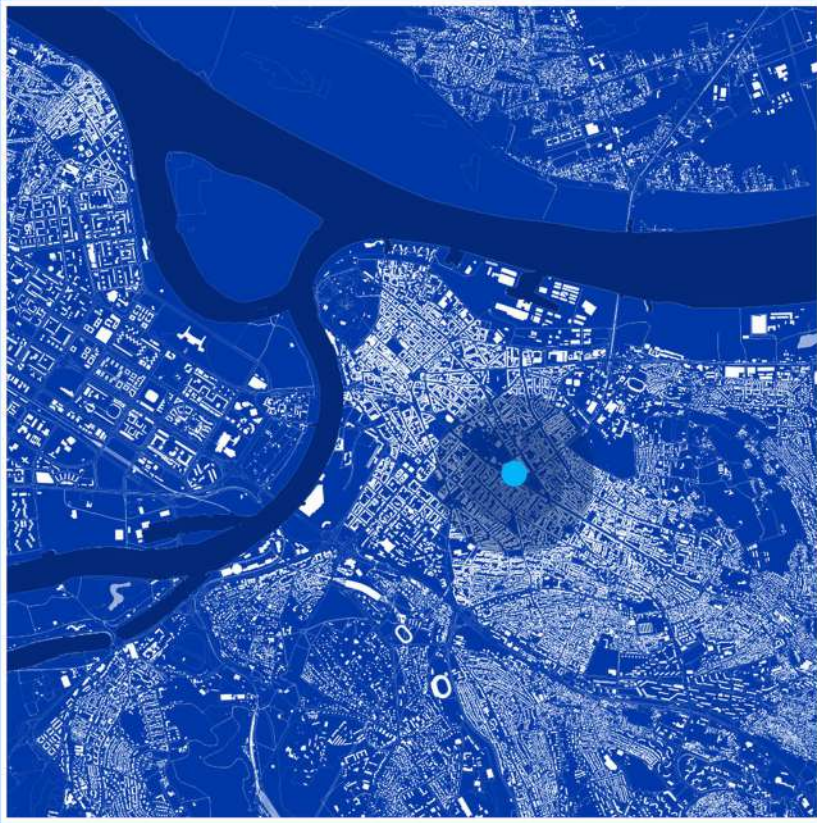
Chairs: Anđelka Bnin-Bninski and Ana Nikezić

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

Library

Room 200

Room 254

Room 236

- Second floor

- First Floor

Main entrance

- Ground level

WC

WC

WC

WC

MAIN HALL
AULA

ROOM
200

ROOM
254

LIBRARY

ROOM
236

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 CA²RE 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

Panel members:
Roberto Cavallo, Mia Roth-Čerina,
Boštjan Vuga

12:15 — 13:15
Room 254

Panel session
Presenting author:
Rasmus Strange Thue Tobiasen

Panel members:
Yves Schoonjans,
Anđelka Bnin-Bninski,
Lidia Gasperoni

09:00 — 10:00
Room 236

Panel session
Presenting author:
Silvia Di Mauro

Panel members:
Pedro Guilherme, Ana Nikezić,
Aileen Iverson-Radtke

10:00 — 11:00
Room 236

Panel session
Presenting author: Ottavio Pedretti

Panel members:
Kristina Careva, Sofia Salema,
Gennaro Postiglione, Maria Faraone

11:00 — 11:15
Room 200

Coffee break

11:15 — 12:15
Room 236

Panel session
Presenting author:
Erik Frydenlund Hofsbro

Panel members:
Petra Vlachynská,
Urs Hirschberg,
Pedro Guilherme

12:15 — 13:15
Room 236

Panel session
Presenting author:
Ana Catarina da Silva Antunes

Panel members:
Sally Stewart, Kristina Careva,
Boštjan Botas Kenda

09:00 — 10:00
Library

Panel session
Presenting author:
Francesco Airoldi

Panel members:
Yves Schoonjans,
Roberto Cavallo,
Urs Hirschberg

10:00 — 11:00
Library

Panel session
Presenting author:
Miloš Stojković Minić

Panel members:
Tadeja Zupančič,
Johan Van Den Berghe,
Sally Stewart

11:00 — 11:15
Room 200

Coffee break

11:15 — 12:15
Library

Panel session
Presenting author:
Anastasiia Gerasimova

Panel members:
Johan de Walsche,
Gennaro Postiglione,
Lagrange Thierry

12:15 — 13:15
Library

Panel session
Presenting author:
Nathan De Feyter

Panel members:
Lagrange Thierry,
Roberto Cavallo,
Claus Peder Pedersen

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

Panel members:
Boštjan Vuga, Johan de Walsche,
Lidia Gasperoni

15:00 — 16:00
Room 254

Panel session
Presenting author:
Miloš Kostić

Panel members:
Pedro Guilherme, Tadeja Zupančič,
Maria Faraone

16:00 — 17:00
Room 254

Panel session
Presenting author:
Ivana Tutek, Bernarda Lukač
Panel members:
Markus Schwai, Sofia Salema,
Jörg Schröder

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**	**Workshop:** **Epistemology of design-driven research**

Moderators:
Jo Van Den Berghe, Tadeja Zupančič,
Claus Peder Pedersen,
Johan De Walsche

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

17:15 — 19:30 **Room 236**	**Workshop:** **Dispositions of the discipline(s)**

Moderators:
Roberto Cavallo, Jörg Schröder,
Lidia Gasperoni, Boštjan Vuga

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

17:15 — 19:30 **Library**	**Workshop:** **Design-driven research as knowledge** **production**

Moderators:
Mia Roth-Čerina, Pedro Guilherme,
Markus Schwai, Anđelka Bnin-Bninski

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.

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

<div align="right">

Panel members:
Mia Roth-Čerina,
Johan de Walsche, Sally Stewart

</div>

11:00 — 12:00
Room 254

Panel session
Presenting author:
Maja Zander Fisker

<div align="right">

Panel members:
Lidia Gasperoni,
Johan Van Den Berghe,
Markus Schwai

</div>

10:00 — 11:00
Room 236

Panel session
Presenting author:
Sarah Javed Shah

<div align="right">

Panel members:
Jörg Schröder, Sofia Salema,
Petra Vlachynská

</div>

10:00 — 11:00
Library

Panel session
Presenting author:
Aileen Iverson-Radtke

<div align="right">

Panel members: Tadeja Zupančič,
Gennaro Postiglione,
Boštjan Botas Kenda,
Maria Faraone

</div>

11:00 — 12:00
Library

Panel session
Presenting author:
Andrea Foppiani

<div align="right">

Panel members:
Boštjan Vuga, Mia Roth-Čerina,
Yves Schoonjans

</div>

12:00 — 13:00
Room 200

Lunch break

13:00 — 14:30
Room 254

CA²RE 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, Architektura & 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 an 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

AUTHORS

Francesco Airoldi
«Before, during, and after disasters»
Ex-ante approaches in co-design strategies for architecture
in at-risk contexts

Nina Bačun
Cinematic Space as Architecture of Disposition:
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

Andrea Foppiani
Transitional Landscapes of Logistics.
An Atlas of Shifting Ecologies

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

Anastasiia Gerasimova
Distillation: MARCH Architecture School

Aileen Iverson-Radtke
Artefact: the DISPOSITION of Cybermodeling

Chiara Caravello
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).

Chiara Caravello
Ph.D. candidate in architecture
URA, University of Liège (BE) + DAStU, Politecnico di Milano (IT)
chiara.caravello@uliege.be / chiara.caravello@polimi.it

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.

(1) Findeli, Alain, and Anne Coste. 'De La Recherche-Création à La Recherche-Projet : Un Cadre Théorique et Méthodologique Pour La Recherche Architecturale', 2007.

(2) Studio Paola Viganò + Team Vesdre-ULiège avec : Yellow Window. 'Diagnostic. Vallée de la Vesdre. Schéma stratégique multidisciplinaire du bassin versant de la Vesdre 04.10.2022', 2022.

(3) Fontaine, Marion. 'Visible/invisible: Ce qui reste des mines'. *Techniques & culture*, no. 65–66 (31 October 2016): 74–91.

(4) Occhiuto, Rita. 'What the Ground Says…'. *Sustainability* 13, no. 23 (3 December 2021): 13420.

(5) European Commission, ed. 'European Landscape Convention'. European Treaty Series, no. 176. Council of Europe, 2000.

(6) Brüll, Anja, Timo Matti Wirth, Frank Lohrberg, Annet Kempenaar, Marlies Brinkhuijsen, Marie- Françoise Godart, Alain Coppens, and Marc Nielsen. 'Territorial Cohesion through Cross-Border Landscape Policy? The European Case of the Three Countries Park (BE-NL-DE)'. *Change and Adaptation in Socio-Ecological Systems* 3, no. 1 (26 October 2017).

(7) Amendt, Kevin, Peter Jennekens, and Roger Magnee. 'Ontginningsgeschiedenis van Caestertgroeve'. In *Caestert: een mijnbouwarcheologische erfgoedsite*, edited by Jacquo Silvertant, 28–115. Scientific report of the Institute Europa Subterranea 3. Valkenburg aan de Geul: Institute Europa Subterranea, 2010.

(8) Secchi, Marialessandra, and Marco Voltini. 'They Do It with Layers How Design by Layers Is Killing Urban Complexity'. *The Drawing in Landscape Design and Urbanism*, 74–79. Oase 107. Rotterdam: nai010 uitgevers, 2020.

(9) Foxley, Alice, and Günther Vogt. D*istance & Engagement: Walking, Thinking and Making Landscape ; Vogt Landscape Architects*. Baden: Lars Müller, 2010.

(10) 'We Are Geomorphic Agents!' In *Distance & Engagement: Walking, Thinking and Making Landscape ; Vogt Landscape Architects*, 71–95. Baden: Lars Müller, 2010.

(11) Peran, Martí. 'Making Maps: Cartography, Territory, Modernity'. In *Landscape as Territory*, by Clara Olóriz Sanjuán. London: Architectural Association (Inc.), 2019.

(12) Corner, James. 'TAKING MEASURES ACROSS THE AMERICAN LANDSCAPE'. AA Files 27 (Summer 1994): 47–54.

(13) Desimini, Jil, and Charles Waldheim. *Cartographic Grounds: Projecting the Landscape Imaginary*. New York: Princeton Architectural Press, 2016.

(14) Hutton, Jane. *Reciprocal Landscapes: Stories of Material Movements*. New York: Routledge, 2020.

(15) Zagari, Franco. 'Sul progetto'. In *Questo è paesaggio: 48 definizioni*, by Franco Zagari, 13–132. Roma: M.E. Architectural Book and Review, 2012.

1 km

6
5
4
3
2
A
1

B
C
D
E
F

existing underground quarries
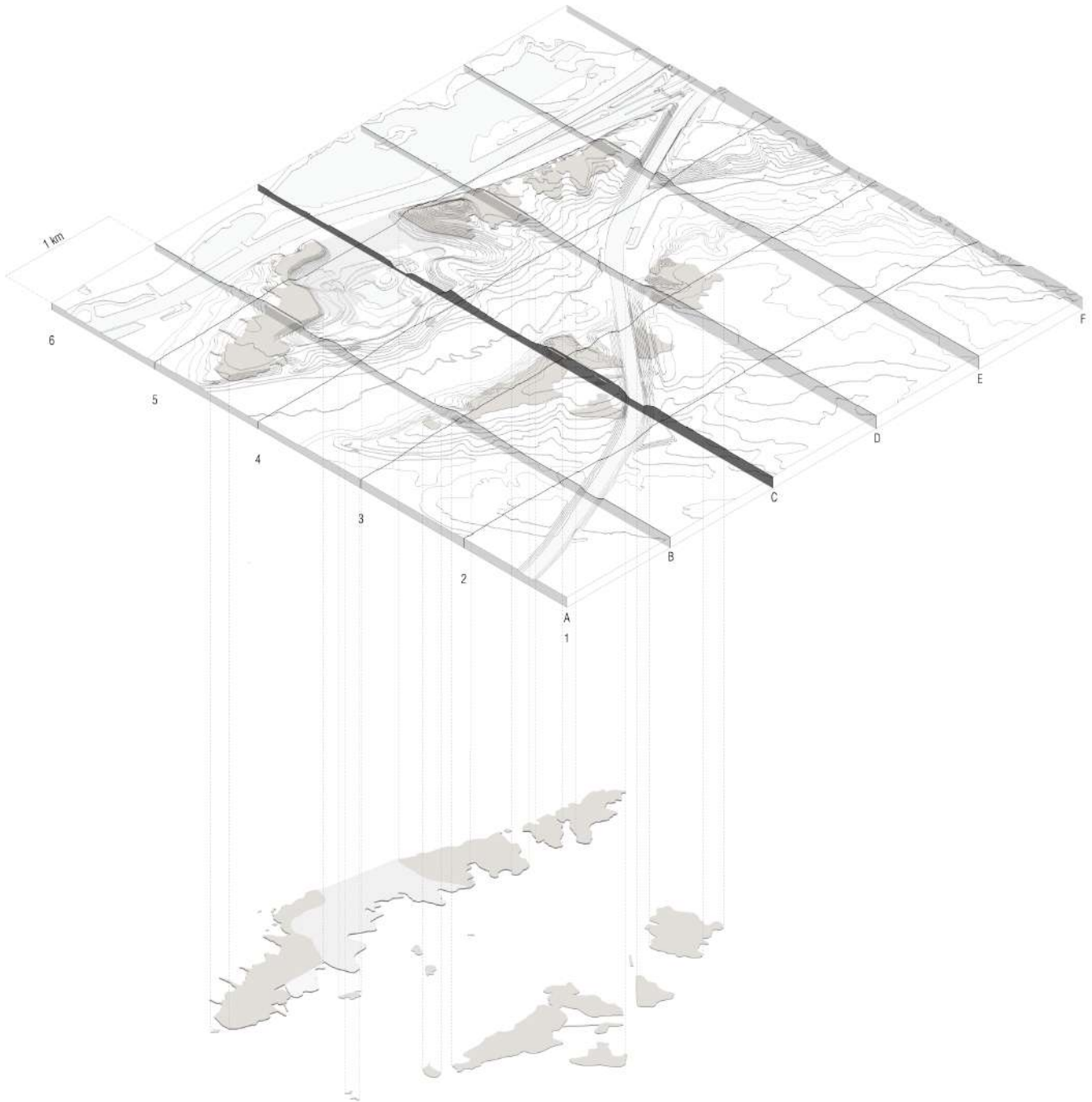former underground quarries demolished by opencast quarrying

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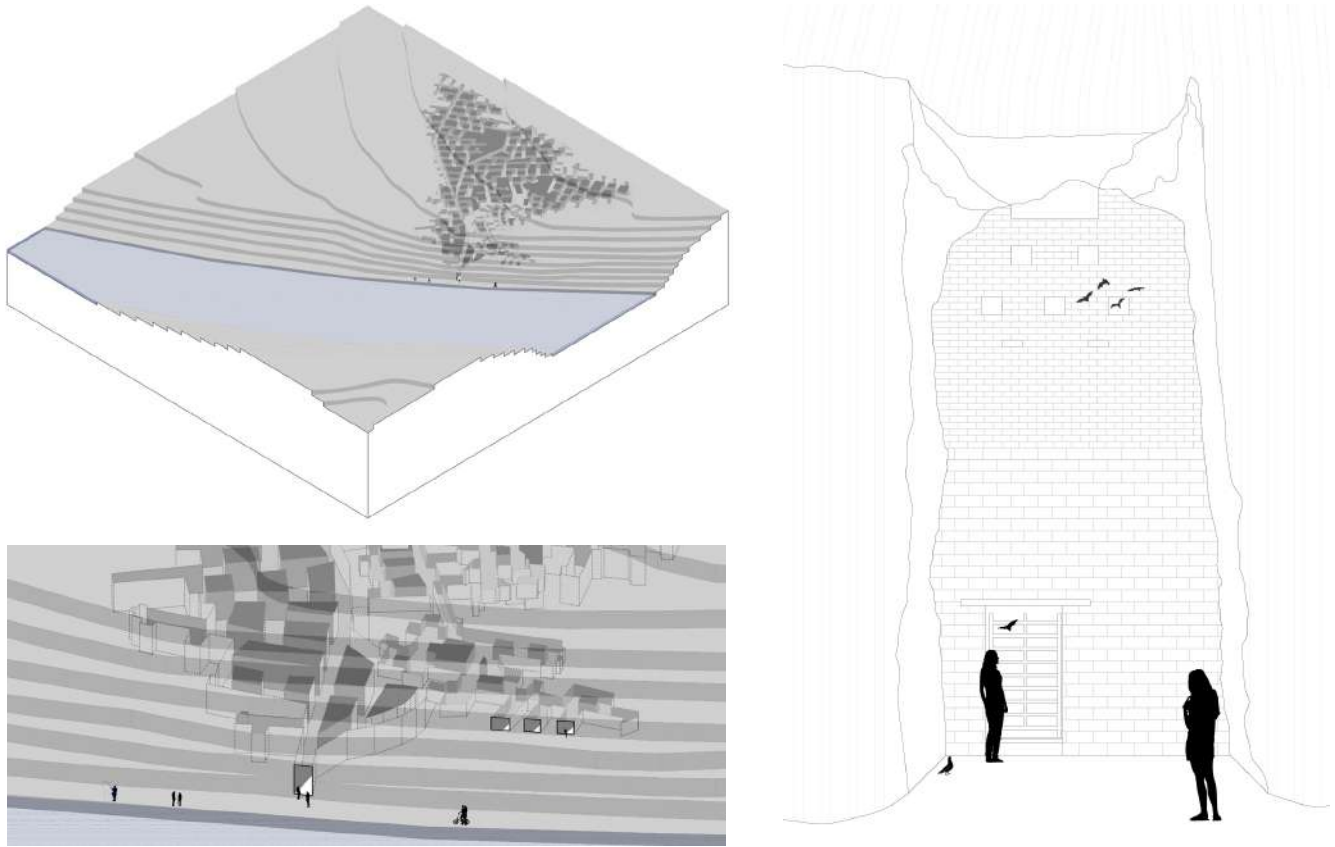
Fig.2
Close-up on a focus area of the 3D model with one quarry's galleries and entrance detail (block B2, south-west quarter).
Drawing by the author. Conceptual diagram in progress, the position and depth of the quarry is to be considered as indicative.
Sources: Walschot, Luck. *Over Groeve de Keel*,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

SCIENTIFIC COMMITTEE

Ana Abalos-Ramos
Universidad CEU Cardenal Herrera

Gaizka Altuna Carterina
TU Berlin

Matthias Ballestrem
HCU Hamburg

Anđelka Bnin-Bninski
University of Belgrade

Corneel Cannaerts
KU Leuven

Kristina Careva
University of Zagreb

Roberto Cavallo
TU Delft

Johan De Walsche
University of Antwerp

Nuria Matarredona Desantes
Universitat Politècnica de València

Débora Domingo-Calabuig
Universitat Politècnica de València

Maria Faraone
Oxford Brookes University

Lidia Gasperoni
TU Berlin

Pedro Guilherme
Universidade de Èvora

Ahmed K. Ali
Texas A&M University

Jacopo Leveratto
Politecnico di Milano

Vladimir Lojanica
University of Belgrade

Simon Maris
University of Art and Design Halle-Germany

Michael McGarry
Queen's University Belfast

Ana Nikezić
University of Belgrade

Claus Peder Pedersen
Aarhus School of Architecture

Gennaro Postiglione
Politecnico di Milano

Javier Rivera Linares
Universidad CEU Cardenal Herrera

Alessandro Rocca
Politecnico di Milano

Mia Roth-Čerina
University of Zagreb

Sofia Salema
Universidade de Èvora

Yves Schoonjans
KU Leuven

Jörg Schröder
Leibniz University Hannover

Markus Schwai
Norwegian University of Science and Technology

Carla Sentieri
Universitat Politècnica de València

Jo Van Den Berghe
KU Leuven

Petra Vlachynská
Technical University of Liberec

Liselotte Vroman
KU Leuven

Boštjan Vuga
University of Ljubljana

Tadeja Zupančič
University of Ljubljana