

NAF/NAAR Symposium 2023

Nordic PhD Research in Architecture

28th & 29th September 2023

Royal Danish Academy Copenhagen Denmark

BOOK of ABSTRACTS

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Architecture
Design
Conservation

Abstract Sessions

Thursday 28th September

11.30-13.00 Session A: Theory

Parallel sessions:

14.00-15.30 Session B: Theory

14.00-15.30 Session C: Target group

Friday 29th September

Parallel sessions:

10.10 - 11.40 Session D: Project

10.10 - 11.40 Session E: Project



Conference webpage

The NAF / NAAR symposium 2023 is a joint venture between The Nordic Association of Architectural Research and the PhD School at the Royal Danish Academy in Copenhagen.

The focus of its discussions is on PhD research in architecture in Denmark, Norway, Finland, and Sweden. The overall objective is to contribute to understanding the complex nature of architecture as an expanding field for research, as a subject for education in academia, and as a discipline for professionals.

The architectural profession has always brought many different disciplines together. It combines areas of knowledge, tradition, and practice. And architects have always collaborated with different individuals within other professions. However, the conditions for creating architecture have changed in recent years; and, confronted with the many complex challenges facing today's globalized society, such as the green transition, the necessity of transdisciplinary collaboration seems to be growing. Transdisciplinarity in this context means that many different sciences (anthropology, sociology, geology, etc.) can be relevant to architecture. It depends on the focus of the specific research.

This trans- or interdisciplinarity relates to the awareness that, on the one hand, we must involve different, relevant sciences—with acknowledgement of their scientific distinctiveness—in order to create more attentive and relevant architecture. On the other hand, when working on an architectural project, we need to develop an understanding of how to get the various scientific insights to interact with the architecture we create and situate.

Anne Elisabeth Toft & Magnus Rönn, NAF/NAAR
Henrik Oxvig & Anders Hermund, The Royal Danish Academy

Session A: Theory

A Queer Interaction with the Architecture Discipline

Transdisciplinarity seems to be the new buzzword both in the academic world and within what could be called sustainability policy and practice, suggesting that we must cross traditional (disciplinary) boundaries and work holistically, collectively, to find solutions to 'wicked problems' such as structural inequality and the climate crisis. Using my own PhD studies as a vehicle for discussion, this academic essay discusses the potential of a transdisciplinary encounter between queer theory and architecture to ignite well-needed change of our common sense-thinking about past, present and future 'sustainable' built environments. Through taking on a queer perspective, some seemingly taken-for-granted truths can be challenged: architecture as expansionism, sustainability as urbanization and private capital as the primary drive of city life and social spaces in the city. Alluring to the queer conceptual framework, I think about the transdisciplinary encounter between architecture and queer theory through the term dragging affordances. How do we deal with the baggage (such as expectations, fears or notions of normality) that we carry, or drag, with us from our respective disciplines and previous experiences? How do we get from entering into these transdisciplinary arenas (with our respective baggage and messiness) to actually 'exit' with new knowledge? With the question of exiting, I also ask what any PhD student would: who will read my thesis, and will I get another job after publishing it?

Keywords: Sustainable urban development, queer, transdisciplinarity, dragging affordances

Session A: Theory

Multisensory Observation in Studying Architectural Experience in Concerts

Being in a world is a multi-sensorial experience. Places and happenings can be heard, smelled, seen, touched – felt. The study aims to develop a method to get multisensorial information on the architectural experience of a concert. How is it possible to understand the bodily experience of a concert and the role architecture plays in the experience? How does the architecture of a concert hall tune into the listening experience?

The study context is a concert event. It has been studied in Tampere Hall and in the Berlin Philharmonie. The study uses phenomenology as an epistemology and the methodology is developed using ideas from ethnography, sound studies, and architectural research.

The purpose of the study is to discuss multisensory observation methods as a tool for architectural study. It opens our understanding of how the building affects the experience happening inside of it. The study also discusses the role different senses play in the overall experience.

A concert is a multidisciplinary art experience by nature. This study suggests that the experience can be interpreted through a conception of the atmosphere using multisensory observation methods. The method itself brings several disciplines and their thinking together bridging barriers in between.

By understanding the experience, we can understand better how the built environment affects us and the culture we are producing. The method can be developed further to expand our knowledge of experiences in different types of buildings also.

Keywords: Atmosphere, multisensory experience, concert hall, phenomenological methods

Session A: Theory

Engagement through diffraction: Becoming an engaged architectural anthropologist

In this essay I reflect on becoming an engaged architectural anthropologist. I position this approach as a particular research practice that builds on a relational view of architecture and value, takes an engaged position in the field, and co-creates knowledge and change through diffractive moves. An engaged architectural anthropologist, I argue, positions herself in-between and seeks to correspond with, rather than describe and analyze from a distance, the practices with which she engages. Drawing on concepts from Karen Barad's agential realism, I explore what this in-between position means for the types of questions I ask, the theoretical grounding of my work, and the kinds of contributions I aspire to make. How I try to navigate a relational approach in practice, with an explicit focus on futures and transformation, trying to collaboratively work out ways of moving from relational understandings to relational design by way of engaged architectural anthropology. I draw on empirical examples of work carried out as part of my PhD research: The first relates to the process of providing input for an addendum for the architectural service description (YBL18) and the second my participation in the work to update the DGNB 2025 manual with new criteria on social value and architectural quality. I analyze these examples through an agential realist lens and reflect on the ways in which this gives direction to my project, and to the explanatory possibilities of accounting for social value in the built environment.

Keywords: Architectural anthropology, practice-based research, agential realism, social value creation

Session B: Theory

Lines of Entanglement: Walking as an Embodied Research Practice

Architecture is made of stuff — bricks and mortar, concrete and rebar, timber and nails — and all this material has to come from somewhere. Buildings have an earthly origin, a geologic debt. They are dependent upon an abundance of displaced materials — dug up, transported and transformed into new forms and structures. Our slick urban environments are dependent upon a vast hinterland of landscapes of extraction — an inverted territory of mines and quarries, pits and holes, forsaken sites and sacrifice zones. Forgotten, ignored and disregarded by architects, yet designed nonetheless. My Phd research project explores the shadow side of architecture, asking what we can learn from an investigation and engagement with such landscapes of extraction. What can one find in these messy territories? Extraction here becomes a peculiar lens from which to view the world, moving away from the 'gods-eye view' of the modernists towards a more situated, partial perspective, looking from below. What do we see, hear, experience and feel when we enter these territories, when we enter the flow of materials and open ourselves to encounters with feral ecologies? This paper aims to reflect upon the transdisciplinary nature of my research practice — engaging with the fields of landscape, ecology and geology, as much as architecture. It will also reflect upon the artistic research methods that I have been exploring, particularly the practice of walking, and how such embodied and performative practices can provide new perspectives, and a more nuanced reading of the spaces around us.

Keywords: Extraction, Walking, Anthropocene, Artistic research

Session B: Theory

Spatial and Psychological Drivers of Household Emissions in Neighbourhoods

Low emission neighbourhood projects face planning uncertainties due to household behaviour and its hard to predict influences on energy use, travel, and related emissions. Former studies on household emissions show that energy use and travel are affected by socio-economic, psychological, and spatial characteristics. By choosing a residential location, a household sets the boundary conditions for future travel and energy consumption behaviour. In transport studies, relocation has been successfully used to examine how a change in built environment can affect travel behaviour. Those studies utilise psychological theories to describe mechanisms favouring or hindering behavioural change. Especially the theory of planned behaviour and habit theories have been frequently applied. Those theories mostly ignore the role of the objective context of decision-making. The ipsative theory of behaviour provides a fitting framework for objective, subjective and ipsative constraints of behaviour applicable to energy use, mobility, and changes during relocation. Based on this theory, a longitudinal, quantitative study on household emissions before and after a relocation is developed. Expected results include a change in spatial characteristics causing a change in household emissions as well as better alignment between personal preferences and spatial characteristics and less impact of habits on behaviour after relocation providing the potential to stimulate households to lower their emissions through an intervention.

Keywords: Energy consumption, travel behaviour, relocation, behavioural theory

Session B: Theory

Mapping and managing Cultural heritage in development of place qualities

My case study, the rapidly growing Norwegian municipality of Lørenskog, is not a farming landscape, or a town found in a rural landscape, nor is it a city. It is rather existing on its own terms as an in-between city or a place which fits into Thomas Sieverts' description of the Zwischenstadt. In this paper I seek to explore how heritage perspectives can enrich our understanding of place qualities in the planning and development of such dynamic contexts. Planning in urbanised environments in Norway follows a compact city-model, aiming at densification and urban qualities that are associated with bigger cities. The findings in thematic analysis of planning documents and practices surrounding the case study indicates a need for new ways of understanding in-between cities and places. Cultural heritage is acknowledged as an important factor in achieving urban qualities, but findings show a limited understanding where heritage is reduced to objects or areas within zones. By narrowly defining Cultural heritage as representative objects and zones it fails to address the in-between city as a cultural landscape. A way forward is to broaden our understanding of place qualities, where heritage and development are integrated aspects that respond to the local context for material and immaterial culture to unfold both spatially and socially. This involves a need for exploring new ways of mapping and managing heritage in planning and development.

Keywords: Place quality, Urban quality, Urbanism, Cultural heritage

Session C: Target group

The Emergent Physical Learning Environments

School buildings have countless designs, resulting from collaborations among experts in many disciplines. The school building endures for many years as teachers and students come and go. Schools may reside in buildings constructed for other purposes, and the physical learning environment may find its place in former museums, factories, or offices. The school's physical learning environment can seemingly take any shape anywhere. The aim of this study is to explore how physical learning environments emerge in teaching and learning practices within schools built with different standardised design concepts.

The following research questions guide this article:

- How are the learning spaces inhabited, and what relationships emerge?
- What guides the actors inhabiting learning spaces?
- How can knowledge of the emergence of the physical learning environment guide the governance of school design?

The conceptual framework must consider that the actors in this study speak with neither movement nor human voices. Actor-Network Theory (ANT) blurs the distinction between humans and non-humans and sees actors as effects of relationships and networks in a world that is constantly changing. From the ANT perspective, I want to emphasise how people and things appear in heterogeneous relationships which contribute to the emergence of physical learning environments.

The scope of this study is Grade 3 classrooms and adjacent spaces, or equivalent spaces in schools with open and flexible spaces, from three schools in different municipal local governments. I will conduct observations and interview teachers and learning spaces. The empirical findings of this paper may contribute to (1) governance of school design, (2) school leadership for appreciation of the opportunities in the school design and (3) school design in architecture.

For a consistent and meaningful policy for the design of physical learning environments, there is a need for more knowledge about how these environments are used.

Keywords: School design, physical learning environments, educational governance, Actor-Network Theory

Session C: Target group

Democratic Design Methods: Energy transition in Cultural Heritage Districts

The purpose of this paper is to examine what factors affect local residents' acceptance, needs and hindrance for renewable energy developments in cultural heritage districts. The paper also examines if positive synergy effects can be created through resident involvement by participatory design approaches. Data was collected in two case studies to measure design methods that could take advantage the tacit knowledge of residents in contextual, architectural, and culturally based differentiated and different scenarios on Photovoltaic integration. First, a Church Town with subarctic climate in the north of Sweden, and secondly, a historical city district in Visby, Gotland. Results indicate that by involving residents in collaborative workshops, incorporating diverse perspectives, the resulting photovoltaic integration design can be more contextually relevant, visually appealing, and socially accepted. Hypothetical participatory processes including actants as the authority, experts, stakeholders, and residents ensure that the design process is inclusive, transparent, and reflective of the diverse needs and perspectives of the community that have potential to balance sustainability goals with historical preservation, aesthetics, and the unique values of the community. I argue that Participatory Design conducted in resident workshops inherit an agonistic pluralism that fosters environments of open dialogue and exploration, who encourages the consideration of innovative solutions that may not have been part of the established consensus. This approach leverages the collective wisdom of residents and stakeholders, resulting in designs that are more likely to be accepted and embraced by the community and are recommended in future participatory energy planning.

Keywords: Cultural Heritage Districts, Participatory Design; Photovoltaics, Renewable Energy

Session C: Target group

How to Map the Architecture of a Changing Society?

The present-day schoolyard is the material reality of a multitude of ongoing lives and histories, a palimpsest of places, spatial relations, lives and memories. The focus of this paper is to discuss the method used in the dissertation to entangle some of the spatial and temporal parts of that palimpsest, the architectural and societal events that have been part of shaping the physical environment, the materialities, of the schoolyard. Is the method doing what it is supposed to do? What changes, additions or developments must be done to the method to better answer the question of the dissertation? The method is supposed to answer the question How are changes in society materialised in the architecture of our everyday places? The method can be described as a binocular, used by the researcher to explore the architecture of schools and schoolyards in Stockholm, the spatiality and temporality of them, and how society has changed and with it, the societal views on children. The binocular consists of three parts, each of them a method on its own. The parts are morphological analyses, historical analyses and visual research methods. The morphological analyses can map the 'affordances' and the historical analyses can map the 'ideological forces' that are part of shaping the built environment. The visual research methods are a way of creating the maps, representing findings and asking new questions to the analyses. The paper concludes that it is important to balance the three parts of the binocular, to strengthen the narrative about how entangled the present material reality of school-places is with past architectural and societal events.

Keywords: School and schoolyard, morphological analyses, historical analyses, visual research methods

Session D: Project

Acting in Concert: The Architect's Role in New Product Development in the Wood Building Industry

Resource management places new demands on the building industry. This essay shows how these new requirements affect the architect's role, with examples from one of the fastest-growing sectors in Sweden: the wood-building industry.

New Product Development (NPD) in the wood building industry is becoming more and more complex and therefore more knowledge-intensive. New products need to be designed for maintenance, reuse, circularity, and design adaptation to different contexts. We need to quickly jump out of our silos and find new ways of collaborating interdisciplinary in a range of fields, to find answers to these challenges.

The objective of this article is with an example discuss the architect's role in NPD of an industrially manufactured adaptable wooden façade system designed for maintenance, repair, and reuse (hereafter AFS), and how the development process was profoundly influenced and improved by incorporating the architect's design knowledge and methods. Specifically, the architect has a vital role to play as a mediator, facilitating by design knowledge conflicting interests. Today, architects are seldom involved in the development process of designing new products within the building industry. The architect and manufacturer are far from understanding their respective standpoints, thus creating a gap. This gap can hinder innovation and the development of new knowledge, but also a reflection of the architect's possible future role in NPD. All this taken together, could mean that valuable design knowledge and methods are not used that could promote important innovation in the wood building industry.

A gap which is in focus in this paper. By reflecting on the architect's role in the project, the goal is to understand how design knowledge was used and how this affected interdisciplinary work and the design of the AFS.

The aim is to show that the architect's design knowledge can contribute to successful, sustainable NPD.

What knowledge, skills, methods, and processes that the architect possesses can be valuable for promoting interdisciplinary collaboration and aid in creating innovation within NPD in the wood building industry?

What new, and possibly extended roles can architects have within NPD in the wood building industry?

Keywords: New Product Development, Façade design, Design process, Interdisciplinary collaboration

Session D: Project

Architectural qualities towards circular cities: A methodological framework

Although changes in the built environment are closely related to societal dynamics, such as population ageing, immigration, and shifts in local trends, solutions to address circularity in cities are mostly techno centred. They deal mainly with energy recovery, waste management and water efficiency.

Research gaps show that a holistic approach to architectural qualities, considering physical and non-physical attributes of the built environment and addressing the importance of social values fostering circularity in neighbourhoods is needed.

Architectural qualities should be considered when applying circular principles to the built environment. Quality in architecture encompasses a broad set of values, going from technical: the properties of different materials or the construction techniques; to emotional: the experience or memory one draws from a place. This latter relates to social values: governance, identity, or social well-being, among others.

This paper draws on interdisciplinary research between architecture and planning, structural engineering, industrial ecology, and digital twins to propose a framework to evaluate the values of the built environment promoting circularity in neighbourhoods. Physical and non-physical attributes are expressed, affecting social and collective values. By emphasising the importance of a holistic consideration of architectural qualities, this theoretical paper helps to fill the gap between architecture and circularity.

Keywords: architectural qualities, social values, neighbourhood, circularity

Session D: Project

Collaborative processes to inform research-based design in urban lighting

Owing to challenges that urban lighting design encounters as a discipline and profession (theory and practice), a transdisciplinary approach becomes necessary to create new knowledge. In the ongoing transdisciplinary research project NorDark, within which my doctoral project is situated, fields of design, psychology, physiology, ecology, and technology work together to explore how electric lighting can be balanced according to the different needs of humans and non-human wildlife species during dark seasons in urban areas. Based on my observations during the project's first year, I reflect on my experience of direct and indirect collaborative relations between scientific and non-scientific research partners to make sense of the role and positioning of lighting design researchers and the knowledge they bring to the project. My reflections unveiled imbalances between the lighting design research and other research groups, especially in active knowledge sharing. In the broader sense, transdisciplinary collaborations can benefit the 'ambiguous' or 'in-between' position of architectural lighting design to develop more research-based design methods. Insights from other research partners can inform applicable lighting solutions in urban parks where the lighting design research can mediate between scientific and design knowledge. This paper discusses and reviews the limitations of the lighting design research's quantitative methodology, collaboration challenges, and potentials that arise in a transdisciplinary context.

Keywords: architectural lighting design, urban environment, transdisciplinary collaboration, research-informed design

Session E: Project

Weaving Multi-Actor Sites and Processes: The Landscape-architect's Know-how in the Frame of Climate Action

In a general context of increasing natural hazards in many parts of the world, the Norwegian context is characterized by a balance of significant cultural landscapes that are being challenged by climate risks:

This urgent situation requires that we think simultaneously about adaptation and mitigation as well as a complete rethinking of land use, lifestyles, and planning.

While scholars and climate experts have urged for transdisciplinary work, collaboration across disciplines remains a challenge in practice. Furthermore, decision-makers are still not sufficiently aware of the skills of landscape architects. Hence, they are seldom consulted to deal for assessment of and adaptation to climate risks in Norway.

At the core of the landscape practice, lies the notion of site, a key concept which is often not called upon in climate risk projects. This paper argues, however, that an emphasis on this crucial concept has great potential, since the site, as a trans-disciplinary construct, is a means of creating a holistic and complex approach. Thus, highlighting the notion of the site and its value is a way of explicating the necessity of landscape architects and their know-how and, at the same time, offers a practical response to the injunction to work outside the silos.

Thus, the landscape architect's critical skill of weaving a site, needs to be re-emphasized, and the landscape-architects role as a mediators can be further developed by redefining their skills in fostering transdisciplinarity through the understanding of a site.

The rationale of the NATURACT research project is that landscape-architecture has a vital role in dealing with challenged landscapes and that its skills need to be better known, to provide an alternative to infrastructural engineering approaches. The paper sees its contribution in including the profession of landscape architect in the significant subjects of mitigation by highlighting how the notion of the site is built through cross-disciplinary contributions conducted by the landscape-architect with the help of his weaving skills. Furthermore, it opens up for enrichment of these skills in light of the more-than-human turn of the discipline.

Keywords: Risk management, site, landscape-architecture, transdisciplinarity

Session E: Project

Collective Matters: Self-organised spatial practice as commoning

While built environments are usually carefully planned and designed by a homogenous group of urban planners, my interest is in how commoning as a nomadic practice of making can be performed as a temporary act and its impact on the physical environment. In the centre of my PhD project are self-organised cultural initiatives. The project's ambition is to explore how spaces created by self-organised cultural initiatives are activated materially in a non-permanent way, what is the role of temporality in this process, how can collective action establish different types of architectural habitat, and further how does this practice relate and apply itself to participatory design and urbanism? What I'm curious about is how temporality is materially performed in space and what effect it has on our environment as well as how it makes us interact with those environments. In this way I see temporality not as a timeframe of testing but rather as a nomadic practice of making that is fluid and continuous. This research project operates through methodology of critical spatial practice and urban curating, by exploring architectural productions created by non-architects.

Journey of many cultural initiatives, which are in focus in the enquiry, has been carefully archived, and my assumption is that by cataloguing the memories, a non-textual, object-oriented architectural method of archiving can enable reproduction of the praxis in the future and in this way contributes to altering spatial practices. How to read an archive through building connections to spatial production and materialisation? What new understanding of materiality can be read through informal archives? How can temporality be archived? During the fieldwork I am looking at several case studies in different contexts. The analysis will mainly be based on collective narratives, which will be later in the study visualised through the method of interactive dialogues.

Keywords: Self-organisation, commons, critical spatial practice, materiality, temporality

Session E: Project

Social media sentiment and its role in the process around Lynetteholmen

Social media has become the dominating communication system in populations worldwide. Along with this development follows the fact that citizens now have entirely new means of dissemination and exposure at their disposal, which can be leveraged to influence the balance in social and political decision-making processes.

The urban planning in Denmark has for many years, been the result of strategic decision-making between politician, planners and municipalities. Similarly for many years new process in urban development has been able to play out, alongside groups of protesting citizens, exercising their democratic right, without it necessarily influencing the developments. However with the mass-adoption of social media into the population, bottom-up movements and grass-root movements, can convey their message in entirely new ways, which raises questions about its implication of the public debate surrounding urban-development and governance, and ultimately the built environment in which the lives of citizens unfold.

This article seeks to shed light on the new conditions in which public opinion is formed, furthermore it seeks to make visible places where the balance in political and social decision-making processes can be challenged due to new conditions imposed by developments in information and communication technology.

Keywords: Sentiment-analysis, social-media, bottom-up movements, deliberative debate

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Thursday 28th September

11.30-13.00	Session A: Theory	Auditorium 5
Parallel sessions:		
14.00-15.30	Session B: Theory	Auditorium 14 (Croquis)
14.00-15.30	Session C: Target group	Auditorium 7

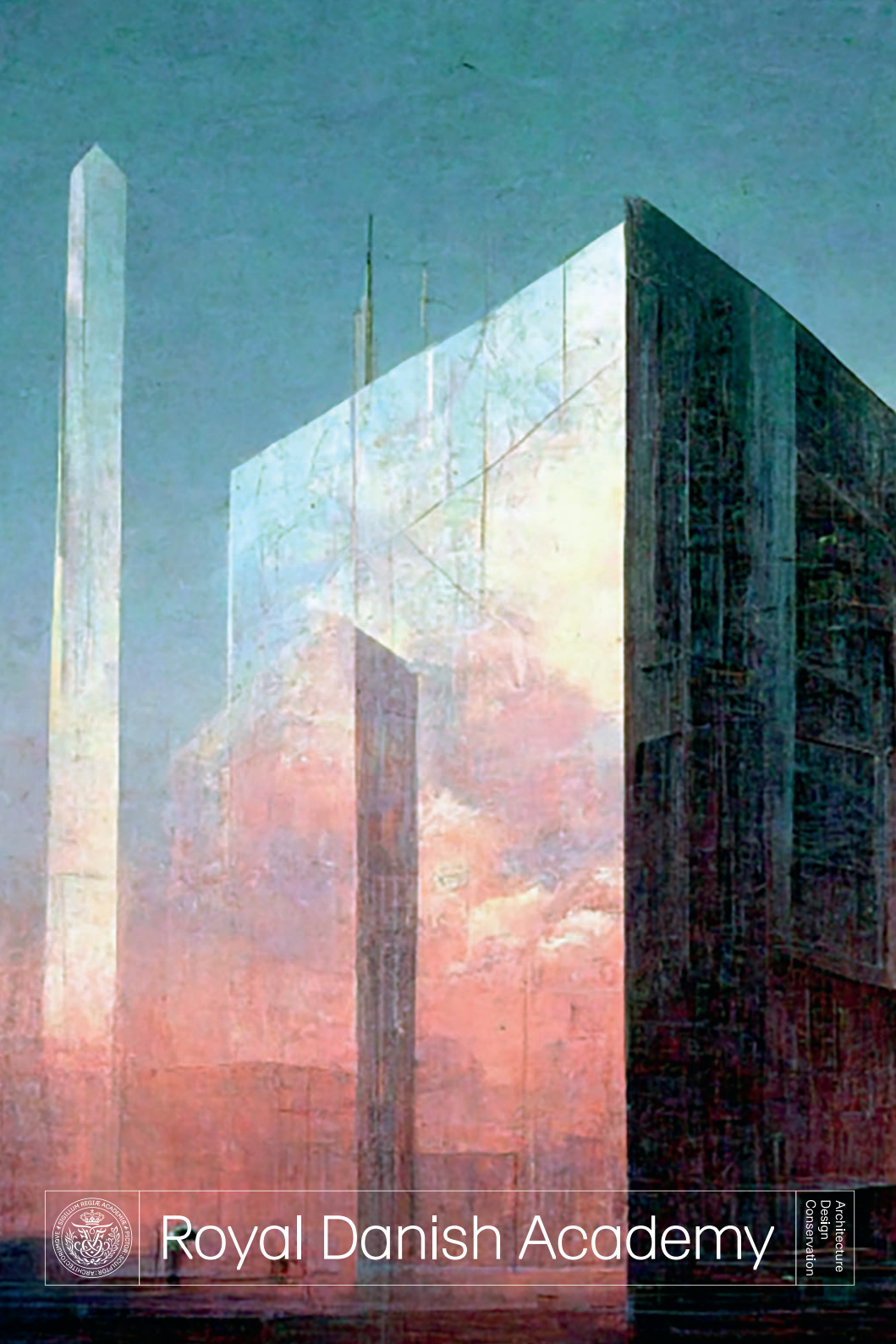
Friday 29th September

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10.10 - 11.40	Session D: Project	Auditorium 5
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