Social Commissioning

- a relational approach to social value creation

in the built environment

Mia Kruse Rasmussen

Ph.D. thesis 2024

AARHUS UNIVERSITY

AART

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ISBN: 978-87-7507-582-9
DOI: 10.7146/aul.580

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Preface and Acknowledgements

Looking back to the beginning of this Ph.D. journey of mine, I have a lot of things to be grateful for and a lot of people and institutions to thank. It has not always been smooth sailing. There have been times of uncertainty, doubt, and frustration along the way, trying to navigate the unruly interdisciplinary waters of building research and an equally unruly building industry. However, I feel very privileged to have been given the opportunity to pursue an industrial Ph.D. and to have spent the past three years exploring social value creation in the built environment. The journey and the process have given me experiences, insights and relationships that I would not want to do without.

The project is funded through the Special Industrial Researcher Call 2020: Circular Built Environment – a Shift of the Construction Industry to Circular Resource Economy[1]. I thank Innovation Fund Denmark and Realdania for co-funding the project and BLOXHUB for facilitating and housing the Circular Built Environment Network, where I have had the opportunity to join 15 other dedicated and highly skilled industrial researchers, working with circular economy in the built environment. This network has been a great source of inspiration and a significant anchor for me throughout this process, providing thought provoking discussions, exchange of ideas across our different projects, and the opportunity to develop new professional friendships.

My supervisors have been crucial for my development throughout the project and my ability to complete the thesis. I thank them for their guidance and support along the way; my main supervisor at AU, Steffen Petersen, for believing in the project, keeping an open mind, and contributing with an engineering perspective on the tensions and overlaps between anthropology and building research, my supervisor at AAU, Marie Stender, for asking hard questions and providing highly qualified anthropological sparring that has strengthened the project and my development as a researcher, and my main company supervisor, Johanne Mose Entwistle, a long-time partner in crime, for always contributing with sharp observations, a high professional integrity, and an eye for translating research knowledge into practice.

I want to thank AART for hosting the project, and all my colleagues at AART who have readily answered questions and let me into their projects. A special thank you goes to my

[1]The full call can be accessed through the following link: https://innovationsfonden.dk/sites/default/files/2019-11/saerligt_erhvervsforskeropslag_cirkulaert_byggeri_engelsk.pdf

close colleagues in the impact team, who have given me a sense of belonging and normalcy through a Ph.D. process that can feel quite lonely at times.

I would also like to thank all case study -, workshop -, and interview participants for their openness in letting me into their work and life, and for generously sharing their experiences and perspectives with me. This project would never have been possible without their active engagement and participation.

Finally, I thank my friends and family for their unwavering support, for putting up with my distracted mind, and for making sure I never (completely) lost sight of what really matters. You mean the world to me.

Åbyhøj, August 2024

Summary

This thesis is the product of an industrial Ph.D. that explores social value creation in the built environment in Denmark through a relational lens. Based on a multi-sited ethnographic approach, the studies focus on the ways in which social values are articulated and enacted in relation to the built environment in existing project practice and provide new perspectives to challenge existing practices in the building industry as well as approaches to social value creation in existing building performance research.

Part I of the thesis, *Situating the Project,* presents my research position, the overall research design, and introduces the main theoretical perspectives and concepts. Based on relational ontology and posthuman practice theory, the concepts of 'relationality', 'sociomateriality', and 'multiplicity' are presented along with a relational values approach that views value as a relational performance rather than an attributional quality. A review of existing literature on building performance evaluation, focusing on the concepts of social sustainability, performance, and post-occupancy evaluation (POE), situates the project within this broader field of building research.

Part II, *Exploring Values in Practice*, focuses on the challenges and opportunities in existing practice and unfolds an essentialist logic that dominates current practices in the building industry in Denmark. Through empirical examples, I show some of the main challenges of this essentialist approach to value, in relation to the work with social value creation as well as highlight cracks and potentials in existing project practices that might support different approaches. Two building project case studies with an explicit focus on social value creation are then presented: *Balancen* (the Balance), a senior-co-housing community where the focus is 'community' as a social value, and *Vrå school*, where focus is on the creation of 'good learning environments'. These cases show that social value creation is both complex and performative. It can never be guaranteed, because it is not the direct consequence of particular actions or an attributional quality of certain objects or designs. Rather, value creation requires ongoing work. The cases also highlight how the processes of building projects hold formative moments of becoming that create the affective capacity of these projects to make practices tremble and set things in motion in different ways. Part II concludes with chapter 10, *What We Now Know About Valuing in Practice*, that summarises the main findings of the analyses and introduces the analytical framing of 'building-as-project' and 'building-as-lived-space' as a structure for

understanding the challenges of an essentialist logic as well as the potentials for articulating and enacting social value in different ways.

In part III, *Doing Things Differently,* social commissioning is introduced as a particular approach to thinking, framing, and working with social value creation, at a building or project level. Social commissioning is based on the logic of buildings and values as relational performances rather than static entities, attends to the concrete entanglements of people, buildings and values, and focusses on the ongoingness of architecture, where people are understood as inhabitants and buildings as lived spaces. Social commissioning as a service has a dual purpose of qualifying design and supporting change in practice and focuses on creating lines between building-as-project and building-as-lived-space to support value creation in practice.

The main contribution of the thesis to existing research is showing that a relational approach to value presents an alternative to the essentialist logic that dominate current practices. This relational values approach has the potential to deal with the complexity and ongoingness of social values in ways that the current practices and value framings cannot. If we want to understand and work with social aspects of building performance, and support social value creation in the built environment, we need to view buildings and values relationally, rather than as static entities with a defined set of attributes that can be measured and evaluated in absolute numeric values.

Dansk resumé

Denne afhandling er resultatet af en erhvervs-ph.d., der undersøger social værdiskabelse i det byggede miljø i Danmark i et relationelt perspektiv. Studierne fokuserer på, hvordan social værdi italesættes og praktiseres i den danske byggebranche og bidrager med nye perspektiver, der udfordrer den nuværende praksis og tilgange til social værdiskabelse i den eksisterende byggeforskning.

I afhandlingens del I, *Situating the Project,* præsenteres forskerposition, det overordnede undersøgelsesdesign og de centrale teoretiske perspektiver og begreber. Derefter gennemgås eksisterende byggeforskningslitteratur med fokus på social bæredygtighed og bygningsevaluering og afhandlingens studier placeres i relation til dette bredere felt af byggeforskning.

I Del II, *Exploring Values in Practice,* beskrives udfordringer og potentialer i den eksisterende praksis i byggebranchen. Gennem empiriske eksempler vises nogle af udfordringerne ved en dominerende essentialistisk værdiforståelse i forhold til arbejdet med social værdiskabelse og der peges på potentialer, som kan understøtte en anden tilgang. Dernæst præsenteres to cases, der har haft et eksplicit fokus på social værdiskabelse: Balancen, et seniorbofællesskab, hvor fokus er på *fællesskab* som social værdi, og Vrå skole, hvor fokus er på *gode læringsmiljøer*. Disse cases viser, at social værdiskabelse er både komplekst og performativt. Det kan ikke designes eller garanteres, fordi det ikke er en direkte konsekvens af bestemte handlinger eller en iboende kvalitet ved bestemte objekter eller designs. Det kræver løbende arbejde. Casene viser også, at byggeprojekter skaber et mulighedsrum, der kan skubbe til eksisterende praksisser og understøtte forandring. Del II afrundes med kapitel 10, *What We Now Know About Valuing in Practice*, der opsummerer analysernes hovedindsigter og præsenterer begreberne *bygninger-som-projekter* og *bygninger-som-levede-steder* som en analytisk struktur og ramme for at identificere og forstå udfordringerne i den essentialistiske logik, samt muligheden for at forstå og arbejde med værdi mere relationelt.

I del III, *Doing Things Differently,* præsenteres social commissioning som et konkret bud på en anden måde at tænke og arbejde med social værdiskabelse på bygnings- og projektniveau, der tager udgangspunkt i den relationelle værdiforståelse og samspillet mellem mennesker, bygninger og værdier. Social commissioning har et dobbelt formål. Det handler både om at kvalificere et design og understøtte en forandring; om at skabe

forbindelser mellem bygninger-som-projekter og bygninger-som-levede-steder for at kunne understøtte social værdiskabelse i praksis.

Afhandlingens hovedbidrag til den eksisterende forskning er den relationelle værdiforståelse, som et alternativ til den dominerende essentialistiske projekt-logik, der er bedre i stand til at til at håndtere kompleksiteten og uforudsigeligheden i arbejdet med sociale værdiskabelse. Hvis vi vil arbejde med sociale aspekter af bygningsperformance og understøtte social værdiskabelse i relation til det byggede miljø, så kræver det, at vi forstår bygninger og værdier relationelt frem for som statiske objekter, der kan måles og vejes i absolutte termer.

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1: Setting the Scene: Challenges and Overall Ambition

> One of the things we find the most challenging is when there is an elaborate building programme that does not take the end users into account. We see builders specifying visions for "the school of the future" without involving teachers in what makes sense to them in their everyday lives … seemingly forgetting that it is the users who are there when the building is finished, who have to take over and carry the visions forward. If it does not work for the end users, we have wasted both money and resources. (architect, user involvement specialist)

The quote above comes from a workshop[2] where experts on user involvement in the built environment were invited to share their experiences of working with social sustainability, social value creation, universal design, and post-occupancy evaluation (POE). It points to a central challenge in working across or between different domains in complex building projects: working with builders (clients) who are increasingly aware of the strategic potential of architecture as a catalyst for social value creation, but less aware of what it takes to realise these visions or potentials in practice. These 'soft' aspects of projects often drown in the multitude of other considerations that projects have to navigate, both in terms of conflicting interests within the projects, as well as external requirements such as building regulations and EU sustainability regulations, like the Corporate Sustainability Reporting Directive (CSRD), that establish environmental, social, and governance (ESG) reporting requirements for organisations, making ESG a part of the annual reporting process and placing sustainability alongside financial information.

Social aspects of the built environment, and what happens after the building stands, do not fit well with this type of accounting logic. It is difficult to put a meaningful numerical or economic value on social issues like 'community' or 'well-being' and so these aspects easily become overlooked or under-prioritised, even though they officially fall into the S of ESG.

[2] One of two workshops held during the development of an industry guide on social commissioning and POE with 17 participants representing a mix of professional backgrounds including architecture, humanities, social science, and engineering, from private companies, public institutions, and non-profit organisations.

In this thesis I explore social value creation in the built environment from a practice perspective[3]. Value in this context is understood not as an attributional quality, but as an ongoing effort that requires continuous work. Examples of concepts that my research deals with under the overall heading of 'social values' are: 'community', 'well-being', and 'good learning environments'. These values are defined and explored empirically in more detail in the case studies in part II of the thesis and a more elaborate introduction to value as a theoretical concept is presented in chapter 4, in the section: *Valuation, values work, and valuing in practice*.

The social sustainability and social value agendas raise fundamental questions about how concepts like sustainability, performance, and value are addressed in the built environment. How do the different sustainability aspects relate? Are performance and value attributional or relational, absolute or contextual? How, where, and by whom are they defined and evaluated? How do values evolve? And how do they work in practice? These questions are not easily addressed. They are full of dilemmas, and there is still quite some way to go in finding suitable ways of dealing with them in a building industry that has a primary focus on built structures, environmental sustainability, materials, and CO2.

Despite apparent interest in, and good intentions in relation to, including social aspects into the work with built environments, there still seems to be a variety of structural barriers that challenge the work. Research is still needed to explore how social values can be made workable within the built environment.

The studies I carried out and report on in this thesis are driven by a curiosity to explore the work with social value creation in the Danish building industry, as well as an ambition to carve out new potential paths forward by developing ways of supporting this work in practice, understanding social value creation as an essential, but often overlooked or underestimated, part of the work with sustainability within the Danish building sector. The ambition of the project is to develop a deeper understanding of the concrete ways in which social values are articulated and performed in relation to the built environment, not just on paper or in beautiful renderings, but in real life, enacted as part of ongoing, complex, socio-material practices.

[3] The notion of practice is double in this context. It refers both to a theoretical anchoring of my approach to research and to the sayings and doings carried out in the different empirical fields I engage with. I return to this distinction in chapter four.

The built environment has different scales. I zoom in on a building level and focus on value for the users of the buildings, the inhabitants[4]. I explore how buildings and social values are articulated and enacted at different stages of a building's life cycle, through a multi-sited ethnographic approach, and work to develop a framework for supporting these processes in practice, a framework I call *social commissioning*[5].

Based on a relational ontology that assumes the constitutive entanglement of the social and the material, and inspired by design anthropology, architectural anthropology, and posthuman practice theory, the project sets out from the idea of an entangled, moving world that is always in the making, understands buildings and values as relational performances rather than static objects, and views design and use as part of the same continuous process of emergence. This approach is process-oriented rather than object-oriented. In this understanding, buildings are never finished in any absolute sense and values continuously evolve through ongoing negotiation and values work. These onto-epistemological positions, the relations between them, and how they are used in this project are presented in more detail in chapter 2 where I reflect on the research position and in my introduction to the main theoretical perspectives and concepts in chapter 4.

The project, as well as the concept of social commissioning, was formulated based on a wonder about the ways in which 'the social' is currently treated in building projects, and in the building industry more broadly – or maybe rather how it is not treated, at least not systematically throughout the building's life cycle, and to see the kinds of challenges this poses in practice. Often, work is carried out in the initial phases of a project to define the 'user needs' and generate requirements that can help qualify the design. Then design, technical specification, and construction take over and the 'user perspective' is relegated to the background. In that sense, user involvement becomes a task, carried out at a

[4] When I use the term 'inhabitant', rather than 'user', I draw on the writings of Tim Ingold to signal a more active and ongoing entanglement between people and environments. I elaborate on this distinction in chapter 2 and return to why it matters for my understanding of social value creation in the built environment in part III.

[5] Social commissioning is a neologism coined by the project to describe the support of social value creation, procedurally, throughout a building's life cycle, from the formulation of the first visions or intentions to after inhabitation. The term is inspired by technical commissioning that is well-known in the building industry as a process to mitigate or bridge performance gaps in relation to technical issues with the building enclosure or services. While social life or social value cannot be designed or predicted in the same way as intended technical performance, things can be set in motion, creating a dynamic foundation from which it can grow. This is what social commissioning aspires to enable and facilitate.

particular project phase, rather than an ongoing effort. It is viewed as something that needs to be uncovered to qualify the design and ensure that the right solution is created.

When the keys to a building are handed over, users are left to figure out on their own how to best make use of these new spaces. The reasoning seems to be that if the design is good enough the use will be self-evident and does not require any support, implying that social value can be designed or inscribed during the design and construction phase, if done right. This often leads to disappointment and frustration. Sometimes very practical things get lost in translation: nobody understands why flexible walls are installed or know how they can be operated and used in practice. As a result, the rooms are just used in the configuration in which they are handed over and the intended value of increased flexibility is lost. In other cases, the challenges are more fundamentally or directly linked to practices, where a new building gets caught in political or organisational conflicts that have not been addressed explicitly during its design but become apparent once the building stands and is taken into use. Here it is not just a matter of translation, of people understanding the new spaces and their intended use, but more fundamentally a disagreement on what counts as 'good' or 'valuable' in relation to the building, and to whom?

Looking towards *technical commissioning,* I explore if something could be gained from thinking along the same lines in terms of the social value creation, as a way to bridge what we might call 'the social performance gaps'[6], and what this framework for *social commissioning* would then look like. When buildings are viewed not just as static entities with a defined set of attributes, but rather as elements that play an active role in potentially reconfiguring practices, this also broadens the scope we have for change when engaging in building projects. It opens up different value arenas with a potential to influence the way we live, learn, work, or play in, with, or alongside these built structures in our environments. This view, I argue, might offer potential new ways of approaching these broad and complex topics, related to social value creation, beyond traditional disciplinary boundaries or narrow project deliverables.

[6] The social performance gap refers to the gap that occurs when projects' intentions and lived reality become too isolated and stand too far apart because there is a lack of anchoring or coordination between 'design' and 'use'. In these cases, the intended value creation never becomes reality, leaving a gap between intentions and impacts

Research questions and chapter outline

In this thesis I report on studies that explore social value creation in the built environment with the intention of providing new perspectives that might challenge existing practices in the building industry as well as existing approaches to social value creation in building performance research. I explore what a relational approach to social value creation means for the design process, and what it means for the ways in which social value can be understood and supported, also after buildings are taken into use. The overall research question is formulated as follows:

How, and to what extent, can social value creation in the built environment be commissioned, and how might a relational approach to value contribute to this work?

To explore this overall research question, multiple related research strategies are pursued, operationalised through the following three sub questions (SQ):

- SQ1: *How do social values figure in the built environment today? (research + practice)*
- SQ2*: What does a relational approach to value enable us to see and understand, and how does it relate to existing practice in the building industry in Denmark?*
- SQ3*: How can this 'values work' be supported in practice, going forward?*

Throughout the thesis, in the three overall parts: I *Situating the Project*, II *Exploring Values in Practice*, and III *Doing Things Differently,* I explore the relationship between buildings and inhabitants through a relational lens. I argue that this perspective offers a different way forward for working with social value in the built environment and discuss the implications of this approach for future practice and research.

Part I of the thesis, *Situating the Project,* presents my research position, the overall research design, and introduces the main theoretical perspectives and concepts that form the theoretical grounding of the project. Based on relational ontology and posthuman practice theory, I introduce the concepts of 'relationality', 'sociomateriality', and 'multiplicity', and propose a relational values approach. I then present a review of existing building performance research literature, focusing on the concepts of sustainability, performance (in relation to 'the social'), and post-occupancy evaluation (POE), and situate the project within this broader field of building research.

Part II *Exploring Values in Practice* presents challenges and opportunities in existing building project practice, unfolding an existing essentialist logic in the building industry,

and pointing to some of the main challenges of this approach in relation to the work with social value creation, illustrated through different empirical examples.

I then go on to present two building project case studies that have an explicit value focus and a comprehensive user involvement process: Balancen (the Balance), a senior-co-housing community, where the focus is 'community' as a social value, and Vrå school, where focus is on the creation of 'good learning environments'.

Part II concludes with chapter 10, *What We Now Know About Valuing in Practice*, that summarises the main findings of my studies so far, and introduces the analytical framing of 'building-as-project' and 'building-as-lived-space' as a structure for understanding the challenges of an essentialist logic that works by way of separation and classification, and creates divisions between design and use, the social and the material, but also as a structure for understanding how these relationships can be articulated and enacted in different ways, and how this logic also already exists in projects and building practice.

In part III '*Doing Things Differently',* I introduce the concept of social commissioning as a particular approach to thinking, framing, and working with social value creation, at a building or project level, based on the relational approach outlined in part I and explored further in part II. Social commissioning has a double focus on qualifying design and supporting change in practice. It takes sociomaterial practices as a starting point to explore and intervene in the ongoing meshworks and flows of buildings and inhabitants and focusses on creating lines between building-as-project and building-as-lived-space as a way to support value creation. The final chapter of the thesis summarises and discusses the main contributions of the project and outlines potential directions for future research.

PART I

SITUATING THE PROJECT

PART I: SITUATING THE PROJECT

This first part of the thesis positions my Ph.D. research in a broader existing research landscape. I start with an introduction to my research position, the research design, a presentation of the primary empirical cases, and the main theoretical framework and core concepts that the studies and analyses in the thesis build on and discuss.

I then present a review of existing building performance research on social sustainability, building performance evaluation, and post-occupancy evaluation and situate my own approach within this existing research landscape.

2: Research Position

In chapter 2, I present my research position as a combination of my anthropological background and my anchoring in practice. I sketch this position as an interdisciplinary approach in the intersection between anthropology, architecture, and engineering: an engaged and collaborative mode of research that has an ambition to create change in practice, an engaged architectural anthropology.

Anthropologist in a field of building research

I came into architectural practice by way of anthropology. I am an anthropologist by training and worked as an applied anthropologist for ten years before I started my Ph.D. studies. Anthropology is my home discipline, my Ph.D. is anchored in the faculty of Technical Science at Aarhus University, and I am employed by an architectural company. This constellation alone means the project moves in between different fields of research that each has its own unique research traditions, different validity criteria, and particular 'styles of knowing' (Kwa and McKay, 2011, Otto and Smith, 2013), which all influence my positioning in the field.

Over the past four years, I have spent a lot of time contemplating my own position as a researcher in this Ph.D. project. Where am I situated, academically? Who are my peers? What research communities am I aiming at contributing to, and in what ways? I have always identified as an anthropologist and continue to do so now, working in the intersection between anthropology, architecture, and engineering, within the broad field of building research. During my time as a Ph.D. scholar, I have taken a broad selection of

courses[7] and engaged with a wide range of different research literature, all of which have played an important role in my becoming a particular kind of researcher and helped me better understand the overlaps and nuances between the different fields of research I engage with, enabling me to move in the in-between spaces and find my own research trajectory.

The thesis is a product of an industrial Ph.D. and thus has a strong industry anchoring. I did not enter the field as an outsider or novice, as has most often been the case in classic anthropological fieldwork. I already found myself deeply entangled in the daily practices at the architectural company AART, where I was also employed for almost a year before I started the industrial Ph.D. As part of the *Effektteam* (impact team) [8], I have close colleagues with strong anthropological and evaluation competences, which provides the opportunity for me to get feedback and sparring on concrete research design considerations as well as engage in more theoretical and strategical discussions about AART's current practices and how to challenge or change them. During my years as a Ph.D. researcher, I have been actively involved in discussions on how to work with impact, user involvement, and social value creation. I have been engaged in several industry initiatives working to promote social sustainability and social value creation in the built environment with other actors within the Danish building industry, such as the Danish Council for Sustainable Construction, the Builder's Association, and the Danish Association of Architectural Firms, as I will return to in part II. I have also participated in client meetings, projects, workshops, as well as the internal development work at AART to define and develop social commissioning as a service in relation to other strategies and tools that AART works with, which I unfold further in chapter 12.

Interdisciplinary, engaged, and practice-based

Having spent more than a decade in practice, this anchoring greatly influences my research interests and positioning. I situate myself as an engaged, practice-based, architectural anthropologist. Drawing my main theoretical inspiration from relational

[7] From 'Comparison in Anthropology', and 'Experimenting with Ethnography', to 'Practice-based Research', 'Bridging the Gap Between Academic and Applied Research', and 'Circular Economy and the Built Environment', just to mention a few.

[8] The impact team at AART is a cross-disciplinary team comprised mainly of non-architects, whose primary role in the company is to support the design work with knowledge on processes and social- and organisational values and concerns. It can be characterised as a sort of internal R&D department, though not officially labelled as such within the company.

ontology, design anthropology, architectural anthropology, and posthuman practice theory, I move in between the fields of engineering, architecture, building research, and anthropology and take an interdisciplinary starting point by bringing these different fields into dialogue, using anthropological epistemology and methods in relation to building research (Ibrahim et al., 2007) and insisting on an engaged and collaborative approach.

Following Donna Harraway (Haraway, 1988) and Karen Barad (Barad, 2007), among others, I understand research as a way of interfering with the world; as engaged and positioned, rather than detached. It is not a quest for facts and certainties but a particular way of being in the world, built on a willingness to both listen and respond or, in the words of Caroline Gatt and Tim Ingold, to 'correspond' (Gatt and Ingold, 2013). Correspondence as an onto-epistemology embraces positionality and prompts us as researchers to be deliberate about the effects that any scholarly practice always already has in the world and the ways in which this shapes the research, the researcher, and the knowledge created (Gatt and Ingold, 2013: 147). This type of anthropological research is open-ended. The aim is not to come up with final solutions that can settle the score once and for all, bringing social life to a full stop, thinking that now that we finally understand how the dots connect we can just replicate to reach the same conclusion or outcome everywhere. Rather, the aim is to show the paths along which social life can keep going, by focusing on the contextual contingencies of how things come to be as they are and to expand the scope of the dialogue about how they might be imagined otherwise.

Architect Saija Hollmén and designer Christopher Rose describe interdisciplinary studies as a process, rather than a product or thing, of addressing a topic that is too broad or complex to be dealt with by a single discipline or profession. This interaction between existing disciplinary silos, they argue, calls for an attitude of 'thinking in between' or 'living on the bridge'; in other words, leaving one's comfort zone, to find the hinges and friction points between disciplines (Hollmén & Rose, 2013). In a later paper, Hollmén goes on to argue that these various modes of sensory thinking, doing, making, and experimenting in between can also help us as researchers to position and reposition ourselves in the world and thus become a potential way to increase our capacity to understand the world (Hollmén, 2015).

In my studies, I take a practice-based approach. I understand knowing and doing as contextually and materially embedded 'as social, processual, materially and historically

mediated, emergent, situated and always open-ended and temporary in character' (Nicolini et al., 2003: 26). Practice-based research moves at the edges between fields. It can be seen as a way of connecting fields, both fields of research and fields of practice, bridging between various forms of knowing (Svabo, 2007), and thus aligns well with Hollmén and Rose's definition of interdisciplinary research.

I subscribe to this notion of interdisciplinarity. I use practical empirical engagements in a series of case studies as a way to better understand the processes and phenomena related to my overall research question – as a way of bringing myself into those 'in between positions' where anthropology meets architecture and engineering and these different styles of knowing play out in practice. This complex relationship between field, theory, and researcher is to me at the core of both anthropology and practice-based research.

Anthropological knowledge is always co-created through concrete engagements in practice. It starts from a shared social experience of the performative context in which action and interaction take place and make sense: 'There are no facts without value, no reason without emotion, and no knowledge without experience', as anthropologists Kirsten Hastrup and Peter Hervik argue (Hastrup and Hervik, 1994: 237). From Judith Okely's description of the total bodily experience of fieldwork (Okely, 1994), Tim Ingold's notions on the relationship between movement, perception, and the environment (Ingold, 2000), or the sensory ethnography of Sarah Pink (Pink, 2015), the anthropological literature is full of examples of how this embodied and situated knowledge production enables new kinds of insights. In this project I use my own engaged position in the different empirical fields to explore value creation. I am not only interested in gaining knowledge about the phenomenon of social value creation, but in experiencing first-hand how values are enacted and negotiated in practice, as a more-or-less active participant in these processes, to understand from within[9] the challenges and dilemmas of this work.

Hyphenated anthropologies: entanglements, tensions, and ongoingness

Anthropology as a discipline has always been characterised by a broad range of research interests that cover different fields of research, and diverse topics of study (Ortner, 1984, Hastrup, 2004b). However, since the turn of the 21st century, an increasing number of

[9] I return to this insider/outsider distinction in chapter 3, where I present the research design and the different modes of participant observation that the case studies are based on.

sub-disciplines have emerged with a stronger focus on interdisciplinarity and applied research, which has influenced the development of new approaches to anthropological research (Rabinow et al., 2008). Examples of these new types of approaches include organisational anthropology, techno-anthropology, design anthropology, and architectural anthropology.

Architectural anthropology proposes cross- and interdisciplinary approaches that combine anthropology and architecture in new ways, beyond existing disciplinary boundaries and logics (Stender, 2017), through a greater collaboration between anthropologists and architects, and by putting forward a more 'engaged, applied, and constructive anthropology' (Stender et al., 2021:4). The subfield brings together a group of scholars interested in the relationship between sociality and materiality and in working to develop theoretical and methodological approaches to understanding these entanglements in practice, specifically in relation to the built environment. Architectural anthropology proposes a relational and dynamic approach to architecture from a more engaged perspective, with a call to view buildings as lived spaces, (Stender et al., 2021) and to replace the static view of buildings with a view that focuses on the continuous flow that a building is always in (Latour and Yaneva, 2008, Yaneva, 2021).

This more dynamic approach to architecture is often inspired by actor-network theory (Latour and Yaneva, 2008, Yaneva, 2009b, Yaneva, 2022). Albena Yaneva, anthropologist and Professor of Architectural Theory is a main contributor to this field of research. Her work also focuses on the importance of connecting the material with the social through a practice approach. She does so in detailed field studies of how architects work with models, how they gesture, and get into a 'dialogue with the material' (Yaneva, 2009a). Yaneva sees architecture as an ecology of practices (Yaneva, 2017: 33) and argues that design triggers specific ways of enacting the social and helps make the social durable (Yaneva, 2009b). Her work primarily focuses on the design process; however, she also advocates that a main ambition of architectural anthropology is taking seriously the ongoingness of architecture and focusing on the relational and entangled aspects of everyday life: 'the ongoing, collaborative processes in which people and materials are caught up in a complex web of ecological relation' (Yaneva, 2021: 18).

It is particularly this focus on the *ongoingness* of architecture that I bring with me in the explorations of social value creation in the built environment, exploring how buildings are

never finished in any definite sense but continuously evolve, and how this ongoingness is deeply entangled with social life and social value creation.

In design anthropology, a similar set of interests in the entanglements between material form and social life encourages anthropologists to collaborate with designers on projects that merge creative skills and making with an anthropological sensitivity to people's lived experiences (Gunn et al., 2013).

In the introduction to *Design Anthropology: theory and practice* (Gunn et al., 2013), Ton Otto and Rachel Charlotte Smith emphasise that design anthropologists 'have to develop ways to include the anticipation and creation of new forms in their ethnographic descriptions and theorizing' (Otto and Smith, 2013: 12-13). One of the benefits of a 'design-influenced framework' for anthropology, design anthropologist Keith Murphy suggests, is that it 'encourages fieldworkers to expect to intervene and to work reflexively and creatively with that intervention as part of the ethnographic process' (Murphy, 2016: 442). Design is considered a resource for advancing ethnographic methods for studying contemporary social worlds (Rabinow et al., 2008) and research and design are understood as interwoven practices. The making of things is seen as a critical material form of enquiry into, conceptualisation of, and engagement with current practices, emerging worlds, and possible futures (Kjærsgaard and Boer, 2020: 219).

These engaged and speculative approaches to research are also sometimes referred to as particular forms of 'research through design' (Zimmerman et al., 2010, Gaver, 2012) or 'anthropology-by-means-of-design', which Caroline Gatt and Tim Ingold define as:

> …an open-ended concept of design that makes allowance for hopes and dreams and for the improvisatory dynamic of the everyday, and for a discipline of anthropology conceived as speculative inquiry into the conditions and possibilities of human life. (Gatt and Ingold, 2013: 148)

Engagement and transformation are core concerns of design anthropology, with a particular focus on *interventions* as conceptual and practical forms of inquiry into the possible (Kjærsgaard, 2011, Pink and Mackley, 2014, Halse and Boffi, 2020). Interventions in design anthropology are about critical reflection and being able to define new questions to be explored through probing people's experiences, hopes, and concerns (Halse and Boffi, 2020: 100): 'It is not to test a prefigured solution to a defined problem as in

prototyping, but to enable forms of experience, dialogue, and awareness about the problematic to emerge' (Halse and Boffi, 2020: 90). I return to this notion of intervention in part III, when I present social commissioning as a particular conceptual framework to support social value creation in the built environment.

In her chapter 'Engaging Architectural Anthropology' (Pink, 2021) in *Architectural Anthropology: Exploring Lived Space (*Stender et al., *2021),* (design) anthropologist Sarah Pink argues for an engaged and futures-oriented architectural anthropology that builds on analytical tools from design anthropology to orient architectural anthropology towards exploring possible human futures through intervention and ongoing collaboration (Pink, 2021: 254-255). I position my current research in this intersection between architectural- and design anthropology, building on the notions of 'engagement' and 'intervention' to explore social value in relation to the built environment and drawing inspiration also from phenomenology and the writings of anthropologist Tim Ingold.

Before I present the overall research design of my studies, I take a step sideways to introduce some of the main lines of Tim Ingold's work, which has influenced my way of thinking about and doing engaged architectural anthropology – and thus my research position. I take these thoughts with me as I engage the fields of design- and architectural anthropology and venture into the built environment and building research.

The thinking and writing of Tim Ingold, whose work builds on phenomenological philosophy and ecological thinking, explores concepts of perception, movement, and making as entangled, parts of ongoing lines that weave in and out of each other, creating the texture of life. Ingold's research and writing is extensive and diverse and he has contributed to current debates and developments in both architectural anthropology (Ingold, 2013a, Ingold, 2013b, Ingold, 2021b) and design anthropology (Hallam and Ingold, 2008, Ingold, 2010a, Ingold, 2010b).

Ingold takes a radical approach to the fluidity of life and materials in proposing an environment without objects (Ingold, 2008), as a reaction to existing essentialist approaches to the relationship between agents and objects, where objects are viewed as the materialisation of plans imposed by an agent with a particular goal in mind. He has argued extensively that human perception and action is closely linked to our movement through, and engagement with, particular environments (Ingold, 2000), and that life

threads its way through the world along a myriad of lines connecting past and future through these continuous processes of becoming and inhabitation (Ingold, 2007):

> By inhabitation I do not mean taking one's place in a world that has been prepared in advance for the populations that arrive to reside there. The inhabitant is rather one who participates from within in the very process of the world's continual coming into being and who, in laying a trail of life, contributes to its weave and texture. (Ingold, 2007: 81)

Ingold suggests understanding these movements as lines of a meshwork (Ingold, 2007, Ingold, 2011) and contrasts the lines of a meshwork with those of a network. The lines of a network are connections between entities, whereas the lines of the meshwork are temporal lines of movement and growth that go along rather than add up, lines along which life is lived (Ingold, 2006: 13).

The notion of the 'meshwork' holds the ontological claim that the inhabited environment is not made from objects that then become interrelated. Rather, the environment *is* those relations, where people improvise as they go along (Hallam and Ingold, 2008). The lines of the meshwork show the ways along which lives join together and differentiate themselves, and represent a reorientation from the between-ness of beings and things (social and material) to their in-between-ness, as a state of becoming (Ingold, 2021a: 9).

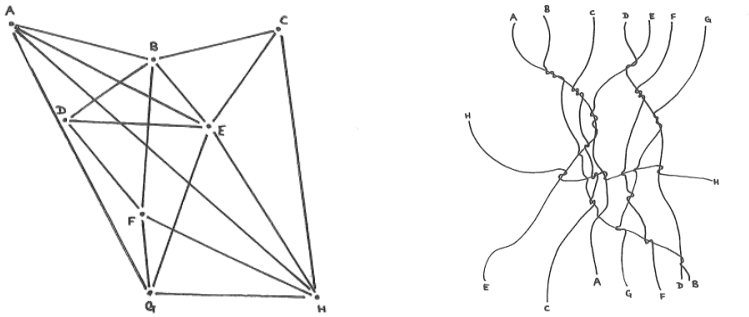

Figure 1 shows Ingold's comparison of the network (on the left) consisting of dots connected by lines and the meshwork (on the right) of entangled lines. Reprinted from *Lines: A Brief History* (Ingold, 2007: 82).

In this view, 'design' and 'use' should not be seen as separate or fundamentally different types of activities but as part of the same continuous process of emergence. The ambition of design, and architecture as a particular kind of design, is not to design final solutions, but rather to enable life to carry on, by designing for improvisation (Ingold, 2013a: 242).

Inspired by Ingold, but characterised by a more explicit focus on the tensions between present and future, actual and potential, known and unknown, design anthropology pursues a similar reorientation of the attention from objects to processes, arguing for a shift from object-centred design, which focuses on touch-points, artefacts, and blueprints, to a stronger focus on the processes of co-designing and what these processes make possible (Akama and Prendiville, 2013, Pink et al., 2018).

Co-designing, design researchers Yoko Akama and Alison Prendiville write, moves people along on a journey of discovery and actualisation. It asks people to play with the edges of their current reality to imagine what it could or should be (Akama and Prendiville, 2013: 37). Co-designing is a circular movement that leaves traces. These traces are both physical and conceptual, as well as internal feelings, experiences, and thoughts that we embody and absorb as we design (Akama and Prendiville, 2013: 38). For this reason, they argue, being 'in-between' is central for this approach to co-design. It is a way to emphasise that co-designing is about becoming with, rather than just a goal-driven pursuit towards, a final end-product.

Ingold would likely oppose this more instrumental take on in-between-ness and dismiss it as an example of the overemphasis on design as innovation which he vividly argues against. However, I see several strengths in Akama and Prendiville's approach, relevant to my studies of social value creation. I especially draw on their focus on in-between-ness as something that is created and sensed in action and practice, something that cannot just be read, written, or thought about (Akama, 2015: 272). This approach speaks to change and value creation as both performative and ongoing efforts that require continuous work. In chapter 4, I elaborate on this relational conceptualisation of value when I introduce the main theoretical framework for my research.

I am interested in exploring social value creation in the built environment, as well as working towards reconfiguring existing value practices. This involves a deliberate and reflexive interweaving of anthropology and design, and a continuous focus on processes of formation, to create new threads or relations that can push the way architects, engineers, builders, and other stakeholders in the Danish building sector work with social value creation.

Architectural anthropology and design anthropology both work by way of these engagements and tensions, and I draw on these approaches in relation to finding different

ways of dealing with the complexity and ambiguity of everyday life, instead of trying to reduce or eliminate it. An engaged architectural anthropology, I argue, takes in-between-ness as a starting point and seeks to correspond with, rather than describe and analyse from a distance, the practices with which it engages. It actively contributes to change and explores *with* participants, through these engagements and co-creative experiments, how the future might be imagined differently.

3: Research Design

This chapter presents the overall research design, the main empirical cases, and the primary research tactics applied in the project, in the intersection between the research position and the theoretical framework.

A multi-sited approach

The research design of the project is based on a multi-sited ethnographic approach (Marcus, 1995), where the analytical field is constituted by bringing together different sites or empirical fields to expand our understanding of an emerging phenomenon. In this project I explore the multiplicity of ways in which social value is articulated and enacted in relation to the built environment.

One of the strengths of ethnographic practice is its focus on detail, and its unfailing respect for context, as well as the recognition of persistent ambiguity (Marcus and Fischer, 1986). The goal of a multi-sited approach is not uncovering universal truths, but rather bringing different sites into the same frame of study to enable comparison. In multi-sited ethnography, comparison emerges from putting questions to an emergent object of study; in my case, social value creation in the built environment, where the contours, sites, and relationships are not known beforehand:

> Multi-sited research is designed around chains, paths, threads, conjunctions, or juxtapositions of locations in which the ethnographer establishes some form of literal, physical presence, with an explicit, posited logic of association or connection among sites that in fact defines the argument of the ethnography. (Marcus, 1995: 105)

Multi-sited fieldwork always needs to be conducted with an awareness of being within the landscape, situated and positioned, and as the landscape changes across sites, the role of the ethnographer also requires reorientation or renegotiation. I take on different roles in different situations. I am a researcher, a colleague, an anthropologist, an expert, an insider, and an outsider, but not all at the same time. I have participated in R&D projects, networks, conferences, working groups, the internal development work at AART, commercial building projects, as well as conducted semi-structured expert interviews and

workshop sessions[10]. I have read industry guides and reports addressing social aspects of the built environment, looked at drawings, building programmes, and competition proposals; all with the aim of trying to better understand how social value figures in different contexts in the built environment.

Being part of an industry whose practices I wish to both study and help develop requires special attention to the shifting positions within the field, as the project moves along these different lines or trajectories, in between academia and industry, anthropology, architecture, and engineering. I deliberately take on these active and engaged positions as part of my research strategy, as I see them offering types of knowledge otherwise not available to me. It has also been very natural for me to engage, as I was already part of the company, part of the impact team, and part of the building industry, so the insider's perspective was assigned or afforded to me by other actors in the fields. I have been an active participant in meetings and workshops, where work was carried out to define and design what social commissioning (as a service) might be, which in turn moved my thinking and the Ph.D. project forward. These moves allowed me to better understand how the different framings or enactments of social value relate, through my own experience of having to make those cuts that figure social value or social commissioning in a particular way; where the relational logic of the social commissioning project meets the essentialist logic of the building industry, and how I as a researcher try to navigate these in-between spaces. This requires different modes of engagements. Looking at the phenomenon of social value creation (the analytical field) through different case studies (empirical fields) allows me to explore how various modes of ordering of buildings and social values work and relate in different ways.

However, this engaged position has also presented ongoing challenges. I have sometimes found myself caught up in day-to-day work at AART and put the Ph.D. project work on hold when something interesting came up at the office. At times, the things that came up turned out to be relevant for the Ph.D. studies, but this approach also made it more difficult for me to clearly define or limit the field because many things seemed relevant and interesting most of the time. I continuously had the sense of wanting to participate

[10] Six individual interviews were conducted in Q3 and Q4 of 2021 and two workshops (with a total of 16 participants) were carried out in January of 2024 (see note 1 for an elaboration of the workshop set up). The term expert in this context refers to a person who has worked within the field for many years and demonstrated competence and experience through this work.

more, get more data, do more observations, more interviews, or more workshops, when what was needed instead was some sort of break from the (empirical) field of the Danish building industry and the daily work at the AART office in Aarhus, to create the analytical distance that would allow me to do the work required to render all of these different encounters and experiences into some sort of coherent narrative by making the necessary time/space for analysis (Ballestero and Winthereik, 2021).

The different sites I engage with enable me to explore different phases of a building's life cycle empirically, and to gain new insights into the processes, concerns, and potentials in these different phases. It would not have been possible for me to follow one project all the way through from initial idea to inhabitation, as architectural projects often last for more than the three years granted to a Danish Ph.D. study.

Primary research tactics and methods

In the following, I outline the methods or approaches I take to pursue the research questions and present the main empirical cases of the thesis. As highlighted in the previous section, a multi-sited approach requires different modes of engagement. In this project these modes of engagement range from passive observation to engaged and collaborative intervention. They all fall within the overall category of *participant observation*, a classic ethnographic research methodology (Spradley, 1980) that has a long history in anthropology, dating back to Bronislaw Malinowski's work with the Trobriand Islanders (Malinowski, 1922), and which is often articulated as more than just a research technique, but rather: 'a mode of being-in-the-world' (Aktinson and Hammersley, 1998: 249), a particular approach to knowledge production and engagement.

Four primary case studies and the overall research site

My overall research site is the Danish building industry. I have carried out long-term field work at the architectural company, AART; however, AART is not the primary focus (or locus) of the research. The focus of my research is social value creation in the built environment in Denmark. During my Ph.D. studies and as mentioned in chapter 2, I have been engaged in a variety of different projects and working groups, both internal and external to AART. Some of these activities and experiences make it into the thesis as cases, while others are not mentioned explicitly but still contribute to my overall understanding of the field and have helped shape the trajectory of the project.

In the following, I introduce four cases that I use as primary empirical data in the thesis, in the analyses of part II. The cases are chosen because they each illustrate something important about social value creation in the built environment – but in different ways. I introduce them together here, as part of my research design, because my engagement in each case has been quite different. They were carried out through different research modalities, with different intensities, from different positions, and for different purposes, but all have been important in shaping my understanding of social value creation in the built environment in Denmark.

I have used my position as an anthropologist/industrial researcher at AART as a way into the field. Certain roles have been afforded to me *because* of this insider position and I have been included in projects and working groups as an expert on social value creation in relation to the built environment. In two of the cases included in the thesis I have had a dual role as an expert, working directly to deliver insights and develop concrete solutions in these projects or working groups, and as a Ph.D. researcher studying the processes unfolding within these projects, trying to better understand what happens in these contexts and exploring how these insights might be used to challenge current understandings of value in the built environment. The four primary cases are:

1. The DGNB working group on social value and user involvement.
2. The POE platform project
3. Balancen, senior co-housing community 50+
4. The new Vrå school

In the following, I briefly outline these four main cases in terms of my position, engagement, and the types of data the case studies build on. Each of the cases is introduced in more detail in part II.

DGNB working group on social value and user involvement.

In the spring of 2023, I was invited to join a working group tasked with developing new criteria on social value and architectural quality for the update of the DGNB 2025 manual. I participated in the development work on equal terms with the other participants of the working group. At the first meeting, I obtained verbal consent from all participants to record the meetings and use these sessions as data for my Ph.D. studies. I took notes during the meetings and listened through the recordings afterwards. I participated in four joint meetings, two meetings in the workgroup I was part of (focusing on social value and

user involvement), and I held two meetings with the project manager to coordinate efforts between the different workgroups. I also used the material developed, the proposals for new criteria, the different iterations of the criteria development, and the evaluation matrix as data. In addition, I did a follow-up interview with the project manager and more informal follow- ups with two participants of the working group. I use the DGNB case to exemplify some of the main challenges I have found in the work to include social value creation in existing frameworks or processes, during my three years of fieldwork. In that sense, we might characterise this case as a 'typical' case. Other cases could have been selected instead to show similar challenges, as these challenges are not unique to this case. I use my own active engagement as a way to better understand what is at stake in these situations where values are made to matter in particular ways.

The POE platform project

In the POE platform project, I was part of the project team. I worked together with the other project partners to develop the questionnaire for the POE platform, as well as develop and test a qualitative approach to conducting post-occupancy evaluation. The project lasted for around a year, with bi-weekly coordination meetings and work carried out in individual work packages in parallel. I took detailed field notes at meetings and project workshops and used the material developed in the work packages as data for my analyses. Some meetings were recorded and transcribed, in which case I obtained verbal consent. As part of the project, an ethnographic pilot study was carried out in the fall of 2021 over a period of three weeks with a total of six observation days, 4- 7 hours per day, and qualitative interviews with ten managers of the different departments. This study was both an output of the POE project as well as data for the Ph.D. study.

The POE case has two parts. The first part, about the questionnaire, further supports the findings from the DGNB case and shows what these challenges might also look like in an R&D setting, and thus focuses on dominant logics in existing practice in the building industry in Denmark. The second part of the case introduces an anthropological approach to POE as a potential way of challenging existing framings or logics, and uses this approach to POE as a way to explore the potential for change that building projects make possible. This part of the case can be characterised as more of an 'extreme' or 'atypical case' (Flyvbjerg, 2006), where this particular approach is used to better understand the potentials for doing things differently.

Balancen, senior co-housing community 50+

The data from this case is mainly based on interviews and project material. A joint interview with the builder, the lead architect, and the process consultant on the project was carried out in the spring of 2021. In addition, individual semi-structured interviews were carried out with the process consultant and one of the interior designers on the project. I participated in the first inhabitants' day and followed activities in the Facebook group from July 2021 – October 2022. Eight individual semi-structured interviews with inhabitants were carried out in February 2022 on three different days, combined with 3-5 hours of observations, and seven were carried out in October 2022[11]. Written consent was obtained before each interview. In that sense, this case represents a more classic ethnographic approach where I, as an outsider, try to understand how 'community' is articulated and enacted in Balancen. Balancen can also be seen as an extreme case, in the sense that the focus on user involvement and social value creation in this case is more prominent than in many other cases I have looked into, which is exactly the reason for including it in the thesis – because there might be something to learn from this case in terms of how a similar focus could also be included in other types of projects.

The new Vrå school

In the case of Vrå, I focus on 'good learning environments', and on understanding the transition from the old school to the new school. Like the case of Balancen, the case of Vrå is also more classic in the sense that I am not actively involved as an insider, with the task of delivering certain outputs as part of a specified project, but rather explore the case more broadly through interviews and observation. I did four days of observations at the existing school, where I followed different teachers and activities, and five days of observation at the new school. I took detailed field notes and pictures on these field visits to support the notes. I carried out semi-structured interviews with the project managers (two interviews), the school management (four interviews), and teachers (nine interviews). I also facilitated a session with the student council and had additional informal talks with children and other teachers on my visits. The case of Vrå is also an extreme case in the way that special efforts have been made to work with values and

[11] The last round of interviews in October 2022 was carried out by a colleague of mine, as part of AART's evaluation of Balancen. Written consent was obtained to allow the use of these interviews as part of the Ph.D. I had full access to audio files and transcripts and developed my own thematic codes.

continuous user involvement, and in that these activities are of particular relevance for understanding some of the main drivers and barriers in this kind of work.

Different modes of participant observation

With a multi-sited approach, the cases function as different loci for exploring the overall research objectives. I am interested in how values work in practice, and how this values work relates to existing project structures to uncover potentials for intervention and experiments in between. I study values by following different lines or trajectories of value creation within the individual cases as well as through juxtaposing and comparison across the cases. As presented in the section above, the different case studies represent different modes of participant observation. I have very actively participated in the cases of DGNB and the POE platform project and been a more distant observer in the cases of Balancen and Vrå, which has enabled different types of insights. In the DGNB case, I participated as an insider and experienced firsthand the challenges, frustrations, and dilemmas of this work, while in the case of Vrå school I was an outsider, looking at and trying to understand (also retrospectively) what the different project activities, processes, and designs meant for the development and the enactment of 'good learning environments' in Vrå.

In addition to the case studies presented, I participated in daily life at the AART office in Aarhus, as described in chapter 2. This work is also part of my Ph.D. research and constitutes the primary empirical data for part III. In that sense, part III represents a different mode of research that draws more directly on design anthropology as I introduced it in chapter 2, as a form of 'anthropology-by-means-of-design' (Gatt and Ingold, 2013) that is more engaged and focused on making and experimenting, rather than describing at a distance, and where I make myself more *complicit* in this development (Corsín Jiménez, 2021: 97). I use the design of social commissioning as a service, as a speculative opening to further explore this 'shared puzzle' (Marcus and Fischer, 1986: xvii) of social value creation in the built environment, and how we might work to support it. By shared puzzle I mean a shared wonder about these complex phenomena that can be explored from different positions and for different purposes. This links well with a multi-sited approach that is not only positioned, but also engaged, performative and collaborative, and this active engagement also aligns with viewing ethnography as a

diffractive practice (Mellander and Wiszmeg, 2016) with a strong futures orientation (Salazar et al., 2017, Smith et al., 2020, Pink, 2021)[12].

Throughout the project, I have written field notes. They are a crucial part of ethnographic fieldwork, as a way of getting familiar with, making sense of, and creating initial patterns in the observations and situations encountered in the field (Emerson et al., 2011). When doing studies in a familiar setting, as I did, the writing of field notes also creates a necessary space for reflection and a chance to withdraw from activities and interactions in the field. In the first months, I set aside thirty minutes each day to collect and write up the notes. As the project progressed, I took these kinds of notes less intensely and consistently, but I returned to them when I started to write up the thesis, both as a reminder of where the project started and the gradual insights that came along the way.

Analysis and writing

Following anthropologists Andrea Ballestero and Britt Winthereik, I understand analysis as a creative and organised process of generating insights*:* 'a practice by which we can intensify the conceptual creativity and relational commitments that sit at the core of ethnography in its best form' (Ballestero and Winthereik, 2021: 3). In their co-edited volume *Experimenting with Ethnography* (Ballestero and Winthereik, 2021), Ballestero and Winthereik invite us to think of the 'how' instead of the 'what' of analysis and to experiment iteratively with new techniques for approaching and combining data. They argue that exploring these different modes and techniques iteratively and experimentally are both legitimate and generative strategies for driving analyses forward.

Analysis in anthropological research starts during field work and extends into the writing process. It is intuitive, bodily, and systematic, but not always easy to explain as an afterthought (Hastrup, 2004b: 11). There is no one right way of doing it. Rather, analysis must be attuned to the purpose and context of particular projects (Hastrup, 2004a).

My analyses are based on a mix of written field notes, sound recordings from meetings and workshops that have been transcribed and coded thematically afterwards, interview transcripts that were also coded thematically, project documents, industry guidelines,

[12] These perspectives on 'diffraction' and 'futures' are further unfolded in part III, when I go deeper into the development of social commissioning as-a-service and how this work links to my overall research position, the theoretical framework and the empirical insights of part II.

policy documents, pictures, sketches, and diagrams. Working with different case studies, the analyses follow individual trajectories that contribute to my overall research objective in different ways. Some cases focus on the concept and design phase, while others explore buildings in use. Some show how an essentialist approach to value dominates, while others explore a more relational approach. This has been a deliberate research strategy, but also one that has caused some unease about whether the data I collect is too superficial; that I might not be able to get enough depth in the analyses, or that the cases will be too different for me to make meaningful comparisons across them.

I did not know exactly what I was looking for in the material and therefore I took a quite open and iterative approach to analysis, where different juxtapositions, concepts, and comparisons were tried out. Some codes were defined in advance. I knew I wanted to talk about 'the relationship between the social and the material', 'how "the social" is made to matter', and how it competes with 'other concerns'. Others grew inductively from the material; 'the importance of shifts between the different phases' of a project as well as the 'strong connection made between projects and buildings'.

All of these moves become steps along the way of coming to understand what the cases are about and what can be learned from them; thinking of comparison as a heuristic for collective tinkering that enables new insights (Candea, 2019: 21). A comparative framing allows me to follow the ways in which the buildings and values evolve, change, or get negotiated, translated, and transformed through the different stages of a building's life cycle, from project visions and intentions to enacted everyday practices, and to discuss these movements with collaborators in the field.

This iterative attuning and reattuning is a way of attending to the ethnographic details of the field. It seeks to synthetise and juxtapose (Vogel, 2021), looking for new layers of connections or meaning, and counteracting premature analytical closures; wresting away from an ethnographic case study the insights that are worth mobilising in the pursuit of 'transparticular' ethnographic insights (Boyer and Howe, 2015: 17). Transparticular here refers to the patterns and central themes that emerge across cases that enable new understandings of the theme in question; looking for insights across case studies without claiming these to be universal truths. There is always the potential that things could be imagined, compared, and conceptualised otherwise. However, this is also precisely one

of the strengths of comparative tinkering, recognising the relational composition of comparison and allowing open ended-ness and comparative imagination.

In the book *Improvising Theory*, political scientist Allaine Cerwonka and anthropologist Lisa Malkki, highlight that our understandings of the field are always already shaped by the theories that our work builds on. However, equally important is how these theories are brought into dialogue with the field through the ongoing moves between the empirical fields and theoretical concepts: 'The hermeneutics of ethnography, however, involves a reading of social practices through theoretical concepts without simply reducing the practices to a mere "illustration" of the theory' (Cerwonka and Malkki, 2007: 16), they write about this complex and entangled relation.

My overall research position, the research design, and the methodological considerations presented above all shape my engagements in the field, the way I look at and make sense of particular situations, and what I come to consider empirical material, relevant for further analysis. In chapters 2 and 3, I have focused on my research position and the research design; my engagements in the field, and methodological or tactical considerations in relation to data collection and analysis; how I try to navigate shifting positions, take an engaged, interdisciplinary, and practice-based approach, rooted in an anthropological approach to knowledge and knowledge creation, and use comparison and juxtaposition as heuristics for creating transparticular analytical insights, to challenge and expand my understanding of social value.

In chapter 4, I present the main theoretical perspectives and concepts that I use in the analysis of my empirical data, and which I further use as guiding principles in the design of social commissioning as a service in part III.

4: Main Theoretical Perspectives and Concepts

In chapter 2, I defined my research position as engaged, practice-based, architectural anthropology in the intersection between architectural and design anthropology and inspired by the thinking and writing of Tim Ingold.

In this chapter, I present an overall theoretical framing for the studies, based on relational ontology (agential realism) and posthuman practice theory, and outline the key theoretical perspectives and core concepts of this approach. This position rejects the idea of the social and the material as separate and bounded entities and argues for a more entangled perspective where the social and the material are seen as parts of the same ongoing process of emergence.

The concepts and theories presented in the following sections build on different research traditions. It could be argued that queer theory, posthuman practice theory, ANT, and phenomenology are not immediately compatible. However, I wish to make clear from the start that I forge these combinations with my eyes open, borrowing and bending concepts and concerns to pursue goals other than the authors' original intentions. I do this to create new connections or lines that help advance the understanding of social value in the built environment. The perspectives presented in this chapter will be unpacked further in the analyses of part II, where the key concepts are further developed, and secondary concepts are brought into play to further elaborate my understanding of value as relational.

The main concepts are presented together here to show the relationship between them and why it makes sense to combine them; what this combination enables me to see and understand in the case studies and in relation to social value creation in the built environment that justifies my liberal or slightly eclectic combination of approaches.

A relational and performative approach

According to feminist theorist and physicist Karen Barad's theory of *agential realism*, the world is made up by phenomena, understood as different relational entanglements, not by independently existing objects (Barad, 2003). The underlying assumption is that there are no beings, social or material, no subjects and objects, to be uncovered in any definite sense. All assumed actors, entities, and categories are understood as relational enactments of the world's becoming (Barad, 2007). Barad uses the concept of *intra-action*

(instead of interaction) to express this fundamental idea of the mutual constitution of entangled agencies (Barad 2007: 33).

Diffraction is another central concept of Barad's theory. Diffraction points to what Barad describes as 'the entangled structure of the changing and contingent ontology of the world' (Barad, 2007: 73). This, Barad argues, makes diffraction useful as a heuristic for moving away from understanding the world from the outside to a way of understanding it from within (Barad, 2007: 88). It is central to Barad's performative understanding of practices that 'knowing does not come from standing at a distance and representing, but rather from a direct material engagement with the world' (Barad, 2007: 49), much in line with the anthropological approach to knowledge production presented in chapter 2. As, researchers, anthropologists, architects, engineers, and all other kinds of human beings, we are not separate, autonomous agents, looking at the world from the outside, but rather entangled with these lines or flows of a continually emerging world.

A diffractive approach does not strive to determine cause and effect relationships, but rather to observe how particular entanglements become agential, co-constituting reality. In my research, one central focus point is understanding how an essentialist logic of the building industry becomes agential and what this means for the ways in which social values are dealt with in building projects and beyond, within the Danish building industry.

According to Barad, distinctions or differences are not pre-given but emerge intra-actively through *agential cuts*. Agential cuts are what brings phenomena into being in a particular way, and these boundaries can be set in one way at one moment and in another way the next. They are not static or given in advance, but rather, dynamic and performative, tied to particular situations. Barad presents the example of a person using a stick to navigate a dark room, to explain this logic: when the stick is held tightly it becomes part of the measuring apparatus, used to observe, and feel the room. When the stick is held loosely, it instead becomes an object, touched, and experienced as part of the room, an object of investigation that is cut away from the measuring apparatus. This move is what Barad refers to as an agential cut, a moment where exteriorities-within emerge into the world (Barad, 2007: 154–155). The stick cannot be both an instrument of observation and an object of investigation at the same time. However, these distinctions are not fixed, or at least not determined by inherent properties of individual objects. Rather, they are made

to matter through particular agential cuts, and these cuts can be made in different ways, as elaborated by Barad in the quote below:

> One of the crucial lessons we have learned is that agential cuts cut things together and apart. Diffraction is a matter of differential entanglements. Diffraction is not merely about differences, and certainly not differences in any absolute sense, but about the entangled nature of differences that matter. This is the deep significance of a diffraction pattern. (Barad, 2007: 381)

Knowing, and as I will return to in the following, also valuing, is a direct material engagement with the world, a cutting together-apart, where agential cuts limit but also open up and rework the agential conditions of possibility. In Barad's onto-epistemological framework, 'agency is not held, it is not a property of persons or things; rather, agency is an enactment, a matter of possibilities for reconfiguring entanglements' (Barad, 2012: 54). This relational approach to agency and difference is central to Barad's diffractive methodology and resonates well with my own entangled and engaged research position. In my two building-project case study analyses (Balancen and Vrå), I especially draw on the notion of agential cuts, as a way to understand how values of 'community' and 'good learning environments' are made to matter within a multitude of complex entanglements. I am interested in how agential cuts bring these values into being in particular ways and how those framings are always situational and practical, tied to particular agential conditions that are not attributional qualities belonging to individuals or things, but performative accomplishments enacted in practice.

To further this relational and entangled approach, I draw on posthuman practice theory and introduce the concept of 'sociomaterial practices' in the following section as a way to articulate the complex relationships between social values and built environments.

Sociomaterial practices and posthuman practice theory

Building on a relational ontology, organisational analyst Wanda Orlikowski introduces the term *sociomaterial practices* as a move towards a more relational approach in organisation studies (Orlikowski, 2007). Inspired by STS scholars[13] like Lucy Suchman (Suchman, 2007) and Anne Marie Mol (Mol, 2002), Orlikowski proposes a shift in the

[13] STS stands for science and technology studies, an interdisciplinary field of research that studies the relationship between scientific knowledge, technological systems, and society.

conventional framing of organisational practices as 'social practices' and suggests that organisational practices should instead be regarded as 'sociomaterial' (Orlikowski, 2007: 1438). She argues that organisational theory can gain considerable analytical insights by giving up treating the social and the material as distinct and largely independent spheres of organisational life and instead look at the constitutive entanglements between the two, as they play out in everyday organisational practice.

Practice theory is not a unified theory, but more like a collection or family of ideas, which has been described in a variety of different ways, as a turn (Schatzki et al., 2001), an approach (Nicolini et al., 2003, Gherardi, 2006), a lens (Feldman and Orlikowski, 2011), or an idiom (Nicolini, 2012). Practice approaches understand practices as more than the actions of individuals. Practices are considered the very fabric of social life and thus, the main unit of analysis in social research (Reckwitz, 2002, Schatzki, 2002). According to Dale Southerton, to study practices is to study the collective entities of what people do (as opposed to individual actions): the rhythms and sequences of different practices and the relationship between them (Southerton, 2013).

In other words, practices are not just about action or agency, though these are crucial elements, and practice theory also draws attention to the importance of action and agency in developing or sustaining practices. Practice is also not individual, though individuals take action and these actions contribute to the configuration of practices. Practices unfold over time and through the actions of many (Feldman, 2021: 21).

Practices are often described as consisting of three constitutive elements, named in different ways by different theorists, but always relating to the individual, the social, and the material. Elisabeth Shove, Mika Pantzar, and Matt Watson describe the elements using the categories of 'competencies', 'meanings', and 'materials' (Shove et al., 2012), and this distinction or configuration of elements is widely used. Here, I propose a framing of the elements as 'people', 'values', and 'buildings' to articulate the relationality between the individual, the social, and the material, specifically targeted to the built environment, as shown in Figure 2.

The main strengths of a practice approach, for the purpose of understanding the entanglements between people, buildings, and values, is the ability to move in-between elements and scales, focussing on individual elements as well as the relationships

between them, and also looking to the wider contextual contingences or ecologies of practices through shared elements.

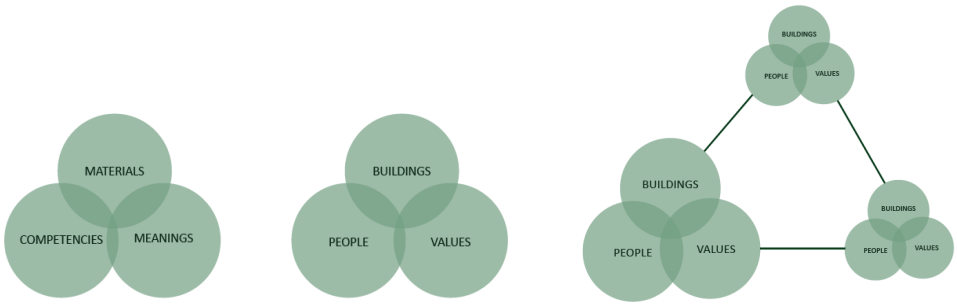

Figure 2 shows the constitutive elements of practices: 'competencies, meanings, and materials' (from Shove et al. 2012), my translation to 'people, values, and building', and the interconnectedness between practices through 'shared elements' (adapted from Shove et al., 2012, p. 37).

In *posthuman practice theory*, the focus shifts from what has been termed *human-centred practice theories*, where materiality merely mediates human activities, towards a relational materialism with a stronger focus on the entanglements between the social and the material (Monteiro and Nicolini, 2015). These approaches have a stronger focus on the ongoingness and relationality, as well as the contextual contingencies, of these configurations, and how they come into being in particular ways.

For Orlikowski, as a representative of the posthuman turn, the study of materiality is not a study of material entities, but rather a study of materials as *performed relations* (Orlikowski, 2007: 1438). She describes the performativity of the sociomaterial as fleeting, fragile, and fragmented, entailing uncertainty and risk, and producing intended and unintended outcomes (Orlikowski, 2007: 1445). She further argues that the social and the material are *constitutively entangled* in everyday life; 'there simply is no social that is not also material, and no material that is not also social' (Orlikowski, 2007: 1437).

Orlikowski focuses on technologies, not buildings, and she specifically focuses on sociomateriality in a work context. Still, her concepts and approach resonate well with my own relational approach to the built environment. She questions why organisational theory does not have better ways of understanding and accounting for the material aspects of organisational life. Much along the same lines, though coming from the complete opposite starting point, I find myself wondering why building performance research does not have better ways of dealing with social aspects of the built

environment, perspectives that better account for the complexity and unpredictability of social life, and how a reorientation of the way we understand and frame these issues might bring about new insights. In both cases, a relational approach offers a potential way forward; one that views performance as relational and the relationship between the social and the material as more than concrete interactions.

This aligns well with the agential realism of Barad. The focus is not on subjects, objects, or entities, but on practices, processes, and flows. Agency cannot be designated as an attribute of 'subjects' or 'objects', as they do not pre-exist as such. Rather, agency is the enactment of iterative changes to particular practices through the dynamics of intra-activity (Barad, 2003: 827).

However, posthuman practice theory also adds an analytical structure for understanding these *sociomaterial entanglements* as particular 'modes of ordering'[14] and a stronger orientation towards the material configuration of practices, than what is articulated by Barad, which is useful in studies like mine that have an explicit focus on these entanglements. In my studies of social value creation in the built environment, I thus benefit from combining the relational onto-epistemological approach of Barad with the sociomaterial entanglements of posthuman practice theory as a way to engage with and make sense of these entanglements in practice, within the organisational setting of building projects and the building industry.

Silvia Gherardi, Professor of Organization and Management, argues that sociomaterial practices are ongoing accomplishments (re)produced and possibly transformed in every instance of action (Gherardi, 2006). In her chapter on 'Practice as Sociomateriality' *(Gherardi, 2019)*, she discusses the return to practice as a movement towards a relational epistemology where:

> … practice makes it possible to see and to represent a mode of ordering the social in which doing and knowing are not separated and the knowing subject and the known object emerge in the ongoing interaction. (Gherardi, 2019:83)

Within this relational epistemology, both the idea of performative accomplishment and becoming are central (Gherardi, 2016: 39). A post-human practice approach thus not only focuses on the flow of agency but is also interested in the specific material configurations

[14] I return to the concept of 'modes of ordering' in the following section.

of the practices becoming (Gherardi, 2023). It explores how, for instance, changes in the built environment have the capacity to affect the way work is carried out: the collaboration between colleagues, the involvement in projects, or the ability to do focused individual work. Sylvia Gherardi refers to this as *affective capacity*. She writes: 'In the circulating flow of agency, repetitions, connections and disconnections take place as an affective capacity to affect and be affected' (Gherardi, 2023: 77). She suggests that there is a particular rhythm or sequencing tied to these flows of agency, and that the flows or connections run in many directions.

Based on this relational and processual approach to agency, I argue that values are made valuable in particular ways through the flows of agency and that this affective capacity influences how values emerge and develop. Values are always tied to material and social configurations, and these sociomaterial entanglements need to be studied through sociomaterial practices, as well as the wider ecologies in which these practices form part.

Multiplicity and modes of ordering.

Elaborating on the notions of sociomaterial entanglements and agency as flow, I draw on sociologist John Law's notion of *modes of ordering* to better understand the kinds of processes involved in the ordering of values in practice. Law first developed the concept 'modes of ordering' in his book *Organising Modernity* (Law, 1994), where he questions the idea that an organisation needs a singular strategy or identity in order to work.

Law suggests that there will always be more than one strategy at stake in any given organisation and, further, that it is the *coexistence* of such strategies that makes an organisation work. One superior order alone will not do. Instead, he insists on the multiplicity of ordering strategies.

In his article 'Ordering and Obduracy' (2001), Law summarises and further develops these points, arguing that organisation is best understood as process, as a verb and not a noun, and that this process is materially and discursively heterogeneous. It means different thing to different people at different times and there is no simple way to understand these relationships. He writes:

> Organising is about complex relations between the different modes of ordering. Nothing simple. Sometimes these may undermine one another. Sometimes by

> contrast, they prop each other up. There are no simple stories to be told about organising as multiplicity. (Law, 2001: 2)

Philosopher and anthropologist Annemarie Mol has also worked extensively with the notion of multiplicity. In her book *The Body Multiple* (Mol, 2002), she writes about the disease of atherosclerosis as *multiple*, enacted slightly differently in different (sociomaterial) practices; for instance, diagnostic practices, practices of treatment, and research practices. When enactments come in the plural, one of the crucial questions to ask about them is how they are *coordinated*: '… in practice the body and its diseases are more than one, but this does not mean that they are fragmented into being many' *(Mol, 2002: viii).* This apparent paradox between one and many is a central focus point of Mol's research that she tackles through 'praxiography', a term she uses about the practice of doing practice-theory-driven research, arguing that the turn to practice is not mainly about theory, but about a particular practice of doing research. As she goes on to explain:

> If practices are foregrounded there is no longer a simple passive object in the middle, waiting to be seen from the point of view of seemingly endless series of perspectives. Instead, objects come into being – and disappear – with the practices in which they are manipulated. And since the object of manipulation tends to differ from one practice to another, reality multiplies. (Mol, 2002: 5)

Law focuses on the coexistence of modes of ordering, whereas Mol focuses on the multiplicity of objects, and the coordination between these different versions. However, their thinking shares many similarities. This kinship is highlighted in their co-edited book, *Complexities* (Law and Mol, 2002), where they argue for different ways of relating to complexity by exploring what happens to complexities in practice, showing how different modes of relating allow the simple and the complex to coexist, as well as in Law's later book, *After Method* (Law, 2004), where he investigates how scientific practices not only describe realities but also produce the realities they describe. Here he writes that 'everything said by Mol about multiplicity also applies to organisation' (Law, 2004: 112).

In this thesis, I extend the notion of multiplicity to values, focusing on the enactments, co-existence, and coordination of values, how different logics are articulated and enacted through particular sociomaterial practices. Talking about values as multiple suggests different versions or performances co-exist in the present (Mol, 1999:82). I focus on social values, which I take to be deeply entangled with sociomaterial practices. I refer to

practices and values as 'enacted multiple' to underline this dynamic and contingent understanding of values as continuously enacted and negotiated in practice.

Mol further writes about this fluidity or ongoing development of practices, arguing to view practices as *matters of concern* and *matters of care* (Mol et al., 2010), as opposed to matters of fact. Mol thus highlights the relationship between practice and value and shows the plurality and situatedness of judgements on what constitutes 'good', or one might in this context say, 'valuable', in practice. Particular ways of practicing value are sustained and contested by the practitioners through ongoing negotiation. Mol refers to these ongoing negotiations as *ontological politics* (Mol, 1999). By combining the term 'ontology' with that of 'politics', Mol highlights how reality is both open and contested, shaped within practices (Mol, 1999: 75). Ontological politics is not about finding a stable end point, but about tolerating open-endedness, dilemmas, and living in and with those tensions (Mol, 1999: 83). Events within practices tend to fit together, Mol writes, and there are affinities between them. This is what the term *logic* suggests (Mol, 2008: 8). Logics is not a matter of providing better maps of reality, but of crafting more bearable ways of living with, or in, reality (Mol, 2008: 46). In a multiple world of different enactments there is no overarching logic that provides universal truths. Instead, there are contingent, local, and practical engagements. Worlds in the plural are enacted in different and power-saturated practices, as Law reminds us (Law, 2015: 2).

In relation to my work with social value creation in the built environment, the notion of multiplicity has several strengths. First, it emphasises value as processual, as something that happens and evolves, not a stable structure, but something inherently changing and modifying. This also aligns well with both Barad and Ingold's arguments about relationality and ongoingness. Second, the notion underlines the existence of multiple ordering logics and thus points to the complexity of organising through the co-existence and co-ordination between different modes, through acts of what we might, following Mol, refer to as ontological politics.

In that sense, the writings of Law and Mol contribute with an intentionality, which is largely missing from the writings of Barad and Ingold; a way of understanding and articulating conflict and complexity without turning individualistic but rather maintaining a focus on practices and process: an attention to the idea that things do not just unfold alongside each other but sometimes come into conflict and that some forces hold more

power than others in these situations. These relationships are not given in advance, but still riddled with power and politics.

I follow processes of social value creation as they unfold, thus paying attention to the ways in which values are tied to particular sociomaterial practices through different modes of ordering; how these values are enacted multiple and how they are related through ongoing co-ordination and coexistence, as inhabitants and things move along different lines or trajectories negotiated through agential cuts and ontological politics.

Valuation, values work, and valuing in practice

Value plays a central role in this thesis. I zoom in on 'well-being', 'community', and 'good learning environments' as examples of social values and use the different case studies (presented in part II) to explore these values in practice. I also explore how social values figure and get framed in the Danish building industry by putting myself in situations where social values are at stake, discussed, negotiated, and enacted in different ways. I take a practice-based approach. I follow how values are enacted, how they circulate, how they work in practice, and how they are made to matter in particular ways, through agential cuts, tied to different sociomaterial practices and modes of ordering.

As a point of departure for this analysis, I place the concept of value in relation to valuation research and introduce *values work* (Gehman et al., 2013) and *valuing* (Heuts and Mol, 2013) as central concepts for my approach to social value in the thesis.

Much has been written within the field of valuation studies about the role of different mechanisms of valuation, like prices, standards, benchmarks, certifications, or reviews, that allow products and services to be assessed and exchanged. (Callon and Muniesa, 2005, Willmott, 2010, Orlikowski and Scott, 2013). Values have the ability to work as guiding principles because of the lack of any essential meaning which enables the concept of 'value' to accommodate many diverse meanings (Willmott, 2010). As Helgesson and Muniesa write in their introduction to valuation studies:

> Values can be conflicting or not, overlapping or not, combine with each other, contradict each other. All, or almost all, depends on the situation of valuation, its purpose, and its means. (Helgesson and Muniesa, 2013: 7)

This ambiguity makes value a tricky concept to work with from a research perspective. In existing valuation research, value is understood as entangled with practices of consumption and production, and as such also central to social developments (Willmott, 2010). A distinction is often drawn between 'valuation' (the process of giving worth) and 'evaluation' (the process of assessing) (Kjellberg et al., 2013: 20). François Vatin, among others, has argued that valuation studies should not just study *evaluation*, the activity of classifying things as either valuable or not, but also *valorising*, the activity of making things (more) valuable (Vatin, 2013).

In this thesis, I interpret propositions about value as articulations of particular 'modes of ordering', and not as more or less adequate representations of what value 'really is'. Building on the relational approach outlined above, where conflicting perspectives and complexity are accepted as empirical facts of the messiness of social life, and buildings never finished in any definite sense, the quest for final truths or precise values does not make sense. Buildings or values cannot be valued, meaningfully, in and of themselves but need to be understood performatively in relation to wider ecologies of 'sociomaterial practices'; through their relational performances rather than their attributional qualities.

This analytical move involves adding a temporal dimension to the concept of social values. Values get established and develop over time, they are enacted and performatively stabilised through 'agential cuts' tied to specific 'sociomaterial practices'. This is not to be understood as a linear value inscription in a design process (valuation) that is then accepted or rejected by users in use (evaluation). Instead, the temporal unfolding of values can be understood along the lines of 'becoming with', as I introduced it in chapter 2, building on Akama and Prendville (Akama, 2015, Akama and Prendiville, 2013). It is an ongoing and performative accomplishment (Gherardi, 2016: 39), a circular movement that leaves traces and requires continuous work.

In management research, the term *values work* is introduced by Joel Gehman et al. as an alternative to existing cognitive (Rokeach, 1973) and cultural (Schein, 1990, Schein, 2010) approaches to value in organisations, that both treat values as attributional qualities. Instead, Gehman et al. propose to study values through a practice approach with a focus on how organisational values come to be valued. Gehman et al. define 'values work' as: '… the work that is going on at any moment as values practices emerge and are performed, as well as the effects values practices perform as they work their way through an

organization' (Gehman et al., 2013:102). Values work, they argue, is a distributed, relational, interactive, and ongoing process (Gehman et al., 2013:105). In this thesis, I use 'values work' (*værdiarbejde* in Danish) or 'social values work' as empirical concepts to refer to the activities, informants classify as having to do with developing or sustaining values.

As a primary analytical concept to understand what goes on in this values work, I turn to the concept of *valuing*, introduced by sociologists Frank Heuts and Anne Marie Mol (Heuts and Mol, 2013). Valuing is described as an activity that involves ongoing care. Care does not offer control but involves sustained and respectful tinkering towards improvement and is oriented towards the future. While Vatin locates *evaluation* in the market and *valorising* in the production process, the concept of valuing insists on keeping the two together. Both activities are relevant all the way through and they are hard to separate out. The 'assessment' part and the 'improvement' part slide over into each other, as Heuts and Mol argue (Heuts and Mol, 2013:129). Valuing is performative, a concept that encompasses assessing, appreciating, adapting, and improving:

> (…) we shifted from talking about 'worth' (a quality) to foregrounding 'valuing' (an activity) and from 'economies' (that come with a single gradient each) to 'registers' (that indicate a shared relevance, while what is or isn't good in relation to this relevance may differ from one situation to another). We drew the 'registers of valuing' that we came to disentangle from our materials, where they appeared neither closed off nor incompatible, but showed overlaps as well as internal tensions. (Heuts and Mol, 2013:129)

It is not a matter of taking control or establishing final truths, but about attuning one's work to different kinds of good at the same time, through different 'registers of valuing'. This values approach leans heavily towards the relational and sociomaterial perspectives. Valuing is ongoing, relational, and performative. Success is never guaranteed but requires ongoing work. Following this logic, we need a relational and process-oriented approach to understanding and working with values in practice, because values and practices are constitutively entangled.

Understanding social values as performatively enacted through sociomaterial practices, unfolding in a particular space and time, along the lines of life, and shifting the focus to what buildings and values make possible, their affective capacity, through these relational

performances, rather than what they are as static entities with attributional qualities, allows me to reframe the questions of *what* social value in the built environment is, to a question of *how* or *in what ways* these values get articulated and enacted, thus moving the focus from entities to processes and relational entanglements, in line with the overall theoretical framework for my studies.

This shift in orientation, from value as a static attributional quality to value as performative and relational, allows for two analytical moves. First, framing valuation in this way acknowledges and allows for the coexistence of multiple forms of value. Second, it orients attention to the agential cuts made that enact particular values as valuable and reminds us that we need to always ask the question: valuable for whom? and attend to what gets included and excluded through these agential cuts and diffractive moves of valuing in practice

A relational and dynamic theoretical foundation.

The approaches outlined above share a strong practice anchoring, a focus on the constitutive entanglement of the social and the material, and a focus on design and architecture as ongoing and open-ended. I use the combination of the different perspectives and concepts presented here to better understand how values work in practice in relation to building projects and built environments: how their development relates to the flows of agency, how values get articulated and enacted through these ongoing flows and agential cuts, and what affective capacity emerges from these particular modes of ordering.

My combination of these different perspectives bends them towards each other in ways that go beyond the initial intentions of the authors to fit my purpose of developing a relational approach to value in the built environment and to find ways of supporting this relational 'values work' in practice. As shown in the previous sections, the concepts and theories I work with are not completely estranged from each other. There are still differences between them; however, I see these differences as points of divergence more than clashes and find that the benefits of combining them outweigh the limitations.

What I come to show in part II is how these agential cuts and ontological politics of value creation play out and what it means for the ways in which value is (and can be) accounted for. Some flows are stronger than others in particular situations, and some situations,

some points in time or phases in a project, hold stronger agential capacities than others – due to the configuration of elements as well as wider contextual contingencies. However, a central point in relation to these configurations is that this obduracy is always enacted in practice, which provides the possibility to intervene, and to imagine and enact things and values differently.

Values are indistinguishable from the sociomaterial practices in which they become valuable. Enactments of values are sociomaterial workings, tied to particular practices, and thus need to be studied through a practice approach. Different 'registers of valuing' become 'performatively stabilised' through the enactment of particular 'sociomaterial practices'. The 'agential cuts' made in practice, that figure value in particular ways, are both positioned and performative. There is always the possibility that they could be made otherwise, which is one of the central points. Values are not attributional qualities but relational performances. They come into being in different ways for different people at different times and need to be explored and understood in context. I use 'valuing' as a main theoretical concept to link valuation theory and the overall relational framing of the project, and to highlight the multiplicity and ongoingness of values work in practice, emphasising that this work is not something that can be settled once and for all, but rather requires continuous care and active involvement of inhabitants.

Drawing my main theoretical inspiration from anthropology, agential realism, and posthuman practice theory, my ambition with these studies is more than a translation of social science concepts to building performance research. I understand this shift in orientation, from entities and attributional qualities to processes and relational performance, as an ethico-onto-epistemological move that offers not just new understandings but also new ways of doing research, with an explicit ambition to create change in practice. In my studies, I use the research position outlined in chapter 2 and the key concepts presented in chapter 4 both as lenses through which to make sense of what happens in the field *and* work to combine the different concepts to further develop our understandings of social value in relation to the built environment, and thus add to the existing research literature through these combinations. I am exploring in practice what the concepts of 'relationality', 'sociomateriality', 'multiplicity', and 'ongoingness' could mean in relation to building performance and social value creation in the built environment. I do this with an ambition to also try to influence a reconfiguring of how

value might be accounted for in the built environment by way of these concepts, with an explicit focus on futures and transformation, trying to collaboratively work out ways of moving from relational understandings to relational design. I return to this last point in part III of the thesis.

In chapter 5, I turn to existing building performance research with a focus on how social sustainability, building performance, and post-occupancy evaluation figure in existing building performance research to identify major trends and patterns. In the last section of chapter 5, I turn my attention to alternative approaches within building performance research that pursue a more relational approach and situate my own studies within this larger research landscape.

5: Existing Building Performance Research

As described in the introduction, this project moves in the intersections between different fields of both research and practice, and draws inspiration from quite diverse schools of thought in an effort to: 1) generate new understandings of social value creation in the built environment in Denmark, and 2) develop a framework for social commissioning that can support this 'values work' in practice. Chapter 5 presents my reading and understanding of selected building performance research. This reading is by no means exhaustive; the intention is merely to identify trends and patterns across a vast research landscape and to use these insights as guiding principles or landmarks in the further exploration of my research questions by pointing to some of the gaps in the existing research that this thesis aims to address.

In the following sections, I explore the concepts of *social sustainability*, *building performance*, and *post-occupancy evaluation* in existing building performance research. I take sustainability and performance as 'value indicators' in the sense that these concepts are closely related to particular notions of value, while each has its own unique field of research developed over several decades, without an explicit focus on values. I use this initial conceptual clarification as a starting point for better understanding the types of discussions and complexities related to including social aspects, and an explicit focus on social values, into a field of research and practice that has traditionally been dominated by more technical interests and a natural science-inspired approach to research.

Social sustainability

Social sustainability in the built environment is gaining increased traction in research, policy, and practice but the concept remains contested across research disciplines. Though the concept of sustainable development originally included a clear social mandate, this human dimension is described as having been neglected over the following decades, which has led the term to become 'a concept in chaos' (Vallance et al., 2011: 342) with no commonly agreed-upon definition, which according to Vallance et al. (2011) severely compromises its importance and utility.

There seems to be general agreement in the literature that the social aspects of sustainability have been, and continue to be, given less attention than the economic and environmental aspects of sustainability in research, policy, and practice (McKenzie, 2004, Dempsey et al., 2011, Boström, 2012, Jensen et al., 2012, Shirazi and Keivani, 2017,

Stender and Walter, 2019). Dempsey et al. state that 'surprisingly little attention has been given to the definition of social sustainability in built environment disciplines' (Dempsey et al., 2011: 289), and in the opening chapter of the collective volume *Urban Social Sustainability : Theory, Practice and Policy*, aimed at highlighting the significance of social sustainability in urban contexts, Shirazi and Keivani argue that*:* '…despite recent attention to social dimensions, social sustainability remains relatively undertheorized and poorly discussed' (Shirazi and Keivani, 2019: 9). Therefore, further research is needed to integrate social sustainability and enable a more balanced sustainability approach.

Different reasons are put forward to explain the imbalance and the challenges of working with social sustainability in practice. Some scholars argue that it has to do with the historical roots of the concept, e.g., that the way sustainability is framed is better suited to environmental than social issues (Boström, 2012). Others point to the concept being too loosely defined and too abstract to be implemented in practice (Manzi et al., 2010), that social sustainability of building and neighbourhoods can only be adequately understood and addressed when considered in relation to other scales (city or society as a whole) (Zetterberg et al., 2023), or that the concept lacks frameworks (Eizenberg and Jabareen, 2017). These fundamental challenges make it difficult to build up a knowledge base about social sustainability across projects and to compare results. One of the major concerns often raised is the difficulty of quantifying social sustainability: 'Social sustainability is far more difficult to quantify than economic growth or environmental impact and consequently it is the most neglected element of triple bottom line reporting' (McKenzie, 2004: 7).

In response to these identified challenges, there has been a strong methodological focus within building research on trying to come up with a clear and universally-applicable definition of what social sustainability is and finding ways to measure it (Shirazi and Keivani, 2017, Littig and Griessler, 2005, Colantonio, 2009). Research is carried out with the purpose of quantifying social sustainability indicators to match what has been done with economic and environmental aspects of sustainability as a way of pushing the 'social agenda' forward and securing social sustainability an equal seat at the table (Bramley et al., 2009, Dempsey et al., 2011, Magee et al., 2012). In a recent literature review, Khatibi et al. show an increased frequency of the words 'social' and 'public', and argue that this

indicates an increased attention to the importance of social sustainability and public participation in the sustainability of a neighbourhood (Khatibi et al., 2023).

Nonetheless, there still seems to be a main focus on developing tools and frameworks that assess the links between physical urban design (understood as attributional qualities) and social sustainability (Alipour and Galal Ahmed, 2021, Larimian et al., 2020, Liu and Li, 2021). So, while recent years have shown an increase in studies explicitly addressing social sustainability in relation to the built environment, many of these studies pursue similar approaches. Based on these findings, the review proposes the need to develop more local or context-based sustainable neighbourhood frameworks and assessment criteria (Khatibi et al., 2023: 12).

Zooming in from the urban scale of cities or neighbourhoods to buildings, the notion of social sustainability by no means becomes obsolete, and nor do the challenges surrounding the concept (and the way they circulate within current building research discourse). However, this jump in scale requires a reorientation of our attention. So, while these initial debates on the notion of social sustainability are relevant to understand the wider research landscape, as well as some of the more macro-level aspects of these current debates on how to include social aspects into the field of building research, I scale down to zoom in on a building level and turn to building performance and post-occupancy evaluation (POE).

Building performance and post-occupancy evaluation

Buildings are complex systems, sometimes described as a 'system of systems', where all of the different elements – the structure, envelope, infill and building services – make a building work together to ensure that the building performs a range of different functions (de Wilde, 2018: 1). It is acknowledged that building performance is a dynamic concept rather than a static attribute. It changes over time and is dependent on contextual contingencies, like loads that work on the building, control settings, occupant behaviour, system ageing and degradation, maintenance, and refurbishment. However, researchers also argue that the building sector is not doing a very good job of capturing these complex conditions (de Wilde, 2018: 164, Leaman et al., 2010, Durosaiye et al., 2019). Existing building performance standards, for example, typically only address certain aspects of the overall building performance, like energy use.

Given the complexity of buildings, there are many different viewpoints and varying interpretations of performance in relation to the built environment. The many stakeholders, such as architects, contractors, owners and inhabitants, all view and weigh it from different positions. In academia, different research interests have led to different schools of thought and different approaches to performance. However, building performance evaluation (BPE) has mainly been a technical field of research, rooted in structural engineering, building service engineering, or systems engineering, with a focus on quantification and measurement through performance indicators, data-gathering procedures, and software tools (Augenbroe and Park, 2005), building models and tools for better performance simulations (Lamberts and Hensen, 2011), model validation and improved data collection (de Wilde, 2014), or defining and developing performance criteria, metrics, and performance assessment procedures (Clarke, 2015), with a focus on aspects like energy efficiency of buildings, indoor environmental quality, or thermal comfort (de Wilde, 2019).

A central focus across the BPE literature is the work to better understand (and work to avoid) so-called performance gaps. Often, the term 'performance gap' refers to more technical aspects of building performance, like energy consumption, with a focus on the performance of technical installations (de Wilde, 2014, de Wilde, 2018, van den Brom et al., 2018). However, there is no reason to assume that performance gaps are limited to one building performance domain. Rather, it is argued that there are many different types of performance gaps and that researchers need to be explicit about the types of performance gaps their research addresses and how it relates to other domains (de Wilde, 2021). There is a growing interest in exploring the 'human factor' in relation to energy performance gaps: how, and to what extent, humans influence the performance of the building when it comes to energy consumption (Gram-Hanssen and Georg, 2018, Harputlugil and de Wilde, 2021, van den Brom et al., 2018). These studies still focus on the technical performance of the building but draw on inhabitants' experiences and actions to understand this performance. Often, however, there is also a gap between design intentions and lived reality when it comes to the social value creation within the built environment, and it is argued that there is a lack of tools or processes to help tackle these 'qualitative performance gaps' (Coleman et al., 2018). Systematic accounts of how buildings perform in terms of social aspects are relatively underexplored (Jensen et al., 2012, Coleman and Robinson, 2018) and focus remains technical and metric oriented.

Peter de Wilde, a prominent scholar within building performance research, argues that the terminology used to talk about building performance is still immature. Metrics, indicators, and measures are all mixed and used in different ways by different scholars, which leads to confusion and leaves the concept of building performance without a unified theory that is widely accepted across the building domains (de Wilde, 2018: 122).

Arguing that building performance is not a static attribute, as de Wilde does, is not the same as arguing that it is not an attributional quality. This very much seems to be the case. Building performance is understood as the performance *of* the building. In his seminal book *Building Performance Analysis*, de Wilde defines building performance as follows:

> Building performance relates to either a building as an object, or to building as construction process. There are three main views of the concept: an engineering, process and aesthetic perspective. The engineering view is concerned with how well a building performs its tasks and functions. The process view is concerned with how well the construction process delivers buildings. The aesthetic view is concerned with the success of buildings as a form for presentation or appreciation. (de Wilde, 2018: 13)

Most existing research on building performance and building performance evaluation is rooted in an essentialist ontology, where the world is thought to consist of discrete entities with a particular set of attributes that can be measured and weighed, using numeric values. The goal seems to be to develop precise measures of selected entities to uncover universal truths about performance and value, with a focus on establishing worth (as a quality), as opposed to the notion of value put forward by Heuts and Mol with the concept of valuing (an activity) (Heuts and Mol, 2013: 129) that I accounted for in chapter 4, in the section *Valuation, values work, and valuing in practice*.

This notion of value as worth, as an inherent quality, is also clearly articulated in de Wilde's definition above, with a stated focus on: 1) *how well a* ***building performs*** *its tasks,* 2) *how well the* ***construction process delivers*** *buildings,* and 3) *the* ***success of buildings*** *as a form for presentation or appreciation.* This type of essentialist approach builds on the premise that separating entities is possible and desirable, that universal truths can be uncovered through these precise measures, and that worth can be attributed accordingly.

Post-occupancy evaluation (POE) can be considered as a particular aspect of BPE that focuses specifically on residents' satisfaction with a building in use. It relies on feedback from occupants (or inhabitants) to assess the performance of the building from a 'user experience' perspective. The main objective of a POE is to assess how well a building matches the needs of its users and to identify potentials for improvement.

POE has developed as an approach that can be used to examine the performance of a building by focusing on user experience and satisfaction to identify '…ways to improve building design, performance and fitness for purpose, through the systematic evaluation of the buildings in use, from the perspective of the people who use them' (Turpin-Brooks and Viccars, 2006: 178). Attention can be brought to a variety of different issues depending on the scope, resources, and specific interests. Topics include maintenance, building operations, and design-related issues with the potential to measure performance and satisfaction in terms of overall functionality and services of the building, as well as indoor climate parameters like air change rate, light conditions, indoor temperature, and acoustics. There has been extensive academic focus on these different aspects, their complexity, and how they relate (Bordass and Leaman, 2005, Leaman et al., 2010, Preiser and Vischer, 2005) and continuous development of different tools and process models for conducting POEs is carried out (Preiser et al., 2018, Li et al., 2018).

Preiser et al. distinguish between three levels of POE effort: indicative, investigative, and diagnostic, each differing in terms of time, resources, and personnel needed (Preiser et al., 2015). Across the three levels, POEs provide a mechanism for understanding the interaction between buildings and users' needs and for recommending ways of improving the environment to accommodate these needs. They can provide insights into the consequences of past design decisions and create a foundation for designing better buildings in the future. In their co-edited volume *Assessing Building Performance,* Wolfgang Preiser and Jacqueline Vischer do not directly define building performance but list performance criteria relating to 'users' needs and priorities' within three priority levels (Preiser and Vischer, 2005: 5):

1. Health, safety and security performance
2. Functional, efficiency and workflow performance
3. Psychological, social, cultural, and aesthetic performance

They further argue that while classic POE focused primarily on users' experience of the performance of buildings, the evolution of POE towards the field of BPE is a move that emphasises a holistic, process-oriented approach toward evaluation (Preiser and Vischer, 2005: 8), where: '... not only facilities, but also the forces that shape them (organizational, political, economic, social, etc.) are taken into account' (Preiser and Vischer, 2005: 9). However, as is also clear from the three priority levels presented above, this approach still primarily focuses on how individual users of a building perceive and behave and how this links back to the building's performance (still understood as an attributional quality) and underlines the affiliation with environmental psychology (Vischer, 2001, Vischer, 2008, Vischer, 2012).

POEs tend to focus on the satisfaction of individual users in relation to a set of attributional qualities of a building, such as lighting, temperature, or different building functions. Specifically, in workplace contexts, POE studies have shown that various aspects in the office environment can be important instruments in promoting employee satisfaction (Maher and von Hippel, 2005), productivity (Collinge et al., 2014), and a variety of other outcome variables (Appel-Meulenbroek et al., 2018). Still, focus often remains on a limited specific subset of variables; for example, indoor air quality combined with comfort, health, or performance (Wolkoff, 2013) and largely relies on questionnaire results.

Over the past decades there has been a lot of development in fields like POE and BPE that offer different perspectives on potential ways forward with a greater variety of methods (Brown, 2016, Li et al., 2018) and a focus on integrating feedback mechanisms as an integral part of professional practice (Preiser et al., 2018, RIBA and F. Samuel, 2016, Leaman et al., 2010). Part of this research moves to challenge the existing understandings of what POE is or should be: the types of knowledge we can gain from conducting POEs, or how we frame the investigations and gather data. This includes a push to move the focus from individual behaviour to practices (King et al., 2013) as well as developing new qualitative approaches to POE (Brown, 2016). However, there are still barriers to overcome in terms of creating incentives for both initiation and participation in POEs and there is still not a widespread industry uptake (Durosaiye et al., 2019, Hay et al., 2018, Elsayed et al., 2023).

Towards a relational understanding of buildings and value?

Despite its dominant status in existing building performance research, the essentialist ontology that favours numbers and quantitative research over qualitative research and narratives does not stand unchallenged. A growing body of research within building performance research calls attention to the need for approaches that allow for a more integrated and open-ended approach to exploring how the built environment affects people, and vice versa.

In a short opinion article from 2023, architectural theorists Liora Bigon and Edna Langenthal argue that the preoccupation with criteria and measurement systems has become a primary lens through which the urban social sustainability discourse is analysed in the research literature (Bigon and Langenthal, 2023: 2). This, they argue, represents a quite instrumental approach to social sustainability that limits the scope of the conversation and reduces the challenges to an epistemological problem without questioning the underlying assumptions on which these problems are built. Like Khatibi et al. (Khatibi et al., 2023), they call for context-sensitive analyses and place-based research approaches to sharpen and enrich the existing corpus of indicators, methodologies, and policies (Bigon and Langenthal, 2023: 5).

Boyer et al. suggest that the current opacity around social sustainability 'results from a multiplicity of legitimate meanings, lack of cross disciplinary communication, and a reluctance to engage diverse and local sources of knowledge in scholarly research' (Boyer et al., 2016: 1-2). They call for a greater integration of interdisciplinary approaches that might challenge existing disciplinary silos, which tend to conform to existing standards within their own domains, and to develop more holistic approaches instead.

Along the same lines, Reza Shirazi and Ramin Keivani have argued that the lack of clear definitions might not necessarily be a disadvantage for the work with social sustainability. As they state: 'diverse definitions and theoretical approaches could be understood as an asset and extremely productive and generative' (Shirazi and Keivani, 2017: 1538). Further, it is argued that common key principles can be identified across the literature. These common principles include equity, democracy, well-being, community participation, and quality of life. Some of them are considered more challenging to work with because they are 'soft' and intangible (Shirazi and Keivani, 2017, Shirazi and Keivani, 2019, McKenzie, 2004). A multiscale approach, it is argued, is unavoidable for these principles to be

applicable and meaningful, or to be ideally implemented in the development and design of urban contexts (Shirazi and Keivani, 2017, Magee et al., 2012). There will not be one solution that fits all purposes; instead of working towards one unifying concept of social sustainability, focus should be on contextual contingencies within projects, allowing different versions to co-exist.

The term *well-being* is being suggested as an overarching concept to describe how people thrive (or not) in buildings. However, as was the case with social sustainability more broadly, there is a lack of clear definitions of what is meant when the term well-being is used in a building or organisational context (Hanc et al., 2019, Colenberg et al., 2020). Existing definitions of well-being range from narrow definitions that strictly focus on the absence of disease (a health science perspective) to broader definitions that also include physical and social concerns.

According to Rohde et al., comfort, health, and well-being are often used interchangeably in studies on indoor environmental quality, but where the meaning of the terms comfort and health are well defined, there is a lack of clear definitions of well-being (Rohde et al., 2020). In a literature review from 2020, Colenberg et al. identified fourteen key concepts on social well-being within three overarching categories: social needs, (anti-)social behaviour, and social affordances (Colenberg et al., 2020). The study pointed specifically to a connection with the physical context, indicating that social well-being might not be a general phenomenon, reflecting functioning in social life anywhere, but a local phenomenon bound to the (physical) context (Colenberg et al., 2020:337), reflecting the entanglement of social and physical environments. This can be viewed as a move towards a sociomaterial and relational approach to understanding and working with social values like well-being.

What these different studies propose is that the performance of buildings, or the social values they afford, cannot be understood without understanding the wider ecology of sociomaterial practices they are part of. This requires ways of knowing that challenge existing framings of buildings and inhabitants as separate and stable entities, and a move towards a more relational approach to the built environment. It also requires more engaged and collaborative approaches to working with social sustainability, as Shirazi and Keivani argue:

> Transformative methodologies should be developed to incorporate social sustainability concerns into urban development planning using collaborative and dialogic procedures of decision making that seek for inclusive and just urban interventions and projects. (Shirazi and Keivani, 2019:19)

I situate my current research within this broader field of more relational, engaged, collaborative, and qualitative building performance research. I explore how social value creation can be understood through the notions of relationality, sociomateriality, multiplicity, and ongoingness, and work to develop new approaches to support this 'values work' in practice, through engagement, collaboration, and diffractive moves.

PART II

EXPLORING VALUES IN PRACTICE

PART II: EXPLORING VALUES IN PRACTICE

In the first part of the thesis, I introduced my research position, presented the overall research design, the main theoretical perspectives and concepts, and situated my research within a broader field of building performance research. In part II, I go on to explore this relational approach to values in practice.

Part II of the thesis builds on empirical data collected throughout the project as part of my fieldwork with AART. Based on my reading of existing building performance research, presented in Part I, I go on to further explore the challenges from a practice perspective to understand how social values work in practice in the Danish building industry.

As stated in the introductory chapter *Setting the Scene: Challenges and Overall Ambition,* I already had an idea about the issues and challenges I wanted my research to address when I was coming into the field, and some idea about the nature of these issues and challenges. Therefore, this exploration is not so much about whether this challenge *is real or not*, i.e., whether the building industry has a problem with handling social aspects of building performance or the extent to which this leads to lost value potential. Rather, I want to better understand the ways in which these lost potentials are enacted in practice, what it is in concrete situations and projects that challenge the inclusion, the kinds of agential cuts made that favour particular value framings over others, the ways in which this affects social value creation, and how particular modes of ordering become performatively stabilised in practice.

In the following chapters, I draw on two primary empirical cases: 1) the work on including social value and architectural quality in the 2025 DGNB manual, and 2) the work of the POE platform project to include well-being in a POE questionnaire and to develop an anthropological approach to POE (as a supplement to the platform). These examples help me describe the current situation and the challenges encountered in more detail, without claiming that this is the full picture. In addition to the two cases, I also draw on other project examples, as well as interview- and workshop findings, to unfold the logics at play.

This initial analysis of the current situation also highlights potentials or cracks in existing project practice that create an openness towards a more relational approach. How, in practice, building projects are already always more than just about building, and the potential that a stronger attunement to these sociomaterial entanglements affords.

I then go on to explore two examples of social values work in more detail, focusing on the social values of 'community' and 'good learning environments', respectively, through the analysis of two building project case studies where I see attempts at applying a more relational approach, or at least signs of a stronger connection between the building project and social value creation than I find to be the case in most existing projects I have come across during the project period.

At the end of part II, I introduce the analytical framing of building-as-project and building-as-lived-space as a structure for understanding the challenges of an essentialist project logic, what this logic means for introducing a relational approach to social value creation into the complex and situated realities of building projects, as well as the potentials for articulating and enacting social value in different ways.

6: Challenges of Including Social Value in Existing Building Practices

In the following sections, I explore the challenges of including a relational approach to social value in existing building practices. I show how existing modes of ordering favour numbers and a separation of the social and the material, and what these framings and enactments mean for the ways in which social value figures in relation to the built environment in Denmark. I do so through empirical examples from different fieldwork encounters, starting with my participation in the DGNB working group tasked with formulating 'social' and 'user' criteria for the DGNB 2025 update.

Working with social value in DGNB 2025

Current building evaluation approaches, or certification schemes, largely view buildings and users as separate and relatively stable entities. The primary focus is on the performance of the building as an object, and users or use tend to be taken out of the equation. This is also the case in the DGNB certification framework that I focus on here. What is certified with DGNB is the building 'as built' – before it is taken into use. DGNB is a German certification scheme for buildings and urban areas which has also been adapted to a Danish context (DGNB-DK) by the (Danish) Counsil for Sustainable Buildings[15] (formerly known as the Green Building Counsil Denmark), which manages the certifications as well as related development work. DGNB is claimed to be based on a holistic approach to sustainability (UN definition) with the three main pillars of social, economic, and environmental sustainability as structuring principles, as defined in the Brundtland report 'Our Common Future - Call for Action' (Brundtland, 1987). However, so far, the DGNB system has predominantly focused on environmental sustainability. The system is described as dynamic with the criteria being updated continuously as knowledge and practice evolve within the industry[16].

DGNB subdivides buildings into discrete parameters which are then assigned points for the alignment with pre-defined criteria. The addition of points from all parameters determines the indicated level of sustainability of a particular building. The assessment of buildings, in the DGNB system, is made through an evaluation matrix that contains all the criteria and the sub-indicators. The evaluation points for each indicator are entered

[15] The Counsil for Sustainable Buildings (RFBB) is a non-profit membership organisation that works to promote sustainability in the construction and real estate industry in Denmark.
[16] https://rfbb.dk/dgnb (visited on 27.07.2023)

into the evaluation matrix and converted to a total score for the entire criterion. The result is stated as a percentage in relation to the maximum achievable points. In that sense, DGNB represents a classic example of an essentialist ontology or essentialist logic (as introduced in chapter 5) that works by way of simplification and division, where buildings are viewed as static entities with a specific set of attributional qualities that can be measured and evaluated in absolute terms using numeric values.

In the spring of 2023, working groups were formed to move forward the work of updating the DGNB 2025 manual. The intended update was described as 'comprehensive', meaning that major revisions were expected. The work was carried out in different theme-based subgroups and working groups, with input and sparring from a steering group and the criteria committee[17]. I was invited to join the working group that focused on the inclusion of new criteria on social value and architectural quality in the manual, under the overall heading of ARCH criteria. Figure 3 shows an overview of this process, the timeline for the different activities carried out, and the different stakeholders involved.

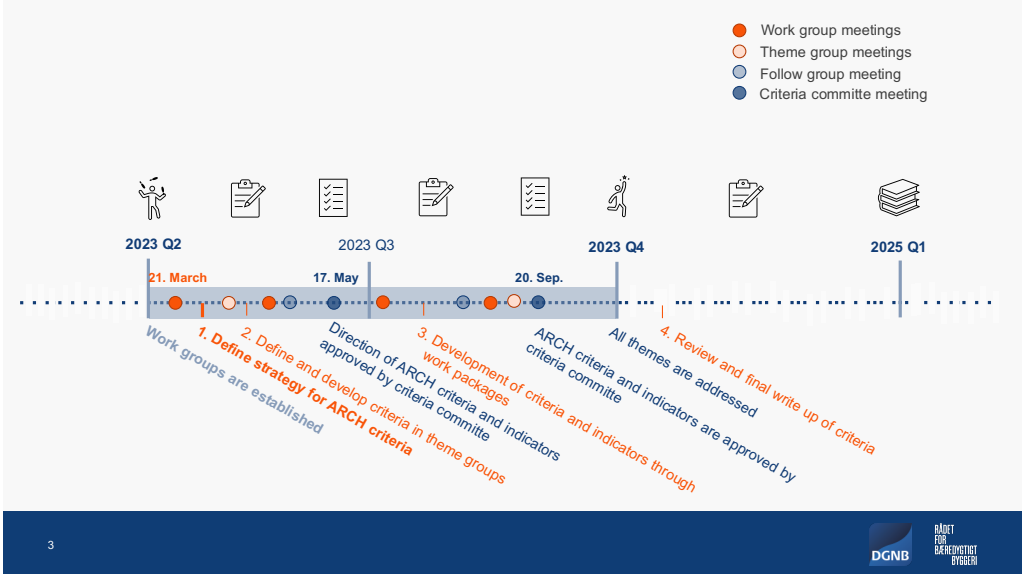

Figure 3 shows a process plan for the development of new criteria for the DGNB 2025 manual on universal design, user focus, and architecture & landscape, under the heading of ARCH criteria.

[17] The committee consists of experts within the field of sustainable construction. They hold supreme authority in relation to the approval of DGNB manuals and set out the overall direction for the continued development of DGNB.

On their website, the Counsil for Sustainable Buildings wrote the following about the update:

> With this comprehensive update, the Council for Sustainable Construction updates the DGNB certification to reflect developments in the industry and the latest research. We have done this with input from professionals and experts from the industry and research. (RFBB, 2024)

Most participants in the ARCH working group had an architectural or social science background, with a special interest and expertise within one of the three main themes defined: universal design, user focus, and architecture & landscape. All participants shared a holistic and relational approach to the work on quality and value in the built environment and seemed to venture into this DGNB work with some hesitation.

At the first meeting, a lot of questions on the premise of work were posed. There was a need among the participants, many of whom did not know each other in advance, to better understand how the work we were expected to do related to the work carried out in the other working groups and to explore or challenge the premise and format of this work, as expressed by one of the working group participants at the end of the first joint meeting:

> I am unsure about the types of requirements we can make with DGNB, when it comes to social value creation. These things are about the processes. It is about the continuous dialogue with the future users – and if the future users are not known – then the involvement of someone who has this focus on the lives that might unfold here. Our ability to make these links between the building and the lived experiences is crucial for our ability to support social value creation. (working group participant on the first joint working group meeting)

Already here, early in the process, different valuing registers were at play. DGNB, in the existing format, is explicitly not about process, but the themes with which we dealt in these working groups were almost exclusively about process and relations. There was a strong consensus among the working group participants, that social – and architectural – quality was about making things relate in a meaningful way, which went against the fundamental logic of DGNB to separate entities and calculate individual scores. So, could or should these new themes be dealt with as discrete criteria? Or should they rather be

related to other more established criteria, in a processual or sequential way, to underline that this was something that needed to be addressed throughout projects, and not just about being able to tick the right boxes to get the points required to reach a particular certification level?

Early on, we reached the agreement in the working group that it made sense to try to formulate individual criteria in relation to the new themes, to highlight that these new themes and criteria carried as much weight as existing criteria. To support the relational nature of the themes, we discussed, among other things, the possibility of developing a tool for assisting the assessments of these criteria (something that would be beyond the work of these working groups and would require additional external funding and development work) or the potential for challenging the existing scoring system by introducing 'synergy points' as a way of incentivising ongoing work with the themes. A key concern for the participants in the working group was finding ways of working with these aspects without reducing them to yet another checkbox exercise.

Between the joint meetings, work was carried out in the subgroups to formulate purpose, methods and evaluation criteria for the different themes. In the user-focus group, I took on the task of writing a first draft, based on our initial meeting where we discussed what we found most important and relevant to include in the DGNB manual and how we wanted to approach this task.

The four overall themes we initially defined in the user-focus group were:

1. Formulating clear objectives for the intended social value creation in the project.
2. Setting an interdisciplinary team with expertise in user involvement and social value creation.
3. Ongoing involvement of the user perspective.
4. Post-occupancy evaluation with a particular focus on the relationship between building and practice.

The ambition of these themes was to explicate the need to work with social value creation throughout a building's life cycle and to introduce a more relational approach to value and design. The initial descriptions of the themes were then translated to DGNB criteria language by the project manager and typed into an overall evaluation matrix. The matrix was based on the existing DGNB logic, with criteria, sub-criteria, and indicators, but also

updated or extended with three phases: as designed, as built, and in use, to meet the need for a more dynamic certification scheme, where projects are required to continuously relate to criteria, value, and quality. This made for quite a big Excel sheet, trying to encompass purpose, methods, criteria, and documentation within the different main themes, and across the different phases defined, as shown in Figure 4.

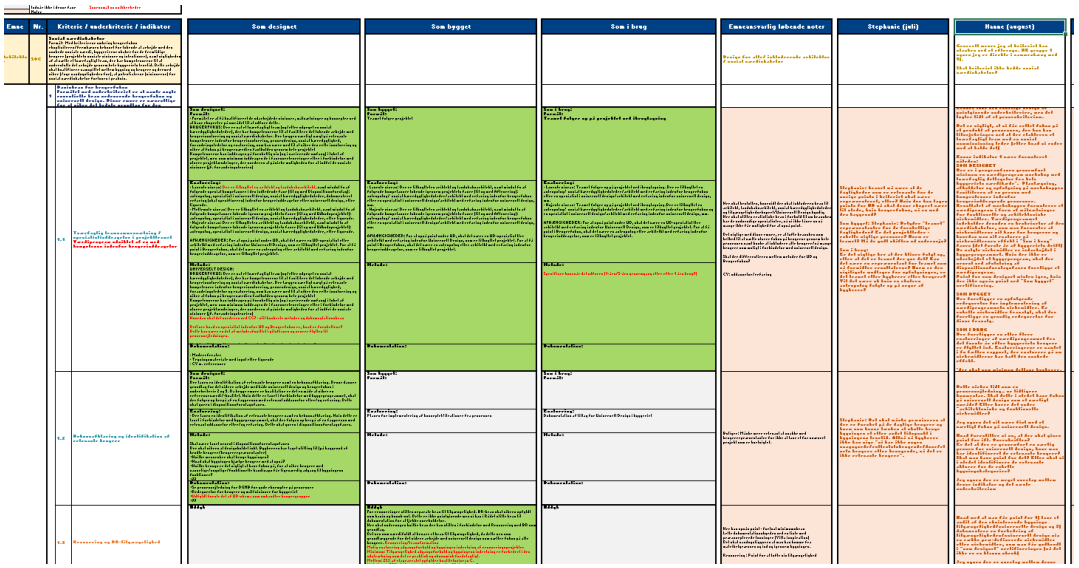

Figure 4 shows an early draft for the DGNB2025 evaluation matrix with the different ARCH criteria themes merged into the same frame to fit the existing criteria structure.

The first time this matrix was presented by the project manager to the group in a Teams meeting, it almost created a sort of paralysis or freezing in the otherwise very talkative group. Two joint meetings (online) had already taken place before this meeting, as well as meetings both online and physical in the individual theme groups, and work had been carried out to formulate the initial input. So everybody in the group (eight people at this particular meeting) had put a lot of thought and effort into this work and felt really strongly that this was something that should be included in the DGNB system, or at least we had agreed so far that it was something that needed to receive more attention in building projects, and one way of putting it on the agenda was to relate it to existing frameworks, like DGNB.

People in the meeting, including me, did not seem to know how to react to this presentation. The schematic representation seemed incredibly far from the initial talks, and it was difficult to recognise what was discussed and formulated as coherent and

contextually contingent processes, because everything was now split up into boxes to fit the evaluation matrix. This left little room for entanglement, ambiguity, or relationality that had been central aspects of our initial talks in the group. The frustrations built up in the group as the presentation unfolded, and people felt an inability to recognise the input given or had the sense that the work seemed impossible or failing. As one very frustrated working group participant exclaimed:

> It is actually hard for me to formulate what I disagree with. It seems like everything is mixed together. There are a lot of things that seem to cross over, but it does not fit the headings, which makes it confusing. I have a lot of comments, but I don't really know where to start!

And the frustration, or difficulty of merging these perspectives, went both ways. It was not just the working group participants who were frustrated that they could not recognise the input they gave. The project manager also felt somewhat frustrated about the apparent incompatibility of these themes and the DGNB system, and unsure how to best move forward from here, as she explained in a following interview:

> It is difficult for me to specify what the different criteria should encompass in advance. I have focused on working through the different subjects, because I would rather have your expert input on the main themes and then keep a flexibility in how to combine the criteria. But it has been quite a challenge to try to do the two simultaneously.

One of the main challenges of this work, as I see it, is not a lack of sensitivity to the importance of these social aspects, but an underlying essentialist logic that sets the stage for what counts as valid knowledge, and what is considered important to include. I see this as (also) being a question about values. What gets valued, and in what ways, creates this clash between different valuing registers, and between different modes of ordering. The DGNB logic, or mode of ordering, is based on separation and quantification, and introducing social values requires a relational and holistic approach, which builds on a different set of onto-epistemological assumptions.

I am not the first to point to these challenges of extending certification schemes to include different types of criteria than the ones related to specific structural elements. Other

researchers have studied the ways in which DGNB, in a Danish context, deals with social sustainability (Stender and Walter, 2019) and architectural quality (Jørgensen, 2022).

Marie Stender and Annette Walter examine how social sustainability indicators could be included in DGNB and whether the certification system can be improved by integrating social and organisational aspects alongside the existing criteria for physical and functional layout (Stender and Walter, 2019). They conclude that a focus on social initiatives could strengthen the assessment but also stress the fundamental challenges of delimiting social sustainability to fit the DGNB frame and that it can be problematic to try to quantify something that is qualitative, normative, and context dependant (Stender and Walter, 2019: 609).

Morten Birk Jørgensen reviews selected parameters relating to architectural quality, and concludes that with DGNB it is possible to achieve the highest level of certification for sustainability without making any of the actions described in the DGNB criteria to promote quality in architecture (Jørgensen, 2022), which also points to the difficulties the system has in relation to accounting for more intangible qualities or values.

Both studies highlight some of the same fundamental challenges I encountered in the work to include 'social values' and 'user focus' in the DGNB 2025 update, where social values proved difficult to translate to DGNB criteria. Trying to include social values in an existing evaluation scheme is not enough to change the underlying logic of that scheme, or the particular mode of ordering it represents. Rather, the system needs a reconfiguration to make these aspects count on equal terms – but still in their own right – and not just become strange add-ons that make little sense or come across as arbitrary.

From a diffractive point of view, it might be argued that with these working groups a space is created where aspects that up until now have not been explicitly included in DGNB can be discussed and brought to the fore. By introducing social aspects as relevant in a DGNB context and formulating these new types of criteria that represent a more processual and relational approach to value in the built environment, things are set in motion in different ways, and this creates new diffraction patterns (regardless of what the final formulations end up being) that potentially enable the figuring of social value creation in different ways. However, there still seems to be quite some way to go to enable this reconfiguration.

When good intensions meet framework conditions and project logics

These challenges are not exclusive to DGNB – or to the work with policy or certification more broadly – but appear in many different contexts. I encountered variations of these challenges numerous times during my fieldwork. They came up in meetings, workshops, and were articulated by informants in interviews. There is a kind of underlying incompatibility that is not always particularly well-articulated but becomes enacted in different ways and influences how social values are made to matter in different situation, as I go on to explore in the following.

When the conversation turned to the challenges or barriers for including social values, and a more consistent or systematic end-user perspective in building projects, the themes brought up in the workshops or interviews were very often about framework conditions. Turnkey contracting was mentioned repeatedly as a barrier, as something that supports and promotes a narrow short-term approach to value, where value is ultimately about the return on investment. Did the project deliver? Did we get our money's worth? With a turnkey contract, a contractor is typically employed to plan, design, and build a project and make it functional or 'ready to use' at an agreed price and by a fixed date. Within this framing, uncertainties or ambiguities become risks that need to be mitigated to ensure that projects stay on time and within budget, and choices made are oriented towards being on the safe side, rather than opening up or experimenting with new types of solutions. Projects that are based on a turnkey contract (and the same applies to other types of contracts in the building industry as well) focus on minimising risk and obtaining tangible and measurable results within a defined deadline. This often means that what is valued is what can be measured through numeric values, which creates a more-or-less implicit orientation towards attributional qualities rather than holistic or relational valuing, as one architect explained in an interview:

> Architects used to be able to do this. [maintain a holistic view on value creation throughout a project] Nowadays projects have become so complex that this craft or professionalism has disappeared. It simply cannot be done anymore, because we work in a completely different scale and under completely different project conditions. (architect, working with social sustainability and user involvement)

The quote above is from a conversation about 'the bigger picture'; about how architecture relates to the surrounding world and the kinds of contributions architecture and

architects aspire to make. A holistic approach, in which values and visions are not lost in translation but used as guiding principles in the design, and conflicting concerns are weighed and discussed, is at the core of architects' professional identity. However, there is a sense that this approach to architecture is being challenged by the changing role of architecture and architects in a building industry where a lot of the work is run by contracts and restrictive framework conditions.

Building projects are broken down in elaborate project plans to keep track of everything and ensure progress. This structuring promotes, or maybe even demands, a short-term, linear focus on individual deliverables and leads to a perceived loss of relationality in building projects, and in the building industry as a whole. Informants report a sense of working within silos, as the quote above also shows, where the work becomes fragmented and it is not always easy to see the bigger picture, and where this bigger picture is also often not valued because it does not fit existing valuing registers.

There seems to be a general understanding in the industry of the importance of including an end-user perspective and focusing on values beyond financial value. In my studies, I find that social value creation and end user involvement *is* given attention *and* considered important. Throughout my fieldwork with AART, I have participated in numerous project meetings where user involvement and social value creation has been explicitly on the agenda, and where everybody around the table has nodded their head in agreement that this is important. However, I have also seen, time and time again, how these efforts are made to fit existing project logics, where activities are structured around project phases and each activity must be able to accommodate as much as possible to optimise processes and ensure progress in the projects. The following example unpacks some of the complexities of navigating these different concerns; of making the right decisions and designing the best solutions, while ensuring progress in the project.

In the spring and summer of 2022, I followed the user involvement process on a school project. At the first planning group[18] meeting I participated in, there was a discussion about depots in the science labs. There were two labs located right next to each other, 'finlab' and 'grovlab', and there was some uncertainty about the placement and

[18] The planning group is a project work- and coordination group, consisting of the project manager (from the municipality), the leading case architect, the architect in charge of the user involvement process, representatives from the contractor/engineer on the project, the head of the new school, and an educational consultant (from the municipality).

configuration of the depots associated with these labs. In the first sketches, two depots, a pupils' depot and a teachers' depot, were located inside 'grovlab' with only one of them having direct access from 'finlab'. This had been raised as an issue that might become a challenge, and therefore it was taken up in the planning group to decide how to best proceed as expressed in the following sequence from the meeting.

> *The educational consultant*: I don't think it will work if you have to go through another room to get into the depot and I am not sure the teachers know what this could mean for their teaching. How much of a hassle it will potentially be if you have to interrupt other people's teaching, or if your own teaching is disturbed by others.
>
> *The head of the school adds*: I think we have to meet with the science teachers again, because this is a really important decision, and it sounds like maybe they have not been made aware of this challenge.
>
> *The user involvement architect breaks into the conversation*: From a process point of view, we need to know by the 24th of August, because we need to have the disposition in place by then. After that, it becomes much more difficult if we want to start moving walls.
>
> *The lead architect turns to the representative from the contractor*: What do you think, when you hear that walls can be moved in August?
>
> *The representative replies:* As long as the changes stay within the existing overall framework for the rooms, we will find a way to solve it..
>
> *The user involvement architect continues*: We should not meet just to meet, of course, and I know you are both really busy [referring to the project manager and the head of the school], but these are some quite principle things we need to have clarified, so it would be good if you could both be there, and if we could call a meeting before the summer holidays kick in…

What this sequence shows is that there is an awareness of the importance of involving the end users and a strong focus on creating a good learning environment. However, these considerations are constantly held up against the project plan and assessed in relation to the technical or structural decisions in the project that need to be made at certain times. This 'project logic' to a large extent defines the scope of the conversation and whether and in what ways the user perspective is made to matter, as the following sequence shows:

> The discussion about the depots continued for a while longer and took many directions. It was both very concrete and detailed: how deep should the cupboards be, should they have glass doors, what kind of extraction was needed if they were to be used to store stuffed animals, and what about the chemical cupboards, who should have access to them and how should they be locked? At the same time, the discussion also touched upon the kind of teaching that was going to take place here and the ways in which the labs and the depots figured in that envisioned future practice: how the rooms could best support pupil experiments and how the teachers' workflows could best be supported; did they need rolling tables to transport materials or should there be a fixed teachers' table with lower cabinets where the most frequently used materials can be stored?….Towards the end of the meeting the head of the school draws the discussion back to practice: 'Instead of calling them science depots, I vote to call them project depots. I think science depot is a bit old fashioned and we don't want science teachers to monopolise the use of them. They are supposed to be for everyone.' The other meeting participants had no objections to the decision, and so this potentially quite significant decision slipped by almost unnoticed and was made on the basis of a comment that fell as a side note, two minutes before the meeting ended.

This meeting, and maybe in particular the last minutes of the meeting, tells us something important about the focus in these processes and how this particular mode of ordering influences what is made to matter and defined as something the planning group has to deal with and what is considered secondary. Of course, the naming can always be undone. It is not like a loadbearing wall or other tectonic or structural aspects of the building that need to be fixed at a certain time for the project to move forward, so in that sense it might be justified that it is treated as a minor thing. On the other hand, words are not just empty signifiers but contribute to enacting the world in particular ways and this change of words from science depots (belonging to the labs [or the science teachers]) to project depots (belonging to everyone) potentially has consequences for how these spaces will be used and thus also how the building comes to work in practice. These questions, or this type of knowledge and values work, are still often given a minor role or run somewhat parallel to the 'real' project work. Despite the potential importance of these decisions, it still seems difficult to include and work with in building projects more systematically.

This observation about the challenges of thinking together the social/organisational and the material can be further illustrated by another example from my fieldwork, where I

presented input on ways to include social values from a building programme into a competition proposal.

In the fall of 2021, I participated in a competition project for a psychiatric department at a hospital, where the building programme had a strong focus on creating the best possible environment for patients, relatives, and staff. There was also an awareness in the competition team about the importance of incorporating this into the competition proposal, as the following write up from my field notes shows:

> At one of the first meetings with the contractor and the engineer I was asked to give a presentation of my reading of the building programme, drawing on my previous experience as well as existing research in the area, and provide suggestions for how the project could best accommodate the central themes of 'putting the patient first', 'safety', 'privacy', and 'transparency'.
>
> The other items on the agenda for this meeting were more project process-oriented, related to designated tasks and with specific deadlines, such as getting the joint drawing and document platform up and running or agreeing on deadlines for the various deliverables of the project. The project was on a very strict deadline, so a lot of the talk revolved around how to get everything done in time. Architects would start working on the planning disposition right away but there was some discussion back and forth as to how to ensure that the engineers would have enough time to do the calculations. The architects were going to use the planning disposition that the tender material contained as a point of departure, so it was agreed that the engineers could start calculations based on that. By the end of October, architects would hand over the final planning dispositions to the engineers, then one week after that, architects and engineers would hand over the basis of calculation to the main contractor, and the offer would then be submitted three and a half weeks later.
>
> My presentation of the building programme and the main themes to consider was presented after this project timeline discussion. Everybody listened attentively and follow-up questions were asked at the end. However, despite this engagement, it still seemed a bit disconnected from the main focus of the meeting. In the minutes from the meeting, it simply said: 'Mia gave a presentation based on her anthropological approach to the project', and the action point associated with the item was: 'Mia saves the slides on the shared project platform in the "collaboration area"', without any mention of concrete measures to ensure the inclusion of these insights and focus areas in the project going forward.

In my field notes from the meeting, I also highlighted this sense of the presentation not really fitting in or that it seemed to disappear in the talk about the other items on the agenda that were more concrete and time-specific:

> I get the feeling that in the overall project – and the concrete work to put together a robust competition proposal, it [user focus and social value creation – creating the best possible environment for future users] quickly fades somewhat into the background in relation to the other discussions – or at least that this focus becomes a bit more diffuse – a collection of knowledge put on a shared document platform, rather than a comprehensive approach.

The problem here is not lack of attention, intention, or ambition, but more the ways in which this attention is translated into concrete values work in the project – or maybe rather the challenge of translating it in the first place. This type of work or knowledge is difficult to merge with existing project logics and workflows. It does not lend itself to fast decisions or final answers and consequently, efforts to include a stronger focus on these aspects often clash with other project concerns or simply becomes more difficult to include in project activities, because it does not provide specific instructions or blueprints for design.

In the following section, I continue the exploration of the relationship between the essentialist and the relational logics that I see enacted throughout my fieldwork in many different situations and at different scales. I move from an overall focus on social values and user involvement in the abstract, in the work to formulate new criteria for the DGNB framework, to a more concrete focus on including 'well-being' in a POE questionnaire.

Including Well-being in a POE questionnaire

The *POE platform* project is an R&D project initiated by the Danish Green Building Counsil (DK-GBC)[19] and funded by Realdania with participation of Rambøll, CBS, Danske Ark, Lynge Benchmark, and AART. In the POE platform project, a new digital platform to conduct POE surveys in Denmark was developed. The aim was to make it more accessible and cost-effective to conduct POEs. In addition to the survey and platform development, one of

[19] Danish Green Building Counsil (DK-GBC) has since changed its name to the Council for Sustainable Construction (RFBB) and is the same council referred to in the previous section, and which is responsible for the development and administration of DGNB in Denmark.

the pilot studies in the project also included a qualitative ethnographic study to investigate what types of insights can be gained through this approach, and how this can be added to the traditional way of conducting POEs using a survey format. In the project description, this ambition was formulated in the following way:

> The central focus of this project is developing and testing a POE platform that can make it easier and more cost effective for Danish actors within the built environment to conduct and learn from POE, based on a standardised questionnaire, thereby working to reduce some of the barriers still preventing the wider uptake. In addition to the platform and questionnaire development, a focus on qualitative methods is included. In this regard, we see qualitative and quantitative data as complementary sources of knowledge, that can help us answer different questions, and provide insights on different levels, with the overall purpose of creating feedback loops to ensure we learn from the existing buildings in use to improve future projects. (from the POE platform project description)

The POE platform questionnaire was inspired by the BUS questionnaire,[20] which relies on a relatively small set of key performance indicators based on what previous research has shown to be the most significant questions, and to allow easy comparison with other buildings that have been studied (Cohen et al., 2001). In addition, the questionnaire also included aspects that relate more clearly to the architectural qualities of the building and inquired into how well respondents feel the building supports their daily work practices and their overall well-being. Questions were framed within the five subcategories: Building, Workspace, Indoor Climate, Facilities & Qualities, and Well-Being & Job performance.

A great deal of work was put into formulating questionnaire questions relating to architectural quality and well-being in relation to the building. One of the strategies applied was looking to existing building evaluation frameworks that dealt with social aspects, like the WELL building standard[21]. Another strategy pursued was trying to

[20] BUS (building use studies) is a method for evaluating occupant satisfaction. By benchmarking occupant satisfaction levels against a large database of results from similar buildings the aim is to create feedback to help improve quality and performance.

[21] WELL (WELL building standard) is a performance-based system for measuring, certifying, and monitoring features of the built environment that impact human health and well-being, through air, water, nourishment, light, fitness, comfort, and mind. See more on: https://standard.wellcertified.com/well

translate the DGNB diamond matrix[22] into questions that could be answered from an end-user perspective. In Figure 5 the existing DGNB diamond matrix is shown, with an English translation of the questions relating to detailing. The matrix is based on the three core qualities of structures in architecture, firmitas, utilitas, venustas, as defined by Vitruvius more than 2000 years ago (Vitruvius, 1960). Figure 6 shows the translation of this matrix to a POE format, with the headings of building, well-being, and productivity as the central themes to be addressed.

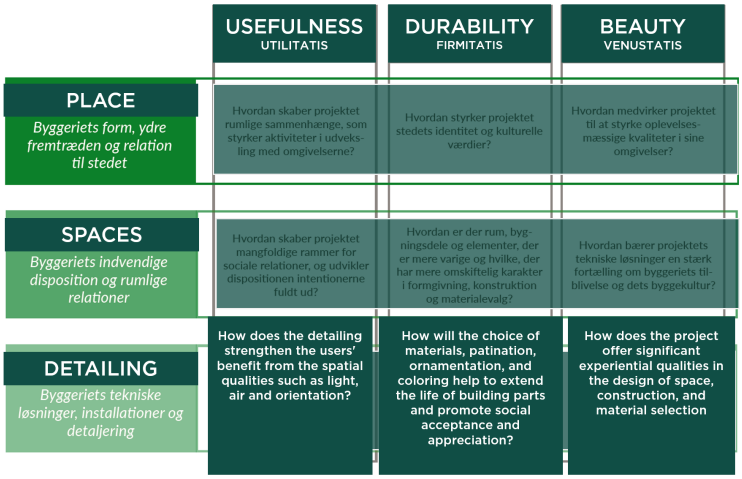

Figure 5 shows the DGNB diamond matrix used for peer review. Here, the headings and the questions related to detailing are translated to English.

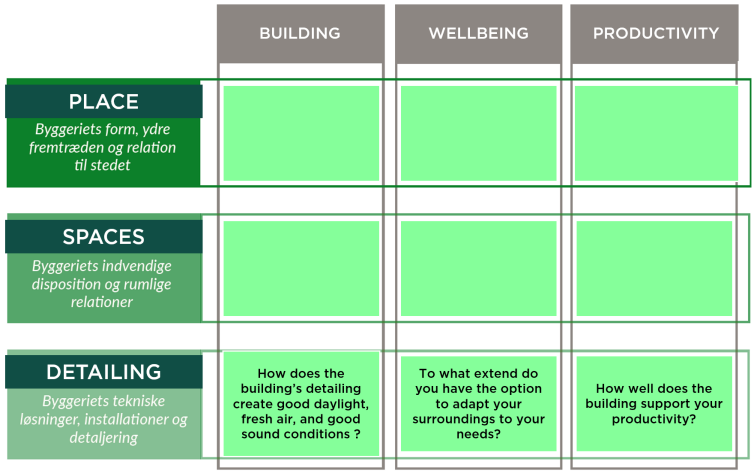

Figure 6 shows the POE project adaption to end-user evaluation with a focus on well-being and productivity, again focussing on the questions relating to detailing.

[22] DGNB diamond is an additional award to the DGNB certification scheme. It aims at highlighting architectural quality in DGNB certified buildings. The evaluation is carried out by expert judges (architects pointed out to be part of an architectural committee).

This was seen as a way to expand existing approaches, by including topics that were not usually addressed in a POE, but these new topics or themes were still framed as attributional qualities of the building by, for example, asking: *How does the building detailing create good daylight, fresh air, and good sound condition*? Or: *How well does the building support your productivity?* The focus remained on assessing how well the building performs in terms of the different overall categories as experienced by the users. Looking back at these different efforts, I see how they take an attributional understanding of buildings and value as a starting point, without really questioning the underlying assumptions of these logics.

When we conducted pilot testing of the questionnaire, these 'new' categories proved difficult for respondents to answer. During the first pilot test, respondents reported having a hard time understanding some of the concepts used such as 'detailing', a common architectural phrase that also figures in the DGNB diamond matrix but did not make sense to respondents. They found it difficult to rate the topics addressed on the scale provided, and the themes seemed a bit off compared to the other themes of the questionnaire. How should non-professional respondents weigh attributional qualities of the building, like office space, light, temperature, air quality, common areas, and cleaning, in relation to their impact on well-being or performance? People were not used to being asked these types of questions in this way and without a frame of reference or further introduction, the questions did not make much sense to them. As one respondent explained in the feedback session:

> The questions on things like light and temperature were easy enough to answer, and they did not take too long to get through, but I was a bit confused about the questions on things like materials and detailing. I was not really sure what was asked about and whether it was in relation to my desk, the office, or the building as a whole? (...) Also, the questionnaire was too long. It took forever to answer. I think I spent at least 25 minutes filling it out and towards the end I started to randomly select answers just to get on with it. (male respondent in office building, pilot 1)

Respondents were accustomed to answering certain types of questions within this framing, while other questions seemed alien or arbitrary, because they did not fit their existing frame of reference. As a result of these initial pilot tests, it was decided in the

project group to take most of the 'soft' questions relating to social aspects and architectural quality out of the questionnaire before running the second round of pilots.

As was the case with DGNB, good intentions to include social aspects did not translate well to the existing registers of valuing. Including well-being in the POE platform questionnaire was experienced as somewhat meaningless when cut to fit an existing questionnaire format. What these two empirical examples show is how attempts at introducing a more relational approach to value, and broadening the scope for what can be valued and in what ways, is still also attempted adapted to the existing essentialist logic. This is not due to lack of good intentions, I argue, but because this is the way value is usually accounted for and it is so embedded in existing practices that most often, we do not even think to question or challenge it.

An essentialist approach to knowledge and value dominates

As the previous sections have shown, there are several inherent challenges in addressing these, for lack of a better words, intangible or invisible aspects of building performance, like social values (understood as relational, complex, qualitative, and ongoing), the 'soft' aspects of the built environment, in a building industry that has a strong tradition of favouring quantitative data over qualitative data as a means of valuation, focussing on the 'hard' facts, based on calculations and precise measures. One of these challenges is that this essentialist style of knowing is deeply rooted in existing practices, but often not made explicit in everyday work situations. I experience this in the day-to-day project negotiations, where excel sheets, budget considerations, and timetables take precedence, as well as in the work on the DGNB 2025 manual and the POE questionnaire presented above, where good intentions become difficult to realise in practice because of this clash between essentialist and relational logics.

What I found in the existing building performance research literature (in part I) is that 'the social' still moves somewhat at the edges of more established research fields; not necessarily in conflict with, or direct opposition to, those fields of research, but still less clearly articulated and often as an add-on to these research agendas, conforming to existing overall logics. Sustainability is still mainly environmental, performance mainly technical, and value mainly economic.

Even though the past decades have shown a large increase in the number of research projects and papers dealing with social aspects of the built environment, a large portion of this research is still founded on an essentialist ontology, grounded in the natural or technical sciences. As I accounted for in chapter 5, there is a strong tendency in existing building performance research to look for final answers or universal truths, treating 'the social' as yet another attributional quality of the built environment that needs to be dealt with as accurately as possible, through precise measures, to be managed and predicted as best as possible. This largely taken-for-granted knowledge about, or understanding of, value as attributional and quantifiable has consequences for the ways in which value can be accounted for in relation to the built environment.

The essentialist approach to value becomes performatively stabilised through ongoing sociomaterial practices in the building industry. Based on the examples presented above, I argue that the building industry needs to work towards better understandings of what gets included and excluded through these moves of valuing and agential cuts that an essentialist approach to value and knowledge enacts. This is not a matter of simply choosing one logic over the other. To better understand what is at stake in these processes, I turn to Anne Marie Mol's concept of *ontological politics* (Mol, 1999), which I introduced in chapter 4. The concept of ontological politics highlights how particular knowledge and value framings are just that: framings or enactments that are negotiated and become performatively stabilised, and that it is these ongoing performances that enable different logics, in this case the essentialist value framing, to maintain their dominant position. Certification schemes, like DGNB, play a major role in this stabilisation, as continuous and powerful enactments of an essentialist logic, and can be understood as acts of ontological politics in that sense.

The notion of sociomateriality and the premise that characteristics or capacities of buildings and values are relational and performative, enacted through sociomaterial practice, can be challenging to absorb, given the very manifest physicality of buildings, as well as the existing dominant valuing registers. Quantitative results are considered facts, meaning objective and universal truths, while qualitative insights are often dismissed as anecdotal. They might do for now, if this is all we have, but we need to keep searching for better answers, better ways of measuring, calculating, or simulating performance to move

from the gut feeling of architects towards a more evidence based approach to design (Djebbara, 2023).

Evidence, in relation to the built environment, is understood quite narrowly, coupled to an essentialist logic where evidence means something static, something that we can know for certain and that is universally applicable, which, in my view, seems incompatible with the complexity and messiness of social life. In a recent debate post in *Byrummonitor*[23] Zakaria Djebbara and Anders Barslund argue:

> If we want to learn more about how humans experience spaciality, then we have to include higher-level evidence to create a language and make it measurable, in order to ultimately make it universally implementable. (Djebbara, 2023)

While I share the view that more research needs to be carried out to better understand the complex entanglements between people and environments, I am less certain that the way to go about it is to aim for solutions that are 'universally implementable'. What I find interesting in this regard is that there is a certain style of knowing, a particular mode of ordering, reflected in Djebbara and Barslund's debate post, in the DGNB-DK, the work with the POE platform, and tied to evidence in the built environment more broadly, that is not naturally given, but rather represents an essentialist ontology that is negotiated and enacted in practice through acts of ontological politics where particular valuing registers get performatively stabilised in practice through agential cuts.

Agential realism, which Barad has defined as: 'an epistemological-ontological-ethical framework' (Barad, 2007: 26), presents an alternative to this essentialist ontology and provides another potential path forward. With a relational ontology, reality is defined as things-in-phenomena and not as things-in-themselves. In fact, 'phenomena' are viewed as the primary ontological units, which makes Barad's agential realism both an epistemology (theory of knowing) and an ontology (theory about the nature of reality).

The rejection of ontological separateness, for which Barad argues, does not mean that differences are conflated or collapsed. It does not mean that everything is the same or that differences are not important. Rather, it means that entities or categories emerge through connections in particular situations and therefore cannot be meaningfully singled

[23] *Byrummonitor* is a Danish digital news media, writing about Danish urban development.

out in any absolute sense but need to be understood through their relational entanglements in practice. The focus is on processes of formation rather than final results or universal truths. In relation to evidence and value in the built environment, maybe one potential path forward could be to find ways of dressing evidence with other methods, through different onto-epistemological approaches. This might enable the inclusion of different types of knowledge, looking for the transparticular across sites and situations, rather than the universal, and orient evidence more towards the future than the past. I return to these reflections in part III of the thesis, where I discuss ways of supporting social value creation in practice.

Another main challenge in existing project practices is that a lot of things are considered important and require attention, time, and resources in these complex building projects. Many diverse requirements need to be met and the experience of having to navigate this multitude of different concerns can seem quite overwhelming. As one participant at the social value workshops put it:

> The architect is like a spider in a web with so many things that need coordination: fire safety, sustainability, ventilation (…) Working to make all ends meet, the user involvement sometimes becomes an extra obstacle in an already super-complex process. (architectural consultant with social science background)

Some building project requirements, like fire safety or ventilation, are very tangible, unambiguous, and indispensable. There are set requirements that need to be met, and project participants know the result they need to have in the end: a building that can be approved by the fire authorities and meets current ventilation standards. When user involvement is articulated as an 'extra obstacle', as stated in the quote above, it has to do with the intangibility of this kind of effort. It is a different kind of activity that yields less tangible results in the short run, which also makes it easier to cut back on, or maybe even do without, if project budgets or project deadlines come under pressure. Three-hour user-group sessions turn into 45 min user-group sessions, or four workshops become two workshops, just to mention two of the examples I have come across during my fieldwork. One of the challenges is that it can be difficult to make clear what the added value of four workshops rather than two is, within a short-term project logic. Users are still involved, and requirements are still generated.

At another workshop, facilitated by the Danish Builders Association as part of a project to develop a new industry guideline for the handover and evaluation of new schools, (Jensen, 2023), where I participated as part of an expert group that helped develop these new tools, one of my fellow participants made a similar comment about the challenges of involving end users in these complex and time-optimised processes:

> There is no room for things that take too long– so it often also becomes a matter of how we might as easily, quickly, and cheaply as possible, get this done and move on. (architect with 15+ years of user involvement experience)

Both quotes and the project examples described in the previous sections point to the challenge of fitting meaningful involvement of end users or use value into existing project frames, or modes of ordering, where the workload, the number of different demands, and the often conflicting requirements that characterise contemporary building projects do not support these types of more open-ended activities where results are not given in advance, and it might not be immediately visible what is missing when activities are downsized or cut out.

The different framework conditions that shape contracting in the building industry in Denmark today are not the central focus of my Ph.D. research. However, they provide an important context for understanding why different value framings take precedence over others and what this means in practice for the work with social value creation, building performance, and building evaluation.

7: Cracks and Potentials in Existing Project Practice

In the previous sections, I have shown how existing valuing registers and dominant logics challenge the inclusion of social values in project work and how agential cuts made along the way continuously enact and performatively stabilise an essentialist approach to value.

In the following, I shift the focus to the cracks or potentials of these project processes that afford an affective capacity for change. I continue with the POE platform project as the case but switch the focus from the questionnaire to the qualitative POE pilot study.

As part of the POE platform project, and part of my Ph.D. studies, I worked to develop a qualitative POE approach, based on ethnographic methods, as a different way to include social aspects of building performance in a POE. This approach is described in detail in a paper presented at the ICSA conference in 2022 (Rasmussen et al., 2022). In the following I highlight some of the main elements and insights of this work to show the potentials of a more relational approach to understanding and working with social (or sociomaterial) values in relation to the built environment.

As I accounted for in chapter 4, in the section 'Sociomaterial practices and posthuman practice theory', the relationship between the elements of practices are dynamic and emergent. Sociomaterial practices are ongoing accomplishments that are (re)produced and possibly transformed in every instance of action. This ongoingness also holds a potential or affective capacity for building projects or POEs to initiate and support changes in practice. The conceptual shift to a process onto-epistemology entails a shift from living in a world of already made things, out there to be uncovered, to a world of things-in-their making; a world where agency and value are not attributional qualities but performative enactments, as argued by Barad (Barad, 2007: 214), which I also accounted for in the previous section (p. 82-83).

Sociomaterial practices as a different starting point for POE

An anthropological approach to POE takes sociomaterial practices as the main unit of analysis. It does not view buildings as static objects with particular attributional qualities but as dynamic elements of different sociomaterial practices, relationally entangled with people and values (Rasmussen et al., 2022). Understanding how buildings 'work' or 'perform' after they have been taken into use requires detailed attention to the

performances of sociomaterial practices and cannot be reduced to specific attributional qualities of the building.

In the qualitative POE pilot study, I found connections between activity, temporality, and value that the POE questionnaire in its final form (with only very few questions on social aspects and architectural quality) was not able to capture – and which it probably would not have been able to capture even with all of the original questions kept in place, because it would still focus on attributional qualities of the building and not be able to take these temporal or activity-based variations into consideration. The valuing of certain building facilities, like the lounge areas, to which I return later in this chapter, was not made once and for all, but rather represented an ongoing balancing and negotiation based on the time of day and the (work) activities carried out.

Understanding the relationship between people, values, and buildings as entangled and ongoing, requires ways of knowing – as well as methods and data collection techniques – that attend to these dynamic and relational aspects. This involves both an empirical focus on people's actions in organisational settings, as well as a theoretical focus on the constitutive entanglements between physical structures, people's actions, and values. It requires understanding the contextual contingencies and performed relations of these sociomaterial practices, and leaving behind an essentialist *being* ontology that focuses on entities and attributional qualities, for a relational one of *becoming* that focuses instead on relational performances.

The qualitative POE pilot study was conducted in an office building at a Danish university campus. The building is a compact, two-storey building from 2016 with glass facades and an open plan layout. It is part of a large campus area and around 100 people have their desk and primary workstation in the building. In addition to the workstations, the building also contains meeting rooms for both internal and external use.

The ethnographic field visits were carried out in the fall of 2021 over a period of three weeks with a total of six observation days, 4-6 hours per day, and qualitative interviews with 10 managers of the different departments asking about work practices, collaborative relationships, and the constellations of their teams. In observations, the focus was on mapping flows and interactions using printed plans of the building, taking pictures, and writing detailed field notes. I mapped places and flows of people, as well as types of activities and the tools with which practices were carried out (phones, computers, coffee

cups, whiteboards, etc.). I registered what people did, which spaces were used the most, and what they were used for, paying special attention to conflicting activities or certain facilities and spaces creating frustration for the employees, as well as variations across the day or week, or between different departments in the building. Through the interviews, I gained a deeper understanding of the needs and practices of the individual departments, their perspectives on how well the building supported their current workflows and needs, and what they found most important for their employees to thrive in the workplace in general, and this building in particular.

The qualitative methods and the sociomaterial approach offer ways of knowing and looking at phenomena that are not easily quantified or measured in numeric values, through technical measurements or questionnaires. 'Well-being' is one such complex phenomenon. Understanding and working to support well-being requires an understanding of the rhythms and the concrete entanglements that contribute to the configuration of different sociomaterial practices as they unfold through the flows of everyday life in the building as well as the coordination between them.

In the initial report for the pilot, generated solely based on the results from the POE platform questionnaire, it was stated that: 'By comparing the importance score to the satisfaction, it is possible to identify which facilities have the highest potential for improvement i.e., high scores of importance and low satisfaction scores.' (see Figure 7)

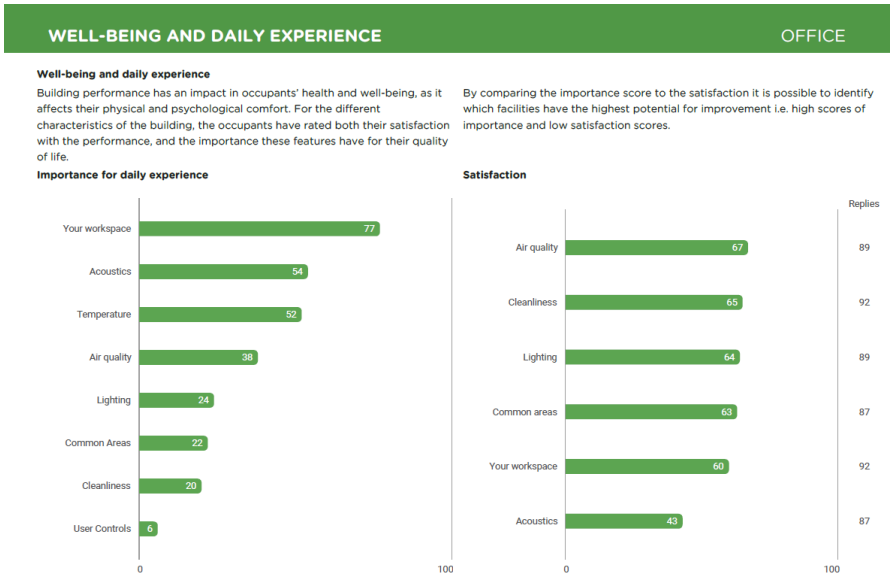

Figure 7 shows the correlation between importance and satisfaction, as shown in the questionnaire report.

This way of framing the results narrows well-being to an individual preference that can be understood generically.

The ethnographic and practice-based approach proposes a relational alternative, attuned to the complexity and multiplicity of social values. By using a mix of observations and interviews I map and analyse the elements of the entanglements (people, values, and buildings) in different situations and provide insights into the individual as well as the organisational-level barriers and drivers for well-being. Moving beyond the reflections of individual respondents and taking a more systemic approach with special attention to the ways in which the physical context affects well-being, beyond individual scores of importance and satisfaction in the questionnaire, to map out potentials for change. In the following, I present a few examples from the qualitative POE case study to illustrate this point about multiplicity, negotiation, and coordination of well-being.

> Overall, it was a lively, busy building, with a lot of movement and interactions throughout the day, a mix of voices, footsteps, and coffee cups. People were talking on phones, coordinating at the desks, or having ad hoc meetings in the kitchen or the lounge areas. There was a constant flow of people and sounds, a lot of movement, and a lot of talking, especially on the ground floor, where there was seldom a quiet moment. Different types of activities took place within the same physical space, creating friction and frustration.
>
> Following the flows or rhythms of the building allowed for an unfolding of this complexity: how people and things moved in and out of the building, upstairs or downstairs, and the level of interaction along the way; how it changed during the day or during the week, and all the things that happened in the "in-between", when people moved from one meeting to the next or switched from one type of activity to another. How a particular space changed from a workspace to a social space when a birthday cake was brought to the table, How the lounge area outside the large meeting room on the first floor became a junction for ad hoc meetings, when people moved in, out, or between meetings, or the ways in which the transparency of the building affected these flows by making people visible from a distance. The affordance of these spaces is contextual and situational, as the following example serves to further illustrate:
>
> A large u-shaped red sofa is placed in each of the two lounge areas on the first floor of the building. The sofas immediately catch your eye when you come up the stairs; both the size (they easily fit 15 – 20 people) and the colour draw attention. These

> sofas are used for a variety of different purposes. They are used for social gatherings, for the joint Friday breakfasts, for presentations, for individual work, for lunch breaks, phone calls, and as a waiting area for people who are attending a meeting in one of the large meeting rooms next to the lounges. It does not make sense to categorise this type of space in any absolute sense, as it changes in action, depending on the sociomaterial practices in which it forms part. It works differently for different people at different times and takes on varying meanings and value accordingly. On the one hand, the kinds of ad hoc interactions made possible by these more informal gatherings of people stopping by to ask a quick question or taking the chance to address urgent matters on the go, are something that contributes to the sense of the building being inviting and working well. It enables interaction and collaboration and supports the 'team spirit'. On the other hand, it also potentially creates interruptions and frustration for the people working right next to the lounge areas, the kitchens, or other central hotspots in the building, because their workflow is disturbed by these comings and goings, and they feel like their ability to do focused individual work is compromised. (Rasmussen et al., 2022: 350)

What this shows is that buildings or values cannot be valued meaningfully in and of themselves but need to be understood performatively in relation to wider ecologies of socio-material practices; through their relational performances rather than their attributional qualities, as ongoing accomplishments that require continuous care.

Working to support well-being is complex. There are no simple right or wrong answers to what creates well-being in an office environment, or any other environment for that matter. Rather, the different, and sometimes conflicting, concerns need to be carefully weighed. What creates well-being for some might reduce the well-being of others. These deliberations and nuances are also brought up in interviews. As a manager of one of the departments interviewed reflects: '*We would probably get a lot more quiet time if we moved to a different building, but strategically that would not be the right thing to do, because then we might not get involved in projects as much as we are now'.* This points exactly to the balancing act of trying to make things work as best as possible in practice, within a given frame, weighing 'quiet time' against 'involvement in projects'. Both are important to their work practices, and both relate to well-being. It is not so much a matter of choosing or judging between the two as it is a matter of finding a balance or allowing for co-existence.

Exploring sociomaterial practices as a particular approach to POE allows me to look at, and talk about, the different elements of these practices and how they fit into the overall flows and structure of the building and the practices, beyond absolute categories of good or bad, right or wrong. This is not simply an act of establishing worth or casting judgement, as is the case in most classic evaluation thinking. What an anthropological approach to POE tries to tackle is how to make these entanglements work going forward. It is about finding ways of enabling different sociomaterial practices of collaboration and interaction as well as focused, individual work to co-exist and to facilitate coordination between them. It cannot be settled once and for all, which configuration creates the highest degree of well-being. Instead, the aim is to move beyond the experiences of individual users or the attributional qualities of particular building components and attending to the organisational and social aspects of building performance as well, focusing on processes and practices rather than objects and entities. An anthropological approach to POE recognises knowledge and value as contextual, situational, and contested, and focuses on these performative flows of agency and their affective capacity.

This type of knowledge is difficult to obtain using questionnaires because it is not static or well defined but rather dynamic and entangled. What is interesting in an anthropological approach to POE is how these environments and values become enacted differently in various sociomaterial practices, and thus come to mean different things for different people at different times – and how we might work to support the co-existence of different configurations through continuous coordination, dialogue, and joint reflection.

The focus of my Ph.D. studies is to understand and qualify the entanglements between people and buildings by exploring a more relational approach to value. I see POE as a potential key element in this process. However, it is important that POE is understood as a process and that the focus remains on the relational entanglements of sociomaterial practices as an open-ended and ongoing effort that requires continuous care. The primary ambition is to make it work; about improvement rather than just assessment. In a word, it is about valuing. As defined in chapter 4, in the section: *Valuation, values work and valuing in practice,* valuing is performative and combines assessment and improvement. It is something someone does. This crucial point seems somewhat missing or lost in translation in the POE platform project, both in relation to the inclusion of well-being in

the questionnaire but also in relation to the anthropological POE pilot study. This is shown especially clearly in the handover of the findings back to the organisation that initiated the POE of their office building. The relational approach to knowledge, buildings, and value that permeates the study and my approach to POE does not translate well in the handover meeting, as the following sequence illustrates.

> To present the results from the qualitative POE pilot study and talk about potential ways forward, I called a Teams meeting with four representatives from the organisation in which the study was carried out: my main contact person (and PM on their side) (in the following referred to as P) and three additional organisation representatives whom he invited to the meeting. One had a technical background and had also been interviewed as part of the POE pilot study (T), and another was a working environment representative (W). She had not been part of the qualitative study but had been involved in looking into the results from the POE platform questionnaire and had previously also been involved in the work with APVs[24]. The last person invited to the meeting had not been part of this POE work but had previously carried out evaluations of buildings (E).
>
> After my presentation I invited questions and comments. The project manager took the floor first.
>
> **P**. 'I think this way or carrying out the analysis, like you have done, with the interviews, gives a more accurate picture that people are generally satisfied, there are a few things that could be improved but overall it works very well.'
>
> **W**, visibly irritated with the quick and unequivocal conclusion of the project manager, asks about the interview setup and suggests that maybe this positive picture has to do with the people included in the study. I explain that ten interviews, lasting about an hour each, have been carried out with section managers in the building. So of course this does not give a full picture, as I also emphasised when I went through the results. I emphasise once again that this is something that requires continuous work, that the pilot study gives a starting point for that work by pointing to some of the challenges, and that there is something to be learned from the qualitative study that you would not get from the questionnaire alone but that it does not propose to be the full picture.

[24] APV is a mandatory workplace assessment carried out at least every three years.

W nods her head in silence, reflecting, but does not seem to have further comments.

E raises her virtual hand to indicate that she has something she wants to say.

E: 'I just have a few comments. I have not been a part of this project so maybe I missed some information, but I have just a couple of things I wondered about. I think some nuances are missing. First of all, I think the study seems to present a well-functioning, flat, interacting organisation that I do not really recognise. I think that one of our main challenges is that we, of course we also succeed in collaborating in many contexts, but I think we have big challenges with working in silos and we often do not know what others are doing, and I don't think that this study brings that out. There are structures and cultures in the organisation that the architecture alone does not succeed in breaking down. I found some of the descriptions in the presentation too positive …. And then, the second point I want to make is about noise. I have had many talks with colleagues over time, and this is also my own experience that it becomes a "glass house" – and again this is just a nuance. Glass and transparency are good for many things and the open space is good for many things, but many, myself included, also have a need to be alone. And yes, then you can work from home, but here in this building the only place where you have your own closed space is in the toilets. And I know many people find that challenging.'

The connection to E is breaking up – her picture freezes on the screen … W takes over, where E left off.

W: 'I agree with E that maybe it comes off a bit too positive and I think it is a pity that the questionnaire is not included more. What about the answers given there – and the employees who made comments there, about the challenges experienced. I think it is a pity if those get lost.'

There are several things relevant to unpack in this small exchange of words. I start with the project manager's use of the words 'accurate' and 'overall' to describe the results, which shows the first misalignment between intentions (what the study set out to do) and expectations (the kinds of results P was looking for). Accuracy and generalisations adhere to an essentialist logic of objects and value out there to be objectively uncovered, where a relational approach, on which an anthropological approach to POE is based, views value as contextual, situational, and contested, and focuses on the performative flows of sociomaterial practices.

The second thing I wish to draw attention to is how the very positive interpretation from P immediately creates a backlash from W and E, where they highlight the things that do not work, in their opinion, in the study, in the building, and in the organisation. I find especially the last part interesting because it shows how this discussion about the building and the POE also becomes a discussion about the organisation, thus illustrating quite clearly the concept of sociomateriality. It is difficult to pin down social value as something that can be settled once and for all, or as an attribute of the building itself, because it is perceived and experienced as entangled with other concerns in practice.

Their critique is just as much about the organisation (maybe even more so), how they work in silos and do not interact or share knowledge enough, or the inability to find a private space to do focused individual work, and these work practice challenges are all linked back to the building as a 'glass house'. It becomes legitimate to question organisational characteristics and challenges by way of the building.

The type of conversation or space created here, where the relationship between people (individuals and organisation), values, and building can be openly negotiated and enacted, holds the affective capacity to support social value creation by proposing or initiating changes in practice. However, this requires a stronger focus on the process rather than the end product of a POE, which includes understanding that the goal is not designing the perfect solution but rather creating spaces of in-betweenness where inhabitants are given the opportunity to discuss and reflect on existing configurations of sociomaterial practices and invited to talk about, and experiment with, how things might be imagined otherwise.

This potential was not fully realised in the POE project; instead, the ambiguity and openness of the insights presented were seen as flawed or superficial by the participants and therefore less useful. I understand these positions and points of criticism to be related to the essentialist approach to both building design and value. There is a certain understanding about what counts as value or results in this regard. Even in relation to the anthropological approach to POE, that has explicitly tested a different approach and insisted on viewing well-being as relational and situational, the study is still perceived as something that is supposed to give a final answer and provide easily implementable solutions or decision support. The expectation is that the results are about 'worth' instead of 'valuing', which limits the conversation and also limits the scope for change. As I accounted for in chapter 4, 'worth' is an attributional quality, where 'valuing' is an activity.

These different approaches to value have consequences both for what counts as value and how value can be accounted for.

From attributional qualities to sociomaterial entanglements

The logic of 'worth' works well for building projects that operate within a pre-defined frame with specified goals and a fixed end date. However, it seems less well suited for buildings that are inhabited and continuously evolve through ongoing enactments of sociomaterial practices. A relational approach to value requires a reorientation, where buildings and values are understood as elements in sociomaterial practices, rather than static entities, as sociomaterial entanglements. This approach opens new potentials for how value might be accounted for and worked with, beyond attributional qualities and project logics.

This potential opening can also be seen in the example above, from the handover meeting in the POE platform project, where the qualitative POE results become inscribed in ongoing discussions and negotiations about how work should be organised. These discussions are as much about the organisation of work as they are about the building. Projects (both building projects and POEs) create a space where it becomes legitimate to question organisational characteristics and challenges by way of the building, and in that sense projects, and in this case more specifically the presentation of the observations and interview findings from the qualitative POE, create an opportunity for them to reorient or reposition an already-present critique of the organisation and the way work is organised. It is also then an opening for change.

If I look at the projects that I have engaged with during my fieldwork, the vast majority of them adhere to a strong project logic that focuses on attributional qualities and favours final answers over relational potentials. However, maybe this current 'state of the practice', where an essentialist project logic dominates, can be seen as part of a maturation process or practice trajectory, taking steps towards a stronger inclusion of the social aspects of building performance by attuning projects and project work more to a relational and sociomaterial logic. Just the fact that POE receives additional attention, that the scope of what a POE might look like is broadened, and that aspects of social value creation are attempted to be introduced into the DGNB system can be seen as diffractive

moves that set things in motion and create the possibility of figuring social value in different ways, based on different logics.

Through this way of thinking buildings into practice and practices into buildings, building projects have the capacity to make practices tremble. By reconfiguring one or more elements of the sociomaterial practices of which these buildings form part, they create an opening for change, a liminality where it becomes legitimate to stop, ask questions, and talk about why we do the things we do, the way that we do them. These types of conversations create a heightened attention to the sociomaterial entanglements at play, which are otherwise largely implicit and not something that is explicitly talked about by inhabitants in their everyday use of these spaces.

POE, I argue, can be a way of engaging with, and exploring how, these sociomaterial entanglements play out in practice. However, this work requires a practice perspective that goes beyond the perception or preferences of individuals and attends to the sociomaterial configurations of values and buildings as they continuously emerge. Values are made valuable in particular ways through these ongoing flows of agency and it requires ongoing care and coordination to make built environments work in and for different practices. The goal, if we take a relational approach to value, is not designing the perfect building but creating spaces for joint reflection and coordination that allow different sociomaterial practices to coexist, and for lives to carry on.

In the following chapters, I explore this relational approach to value further through two empirical case studies. The first case, Balancen, focuses on 'community' as a social value, while the second case, Vrå school, focuses on 'good learning environments'. I explore the cases through a relational lens to show what this approach to value enables us to see and understand about social values in relation to the built environment. Both projects have had a strong focus on value formulation, a continuous and comprehensive user involvement process, as well as a strong focus on the handover and use phase of the buildings. In that sense, the projects go further in their values work than typical building projects and I use them to better understand what happens in these processes of diffraction and coordination, where project work and values work become entangled as buildings transition from projects to lived spaces.

I start with a short introduction to the case site of Balancen and the background for the project. I then go on to explore the ongoing values work in the project, how community is reflected in the design, and how valuing continues after inhabitants move in. The aim of the case is not understanding what community *is* in any absolute sense, but exploring the practices, processes, and flows relating to valuing community in Balancen, to show how community is enacted multiple and what this multiplicity means for the perceived value of community for the inhabitants as well as the obduracy of the values as they become part of particular sociomaterial practices.

Case 1: Balancen

Figure 8: Balancen seen from above (photo: Astrid Maria B. Rasmussen, Vandkunsten).

Figure 9: Inhabitants dining together in the common room (photo: Astrid Maria B. Rasmussen, Vandkunsten).

8: Valuing 'Community' in Balancen

Balancen (Balance) is a housing community for people aged 50+. It is located in the outskirts of the town Ry, Denmark, on a hillside, overlooking the surrounding landscape. Balancen was designed by Vandkunsten (a Danish architectural company) for PensionDanmark (a Danish pension fund) with process facilitation by Andel (a Danish process consultancy). The building project was carried out from 2018 – 2021 and the first inhabitants moved in in June 2021. Inhabitants of Balancen range from 52 years old to the early 90s. Most are in their 70s. About one-third of them still work full time or part time. Most inhabitants are women. Out of 33 housing units, with a total of around 40 people, only two single men live in Balancen. The rest of the men (nine) are part of a couple.

Another senior co-housing community is located just down the road from Balancen. It is very different from Balancen – according to the inhabitants of Balancen, the values and identity of the place is different. They have their own spa, and it is more individualised, Lacking the type of community that they have in Balancen where people care about each other, about sustainability, and nature; where they all contribute what they can, and the community is driven by a strong sense of shared commitment[25].

Visions and values work in Balancen

The initial vision for Balancen was defined by the builder, PensionDenmark, who already had a strong idea about the types of inhabitants they wished to attract and how they wanted to position themselves in the market with their *housing community 50+,* taking their existing focus on sustainability to the next level. The goal was to get a DGNB gold certification, but there was also an ambition to create a sustainable profile and identity for Balancen that extended beyond the certification. Sustainability was a core anchor for the project all the way through, both in the design of the building and in relation to the work carried out to define a set of core values for Balancen. This values work was facilitated by Andel and Vandkunsten in the project, through a series of workshops in the local area with potential future inhabitants and communicated in a value programme[26]. The official involvement process started with open citizens' workshops in Ry-hallerne (Ry sports arena), where more than 100 people were gathered to discuss overall themes in

[25] I return to this distinction later and how this connection between identity and values is made to matter in the valuing of Balancen.
[26] The full value programme can be accessed via: https://issuu.com/realdania.dk/docs/ry (in Danish)

relation to living together in a co-housing community. Discussions included topics like what can be shared? what do you want to own? and what can be co-owned? At these meetings, the project team also had a first chance to test their initial idea about sustainability as a core value closely linked to community as *'something inhabitants share'*, as is also explicitly stated in the value programme (Realdania, 2019: 14). According to the process consultant, this particular notion of sustainability as a driver for community, as well as community as a driver for sustainability, resonated with participants at the first workshops and it was decided to pursue this approach further in the project.

In the following, I draw on Barad's concept of 'agential cuts' to show what this particular framing of community means. As defined in chapter 4, in the section *A relational and performative approach,* agential cuts are what brings phenomena into being in a particular way. Another way of putting this is that agential cuts are the boundary-making doings in which phenomena become temporarily manifested. In the case of Balancen, I see community as one such phenomenon. I show how the values work in Balancen enacts sustainability and community in particular ways, and how this way of framing and relating the values influences the ways in which community comes to matter and evolve.

After the initial workshops, four core focus areas for the development of Balancen were defined: nature, health, CO_2, and resources. These focus areas became central to the initial process, the building design, and the ongoing values work that shapes the configuration of community in Balancen. They created a strong profile that also enabled inhabitants to identify Balancen as something unique, based on these values; different, for example, from the 'luxury senior co-housing community' just down the road, a distinction that seemed important for many of them to establish and maintain.

The value programme for Balancen formulates 'community principles' and provides visions for what the future community might look like, through the core values and focus areas, as shown in Figure 10. In that sense, the value programme enacts the first agential cuts of valuing community in Balancen in a particular way, based on these values and thus creates a dynamic foundation from which this emerging community can grow. It is open enough for inhabitants to bring their own interpretations of the values and highlights explicitly that 'Inhabitants build the community' but also set out a clear direction. With a particular focus on sustainability as both 'measurable', 'tactile', and 'something

inhabitants share', the value programme makes a strong connection between community and sustainability, as expressed for example in the following extract:

> The sustainable choices should not just be measurable but also tactile, as sensory qualities in the dwellings. Living sustainably should be a value community for the future inhabitants which can form the basis for a strong everyday community. (Realdania, 2019: 14)

This relationality and entanglement of the values, the relationship between nature, sustainability, community, and the buildings, was highlighted as important by both project partners and inhabitants, as something that makes Balancen unique.

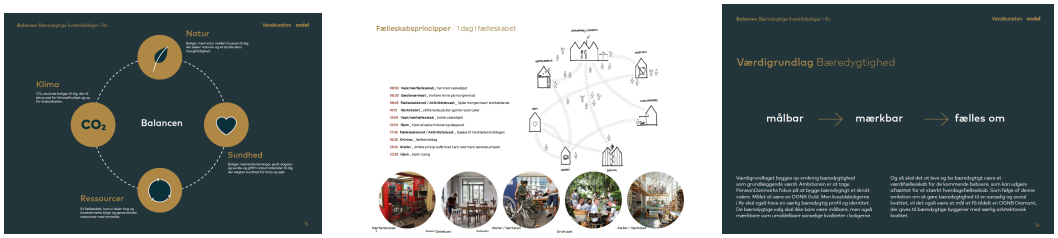

Figure 10 shows extracts from the value programme (from left to right): the four focus areas, community principles, and the framing of sustainability as measurable, tactile, and something inhabitants share.

Many inhabitants mentioned the value programme during interviews, and stressed how it provided a starting point and a grounding for the community in Balancen, and how it continued to play a part in the ongoing development. One of the female inhabitants explained this in the following way:

> I think the work that was done in the initial process was very important. Many of us had met each other before we moved in, and we knew what we were getting into. We had a common goal, something that united us from the beginning. We had a lot of meetings and discussions, and we continue to have these ongoing debates and meetings, every other Sunday, and a lot of people show up. (woman, 74 years old)

The values defined in the initial stages of the project and articulated in the value programme were not static but continuously developed. This dynamic aspect or continuous emergence of the values was also an explicit focus of the project team, and especially the process consultants, throughout the involvement process in the project. Project partners emphasised the role of the inhabitants as 'carriers' of the values and highlighted the importance of inhabitants taking over and carrying on the values work

after the project ends. Figure 11 shows the project process of values work and community building, where the project drives the work in the beginning, but inhabitants take over more and more.

Figure 11 shows the involvement process in the project in relation to community building and values work. The process diagram in the middle is cut through by a diagonal line, dark grey below and slightly lighter grey above, showing the envisioned gradual transition of activity and responsibility from project (dark grey) to inhabitants (lighter grey). The project ensures progress in the beginning, but inhabitants take over more and more.

Future inhabitants had the opportunity to give input to the values, the design of the dwelling, and be involved in concrete working groups as part of the building project. Some of the working groups were mainly practical, like 'interior design' or 'outdoor areas', while others were more explicitly focused on how the overall visions were to live on in practice, with the groups 'values in practice' and 'everyday sustainability'. These working groups can be viewed as a first step in the process of handing over the 'value ownership' of Balancen to the inhabitants, starting to give them a sense of community by doing something together and creating different 'practices of community' (Gherardi, 2009) through these different doings. The working groups contribute to establishing these practices of community in Balancen. Inhabitants engage in joint activities and create shared experiences that strengthen their sense of community and through these enactments community also becomes more settled or defined, as a particular kind of community, related to nature and sustainability.

During this period of the project (the construction phase), a Facebook group called *Os fra Balancen* (Us, from Balance) was also established, and an inhabitants' book was circulated among the future inhabitants, shown in Figure 12. Here people wrote about themselves,

including age, marital status, where they used to live, education, and work experience, as an introduction to their future co-inhabitants.

Figure 12 shows the inhabitants' book, made in a Word template with the cover image from the value programme inserted as the cover.

Some wrote only a few lines, stating the basic facts, while others wrote in more detail and took the time to reflect on their hopes and dreams for their future in Balancen:

> I am also a creative person. I love to draw, shape, sew, paint. So, you will probably find me in the workshop a lot of the time. All in all, I am an enjoyer of life. This last year I have taken an education as dietitian and health coach, something I would like to spend time on in my third age. I am looking so much forward to June, to meeting all of you, and to become part of a rewarding community. (woman, 61 years old)

> I look forward to becoming a part of the culture in Balancen in Ry, where I imagine that the community will be a good support in daily life, as I live alone. I look forward to contributing to a creative environment where everyone thrives and new communities of interests can emerge. (woman, 72 years old)

These presentations are a way for the future inhabitants to position themselves in the emerging community of Balancen. At the same time, it is also a way of contributing to the 'valuing' of that community. At this stage of the building's life cycle, before inhabitants move in, community in Balancen is still very much in the making. It is like a kind of 'proto-practice' (Pantzar and Shove, 2010), as shown in Figure 13, where links between the different elements (people, values, and buildings) are not yet formed or performatively stabilised, which creates a greater openness to change. At this stage of the life cycle of

Balancen, there is still a sense that things can go in different directions and that inhabitants can influence in which directions they should go.

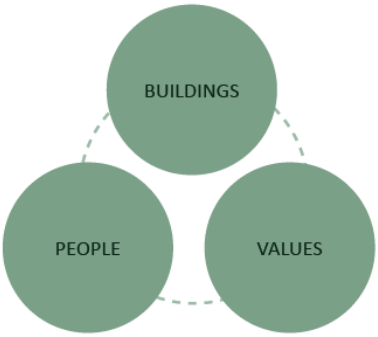

Figure 13 shows a proto-practice, where links or lines between elements are not yet fully formed, as indicated by the separation of the elements connected by dotted lines. Adapted from Pantzar and Shove (Pantzar and Shove, 2010: 450).

The inhabitants' book and the Facebook group ran parallel to the 'official' involvement and design process. These initiatives were driven by the inhabitants, who were starting to establish practices of community in the project, on their own terms, disassociated from the official project process and not with an ambition to qualify the design or drive the project forward. This values work was about establishing, developing, and supporting community. Still, this work draws on and clearly refers to the official values work in the project, as the cover of the inhabitants' book, copied directly from the cover of the value programme, is one very tangible example of. These different logics or modes of ordering co-exist rather than follow each other in a sequential way. Here, they do not conflict or undermine each other but rather seem to develop alongside one another as both contribute to the overall aspiration of creating a viable and thriving community, based on sustainability, nature, and a strong commitment from the inhabitants. However, the main focus in this phase is still unequivocally driven by a project logic, the project deliverables, and the qualification of the design to find the 'right' design solution for Balancen.

From visions to architecture: community by design?

In the initial visions for the project, expressed through the value programme, community was defined in relation to nature and sustainability, through the four core focus areas: nature, health, CO2, and resources. These visions got translated into the design of the dwelling through concrete design choices. An example of this is the cluster structure of the layout of Balancen, which was settled in the involvement process, where other

layouts, such as a more classic residential neighbourhood street structure and a circular structure were also discussed at some of the early 'town hall meetings' in Ry sports arena. In the value programme, the cluster structure is described as providing a scaling to the community, offering a close community within the larger community, as expressed in the flow diagram in Figure 14 that shows the movement from arrival through the large community (around the main street) to the near community of the cluster, and, finally, the home.

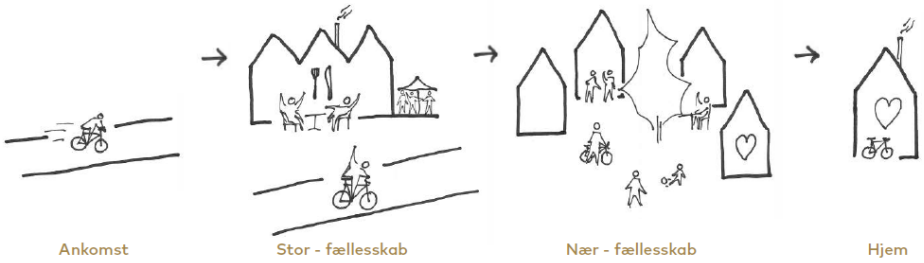

Figure 14: shows a flow diagram of the scaling in the community related to the layout through arrival, large community, near community, home.

Figure 15 shows three main design approaches to support community at different scales: the main street, the common facilities, and the cluster layout.

This scaling or graduation of community is supported by design choices such as the main street, the common facilities, and the cluster layout, and articulated in different diagrams and visualisations, as shown in Figure 15. These show the overall concept of how community was imagined built in Balancen; how the main street was envisioned and designed as the place where most people move through Balancen, how the common facilities were placed as hubs along the main street, and how the cluster layout was envisioned to provide a more close-knit community.

Values were used actively as guidelines for the design, and design choices were also communicated with explicit reference to the core values. In that sense, the value programme and the design can be understood as 'registers of valuing' through which community is enacted in particular ways. The architects emphasise the main street, the common facilities, and the cluster layout as central structures that are designed to promote or support community. These design choices, and the narratives surrounding them, become core elements of 'valuing' community in Balancen and they are made through these 'agential cuts', where the 'official' values of the project are settled and articulated in the value programme, or the layout decided and developed. But what happens to this relationship when the project ends? This relational entanglement between the architecture and the values is something project partners are curious to see develop, as the process consultant explains:

> Time will tell how easy it is to understand the different scales of the community. For us as professionals it is easy to decode, but I am curious how it will evolve ... I think the inhabitants are really good at holding each other to the values …'this guy has not read the value programme properly. He obviously does not know that it is not grass, but a mix of herbs, that has been sown …' So I think it will regulate itself that way – if people don't immediately catch on to the language of the building or the landscape. (process consultant)

One thing is how community initially gets articulated as part of a set of core values in the project, focusing on the relationship between community, sustainability, and nature, and how these core values get translated into concrete design in the architecture and layout of Balancen. Another thing is how the valuing of community continues after inhabitants move in, whether the values and the design will play out as intended, and whether inhabitants will 'hold each other to the values', as the process consultant anticipates. In the following, I explore this continuous valuing of community in Balancen and show how community is enacted multiple, through things, words, and doings, as well as how these enactments move community towards a performative stabilisation that makes it more settled and thus also harder to change.

Moving in and carrying on: From visions and design to practices

The first inhabitants' day in Balancen was kicked off on a sunny summer morning on the 12th of June 2021 with participation from both current and soon-to-be inhabitants. The inhabitants' day was a practical day, but also a day to get to know each other better. Many of the inhabitants met for the first time on this day. The first people moved in on the 1st of June, while more were to move in on the 15th of June and on the 1st of July.

One of the consultants responsible for the user process was present to facilitate the day. He started by presenting the programme and talked about the process so far; about how it all started with an open meeting in Ry sports arena where all people interested could show up to learn more about the project, how there had been a high degree of user involvement throughout the project, with active participation of the future inhabitants, how they helped shape Balancen in very concrete ways, how COVID-19 changed everything and moved user meetings and the different working groups online, and how the inhabitants had taken ownership of Balancen. According to the original plan, they were supposed to have a meeting on Zoom on the 25th of May to establish a resident council (facilitated by the process consultant on the project), but the inhabitants declined, because they wanted to wait until everyone had moved in and felt this was something they could do on their own, without project facilitation, which shows that they already had a sense of having taken over the ownership and responsibility for the further development of Balancen.

The interior designers on the project then presented the concrete work assignments for the day. In the kitchen in the common room there was a lot of unboxing to be done; kitchen utensils, cutlery and decorations, as well as everything that had been donated by inhabitants, which was quite a lot. I saw several large mixers, blenders, juicers, bowls, pots and pans, books, boardgames, and different kinds of decorations. The task was to get everything organised, deciding what to put where, what to keep and what to pass on to recycling. Other tasks included assembling cabinets in the workshop and planting different flowers, berry bushes, herbs, and vegetables in the orangery.

Valuing through things, words, and doings

I joined the women in the common room for the unboxing. A lot of boxes and several large kitchen appliances were scattered around the kitchen and on the tables in the

common room. Nobody seemed to have the full overview of what was in the boxes, who donated what, how much was donated, or how much of it they wanted to keep. Many of the new inhabitants had moved from big houses with lots of space and large kitchens to smaller housing units with smaller kitchens, and so they needed to part with some of their stuff because there simply was not room in their new homes. A portion of this excess stuff had ended up on the tables of the common room, too good to just disperse with. One of the women started the conversation: 'In any case, we don't need five mixers. That is not very sustainable either, I think.' 'I agree,' another woman replied, and followed: 'We just need to make sure we have enough for when we cook for the communal dinners. Maybe two will do?' By relating their arguments to sustainability and community (communal dinners) they create a link to the core values and to what many consider an important foundation for Balancen. I am not sure how deliberate this was, but it created a weight to their arguments that resonated with the others, and there was no disagreement.

The large bookshelf in the common room was another central hotspot for the unpacking during the day. The bookshelf was a wall to wall, floor to ceiling, wooden bookshelf (as shown in Fig. 16), designed for the inhabitants to fill with things that matter to them, and to their shared life in Balancen. At the beginning of the day, it was completely empty, but as the day unfolded it started taking shape and more and more things were placed on the different shelves. All the kitchen appliances, plates, and glasses were placed in the section by the kitchen and everything else was placed in the following sections. During the day, I observed conversations or negotiations about what things to include in the bookshelf: what types of books 'we' wanted to include, and how many, the amount of boardgames appropriate, how things should be organised and arranged, and who should be responsible for keeping it tidy and making sure that it did not just overflow with things that people did not have room for in their own homes.

Two women were responsible for sorting the books on the inhabitants' day. They laid out all the books in piles on the table, sorted alphabetically, to get an overview and sort out the ones of which there were multiple copies. A lot of books still remained but not all of them made it on to the bookshelf; about another third got eliminated. This last selection process was made in terms of popularity and quality (based on their assessment); well-known authors and 'classics' were selected, and hardback copies were chosen over paperback, until they ended with a selection that they found appropriate, as one of them

explained: ‘We should not just patch it up with books from the beginning. It also has to look nice, and there must be room for more to be added along the way …’

Figure 16 shows the large bookshelf that fills an entire wall in the common room. The picture on the left shows the book sorting and the picture on the right shows the first ‘final’ configuration of content.

In a later interview, another inhabitant told me that a group of them became aware, during the evening of the inhabitants’ day, that a lot of books were missing. The following morning, they went down to the container and brought some of these books back to put them into the bookshelf. According to her, this all went by perfectly undramatically and did not give rise to any conflicts. However, it does speak to the ongoing negotiation of what gets included and what gets excluded from the community of Balancen and that these negotiations are not only verbal, but also material; the books and the bookshelf come to play a role in this ongoing valuing, where different ‘agential cuts’ contribute to the configuration of community in various ways.

According to Barad, the world is ‘an endless reconfiguring of boundaries’ (Barad, 2007: 376). These boundaries are always in the making within mutually constitutive relations, producing the inside and outside of specific phenomena. This means that agential cuts are never done in isolation or as fixed and final doings. Instead, they are iteratively enacted in relation to the material and discursive conditions of specific situations. In Balancen, the configuration of the bookshelf can be understood as one such enactment, a material manifestation that brings community into being in a particular way through the selection of particular books over others.

In Barad’s onto-epistemological framework, ‘agency is not held, it is not a property of persons or things; rather, agency is an enactment, a matter of possibilities for reconfiguring entanglements’ (Barad, 2012: 54). In this relational understanding of

agency, agential cuts are not merely choices made, but should rather be understood as particular enactments of community, as acts of 'valuing'. They are not static or given in advance, but rather, dynamic and performative. However, they are always tied to particular situations or particular sociomaterial practices, part of larger entanglements that condition the 'affective capacity' of these cuts to be made in different ways.

In the case of the bookshelf in Balancen, the first agential cut is made by saying: 'We only want 20% of the bookshelf to be filled with books, and these are the books we consider the most important'. Another is then made the following day saying: 'We value books and we want them to make up a larger proportion of the contents of the bookshelf.' In that sense, the bookshelf becomes a material enactment of community in Balancen. However, these *things* alone do not, of course, make the community. In the following, I turn my focus from *things* to *words* to explore how the translation of the values from the value programme figure in the ongoing valuing of community in Balancen.

After moving in, a group of inhabitants facilitated a formal process with a series of meetings and workshops (Fig. 17 shows some of the material from the second workshop). Here they worked to translate the value programme into something more concrete and down to earth, by talking about what the values meant to each of them as inhabitants in Balancen, in their everyday lives, and what kind of community they wanted this to become, as one inhabitant told me:

> The culture we are creating is created now, and it is really important what we do and how we bring new people into that community. Someone moved in a couple of months ago and it takes a lot of effort to get these new people included. This is also one of the reasons why we brought it up [this internal values work]. We want to uncover what kind of values we have, so we are also able to pass this on to new inhabitants. (woman, 69 years old)

The quote shows the attention to values among inhabitants as an important foundation for community. Several inhabitants referenced these workshops in interviews and emphasised the joint reflection the workshops gave rise to, talking about community and values by focusing on what they already *did*, as another inhabitant explained: 'We help each other, that's community. We eat together, that's community, we paint together, that's community, and so on, and so on …' This is all part of getting a better understanding

of the kind of place this is, who they are as inhabitants, what they share, and how this all relates to the core values, as well as how they would like to see this evolve over time. what kind of community they aspire to become.

Figure 17 shows materials from the second values workshop hanging in the common room, including framing of tasks (photo on the left) and key insights from the group work (photo on the right).

This type of ongoing values work allows inhabitants to engage and align by listening to what kinds of expectations and understandings other inhabitants have of the community, making it more visible and present, what community means in practice. It also becomes a way of performatively stabilising values in practice through these ongoing dialogues. Within a relational theoretical framework, both the ideas of becoming and performative accomplishment are central (Gherardi, 2016: 39). The obduracy of the values is reliant on inhabitants to carry on this valuing and continuously engage in these processes of becoming. The inhabitant-led values workshops contribute to both. The work draws a line back to the project and to the core values of sustainability, nature, and community that were initially formulated. The process reaffirms and rearticulates the core values and also brings the inhabitants closer together as a community through this shared experience.

However, valuing also occurs in between and alongside these structured values work events and beyond the first enactments and agential cuts made on the inhabitants' day that performatively stabilised community in particular ways. As I go on to explore further in the following sections, what inhabitants value about community in Balancen is a variety of different things and it is exactly this multiplicity, and the possibility of *doing* community in different ways, that makes it work in practice.

In their paper on the development of 'Nordic Walking', Mika Pantzar and Elizabeth Shove offer a way of looking at practices and innovation that I find relevant for the link between

practices and values for which I argue here, for making the connection between the values of community and the *things*, *words*, and *doings* that enact and performatively stabilise community in practice. They write:

> Critically, it is those who do fishing, cell-phoning or, in our case, walking, who integrate, and in the process transform the elements of which cell-phoning, fishing or walking are made (Pantzar and Shove, 2010: 449).

In the same way, it is the people, the inhabitants, who *do* community in Balance, who integrate and transform to create links between the different elements, between the values, the building, and the people that create the particular configuration of community in Balancen.

In addition to establishing a first material and spatial configuration of community, a second important aspect of the inhabitants' day was also the 'doing together' of the community, enacted in different ways. Through these different doings, inhabitants got to know each other better, while getting to know the dwelling at the same time; understanding how the ovens work, downloading the app for booking the washing machines, or figuring out how to organise the bike shed. These shared experiences, negotiations, and new realisations that played out during the inhabitants' day are all part of weaving the texture and creating links between the different elements to form the meshwork of community in Balancen.

The different enactments of community show that value creation is not limited to design or production, nor something that happens one time in a particular phase of a building's life cycle. It continuously evolves. However, some moments still seem more formative than others. Some lines or entanglements create stronger knots and leave clearer traces, and some agential cuts come to matter more than others. Around the time of moving in, on the inhabitants' day and in the following weeks, there was still an openness or liminality, where things and people had not settled in and links between elements were yet to be formed, which amplified the potential for change, and the significance of the cuts made in this phase, to influence how these emerging practices of community become enacted and, through these enactments, performatively stabilised.

A sense of community and doing things together

Community in Balancen extends beyond the core values defined in the project. It is continuously enacted in the 'doings' of community, or practices of community, where both 'things' and 'words' also contribute to and form part of these practices. Things, words, and doings are different ways of enacting community that all contribute to the 'valuing', understood as assessing, appreciating, adapting, and improving.

The value programme and the core values of sustainability, community, and nature create a common ground and a sense of shared identity from which the different community enactments develop over time; the bookshelf can be understood as a material enactment and valuing of community, the inhabitant-led values process puts community into words, and the ongoing common dinners and different interest-led activities also enact community in a variety of different ways and through these enactments or doings contribute to the valuing of Balancen

The inhabitants in Balancen had all made a deliberate choice to move into Balancen. Many had participated in the initial process, but also the ones who had not expressed having given it careful deliberation before they decided to move here. They were invested in the community, they all had different resources to offer, and were determined to give it their best to make this work. Sustainability and nature were continuously highlighted as strong drivers for the community:

> Most of us have chosen Balancen BECAUSE of the sustainable profile. We share many of the same interests, like setting up the greenhouse and sowing different plants. We also talk about renting a piece of land, so we can grow more of our own vegetables, but that is not going to be this year. These things take time, but it is great to be part of and to be able to influence where we want to do something. (woman, 67 years old)

> I am not saying that it could not have worked somewhere else. However, I will say that if it had been placed in a more urban area, without this surrounding of nature, it would not have been for me. Here, we are in nature but still close to everything. I find that wonderful. Nature is like a glue for us, I think. That we appreciate nature, together, and we often plan trips and go hiking together. (woman, 72 years old)

Statements like these appeared frequently in the interviews. They show a strong link to the core values but also an emphasis on the doings: 'setting up the greenhouse', 'sowing

different plants', 'renting a piece of land', 'grow more of our own vegetables', 'appreciate nature', 'plan trips', or 'go hiking together'.

Community in Balancen very much evolves around doing things together and the configuration of the practices of the community are, to a large extent, shaped through these doings; both planned activities and more spontaneous ones.

When it comes to planned activities, the list is extensive and varied. There are different smaller groups which meet up to go bathing, walking, biking, eating, going to the movies, knitting, sewing, painting, gymnastics, building, singing, listening to music etc.

The bulletin board in the common house (as shown in Figure 18) was filled with a mix of information about these different activities as well as more practical information on who to contact if something breaks or when the waste bins were emptied.

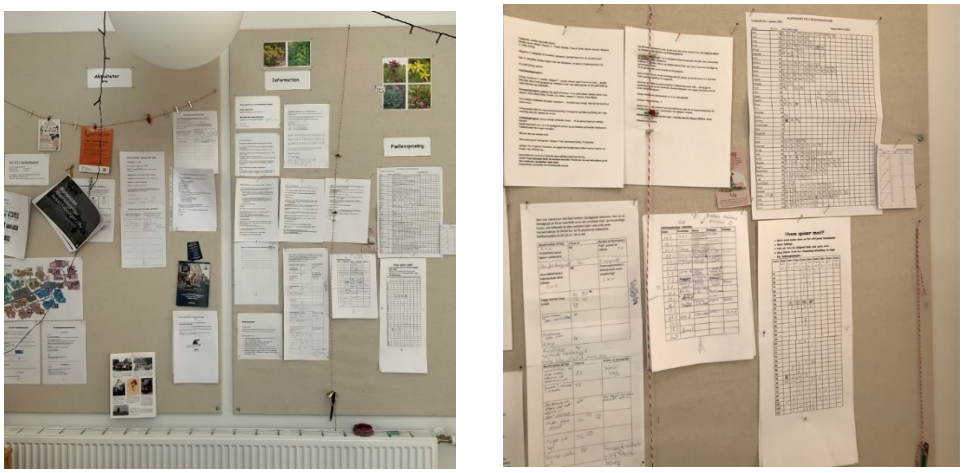

Figure 18 shows pictures of the bulletin board in the common house to give an idea of the scope and variety of activities and groups in Balancen.

The Wi-Fi code hangs side by side with the value programme, a list of who signed up to cook dinner for the next communal dining (and who is registered to participate), an overview of the housing units with names of inhabitants, and information about plants in the area; it becomes a physical expression of the multiplicity of community in Balancen and how all of these different activities and groups continuously contribute to the enactment and valuing of this community. People knew what they were getting themselves into, they identified with the core values, expected others to do the same, and focused on the positive stories, as one informant reflected when I asked her to think about what makes community work in Balancen:

> There is a strong focus on telling the good stories and creating a culture where we choose to focus on what works and care for those aspects to make them grow. (woman, 67 years old)

This does not mean that inhabitants necessarily agree on the weighing of the values; some wanted a more ambitious approach to sustainability, while others were more interested in defining and developing the different activities in the workshop or setting up walking groups and travel clubs. However, they share a sense of belonging and a commitment to the community through ongoing care, and this binds them together.

Different levels of engagement: finding the right balance

Community in Balancen builds on a voluntary approach. This only works because enough people volunteer to organise events and activities, cook dinner in the common house, or take care of practical tasks in the different working groups. The list of activities, groups and gatherings is extensive and diverse, as described in the section above, but that does not mean that you *have* to be involved in everything all of the time to be part of the community. This flexibility or balance is considered a great strength of the community in Balancen, as two female inhabitants explain:

> I was tired of living alone, tired of sitting alone and tending the garden alone … I'm actually a very private person, many here are, but still I found the idea of living together nice. We all need privacy, but I also enjoy having people around me. (woman, 79 years old)

> I think it is just right. It IS a balance with the community. It's not like you hang out with each other every night. I need alone time, I want to read, and so do others, so in that way I think there is a nice balance. Some can be very quick with some things, and that's okay too. (woman, 76 years old)

These different modes of engagement are key to making it work. Having the possibility to adjust engagement according to personal preferences or needs as two other inhabitants elaborate:

> There are people who do not participate as much as I do and that is completely fine. It is not like they are looked down upon. We all have different needs. (woman, 74 years old)

> It works because people want it to work. For most of us it has been an active and deliberate choice to move in. We put community at the centre, keep an open mind, and a positive attitude. (woman, 69 years old)

There is a strong focus on community among inhabitants, and on the ongoing work required to keep community going. Community values become more and more settled through these ongoing enactments of community in the different activities and groups, the different *doings* or *practices of community*. It is also through these enactments that the boundaries of community get performatively stabilised. Despite inhabitants repeatedly emphasising the legitimacy of different levels of engagement, and volunteerism as a foundation for the community in Balancen, there seemed to be a quite well-defined boundary for what constituted sufficient or legitimate participation. Only certain modes of engagement were accepted. It was okay not to join the common dinner every week or not to be part of all the activities available. However, it was not okay not to join any activities. In addition, these opt-ins and opt-outs should be based on choice, not out of necessity because one was unable to participate. Without me asking about it, several inhabitants mentioned two named inhabitants that did not fit in, because of their inability to participate in the ongoing doings of the community:

> If we take the [inhabitant][27], who also moved in later, x should never have moved in here. X is unable to participate in the cooking or the cleaning. X will never become a part of the community that way, because x does not participate in the things we do. (woman, 76 years old)

> We also have [inhabitant]. Y is signed up for a nursing home, so I guess it is a matter of time before y moves out again, but we can't accommodate very many of that kind. Then we have to start providing personal care and that was never the intention. (woman, 71 years old)

The things that make community strong in Balancen, a strong shared identity, a shared understanding of the core values, and close relations between inhabitants in these different practices of community, can also make it difficult for people who move in at a

[27] For reasons of anonymity, I refrain from mentioning the name, age, or gender of the inhabitants referred to in these quotes. Instead, I use the term 'inhabitant' and 'x' and 'y' for personal pronouns.

later stage to feel part of this community on equal terms, as one of these 'new inhabitants' explained in an interview:

> I wasn't involved from the beginning, and I sometimes experience that this creates a bit of division between old inhabitants and new ones. Someone might say: 'you weren't involved from the start' and then the discussion seems closed. (woman, 73 years old)

Values work also becomes 'boundary work'[28] and identity work in the sense that what gets enacted as valuable through these doings of continuous care and negotiation is also what solidifies the group. As I argued in chapter 4, building on the agential realism of Barad, and especially their concepts of 'diffraction' and 'agential-cuts', becoming diffractive involves shifting the gaze from individuals to entanglements, and understanding knowledge and value as direct material engagements with the world.

It is through these ongoing enactments of community (through things, words, and doings) that particular differences are made to matter and the values of community become performatively stabilised in Balancen, through agential cuts of inclusion and exclusion. These categories or boundaries are not static or given in advance, but rather dynamic and performative, tied to particular situations and particular sociomaterial practices. As Barad argues: 'Diffraction is not merely about differences, and certainly not differences in any absolute sense, but about the entangled nature of differences that matter' (Barad, 2007: 381).

What I showed with the examples from the inhabitants' day, the inhabitant-driven values work, and the various ongoing activities is that all of these doings can be understood as acts of valuing that enact community in Balancen in particular ways. Under different circumstances, these values could have been enacted in different ways. However, through this particular entanglement or configuration, through this process of becoming, they become performatively stabilised. This stabilisation never freezes, as there is no final end goal for community. Still, it does reach a point where it becomes more settled and the room for change is reduced. This is what people who move in at a later stage experience

[28] The origin of the term 'boundary-work' is often attributed to the writings of Thomas F. Gieryn and it originally referred to the protection of professional autonomy, defining what fits inside and what falls outside the boundary (GIERYN, T. F. 1983. Boundary-work and the demarcation of science from non-science: Strains and interests in professional ideologies of scientists. *American sociological review*, 781-795.)

as a division between 'old' and 'new' inhabitants and why they find it difficult to feel part of this community on equal terms, because they have not been part of this becoming.

What makes community work in Balancen – and what can we learn?

The intentions and visions articulated in the value programme, as well as the concrete design choices made to support these intentions, all contribute to the valuing of community in Balancen. The buildings support community in different ways, by providing opportunities to meet and facilitating different types of activities, and the core values of the value programme create a dynamic foundation from which community can grow. Equally important, however, is the multiplicity of ways in which community is continuously enacted through the different practices of community, the common dining, the working groups, or the online community in the Facebook group.

These ongoing enactments of community are *material*, for example what gets included in the bookshelf or what is planted in the green house; *verbal*, such as the value programme or the formulation of core value principles at the values workshop; and *practical,* the shared experiences and shared responsibilities; d*oing things together* like the common dining or the different inhabitant-driven activities in the workshop or the surrounding area. These enactments take place at different scales and with different intensities. Taken together, they show the multiplicity of community in Balancen. As I proposed in chapter 4, in the section *Multiplicity and modes of ordering*, Mol's notion of multiplicity can be extended to value as well, and this view on values offers an approach that does not try to settle community once and for all. What this also highlights, is that community cannot be designed. It emerges continuously through sociomaterial practices and is enacted multiple. Talking about community as multiple also suggests that different versions or performances co-exist. What is important, then, is enabling the co-existence and coordination between these different versions.

In Balancen, the different enactments of community come to performatively establish the boundaries of the community. Not everybody can be included and not all enactments are acceptable. The ongoing valuing establishes boundaries by defining who and what is included and who and what gets excluded from the community. The inhabitants of Balancen are a resourceful group, a close knit, privileged group of people with a strong sense of community and shared responsibility. This excludes people who are

unresourceful, too old, or unable to participate for other reasons. However, this demarcation is also one of the reasons why it works. All these different acts of valuing contribute to the ongoing development and the performative stabilisation of community.

What the case of Balancen shows is that community can be given direction through the material design, the built environment that creates certain atmospheres, provides spaces for the different activities, and supports flows and meetings between inhabitants, as well as through the ongoing valuing carried out by both project team (in the design phase) and by inhabitants. This valuing becomes a link between the visions and values defined in the project and the continuous negotiations and reconfigurations of community, as these evolve over time.

In the following chapter, I zoom in on another building project case study with a strong values work approach. In my analysis of the values work in relation to 'good learning environments' in the case of Vrå school, I focus on the entanglements of the building, the process, and the (pedagogic) practices. I show how the transformation from 'old' to 'new' school is about more than the new building and explore the ways in which the process and the building are deeply entangled with the development of pedagogic practices, and what this means for the new school, understood as both the building and the practices, and for the creation of good learning environments. I explore how the building project, the process, and the new building all contribute to the configuration of learning environments in Vrå school and how these different elements can be understood as lines that contribute to the weaving of a larger meshwork and leave traces along the way that support, and sometimes also challenge, the reconfiguration of practices and learning environments.

Case 2: Vrå School

Figure 19 shows the central hall of the old school, with corridors leading to the classrooms and stairs leading to the 1st floor teachers preparation rooms.

Figure 20 shows the central atrium of the new school building (photo: Kontraframe).

9: Valuing 'good learning environments' in Vrå school

After the Danish municipal reform in 2007,[29] the new Hjørring municipality needed to review its portfolio of public primary schools. There were many small schools scattered around the municipality and many of them were not economically sustainable (there were not enough children attending the individual schools for them to be financially viable), so some had to be closed. In addition, many schools were in dire need of maintenance and repair. In a mapping of the conditions and potentials of the schools, the school in Vrå was found too worn-out to renovate. A business case was then made to be presented to the politicians, showing the rationale for building a new school in Vrå instead.

The building project was initiated in 2013 with the establishment of a dedicated project team at the municipality. From the beginning, there was an awareness about the importance of designing the right process to support this project that would easily last for 6-8 years, to keep focus and keep people interested in developing the project and the new school. The school management wanted to use this occasion to also develop their pedagogical visions and strategies. In 2014, a new working time reform for public school teachers was implemented along with a new school reform introducing longer school days and an increased focus on movement as an integrated part of teaching. In that sense, the project was initiated in a time of uncertainty for the teachers, when they were finding their way in these new realities.

Between political and pedagogical realities

Against this backdrop there was a strong awareness in the project team about the importance of being able to navigate those uncertainties in the process, as one of the project managers explained:

> We had just had the working time reform for the teachers and a new school reform, and we did not really know if those settlements would hold. If the school, we knew today, would also be the one we would need in seven years. So, we needed some room to manoeuvre (process-focused project manager. (PPM)

[29] In the reform, several of the existing 271 municipalities were merged to form 98 large municipalities https://im.dk/arbejdsomraader/kommunal-og-regionaloekonomi/kommunale-opgaver-og-struktur/kommunalreformen-i-2007 (12.12.2023)

From the early stages of the project, there was an increased awareness of the importance of 'getting the process right' because this new project came on top of the other changes that still had not completely fallen into place. The municipal project team, in charge of driving the project from the builder side, had a dual project management, with a technical project manager (TPM) and a process-focused project manager (PPM), as a way to meet that process need. The PPM took on the social or processual responsibilities, while the TPM handled the more technical or contractual aspects of the project. In practice, the two project tracks were entangled, but having the dual management ensured a continuous focus on both aspects throughout the project. The dual project management allowed for a more iterative approach with a continuous alignment between the different interests in the project, as the PPM explained: 'My job has been to manage the project in between the political realities and political agendas, and the pedagogical realities of schools and day care.' (PPM)

Going into this project with an existing group of teachers and an existing management at the school that needed to be involved and brought onboard, the project team wanted to involve them as active participants in the project and in shaping the new school. At the same time, there was a focus on how to design a process that also allowed for thinking outside the box, and could bring new ideas into the mix.

Management (at the school) saw a great potential in using this process of the building project as a starting point for talking about pedagogical practice and how they wanted to 'do' school in the future, in response to the new reforms and supported by a new building, designed to support different ways of teaching. It was important to them that the layout and the interior of the new school did not only set the stage for teacher-led teaching (again), but they also wanted these reconfigurations to be rooted in a set of shared pedagogical core values. An initial process was set in motion with involvement of teachers, pedagogues, management, and the student council to define the pedagogical visions for teaching in the new Vrå school. As a result, an ambition for a more project-based approach to teaching was formulated, with the core principles of *framing, focus, and feedback [formidling, fordybelse og feedback]*, as an anchor and framework for that development. In the following analysis, my focus is on the ways in which the building project, the process, and the new building all contribute to the creation of good learning environments and how the transition from 'old' to 'new' can be understood, not as an

instant shift from one solid state to another, marked by the move into the new school buildings, but rather as a meshwork of lines that interweave threads of becoming and leave traces that influence how this transition becomes enacted. I zoom in on the Innovative Learning Environments project as an example of a project activity that contributes to this 'becoming with' and sets things in motion in particular ways. In addition to the ILE project, I also focus on the material configuration and sensory experience of the old school buildings and the new school buildings, as I find these to be constitutively entangled with good learning environments.

The old school buildings: traditional and divided

I visited the old school buildings in Vrå for the first time in September 2021, a couple of months before the move to the new school. There was a lot going on at the school in these months. The project team and teacher representatives were making the final adjustments to the new school and COVID-19 was also still an influence. Both students and teachers got regular tests, and a lot of people were off sick. On my third visit in the end of November, the school had just gone through a couple of weeks with almost one-quarter of teachers and students out sick with COVID-19, and the pupils were more divided than they would otherwise be, teachers told me, with toilets, sinks and areas in the school yard distributed among the individual classes to minimise the spread of any potential viral outbreaks.

At this point in time, the building project and the process had been going on for about eight years. The existing school showed clear signs of lack of maintenance, and the new school was under construction, so there was no point in making any but the most crucial repairs. A lot of stuff seemed to have been accumulated over the years, tucked away in empty rooms, attics, hallways, and corners, and parts of the school seemed mostly used for storage.

The old Vrå school can best be described as traditional. It looked like many other Danish primary schools, with long hallways and rows of classrooms behind closed doors. The administration was tucked away in a corner of the school, a large teachers lounge with little or no occupancy throughout the day was placed on the first floor of an extension to the main building, above the administration. The school was divided into different buildings, as shown in Figure 21, which also added to this sense of division.

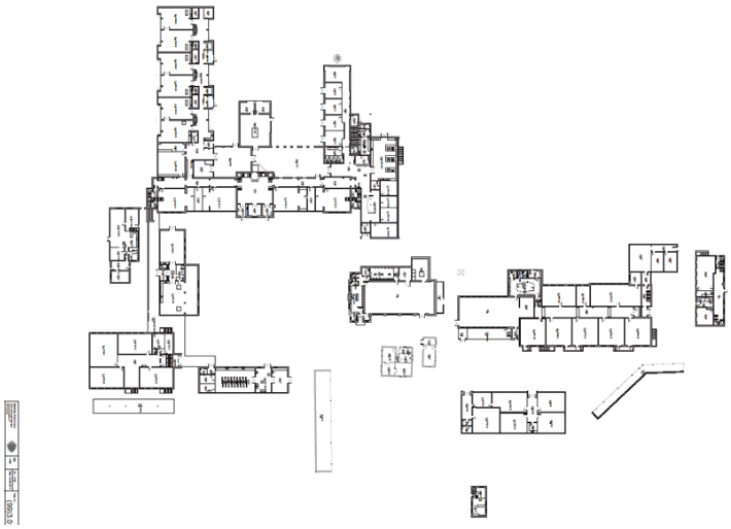

Figure 21 depicts a floor plan of the old Vrå school, showing how the school is divided into different buildings.

Teaching was primarily carried out in classrooms, through a mix of teacher presentations, group work, or focused individual work, working on concrete teacher-assigned tasks, and joint review or feedback in plenum at the end of the sessions. Teachers moved from the main building to other buildings when they went from preparation to teaching, moving purposefully from a – b when the bell rang, but otherwise it seemed quite divided. The different buildings kept mainly to themselves, and pupils stayed within their own areas.

It was evident, just by looking at the different buildings that made up the existing school, that this was a school that had grown over many years. The oldest part of the school was from the beginning of the century. It was built with red bricks, had tiled floors, a high ceiling, and Christian quotes painted above the doors to the classrooms in the main building, as shown in Figure 22.

Figure 22 shows pictures from the main building of the old school.

Other parts of the school were from the 1970s onwards. The newest part of the school was phase 1[30], shown in Figure 23, where the youngest pupils had their classrooms. This part of the school was lighter, the floors had soft linoleum, and acoustic panels had been installed.

Figure 23 show a classroom and a wardrobe in phase 1 of the old Vrå school.

When I walked between the different buildings, it felt like walking into different schools or different time periods. I did not see much interaction between children across the different buildings. This might have been partially connected to the COVID-19 situation, but in my interviews with teachers and school management they also described the school as quite divided in these different 'houses'. This division is described as based on a mix of habit and practicalities, as one of the teachers from phase 3 explains in an interview:

> We stay in our own building most of the time. I think that goes for both the pupils and us teachers … if you look at it in practical terms, it takes time to walk to the main building, so if you only have a 10- or 15-minute break, it's hardly worth it – but we've probably also just got used to taking our breaks here. (teacher, phase 3)

In the main building, the tiles on floors and walls created hard surfaces that made the air feel cool and amplified the sounds in the building. On my third visit, I took a seat in the hallway (right where the picture on the right in Fig. 22 is taken) five minutes before the call for recess. I only vaguely heard voices on the other side of the doors when I first sat down. As soon as the bell rang, children started to come out of the classrooms and the vague mumbling voices turned to a loud soundscape of children talking, laughing, fumbling with school bags thrown on the floor, digging for jackets on the rack, or trying

[30] 'Phase' is a term used to divide pupils into overall categories. Phase 1 is the children from 0. Grade – 3. Grade, phase 2 is the pupils from 4th – 6th grade, and phase 3 is the pupils from 7th – 9th grade.

to locate matching shoes in the pile of shoes scattered along the wall, before running down the hallway to get to the school yard. 'You're not allowed to run in the corridors!' I heard a boy reprimand another boy from his class, as the sounds faded into the distance.

Phase 3, with the oldest pupils from 7th – 9th grade, was split between two buildings. One of them was a smaller yellow brick building from the 1970s, shown in Figure 24.

Figure 24 shows one of the phase 3 buildings, a yellow brick building from the 1970s.

On my second visit to the school, I followed an 8th grade lesson in this building. It was the lesson right after lunch on a hot late summer day and in my notebook, I noted the following:

> The room feels hot, and the smell is a mixture of packed lunches and teenage sweat. The teacher asks a boy to open a window, but the smell persists, despite both door and window being open, and the air in the classrooms feels heavy.
>
> The teacher starts presenting the structure of the lesson, showing a short presentation on the smart board. They will be working with prepositions and the accusative, dative, and genitive conjugations, with a focus on both which prepositions lead to which conjugations and more general grammatical rules for verb conjunctions.
>
> A group of boys at the table in the corner have a hard time settling in. They keep chatting – something about a football match last night. The teacher again ask them to quiet down, and this time it works.
>
> The students take out their German grammar exercise books and turn to page 41…

After the lesson ended, the teacher and I walked together across the schoolyard back to the main building. I asked her about the lesson I had just participated in. Specifically in relation to the indoor climate and the atmosphere in the classroom, she explained:

> The air can feel quite heavy at the end of the day. I clearly see in the pupils when they are getting tired, and I also feel it myself, this lack of oxygen… But then again, German in the 8th grade can often feel a bit heavy so I guess today wasn't that much different from many other days. She followed this up with a slight smile.

What the episode from the German lesson and the teacher's reflection afterwards show is that good learning environments is a complex and multifaceted phenomenon that has to do with the building, the activities carried out, and the relationships (between teacher and pupils, and between pupils). The old school buildings in some ways limit or become an obstacle in the teachers' sense of agency in relation to creating good learning environments, due to the maintenance condition and the indoor climate in the buildings. In that sense, this material configuration limits the 'affective capacity' to create good learning environments. On the other hand, both teachers and management continuously highlighted good learning environments as more than just a physical phenomenon, as one of the school principals explained in an interview:

> In my understanding of the concept, it is much more about the people in the room, than the room itself. We had a lot of really good learning environments in the old school, with cracked windows, where fantastic things happened, and good learning and good relationships unfolded.

Good learning environments are not 'just' about the actions of individuals and also not 'just' about the buildings. It is somewhere in between, a sociomaterial entanglement. This also means that there is no quick fix to creating good learning environments because there is no *one* right answer to what qualifies as a good learning environment. Rather, good learning environments are relational enactments that require ongoing valuing, in the form of assessing, appreciating, adapting, and improving, as I unfolded in the introduction to the concept in chapter 4.

In the following section, I explore a concrete project activity, the Innovative Learning Environments project, set in motion to support this reconfiguration of good learning

environments, based on the pedagogical visions defined in the early stages of the building project and an iterative approach to trying out different room configurations.

The Innovative Learning Environments project

A few years in, the project hit a dry spell in terms of involvement activities. The project was in the late design phase where the work carried out, and the decisions needing to be made were more technical: placement of doors, electricity, drainage, and so on, and user involvement and the core pedagogical values had maybe pivoted a bit out of focus.

The project team got word that people had started to speculate that maybe the new school would never become reality and the PPM saw a need to put something in place that could reinvigorate the project and keep the school (teachers, pedagogues, management, and pupils) engaged and in the loop. Against that background, they initiated the project: Innovative Learning Environments (ILE). The overall idea of the project was to gather teachers (from each phase), school management, and pupils (representatives from the student council) in a series of workshops to talk about what was needed in terms of furniture and interior design, to create innovative learning environments that supported the overall pedagogical values in relation to creating good learning environments, based on the core principles of framing, focus, and feedback, from the initial involvement process. A tender project for furniture and furnishing was then distributed and two classrooms in each phase were refurnished (examples of test rooms are shown in Fig. 25, below). The official ILE project ran for one year, in 2018 – 2019, with a midterm evaluation and some swapping around along the way, so other classes could also try the different furniture.

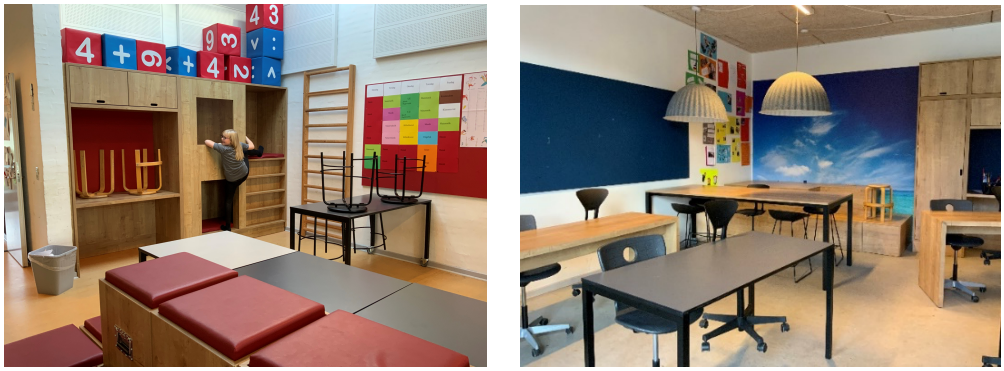

Figure 25 shows two of the test rooms. The picture on the left shows a room in phase 1, while the picture on the right shows a room in phase 3.

I did not participate in any of these initial processes or the ILE project. My first visit to the school was in the fall of 2021 but, in interviews, teachers, school management, and project management highlighted this stage of the building project as important and valuable. The way this ILE process was talked about by teachers and management illustrates the relationality and multiplicity of the process as something that qualifies the design, anchors the project, and contributes to the reconfiguration of teaching practices, and thus the creation or reconfiguration of good learning environments, as one of the school principals elaborated:

> A side-effect is also that this type of process opens up so many pedagogical conversations as well. It is not just about furniture or colours. It creates a space where they have the opportunity to talk about their own practice and reflect on the way they teach – suddenly they notice: I want this type of classroom because I often do x, y, z,, and then others can ask curiously about that – and then the conversation flows from there and we all get a better understanding of what constitutes a good learning environment to each of us, and new perspectives on each other's practices.

Project management (of the overall building project), school management, and teachers retrospectively referred to the ILE project as something that really made a difference for the overall building project, in a positive sense. That it contributed to a smoother transition from 'old' to 'new', because they had already started creating the new school in the old buildings. They had initiated this journey or transition towards becoming something new, not just in the form of changes in the built environment surrounding them but also in the form of new discussions and enactments of good learning environments.

In the introduction to design anthropology in chapter 2, I introduced the notion of co-design as 'becoming with', which was put forward by Akama and Prendiville (Akama and Prendiville, 2013). Building on the works of Ingold on perception, movement and making, they describe co-designing as a process of becoming, a journey that is constantly transforming and connecting multiple entanglements, carrying people and things from past and current to future, bringing a stronger process-orientation to design projects. The ILE project did just that. It created a space for having those conversations as part of the initial process to both envision and 'test' potential futures and to get a better understanding of what good learning environments meant to each of them, and why.

Diffraction is another useful heuristic in this context. It is central to Barad's performative understanding of practices that 'knowing does not come from standing at a distance and representing, but rather from a direct material engagement with the world' (Barad, 2007: 49). Becoming diffractive involves shifting the gaze from individuals to entanglements, and observing how particular entanglements co-constitute reality.

I understand the ILE project as a co-design project along these lines, where the pedagogical values were enacted multiple through material engagements and diffractive moves of negotiating and prioritising, such as deciding which configurations to try out in the test rooms, and why. Through these different doings, the ILE project created a genuine sense of having been involved, set them on this journey of creating new good learning environments, and provided the opportunity to iteratively try out the reconfigured rooms and the different furniture, as the PPM explained in an interview:

> We spent a lot of time testing the different furniture, both pedagogically and practically, but also in terms of durability and functionality, down to details like whether there should be a handle on the cupboard door or just a hole, and how the different room configurations work in relation to cleaning. We got down to some thorough details and involved both educational and technical service staff to find out what makes sense. (PPM)

What I find interesting in this statement is how it shows that these rooms or this furniture are not just understood in and of themselves, but rather as elements in different sociomaterial practices. This also means that different concerns or needs must be weighed or enabled to co-exist for the rooms to become valuable in practice.

As I showed in chapter 7 with the open plan office example, where the lounge area with the large red sofa took on different meanings and was enacted in different ways in different sociomaterial practices, the same material configuration can figure, and be experienced, very differently in different situations as part of different sociomaterial practices. Something might work well as part of creating a good learning environment in one context, but if it is difficult to clean or if it only works for one particular activity, or one specific group of pupils, it will probably not be the most valuable solution. These agential cuts that figure the environment in a particular way depending on the situation

or practice it relates to play a central role in the sensory experience[31] and valuing of these environments. The ILE project enabled these sociomaterial entanglements to play out in different ways and for participants to experience what these different configurations entailed, working in and with this material configuration in their everyday teaching, and experiencing the kinds of challenges or new possibilities this brought about.

Time is another crucial aspect of the ILE project. Having more time to discuss and try out different things, different room configurations, or different ways of doing focussed work and group work in these new spaces, without having to reach final conclusions and instead being able to keep it open ended and explorative for a longer period of time, was valuable. The ILE project enabled reiteration, improvisation, and adjustments along the way, because it created the time/space for this 'becoming with' of the (new) good learning environments, as one of the teachers from phase 2 explained:

> It was great that we had so much time to test it. It gave us the opportunity to try out different things, and also for more than just a couple of days (…) It gave both us [teachers] and the children the opportunity to get used to these new spaces, and to continuously exchange experiences with colleagues on how they used the rooms, what worked well for them and how they made it work best for different activities. (teacher, phase 2)

To really understand how something will work in practice requires more than just thinking and talking about it. Enabling this becoming with, understood as the bodily experience of engaging with and learning from these new configurations, requires time and active engagement, both of which the ILE project provided. Most classic involvement processes in building projects follow a double diamond design process[32], based on tightly scripted activities designed to generate user requirements. This was also the case in the school project I mentioned in chapter 6, and many other projects I have followed during my fieldwork. The ILE project created an extended space for dialogue and reflection, and this ongoingness, understood as there being no need to 'close down' to reach a conclusion fast, made a difference and created the affective capacity of this project to both qualify

[31] I return to the concept of sensory experience in the following section.
[32] The double diamond design process is a widely used methodology for identifying a problem and developing a solution through a mix of divergent and convergent thinking. The process usually consists of four steps: discover, define, develop, and deliver.

the design and anchor the reconfiguration of practices to develop good learning environments.

The test rooms at the old Vrå school left traces, like the ones described by Akama and Prendiville (Akama and Prendiville, 2013: 38), as they lived on after the official ending of the ILE project. They created small oases of newness in the otherwise old and gradually worn-out school and became somewhat of a middle ground between old and new as partially reconfigured learning environments in the existing buildings, with different furniture and greater possibility for variation in seating options and table arrangements.

In that sense, the ILE project comes to matter in several ways; first, through this process of becoming with that facilitated shared experiences, created ownership, and qualified design specifications. However, these reconfigured rooms also live on as traces of a practice (a particular way of teaching), a constitutive element of place (showing a glimpse of what this new school will be and feel like), and a material manifestation of good learning environments (the pedagogical values put into material form). After the project officially ended, the classrooms stayed in the new configuration, with some minor adjustments, and they were still in use when I visited the school in the fall of 2021.

The new school building – a different sensory experience

Figure 26 shows the layout of the new school building, with the phases arranged around a central atrium, and a picture from the atrium (photo: Kontraframe).

On my first visit to the new school, I immediately felt a completely different atmosphere than at the old school, which I also noted down as one of the first impressions in my field notes from the day:

> I walked through the first set of automatic double doors, put on the blue shoe covers placed in a basket on the left side just inside the main entrance, and stepped through

> the second set of double doors to enter the large open space in the centre of the school, the central atrium. The high ceiling gave a sense of spaciousness, the air felt warm without being 'heavy', there was a lot of light, a smell of wood, and the sounds in the room were not thrown around by hard surfaces but absorbed by the softness in the materials. It felt 'nice', without me being able to articulate exactly what this niceness was about, but clearly sensing a difference.

In 'Situating Everyday Life' (Pink, 2012), anthropologist Sarah Pink proposes a theoretical framework that combines 'practices' with 'place', and foregrounds the experiential and individual elements of the performance of practices, through a multisensory approach:

> Where environments are not just social, material, and technological, but multisensory, charged with energy, emotion, shifting with the weather, and contingent on the activity of non-human organisms too. (Pink, 2012: 23)

My own multisensory experience of the first meeting with the new school building became part of my understanding of both the transition from old to new and part of understanding 'good learning environments' as something more than a sociomaterial value – or maybe rather qualified my understanding of what sociomaterial value means in practice; that it holds this extra dimension of sensory experience that is still tied to particular practices but more attuned to individual perception as well.

Pink highlights how both 'practices' and 'places' are constantly changing and subjectively defined, and thus needs to be understood in relation to wider ecologies. This, she argues, allows for an understanding of practices and place as mutually interdependent (Pink, 2012: 29). Building on her concept of the 'sensory home' (Pink, 2004), she argues that domestic contexts are configured through entanglements between material and human agencies, along with discourses on moralities, individual identities, and the sensory, social, and material production of 'home' through everyday housework.

While a school is arguably not the same as a domestic setting, I propose this line of reasoning to better understand what is at stake in Vrå, in relation to the creation or reconfiguration of good learning environments, particularly in relation to the sensory experience of the new school buildings.

The move to the new school shows that there is also a strong material dimension to good learning environments that teachers and management have a hard time articulating as precise values but describe as different sensory experiences. It *feels* different, they explained, just as I experienced it myself when I first entered the new school. The most prominent differences articulated relate to acoustics and lighting, as the following interview excerpt highlight:

> When they are allowed to work together there is not the same noise as there used to be. The sound is absorbed in a different way. They probably don't think about it at all, but I really feel a huge difference. (teacher, phase 1)

> I think it is a completely different environment, also in terms of the lighting in the classrooms. There is more room for adjustments. We can dim the overall lighting and just use the pendant lights. I often do that when I read aloud to the children. (teacher, phase 1)

> The sound is also very different. I do not feel as tired as I sometimes used to, so it's not the same, no. I also feel more comfortable sending them outside the classroom when we do group work. I don't have to worry about the noise the same way as I used to. (teacher, phase 2)

What these different interview statements show is that pupils and teachers carry out many of the same activities – they work together, read aloud, or work outside the classroom – but it *feels* different than it did at the old school, because of the changed material configuration of the new school. This material reconfiguration does not just create different sensory experiences at an individual level. It also changes the relationship between practices.

If we take the cooking lessons as an example, the same activities feel different, take on new meaning, and form different entanglements. The configuration of the cooking practices changes *with* the changes in the physical environment. I participated in one cooking class at the old school and one at the new. By comparing my notes from those two lessons, I see that they are structured according to the same overall template. The pupils carried out more-or-less the same activities; they split into groups, received instructions from the teacher, prepared food in the kitchen, and ate it together. However, these activities *felt* different in the new building: the kitchen equipment was new, ventilation was better, the room was lighter, and eating took place in the large atrium.

These differences also changed the relation of this practice to other practices, other classes, and other activities going on at the school at the same time and these changes are deeply entangled with the layout of the new school building. The school kitchen is now located in a central space of the school facing the central atrium which means that these cooking practices are carried out in the middle of the school – instead of in the old school kitchen, where activities were tucked away in a corner of the main building, right by the administration. This creates a stronger connection to other practices. Other pupils looked through the windows to see what was going on, smelled what was being cooked, and walked by as meals were being served and eaten, which piqued their own food curiosity, as one of the teachers in phase 1 told me:

> I think it is great that the school kitchen is located in the central atrium. It is wonderful when the smell of curry or tomato sauce spreads and it also makes my pupils more curious about food and cooking when they see the older children cooking. (teacher, phase 1)

Through several other pages of my field notes, I have written down episodes of children at the new school seemingly doing a lot of things in the same way as they did in the old school: chasing after each other in the hallways, hiding stuff, boys throwing rolled up pieces of paper at girls, and girls rolling their eyes at boys. Those dynamics seemed to carry on and at first, I wondered about this and what it meant for the transition. Did it mean that nothing changed – and was it not an ambition for things to change? What I eventually came to understand was that even though the activities might be the same, the sensory experiences for the children, the teachers, and for me as an observer changed, because these same activities in the new environment felt different. They were part of reconfigured practices, changed by the changes in the physical environment, which brings us back to the material anchoring of practices that was proposed by Gherardi (Gherardi, 2023) and which I accounted for in chapter 4. A posthuman practice approach not only focuses on the flows of agency but is also interested in the specific material configurations of the practice's becoming. The new school building affords a sense of closeness and coherence. However, this also requires ongoing negotiations and additional planning to work in practice, as I explore further in the following section

From ‘old’ to ‘new’ – reconfiguring learning environments

The transition from ‘old’ to ‘new’ is linked both to the creation of good learning environments and to the building project. It is not 1:1 linked to the new school building but also not decoupled from it. The new good learning environments started growing in the old school buildings through the dialogues about pedagogical visions and the test of different spatial configurations in the ILE project to find the ones that best support and contribute to the reconfiguration of good learning environments. The different stages and elements of this process; the initiation of the building project, the formulation of pedagogical values, the ILE project and the new school building, created the affective capacity to make existing practices tremble and reconfigure good learning environments, as shown in Figure 27.

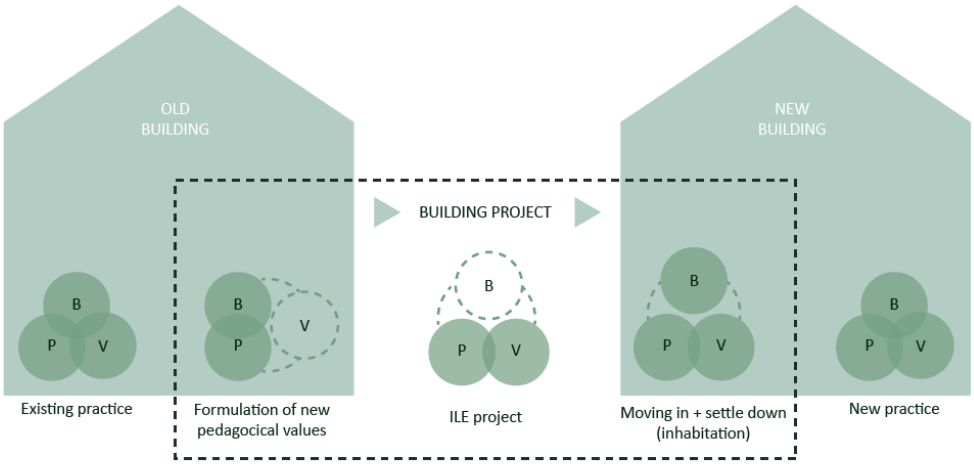

Figure 27 shows the movement from old to new as a complex entanglement of practice, project, and building.

The model shows how the existing configuration of people (P), building (B), and values (V) gets reconfigured through the project. The dashed line around V, and the distance created to P/ B connected by dashed lines, show that values is the first element to change, through the formulation of new pedagogical values. With the ILE project new values are reintegrated into practice, but the building element changes, as different room configurations are tried out. Moving into the new school buildings the different elements have all settled more or less, but the new building still requires reintegration or inhabitation for the new practices to become performatively stabilised.

In the last months leading up to the move, more practical discussions about who gets which classrooms and who should use what lockers in the common areas took up more time, and talks about this transition dominated in the teacher lounge during lunch time or coffee breaks. Teachers expressed concerns about how the space optimisation and the compact layout of the new school would work in practice. The old school, spread out in different buildings, provided a lot of extra space for storage, and extra unused rooms could be used to divide classes into smaller groups, or to change activities spontaneously if needed, like taking a class to the old upstairs gym room to do meditation, if that was what the teacher experienced was needed. The new compact building had an explicit focus on space optimisation and joint use. Teachers and pedagogues worried how this would affect their working environment and their ability to create good learning environments. This concern was expressed by one of the craft and design teachers:

> It looks nice, but I am a bit concerned about how it is going work – especially in terms of storage, whether we will have enough space for all our materials and the pupil productions. (craft and design teacher)

The craft and design teacher was particularly concerned about the reduced storage space, but her statement also points to a more overall concern about the weighing of aesthetics and practicalities. The new school looks nice, but will it work in practice?

Figure 28 shows stacks of moving boxes, furniture waiting to be put in place in the atrium, and the laminated signs in the niches.

The first months in the new school buildings seemed equally unsettled or very visibly in a state of becoming. As inhabitants of this new environment, both teachers and pupils had to find their ways, getting to know what this new environment had to offer and finding

out how to make it work. As shown in Figure 28, moving into the new school building also meant living with moving boxes and 'unfinished' (their word) shared spaces in the phases for a while, due to delayed furniture deliveries. Laminated signs were put on the niches in the beginning to indicate 'ownership', and agreements had to be made about who uses which areas, when, and for what purpose.

Teachers experienced having to plan more, and losing a sense of flexibility because of this, after the move. There was a feeling that they were not able to do things spontaneously but needed to stick to the plan more. A good learning environment, to them, was also about the ability to adjust to the mood in the class and manoeuvre accordingly, and this flexibility was experience as being somewhat compromised:

> It is more difficult and time-consuming if I want to improvise or change plans. Often somebody has already booked the rooms. Compared to the old school where we had our own room, we could always use for different activities, it takes a lot more time to plan now and it is more complicated. I can't just improvise. I have to stick to my schedule more. (teacher, phase 2)

Moving into the new school buildings creates an openness for change. It is a time when things fall into place in a new way in these new surroundings and this creates an openness towards doing things differently, as shown in Figure 27, with the reintegration of reconfigured elements. At the same time, the move also highlights some of the differences that remain – for example, in relation to different understandings about what constitutes a good learning environment. The constitutive elements of a good learning environment, in the case of Vrå, are made to matter and play out in different ways, which is perhaps most visible in phase 3 of the new school that appears different from phase 1 and 2, in relation to furnishing, which I return to in the following section.

Project-based learning is a political vision that shapes the initial formulation of the core pedagogical values for the development of the new Vrå school and the creation of good learning environments, with framing, focus, and feedback as core elements. There is a desire to *do* things differently, which also requires different physical configurations, buildings that afford different types of doings but also buildings that are more up to date in terms of maintenance and indoor environment and create a different sensory experience.

Negotiating needs and finding common ground

In the previous sections, I argued for a more fluid, relational, or multiple approach to understanding the move from old to new; Viewing it not as a sudden shift from one state to the other but rather as flows or lines, along which the different activities in the building project, like the ILE project, can be understood as diffractive moves that set things in motion and leave traces that further the development of the project and the reconfiguration of good learning environments. I showed how the move and the process of inhabitation enable new shared experiences and how the new school buildings create a different sensory experience that also contribute to the reconfiguration. Carrying out some of the same activities at the new school *feels* different, and this difference also contributes to the reconfiguration of practices and the relationship between practices.

In this section, I wish to add how the different lines do not simply run smoothly alongside each other but also at times come into conflict, where the values of good learning environments become contested and negotiated in and through practice. I examine how the different agential cuts made configure good learning environments in slightly different ways and how coordination and co-existence is enabled between them.

Having a strong focus on practice and social values in the building project and using the project-defined pedagogical values and visions for a good learning environment as guiding principles in the design process also meant that this pedagogical practice or the different notions of what constitutes a good learning environment sometimes clashed or became a trump card to be played more-or-less strategically in these ongoing negotiations.

The configuration of the classrooms in phase 3, that houses the oldest pupils from 7th–9th grade, is an illustrative example of these sometimes-conflicting notions of good learning environments and how they were enacted in the process.

Both management and teachers were quite open about the bumps encountered during the process of agreeing on furniture and overall configuration for the phase 3 classrooms: the number of tables and chairs, and the placement and orientation of the furniture. They seemed to have quite divergent understandings of how these new classrooms should be configured and these controversies were rooted in different understandings of what constituted a good learning environment, which again was deeply entangled with differences in the configuration of sociomaterial practices: teaching in the 9th grade is very different from teaching in the 1st grade. The school management suggested a layout based

on the configuration of the test rooms, with movable platforms, and varied seating options to create a flexible design. Phase 3 teachers insisted, however, that there had to be a chair and a table for each pupil. They argued that this was necessary when exams were to be carried out, and seeing as exams are a big part of teaching in both 8th and 9th grade, they maintained that a good learning environment in this regard is an environment where tests can be completed without having to move everything around. This clear difference in understanding can be further exemplified through the following quotes:

> When you walk through the school you will probably also notice that phase 3 appears incredibly ordinary. We had some tough negotiations on that, and we found suggestions and requirement specifications from the teachers to be very traditional or 'old school'. It was, one pupil, one chair, one table. And it was difficult to get them out of that mindset …. That also says something about how difficult it is to move the school in a new direction. (representative from school management)

> I think management would have probably liked us to think more outside the box. But it also has to work in practice, and those movable platforms [*læringstrapper*] just aren't really suited for long-limbed teenagers. (teacher, phase 3)

These controversies go to show that good learning environments mean different things to different people in different situations, and that these differences are entangled with sociomaterial practices. The overall visions about framing, focus, and feedback are the same, but they are enacted differently, and these differences are also tied to different perceived needs or priorities in terms of room configuration. Therefore, what is important in the transition or reconfiguration from the old school to the new is to enable coordination and co-existence between these different versions of good learning environments and to keep attending to good learning environments as an ongoing effort that requires continuous care, rather than something that can or should be settled once and for all.

The ongoing valuing is what will make it work in the long run. This values work should not stop because the project ends but rather continue as the school transitions to become a lived space, and teachers and pupils, as inhabitants of this new environment, improvise to find their ways, just as they did in the old school buildings. These different lines or trajectories, where the different entanglements and the different temporalities weave together, create the meshwork of the new school and of good learning environments.

Creating or reconfiguring good learning environments is complex. This reconfiguration takes time and requires active engagement from inhabitants. The process of change or 'becoming with' cannot be designed *for* others but is deeply entangled with the (built) environment and the sociomaterial practices in which it plays out. Following a relational theoretical framework, there is not one final answer to the question of what constitutes a good learning environment. Buildings or values cannot be valued, meaningfully, in and of themselves. They need to be understood performatively in relation to wider ecologies of sociomaterial practices; through their relational performances rather than their attributional qualities.

Teaching ideals (understood here as shared understandings of desirable actions), the physical environment (materials, the layout of the building, furniture, sound, light, temperature, and air quality), and relations (between teacher and pupils, among pupils, as well as between different sociomaterial practices) all contribute to the configuration of good learning environments. A good learning environment is a sensation, a material configuration, and a relational enactment – tied to particular sociomaterial practices.

In the case of Vrå, it becomes clear that the new building plays an important part in this reconfiguration and creates a different sensory experience that is significant but difficult to put into words (or numbers!). However, the process, especially the iterative development and testing in the ILE project, plays an equally important role in negotiating and enacting these new learning environments. What this tells us is that it is not only the *presence* of particular elements (people, values, and buildings) that constitute good learning environments but also the *traces* created by the process of bringing them into being in this configuration. The ILE project leaves traces that contribute in different ways to the transition from old to new, by creating a shared experience of what this new environment will be like and providing the possibility of experimenting with different ways of making it work.

10: What We Now Know About Valuing in Practice

With the two social values case studies in chapters 8 and 9, I have presented a relational values analysis of the work with 'community' and 'good learning environments'.

The focus of the first case study, Balancen, was how the work to create and support 'community' is articulated and enacted in different phases of the building's life cycle. I show this by exploring the definition of and the work with core values in the early project phases, the concrete design of the dwelling, and the ongoing valuing carried out by inhabitants. Through this valuing, community is enacted multiple; through things, words, and doings.

The case of Balancen also showed how some phases or moments in the building's life cycle offer a greater capacity for change than others – or influence the configuration of community more than others. The phase where inhabitants move in and the building transitions from being a project to becoming a lived space is one of these moments (others include the write up of core values in the value programme or when design decisions are made, to build a cluster layout rather than a more classic residential neighbourhood street structure). At the move in, community goes from being imagined or online to becoming real and material, and inhabitants start creating practices of community that continue to develop through the ongoing doings in Balancen. These doings can be understood as acts of valuing that enact and configure community in Balancen in particular ways, and while it never settles completely, it does reach a point where it becomes more settled (the links between elements become stronger) and the capacity for change is reduced.

The second case, Vrå school, focused on the temporality and ongoingness of change and the sociomaterial entanglements that go into creating, sustaining, and reconfiguring 'good learning environments'. It showed how the ILE project enabled a 'becoming with' as a prerequisite for this change, how the new school buildings created a different sensory experience, and how the ongoing negotiations and coordination can be understood as diffractive moves that create different enactments of good learning environments.

Where the case of Balancen demonstrated the multiplicity of creating or establishing new practices of community in relation to the new dwelling, the case of Vrå school emphasised the process of reconfiguring existing practices to create good learning environments in

the new school buildings, and the two cases thus provide slightly different entries to understanding social value creation in relation to the built environment.

What the cases show is that social value creation is both complex and performative. It can never be guaranteed, because it is not the direct consequence of particular actions, or an attributional quality of certain entities (such as buildings). Rather, value creation requires ongoing work or, as Heuts and Mol would frame it, continuous care (Heuts and Mol, 2013: 130). Care in this context is understood as efforts that are ongoing, adaptive, and open-ended, and thus closely related to the concept of valuing. These acts of continuous valuing can be understood as a way of attuning the built environment and practices to different kinds of 'good' at the same time, and of improvising and corresponding while going along (Hallam and Ingold, 2008, Gatt and Ingold, 2013, Ingold, 2015). Value in this view is not understood as a matter of controlling or imposing a certain ideal. It is not about making sure that intentions or predictions hold true but of caringly playing with possibilities and giving direction to the design of environments for life (Ingold, 2013a).

What counts as value is an outcome of ongoing negotiations, or agential cuts, through which some meanings are privileged and through repetitive performance become institutionalised and naturalised and thus, performatively stabilised through sociomaterial practices (Gherardi, 2023). This also means that creating valuable lived spaces cannot be reduced to a physical or material strategy of building. Working with social or sociomaterial value creation in the built environment requires an architecture attuned to the ecology of sociomaterial practices in which it is entangled. It requires actively engaging with these contexts as complex, interwoven meshworks of varying systems and influences, rather than trying to pin them down as static, singular entities with attributional qualities.

In this regard, the process orientation of the relational framework, on which I build my analyses, offers a different way forward for understanding and working with value as relational performance, rather than attributional quality, with a focus on flows and transformations (rather than final end products). In the case of Vrå, the transition from 'old' to 'new' is shown to be a fluid and multiple process that moves in different directions, at different scales, following different trajectories. The new school begins long before the building stands, in the conversations about pedagogical visions and formulations of principles for creating good learning environments, that become a core value in the

building project, and in the test of new room configurations and teaching practices in the ILE project. However, the material configuration of the new building also plays a central role in creating a different sensory experience that influences the configuration of good learning environments, which underlines the complexity of these processes in practice. Both processes, the creation of community in Balancen and the reconfiguration of good learning environments in Vrå, hold formative moments of becoming that create the affective capacity of these projects to make practices tremble, set things in motion in particular ways, and create new diffraction patterns.

A diffractive approach does not strive to determine cause and effect relationships, but rather to observe how particular entanglements become agential. In my research, one central focus point has been understanding how an essentialist logic of the building industry becomes agential and what this means for the ways in which social values are dealt with in building projects and beyond within the Danish building industry, as well as to propose different ways forward, based on a relational approach.

Value creation is not a linear inscription limited to design or production, or something that happens one time in a particular phase of a building's life cycle. In Heuts and Mol's notion of 'valuing' (Heuts and Mol, 2013), what creates value is deeply entangled with material-discursive practices. Values emerges as valuable through their specific positionings in the flow of agency. They are not given, or attributional qualities, but rather become valuable through continuous enactments in practice. However, despite this ongoingness of valuing, some phases of a building's life cycle still seem more formative than others. Some lines or entanglements create stronger knots and leave clearer traces and thus hold a stronger capacity for change. These formative moments, where agential cuts are made that create new diffraction patterns, shape the further development of the projects and of valuing, (understood as assessing, appreciating, adapting, and improving), community and good learning environments.

Following Gherardi, I argue that a posthuman practice approach should not only focus on the flow of agency but also the specific material configurations of the practices' becoming (Gherardi, 2023). What a posthuman practice theoretical approach enables is to move in-between elements and scales and focus on the relationality and contextual contingencies of these configurations as they come into being, without privileging human agency or material determinism, but insisting on the in-between as a viable analytical ground.

Working to support social value creation in the built environment requires a focus on this in-betweenness and on creating relations between building as project and building as lived space, as I go on to unpack further in the following sections.

Building-as-project and building-as-lived-space

As I showed in chapter 6, the dominant essentialist logic in the building industry creates challenges for the work with social value creation, because these types of values do not easily quantify or conform to predefined categories or existing valuing registers. This delimitation of what counts as value and in what ways in the building industry often remains implicit but greatly influences the potential values work, as was shown in both the DGNB work and the POE platform project, as well as the other case examples included in chapter 6. These modes of ordering challenge the inclusion of a more relational approach in quite fundamental ways.

For professional actors in the building industry (builders, architects, engineers, contractors, advisors etc.), most work around buildings is tied to a strong project logic: contracts, budgets, and timelines that sketch phases and deliverables, and greatly influence valuation and resource allocation. Projects tend to prioritise short-term results over long-term goals. Buildings must be made to work on time and within budget!

This way of working represents an essentialist approach to value, where a well-defined set of resources must be allocated and distributed in the best possible ways with the aim of obtaining as much value as possible within the given framework conditions, using SMART goals[33] as guiding principles and working to eliminate uncertainty and risk. In this framing, what happens after the building stands does not really seem to count, or at least often does not seem to be accounted for. It is not systematically included as tasks in the project (as shown in Figure 30, illustrating existing project workflows). This means that there is still some way to go from the interest and openness towards working more systematically with social value creation in the built environment, to having a building industry that also works in ways that support this vision and is willing to invest time and resources in making it work. There seems to be a general agreement that these aspects

[33] SMART is an acronym that stands for **s**pecific, **m**easurable, **a**chievable, **r**elevant, and **t**ime-bound. SMART goals are often associated with effective project management, arguing that clearly defined objectives, attainable within a specific timeframe, are a key to success, and the term is often referred to by project managers and other project participants during my fieldwork.

are important; however, there are still a lot of project structures that work against these intentions and prevent the inclusion of these aspects in project practices.

Based on my analyses of the different cases in chapters 6, 7, 8, and 9, I formulate what I identify as two central modes of ordering in relation to the built environment to provide a better understanding of what is at stake in these processes, why it often seems so difficult for buildings to transition from *projects* to *lived spaces,* or why projects struggle to include knowledge about what happens to buildings, post occupancy. I name the modes of ordering 'building-as-project' and 'building-as-lived-space'. In Figure 29, I list key characteristics of these two different modes of ordering to give an overview and show how they relate and compare.

Building-as-project	**Building-as-lived-space**
• The framing in the design process, enacted through an essentialist logic • Follows a defined process, structured by time, budget, and SMART goals • Has a fixed starting point and end-date • Dominated by professional actors and a focus on requirements and deliverables • Value as attributional quality • **Building understood as an entity** in isolation, with a focus on entities and attributional qualities	• The experience and enactment of inhabitants through sociomaterial practices • Follows different temporalities and flows, related through co-existence and coordination • Emergent and open-ended • Entangled in a variety of different sociomaterial practices • Value enacted relationally • **Building understood as relational performance** in context, with a focus on practices, processes, and flows

Figure 29 shows key characteristics of building-as-project and building-as-lived-space as different modes of ordering.

When we (in the building industry) talk about *buildings*, we most often talk about *building projects*. This subtle difference in words, or rather the different logics to which it refers, creates an imbalance in the values work, oriented towards short-term goals and clearly defined values, that challenges the work on social values in the long run, after the building transitions to a *lived space*. Projects end, but buildings live on as dynamic elements of

sociomaterial practices, as lived spaces, where people carry on their daily lives and ongoingly intra-act with buildings as inhabitants. Therefore, we need to view buildings relationally, rather than as static entities with a defined set of attributes that can be measured and evaluated in absolute terms, using numeric values, if we want to understand and work with social aspects of building performance.

A central aspect of the building-as-lived-space framing is the proposal to view buildings as relational performances rather than static entities and people living, learning, or working in these spaces as inhabitants rather than users. This approach to buildings can already be unfolded in the design phase of a building project, where social values are initially formulated as project intentions and continuously negotiated among the different actors in the project. Both the case of Balancen and that of Vrå are examples of this type of deliberate values work through involvement and co-creation and show how this work created a strong foundation for the valuing. However, equally important is how these values are continuously enacted after buildings transition from projects to lived spaces, which shows the ongoingness of the valuing and how inhabitants carry on.

When social values are understood as relational accomplishments, requiring ongoing care, the short-term project focus on contractual obligations and predetermined objectives is not enough to create value in the long run. However, existing project structures and current dominant valuing registers in the Danish building industry still favour short-term, economic value for the stakeholders in the 'project', such as developers, builders, contractors, architects etc., and put less emphasis on the long-term social values for the inhabitants of the buildings or society as a whole.

The existing General Terms for Consultancy (ABR), ABR 18 (Boligministeriet, 2019), that specify the standard contract terms that regulate the relationship between the different actors in the construction sector in Denmark, does mention 'Use phase' as one of five specified phases, but this phase is viewed as separate or different from the other four phases of a project. ABR 18 describes building projects through the following five phases: 1) Programming, 2) Proposal, 3) Design, 4) Execution, and 5) Use. However, there is a strong break between phases 4 and 5, marked by the handover of the building, which concludes the project, and in that sense creates a gap between project and use, where the use phase takes over when projects end.

ABR 18 is also the overarching framework for the Description of Services for Building and Landscape (YBL 18) (The Danish Association of Consulting Engineers, 2018), which describes the different services that advisory professionals can offer in relation to building projects. YBL 18 describes services according to nine overall categories or phases: 1) Initial consultancy, 2) Design management, 3) Proposal, 4) Regulatory project, 5) Tender design, 6) Construction project, 7) Construction phase, 8) Delivery, and 9) Other services.

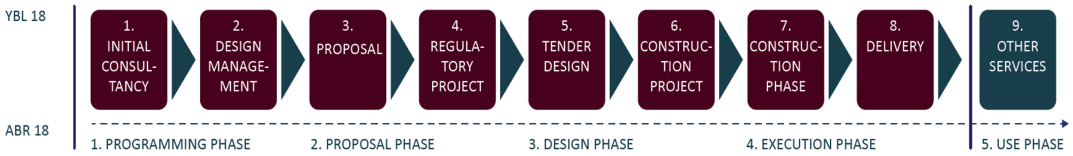

Figure 30 shows the structure of the current service description YBL 18 (red=ordinary services/blue=additional services), below the dotted line are the five phases defined in ABR 18. The figure is adapted from a figure in Vibeke Grupe Larsen's Ph.D. thesis 'Circular transition of affordable housing: Generating Social, Environmental and Economic Value by Design' (Larsen 2024). It is printed here with permission from the author.

Both process descriptions (ABR 18 and YBL 18) are based on a linear understanding of building projects following a specific sequence of typical phases to ensure progression towards the final end goal of Delivery, as shown in Figure 30. Architect and Ph.D. Vibeke Grupe Larsen has studied and discussed the consequences of this linear short term focus and the systemic challenges and barriers of transitioning from a linear to a circular construction approach, that builds on a long-term life-cycle perspective and an integrated approach to sustainability and value (Larsen et al., 2022, Larsen, 2024).

What I wish to emphasize here, by drawing on these two frameworks, is how both represent a strong building-as-project logic. As shown in Figure 30, ABR18's phases align partially with YBL18's nine categories, spanning from Initial consultancy to Delivery of a building project to the client. Services related to the Use phase are indexed under category 9, labelled as Other services. These services are described as detached from the building project, something that can be put in place after the project is finished and the building handed over. Again, this underlines the strong separation between building-as-project and building-as-lived-space and how existing framework conditions support this division. The main focus of the existing process frameworks is on the building as a physical structure and on moving projects forward according to plan towards a clearly specified end goal.

This creates a strong division between building-as-project and building-as-lived-space, where the two are viewed as completely separate, as illustrated in Figure 31. Building-as-lived-space, in existing project practice, is most often viewed as something that is beyond the scope or reach of building-as-project – and therefore also not of real concern to building projects.

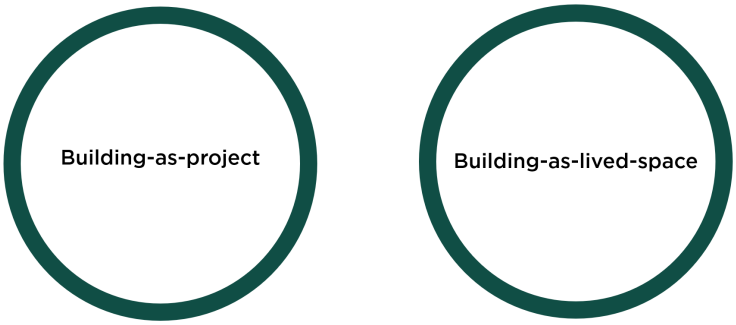

Figure 31 shows building-as-project and building-as-lived-space as completely separate and self-contained.

My fieldwork has shown that the phases relating to building-as-lived-space, which in ABR 18 is simply specified as the Use phase, are seldom part of building projects today and that they are also often considered hard to include because they work by way of different logics and cannot easily be managed or controlled. This might also be one of the reasons why YBL 18 simply refers to services in this phase as 'Other services', which again emphasises that it is understood as something other than the building project.

One might ask then whether this complete separation is problematic? Or if it makes sense to create or maintain this clear distinction in an effort to deliver high quality projects and buildings? That focus should be on the things that projects have control over or direct influence on rather than some elusive future practice (or potential future value creation) that nobody knows for sure. This would be the building-as-project logic arguing. However, as my analyses show, the separation as well as the domination of one mode of ordering, building-as-project, over the other, building-as-lived-space, in current building project processes also performatively stabilises certain valuing registers over others. This creates challenges for the work with social values in existing building practices that adhere to different valuing registers. As pointed out in chapter 6, trying to include social values in an existing valuation scheme is not enough to change the underlying logic of that scheme,

or the particular mode of ordering it represents. Rather, the system needs a reconfiguration to make these aspects count on equal terms.

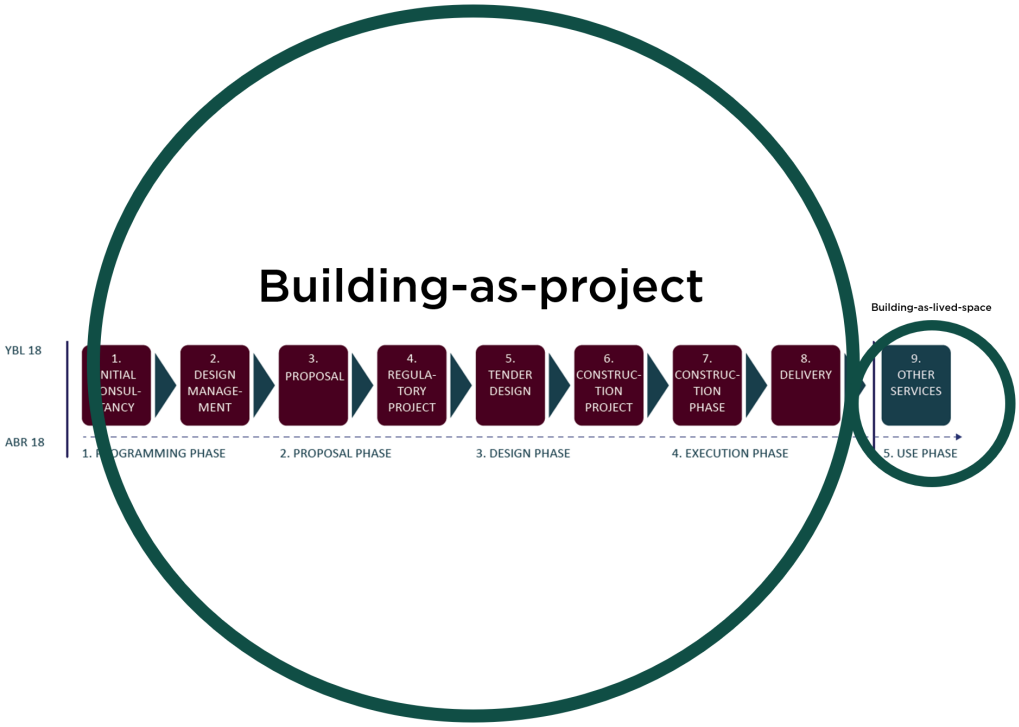

Figure 32 shows the existing ABR18/YBL18 process in relation to a building-as-project/building-as-lived-space logic to illustrate the weighting between the two modes of ordering in existing project practice.

The building-as-project logic strongly dominates existing project practices, as shown in Fig. 32, which creates a more-or-less implicit orientation towards attributional qualities rather than holistic or relational valuing. This means that what is valued is most often what can be measured through numeric values and understood as attributional qualities. The consequence of this sharp separation, the domination of the building-as-project logic, and the lack of focus on the entanglements or coordination between the two modes of ordering, is a lost potential for social value creation. This loss of potential is what I refer to in the introduction as 'the social performance gap' (shown in Fig. 33). The problem, I argue, is not that different modes of ordering exist or that the character, focus, or emphasis change when a building transitions from being a project to becoming a lived space. Rather, the problem is the lack of connection between the two. SMART goals might make for smooth projects, but they are not enough to create value in the long run. If these links are not made (or if lines are not drawn) between the different modes of ordering, a gap is left between design intentions and lived reality, where intentions are not realised

in practice, and the impacts or values that projects set out to achieve, as formulated in the design phase, may never become reality. The values work simply stops when projects end because the finalisation of the building project marks the completion of the building, in the building-as-project logic, and everybody moves on to the next project.

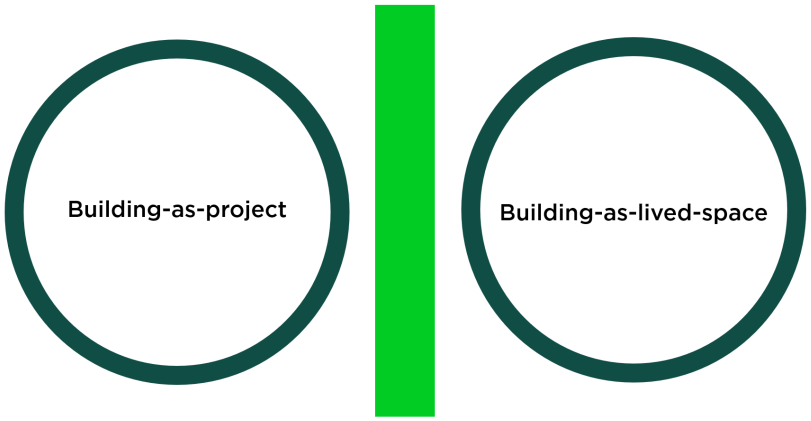

Figure 33 shows how the separation of building-as-project and building-as-lived-space creates a social performance gap, where the potential for social value creation is not realised in practice.

One of the things needed to address this challenge is a stronger focus on the coordination and relation between building-as-project and building-as-lived-space. A crucial element in making these connections is a stronger focus on the handover and use phase of the buildings, as identifiable phases in a building's life cycle that holds a strong potential for supporting ongoing valuing.

If we take the case of Balancen, the articulations of strong core values in the early design phase have the capacity to act as guiding principles in the project and create a dynamic foundation from which community can grow. However, it is very much the doings, the continuous enactments of the values, the practices of community, that drive the values work forward and create obduracy to the values. This valuing is enacted multiple and plays out through things, words, and doings. In the case of Balancen, the process, the architecture, the people, and the wider contextual contingencies (political and economic) all contribute to the continuous development of the practices of community and to the emergence of Balancen-as-lived-space. These processes cannot be predicted or controlled but they can be given direction and supported through ongoing valuing.

When building on a relational ontology, practice and space are always connected, because the social and the material are constitutively entangled. However, in a certain period (in the project) this relationship potentially intensifies and receives special attention, as was shown with the ILE project in Vrå and illustrated in Figure 27. The sociomaterial entanglements come into focus in a different way, because of this in-betweenness or liminality of projects that set things in motion and reconfigures the elements of practices, and this intensified focus creates fertile ground for change. This also makes projects (and the design phase) important sites for value creation and for making connections between building-as-project and building-as-lived-space. However, this requires a reorientation or realignment of existing project frameworks to better accommodate, and be able to work with, a relational understanding of value.

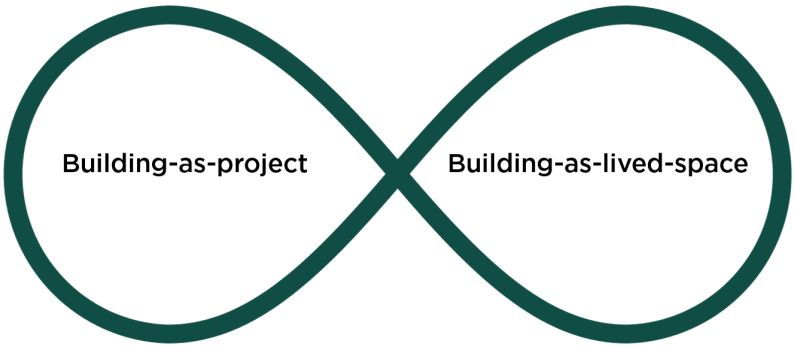

Figure 34 shows a more integrated approach to building-as-project – building-as-lived-space where the two overlap and draw from each other in an ongoing flow of becoming.

I am not out to get the essentialist logic. Rather, my aim is to find ways of enabling the essentialist and the relational to co-exist. Building projects create an affective capacity for change but this change requires ongoing work and cannot be designed as an attributional quality of/in a building project. People are not passive consumers of spaces designed for them to use. Rather, they are inhabitants who improvise and respond to the ever-changing circumstances of their lives (Ingold, 2010a), binding their lines of becoming into the texture of material flows (Ingold, 2010b). Therefore, the ambition of architecture and building projects should rather be to enable life to carry on by designing for improvisation that enables these continuous flows, as shown in Figure 34.

'It's never just about the building'

What I have shown in the previous chapters is that building projects and POEs have the capacity to make practices tremble. The liminality or in-betweenness of projects create potentials for change. The relationship between the two modes of ordering, building-as-project and building-as-lived-space, cannot be characterised in the singular. Sometimes they converge or conflict, sometimes they support or enhance each other, and at other times they exist in parallel. This multiplicity is central to my understanding of how values and buildings continuously get reconfigured through sociomaterial practices and also where I see the greatest potential for doing things differently.

'It's never just about the building', as one of my informants remarked in an interview. She was talking about how user involvement processes can be used strategically by management as a tool to support strategic transformation; however, the statement applies more broadly as well. The handover meeting in the POE platform example showed how this sociomaterial entanglement might as well be used by employees to question management decisions and the organisation of work, and my case analyses in chapters 8 and 9 show how these relational entanglements are enacted in multiple other ways (through things, words, and doings). One example of this is the ILE project in the case of Vrå that created a space for 'becoming with' by enabling the initial conversations about good learning environments and providing the opportunity to experiment with different potential future configurations to get a better understanding of what good learning environments meant to each of them in their daily teaching practices, and why. This played an important role in both the reconfiguration of these practices and the design of the new school buildings.

The central point is that a space (understood here in a figurative sense as an opportunity) can be created in building projects, where the relationship between people (individuals and organisation), values, and buildings (material configurations) can be openly discussed and negotiated - if work and resources are put into this orientation towards 'building-as-lived-space'. Initiating a project potentially opens new types of conversations and this affective capacity has the potential to support social value creation. However, this potential (in many projects) is not fully realised today because of the very clear separation between buildings-as-projects and buildings-as-lived-spaces and the short-term value focus of projects.

Instead of viewing building-as-project and building-as-lived-space as completely separate or contradictory modes of ordering, ways of enabling coordination and co-existence between the two are needed. Both are necessary to create and support social value for the inhabitants, the projects, and the wider ecologies of practices. These different modes of ordering help values stick; in a sense, they are dependent on each other. Despite their differences, their different foci and orientation, one could not do without the other. John Law explains this relationship in the following manner:

> In the abstract the answer is very simple. It is that when one strategy, one mode of ordering, runs into the sands, then another comes to the rescue. For (here is the fatal flaw of simple solutions, single strategies) any single ordering mode will reach its Waterloo, discover its nemesis, and come unstuck. Which means that if the organisation were to depend on that strategy alone, it too would come unstuck. (Law, 2001:4)

Framing building-as-project and building-as-lived-space as two distinct modes of ordering, as I do here, means that other potential modes of ordering exist alongside them. I could have made these agential cuts in different ways which would have made other differences matter – or made these differences matter in different ways. It also means that one does not substitute for the other in a sequential way. Building-as-project does not become building-as-lived-space. They do not exist in isolation. Rather, they co-exist in different ways. This framing allows me to follow the ways in which the buildings and values evolve, how they get enacted, negotiated, and translated, and thus transform through the different phases of a building's life cycle, from project visions and intentions to enacted everyday sociomaterial practices. Sometimes the different versions converge, sometimes they conflict, and at other times they exist in parallel.

In part III, *Doing things differently*, I take my point of departure in the relational understanding of value, unfolded in part I and II, to propose social commissioning as a potential path forward for working with social value creation in the built environment, in-between building-as-project and building-as-lived-space.

PART III

DOING THINGS DIFFERENTLY

Part III: DOING THINGS DIFFERENTLY

Throughout the first two parts of this thesis, I have shown how social value is understood and enacted in existing building performance research and in the Danish building industry practice. I have presented an alternative values-framing, based on the concepts of relationality, sociomateriality, multiplicity, and ongoingness, and explored what this approach might mean for the affective capacity of building projects to play a more active role in the ongoing values work of organisations and communities through the concept of valuing.

Following this exploration and analysis, an interesting question is how might this relational understanding also qualify approaches or frameworks to better support these complex entanglements in practice? If we understand both buildings and values as emerging elements of sociomaterial practices, this continuous process of emergence should also be the focus of our attention (in the building industry) when working to create buildings that make a positive difference in inhabitants' lives. This, I claim, requires different frameworks and approaches than the ones that dominate existing building industry practices and existing building performance research, where social value and performance are most often viewed as attributional qualities – if not completely overlooked.

In this part III of the thesis, I introduce social commissioning as a relational approach to value creation in the built environment; one that brings anthropological and relational thinking into dialogue with existing building performance research and insists on viewing buildings from a broader life cycle perspective, beyond the existing project logics. As described in the introductory chapter of the thesis, social commissioning is a neologism coined by the project to describe the support of social value creation, procedurally, throughout a building's life cycle. In the following, I unpack social commissioning further as 1) a conceptual framework, 2) a service, and 3) a particular approach to research to show how these different versions of social commissioning relate – and how they each contribute to expanding our understanding of social value creation in relation to the built environment.

What I propose with social commissioning is an approach that has an attentiveness to the concrete entanglements of people, buildings, and values, and a focus on the configuration of sociomaterial practices as being equally important as the qualification of a particular

design. This approach emphasises the ongoingness of architecture, understands people as inhabitants, views buildings as lived spaces, and works to support these entanglements or transformations in practice through ongoing valuing.

Building projects create a liminality where it becomes legitimate to stop, ask questions, and talk about why we do the things we do, the way that we do them, and how we would like to do them in the future. This was illustrated with the social values case studies in part II, where both the creation of community in Balancen and the reconfiguration of good learning environments in Vrå hold formative moments of becoming that create the affective capacity of these projects to set things in motion in particular ways, and create new diffraction patterns.

In chapter 11, I present social commissioning as a conceptual framework for making a relational approach to value in the built environment workable and highlight the onto-epistemological moves required to make this reorientation.

Chapter 12 introduces the core principles and key activities of social commissioning as a service for supporting social value creation in relation to the built environment and building projects. I also account for the development and contextual contingencies of this work and give examples of how introducing this approach has played out in practice, highlighting some of the main challenges that still remain.

Chapter 13 brings me back to the engaged research position and the initially outlined affiliation of my position with architectural- and design anthropology, in chapter 2, to show how working to develop social commissioning *with* colleagues at AART is also a particular kind of research, and how this has shaped both the social commissioning Ph.D. project and the social commissioning service.

11: Social Commissioning as a Conceptual Framework

As the title of the thesis suggests, social commissioning has played a central role in my Ph.D. research. Even before the project was initiated, the idea of social commissioning was already there in some form in our discussions at AART about this potential future project and about finding ways of supporting social value creation in projects, and beyond. Drawn from past experiences and experienced challenges, the term social commissioning weaved its way into the project application, and into the project, becoming an important thread throughout my studies as a somewhat elusive anchor and a potential way forward, to tackle some of the challenges experienced that had not yet materialised.

As I mention in the introductory chapter 1, the idea of social commissioning is inspired by *technical commissioning* which is well-known in the building industry as a process to mitigate or bridge performance gaps in relation to technical performance and energy consumption by putting in place a systematic process that covers the entire building life cycle to ensure the building meets the set requirements (de Wilde, 2018: 21).

Most often the term 'commissioning' (in relation to the built environment) refers implicitly to technical commissioning, i.e., the process of assuring that all systems and components of a building or industrial plant are designed, installed, tested, operated, and maintained according to the operational requirements, defining commissioning as: 'a quality oriented process to document and test that a project fulfils the requirements'.[34]

With social commissioning, I propose a slightly different notion of commissioning, based on a broader definition from the Oxford English Dictionary, where commissioning is simply defined as a process to: 'bring (something newly produced) into working condition' (Hanks et al., 2010: 350). I understand 'bring into working condition' as an open-ended movement, where the process is equally important as the result ('result' here understood as the 'finished' building design) when it comes to supporting values work and change. It is not so much about reaching a particular end goal as about setting things in motion and creating new diffraction patterns that continue to develop as everyday life carries on.

One of the core elements of a social commissioning framework is making sure that the building-as-lived-space logic is included in building projects from the beginning, that this

[34] https://cxplanner.com/commissioning-101/what-is-the-commissioning-process, accessed on 16.05.2024.

focus is maintained throughout projects, and that the relational attunement between buildings and inhabitants continues after buildings transition from projects to lived spaces.

Wendy Gunn, design anthropologist and Associate Professor of Collaborative Design, argues that design processes and practices of future-making attuned to the *intra* must bring human and nonhuman worlds into the same frame of analysis (Gunn, 2019). This requires rethinking relations as emerging relationships and finding ways to design conceptual frameworks that enable processes and practices to relationally respond to emergent conditions. Gunn writes the following in this regard:

> In opening collaborative research inquiry up to design processes and practices of future-making, I argue that it is necessary to build relations between movements of design and movements of ongoing intra-action. This also involves challenging narrowly technical design interventions that follow a causal, problem–solution logic. *(Gunn, 2019: 1)*

I propose social commissioning as one such 'conceptual framework' for making a relational approach to value in the built environment workable. Social commissioning can be understood as an 'intravention'[35] in these processes of becoming with a sensitivity to the relationality of values, buildings, and people; the sociomaterial entanglements in which these buildings and values get articulated and enacted multiple, by builders, architects, value programmes, models, renderings, buildings, and inhabitants.

So where technical commissioning focuses on establishing whether building installations work as prescribed in the requirements specification and meet the set targets, social commissioning is more focused on the process of making sociomaterial entanglements between practices and buildings work, going forward. The ambition is to set things in motion and experiment, through intraventions, with how we might qualify or strengthen these relationships. It is not the ambition to find a fixed solution to a well-defined problem, but to enable dialogue, coordination, and becoming with.

[35] 'Intravention' is introduced by architectural theorists Alberto Arlandis and Oren Lieberman, to signal a stronger anchoring in practice, arguing that intraventions are always already a part of the space and times in which they are intravening. ARLANDIS, A. A. & LIEBERMAN, O. 2013. Immediate architectural interventions, durations and effects: apparatuses, things and people in the making of the city and the world.

Social commissioning focusses on the continuous emergence of social value in a built environment through ongoing valuing. It supports the move from overall visions and values, like 'well-being', 'community', or 'good learning environments', to figuring out what these values mean in particular sociomaterial practices and how they might be imagined differently as part of a transition or reconfiguration of these practices. This work is riddled with complexities, conflicting concerns, and unknowns.

To transform a building from a project to a lived space also requires a transformation, or reconfiguration of sociomaterial practices. In the case of Balancen, I showed how community is enacted multiple. The built environment in Balancen contributes to this community in different ways by providing spaces where people meet, and in the cluster layout that creates a scaling in the community, which inhabitants value. However, the built environment does not *make* community. In the case of Vrå 'good learning environments' perhaps had a stronger direct link to the physical built environment. I showed how the new school building afforded a very different sensory experience and how this played an important role in creating 'good learning environments' according to the inhabitants. Still, this sensory experience was difficult to pin down as an exact value, separate from practice, because the value it created was enacted and performatively stabilised in practice and thus became valuable through these relational entanglements, and also depended on the process and the ILE project that supported the transition.

Enabling these types of transformations, from projects to lived spaces or from intentions to impacts, is not completely in the hands of architects or building design teams. It demands the participation of inhabitants. It cannot be completely designed, as it needs to grow over time, and it is not completely tangible either, as it is deeply entangled with values and sociomaterial practices.

Throughout the project, I have been reluctant to provide a strict definition of social commissioning. I have continuously alternated between focusing on the importance of clearly describing what social commissioning is and does, and leaving it open enough to become different things. One of my more recent attempts at capturing the particular kind of conceptual framework that social commissioning is was published in *Building a Circular Future: insights from interdisciplinary research (Vind, 2024).* Here, I write the following about the process of social commissioning:

> Social Commissioning is a process to support social value creation in the built environment, by having a continuous focus on the relationship between buildings as projects and buildings as lived spaces, throughout the building life cycle. Creating spaces for dialogue, feedback, and joint reflections along the way. …Understanding the relationship between people and environments as dynamic and relational, the central question is not what buildings are (buildings-as-entities), but what they make possible (buildings-as-relational-performances). Through my research, I explore how these relational enactments of values play out: how value is co-created or co-performed between buildings and inhabitants, how we can understand these relationships, and how we might work to support them, going forward. (Rasmussen, 2024: 117)

> The dual focus on qualifying design and supporting transformation is central in a Social Commissioning process. It is about setting things in motion and creating possibilities for change, in between the social and the material, between the building as project and as lived space. This work is inspired by a more circular or ecological approach to design, with a stronger focus on the processes of co-creation and what these processes make possible in relation to supporting collective change. Social Commissioning is about finding ways of making social aspects count, without reducing them to static entities with a defined set of attributes, precise numbers, or absolute values. About navigating a relational approach in practice, with this explicit focus on futures and transformation, collaboratively working out ways of moving from relational understandings to relational design by way of engaged architectural anthropology. Giving these transformations direction and focusing on the how rather than the what. The ambition is not to design the perfect solution, but rather to create spaces for dialogue that set things in motion; as a commencement or commissioning of "the social", not a destination or a final end product. (Rasmussen, 2024: 118)

This description was written in the fall of 2023 – and there are things I would have probably formulated or weighed differently today. However, the description points to some of the key elements of this way of thinking, framing, and working with value in relation to the built environment that still hold true. When buildings are viewed not just as static entities with a defined set of attributes, but rather as elements that play an active role in potentially reconfiguring sociomaterial practices, and values are understood as

relational performance rather than attributional qualities, this opens different value arenas with a potential to influence the way we learn, work or live in, with, or alongside these built structures in our environments. The foundation on which this conceptual framework is built, based on my fieldwork, the relational values framing, and the analyses of the cases in part II of the thesis, can be summarised in the following four fundamental insights:

1. Buildings and values are emerging elements of sociomaterial practices, and this continuous process of emergence should be the focus for efforts aiming at creating and supporting social value in relation to the built environment. Value is relational, contextually contingent, and always tied to particular sociomaterial practices.

2. The in-betweenness of building projects holds the affective capacity to make practices tremble and thus offers a unique potential for change, through these acts of becoming with where things are set in motion in new ways and create new diffraction patterns.

3. Finding ways of making social aspects count, without trying to reduce them to static entities with a defined set of attributes, demands a focus on futures and transformation that allows for multiplicity, and a focus on co-existence and coordination.

4. Accepting that no final perfect solution (building) will be reached. Values work requires ongoing care and a continuous focus on the relationship between buildings-as-projects and buildings-as-lived-spaces, throughout the building life cycle. The complex sociomaterial entanglements never freeze but are continuously enacted multiple through different acts of valuing.

In the following sections, I move from describing social commissioning as a conceptual framework to unfolding social commissioning as a service by presenting the process of development, core principles and key activities, and examples of social commissioning processes carried out by AART.

12: Social Commissioning as a Service

This chapter presents social commissioning as a service, co-created as part of the Ph.D. project in close collaboration with the impact team at AART. To date, I have followed three social commissioning processes that have been initiated by AART. One has been completed, while two are still ongoing. I do not give a detailed introduction to these cases here, but I draw on them in my presentation of social commissioning elements to show examples of what happens when the relational ambitions of social commissioning meet existing project frameworks and organisational structures.

I begin by describing the development process, the contextual contingencies that influenced the work with social commissioning (at AART and in this project) and how this process also moved AART's work with impact and social value creation in new directions. I then go on to present the core principles and key activities of a social commissioning process, based on the relational value understanding, the analyses of part two, and the conceptual framework presented in chapter 11. In the last sections of chapter 12 I give examples of social commissioning processes carried out by AART and reflect on some of the challenges encountered in this work that still make it difficult to implement this way of thinking and working in practice.

The development of social commissioning

The social commissioning project was initiated at a point in time when two other Ph.D. researchers in the impact team at AART were carrying out research on architectural strategies for promoting well-being in sustainable renovation of social housing (Jensen, 2022, Gabel et al., 2023, Jensen et al., 2022) and architecture as a catalyst for social and socio-economic value creation (Sántha, 2023, Sántha et al., 2022, Sántha et al., 2021). Stina Rask Jensen's studies focused on architectural strategies (design) and Eszter Sàntha's studies focused on developing metrics for calculating socio-economic value creation (economics). In relation to these research activities, my project was positioned as combining architecture and anthropology to find ways of working with social value creation in practice, and thus presented a different values approach (social/relational)

and a different type of contribution to the development of AART's overall impact approach and strategy of 'redefining architecture'[36].

In collaboration with my main company supervisor, Johanne Mose Entwistle, I have written a popular science article about AART's approach to the work with intentions, impact, and evaluation through this combination of architecture and anthropology and what we define as an emerging architectural anthropological practice (Entwistle and Rasmussen, 2021). The work of the impact team draws heavily on innovative evaluation (Skov Dinesen et al., 2010) and uses evaluative thinking formatively through the work with change models and theories of change, in both design processes and evaluation.

A central tool in this work is *Effektkompasset* (the impact compass), shown in Fig. 35, an interactive tool that AART has developed and uses to facilitate the work with setting clear goals, formulating change theories, and evaluating impacts, throughout projects as well as in post-occupancy evaluations.

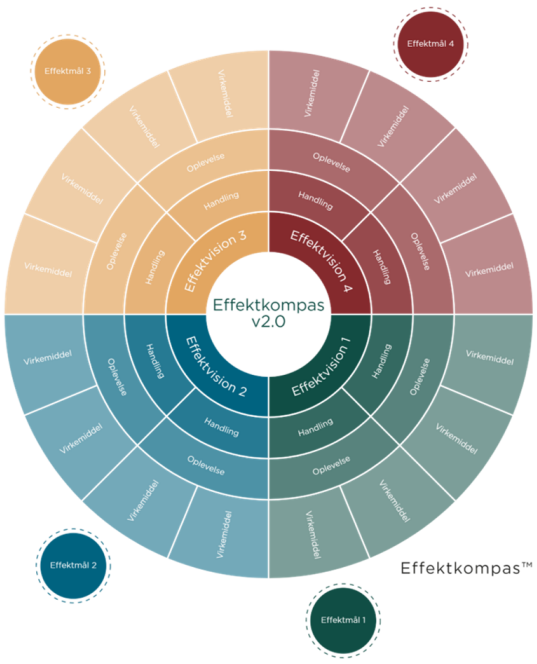

Figure 35 shows AART's Effektkompas. It reads (from the centre out) impact vision, action, perception, architectural instrument, and impact goals (in the circles). It is used to map and qualify visions through a focus on contextual contingencies and use.

[36] AART uses the phrase 'redefining architecture' to frame their approach to architecture and impact: 'At AART we challenge the common understanding of architecture - not just in the way we perceive it and talk about it, but also in the way we use architecture strategically and consciously as a catalyst for developing the world around us. We call it Redefining Architecture™' (https://aart.dk/en accessed on 10.06.2024).

The impact compass is a simple graphical representation of a change model that depicts the visions and intentions of a building project and makes explicit the architectural instruments (the design envisioned to meet those visions), as well as the imagined perceptions, and actions of the future users of the building (or urban area). It is a way to illustrate sociomaterial entanglements and highlight the contextual contingencies of impacts; how impacts are always dependent on the perceptions and actions of people, as well as concrete design solutions, to create impact in practice.

In the article, we describe the work with impact and evaluation at AART (and the rationale for working with formulating clear intentions and impact goals) in the following way:

> Setting goals is incredibly important, if you want to make a useful evaluation afterwards. However, the point of setting goals and thinking about impact from the beginning [of a project] is much more about creating value and impact in the long run, by making explicit, qualifying, and maintaining the intentions, all the way through the project. (Entwistle and Rasmussen, 2021: 138)

The paper further explores how this work with the impact compass, internally at AART, has enabled a different way of working with values and intentions, by creating a language and a framework to talk about and weigh these aspects in relation to other project considerations.

There is a strong link between social commissioning and the impact compass. The impact compass is used to facilitate the formulation and qualification of visions and intentions, which is one of the key activities in a social commissioning process. Social commissioning builds on, but also extends, the existing impact and values work at AART, by introducing a stronger practice orientation and temporality or process to guide this work.

The first sketches for a social commissioning process or framework were developed in the early stages of the project, when I was reading existing building performance research, exploring different theoretical directions, and setting up the case study design. Figure 36 shows one of the earliest drawings, where the impact compass and post-occupancy evaluation are shown as elements at the edges of social commissioning and quite a few unknowns are left in the middle. Social commissioning is also, somewhat vaguely, related to AART's design process (Define, Design, Deliver, and Document). The Deliver phase is stretched out, which shows a stronger focus on the link between visions and intentions

on the one hand – and inhabitation or use on the other; what I would now refer to as the relationship between building-as-project and building-as-lived-space.

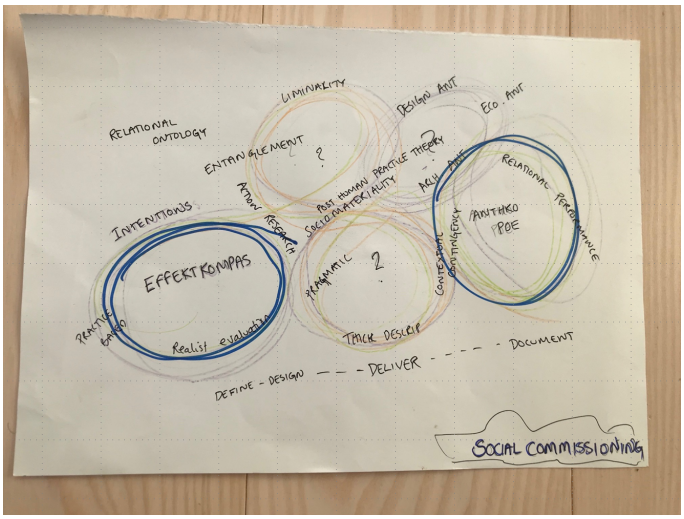

Figure 36 shows one of the first drafts of how social commissioning relates to the impact compass and POE and what other elements it draws on and relates to.

Social commissioning is inscribed into the ongoing work with impact at AART and has come to play a central role in AART's approach to, and work with, impact and value creation. Where the impact compass used to be the primary framework used in AART's work with impact, this is now rather understood as a specific tool that can be used in a social commissioning process.

Like the impact compass, social commissioning builds on the idea of continuously working with intentions and making social value objectives explicit and specific. However, social commissioning also adds a more relational approach to value and a stronger practice theoretical anchoring, building on the theoretical framework presented in chapter 4, which moves beyond the perception and actions of individuals. Social commissioning adds a temporality and a process that the impact compass lacks. It is closely linked to building projects and becomes part of project work however, it does not conform to existing dominant project logics, as I defined them in chapter 6, with a focus on linearity, clear deliverables, or the view of buildings as entities with attributional qualities. Social commissioning is anchored and positioned in practice. It takes sociomaterial practices as a starting point (or if existing practices are not available to be explored, it takes the notion of building-as-lived-space as a starting point) and defines visions based on collaborative and speculative inquiries into what the future might look like – or how particular practices might be imagined differently and reconfigured in practice.

A relational process focus also implies a step away from existing, short-term, linear project thinking and towards a holistic life cycle approach to architecture as ongoing, where values work is not just project work but related to the whole life cycle of a building. In the following, I further unpack these key elements by presenting core principles and key activities of a social commissioning service, based on this way of thinking and framing values.

Core principles and key activities of a social commissioning process

Understanding architecture and values as ongoing, performative, and situated, there are no absolute truths to be uncovered, or perfect solutions to be designed, but rather potentials to support social value creation through continuous valuing and to explore how we might imagine things differently, and what these changes require, in terms of both design and reconfiguration of practices. The goal of a social commissioning process is creating these speculative openings, where visions or intentions are not viewed as blueprints for design, but remain open-ended, allowing for spaces of in-betweenness, where inhabitants can transform and become together.

In the following, I present core principles and key activities of a social commissioning process through the following headings:

- *Principle 1) a life cycle perspective*
- *Principle 2) a dual purpose*
- *Principle 3) ongoing coordination*
- *Key activity A) formulation of clear visions and intentions*
- *Key activity B) exploration of existing sociomaterial practices*
- *Key activity C) practice experiments*
- *Key activity D) hand-over and commissioning*
- *Key activity E) post-occupancy evaluation (POE)*

The core principles can be seen as a translation and concretisation of the conceptual framework presented in chapter 11, and the key activities are a translation of the core principles into concrete activities that fit existing process and project frameworks such as ABR18, presented in chapter 10, with the overall phases of Programming, Proposal, Design, Execution, and Use, as shown in Fig. 30.

Principle 1: a life cycle perspective

An important aspect of the relational approach to value is always looking at the bigger picture as well as trying to understand the contextual contingencies that shape the enactments of values in particular sociomaterial practices. In a social commissioning process, this means never losing sight of core visions and intentions of projects and always keeping in mind that in a building project, the building is not the end goal but rather a means to support reconfiguration and value creation in practice. Social commissioning ideally takes place from the very earliest stages of a project, in the Programming phase, through Proposal, Design, Execution, and Use, as valuing happens throughout a building's life cycle and does not stop when the building is built. Social commissioning underlines the need to focus on designing for use, but also insists that design in itself is never enough. Valuing requires ongoing care and is related to a circular understanding of the built environment.

Principle 2: a dual purpose

Social commissioning is always about qualifying the design *and* supporting change in practice. One of the things that sets social commissioning apart from traditional user involvement is the dual purpose throughout the building's life cycle to: 1) identify needs and qualify design and 2) secure anchoring in practice and support change.

The liminality or in-between-ness of building projects offers a unique potential for change. However, this change does not happen by itself but requires engagement and deliberate values work; in other words, it requires valuing. This valuing is always tied to particular sociomaterial practices, and thus reliant on the inhabitants of the environment to *do* things differently. Therefore, social value creation in relation to the built environment is always dependant on both design *and* change in practice.

Principle 3: ongoing coordination

> Change cannot be designed *for* others. It needs to be enacted as a lived experience in practice. A way to anchor the intentions or visions for change is to involve key stakeholders in the work and have them be 'ambassadors' for the project and the changes required in practices. Projects cannot involve everyone in everything (nor is that an ambition). Rather there are different scales or levels of engagement, related to the different phases of a social commissioning process and adapted to the different project circumstances to support this ongoingness of valuing. This work is not a task to be completed but rather an underlying logic or approach to value and change that relates directly to the understanding of value as a relational performance that requires ongoing work.

In the following sections I unfold how the three core principles of a life cycle perspective, a dual purpose, and ongoing coordination translate to concrete activities in relation to both building-as-project and building-as-lived-space. Each section begins with a text box that briefly describes the activity and is followed by an elaboration or exemplification in the main text.

Key activity A: formulation of clear visions and intentions

> Step one in a social commissioning process is identifying the change ambition of the building or renovation project to which the process is linked. This can be done through initial impact- and vision workshops, where key stakeholders of the project discuss and collaboratively formulate key visions, change ambitions, and intended impacts in relation to the social value creation, as one of the very first activities of a Programming phase.

In the case of Balancen, this work was initially carried out by the builder, but potential future inhabitants were invited in early on, through the town hall meetings, to qualify and

concretise these visions and ambitions for sustainability, community, and nature, as described in chapter 8.

One of the mains points of making these ambitions explicit early on, and writing them down, is to enable them to be shared and ensure that they figure as part of the project documents in line with budgets, schedules, material reviews, and environmental requirements.

In the case of Vrå, the initial pedagogical values work and the project-based learning approach, articulated through the three Fs (framing, focus, and feedback) became a lens through which project decisions were negotiated and thus played a key role in the process.

It is a central point that these values are not defined once and for all but should rather be seen as dynamic elements that can change as the project moves along. The ongoingness of this work requires that visions and intensions are revisited during the project; when major changes occur, at central phase transitions, or when new people are brought into the project. The initial values work sets the frame for the following activities and creates a dynamic foundation that can continuously be used as a guideline in the change process and forms a basis for the development of the design, thus supporting the dual purpose.

Key activity B: exploration of existing sociomaterial practices

> Building on the core principles of the anthropological approach to POE, as I presented them in chapter 7, this initial exploration of existing sociomaterial practices creates a deeper understanding of the connections between buildings, people, and values that helps qualify (and contextualise) the foundation for working with the defined visions and intentions in this particular context.

The sociomaterial approach offers ways of knowing and looking at phenomena that are not easily quantified or measured in numeric values. In an office setting, these explorations often focus on the different types of work activities, understood in the

context of sociomaterial practices, as also shown in the qualitative pilot study in the POE platform project in chapter 7.

This approach highlights how both 'practices' and 'places' are constantly changing and subjectively defined, and it allows for an understanding of practices and places as mutually interdependent and related to wider ecologies of practices and temporal flows as well. In the POE platform case, this was illustrated through the example of the lounge areas that figured as both central hot spots for ad hoc interaction and collaboration as well as a source of frustration because some employees felt their ability to do focused individual work was compromised. This shows that the same material configuration can figure, and be experienced, very differently in different situations as part of different sociomaterial practices. Ongoing balancing and negotiation, based on the time of day and the tasks needing to be carried out, are essential for understanding and working with these aspects in practice.

In one of AARTs social commissioning processes in relation to a future office design, a number of department profiles, including a mapping of different work activities, were formulated based on interviews and observations that mapped work activities and flows in the different departments. These work activities were grouped in terms of whether they were most related to collaboration or individual work and these profiles and types of activities were used as a guideline for the initial floor-plan proposals.

In another of AARTs social commissioning processes the initial analysis was used to communicate the changed floorplan more clearly in relation to practices and different types of work activities, as shown in Fig. 37-39, through the three floor plan designs: PLAN/existing that shows the existing 'classic' configuration, where all employees have their own desk where most work is carried out, PLAN/proposal that shows the proposed new layout with fewer classic work stations and additional supporting facilities, and PLAN/zones that relates these changes to activity-based working (ABW)[37] and work practices in the individual departments.

[37] Activity-based working (ABW) is a strategic framework for organising work and office design that builds on the understanding of modern work as fluid, where people often perform a variety of activities in their day-to-day work, and therefore need a variety of work settings supported by the right technology and culture to carry out these activities. It is often linked to both efforts to optimise space and create an attractive workplace.

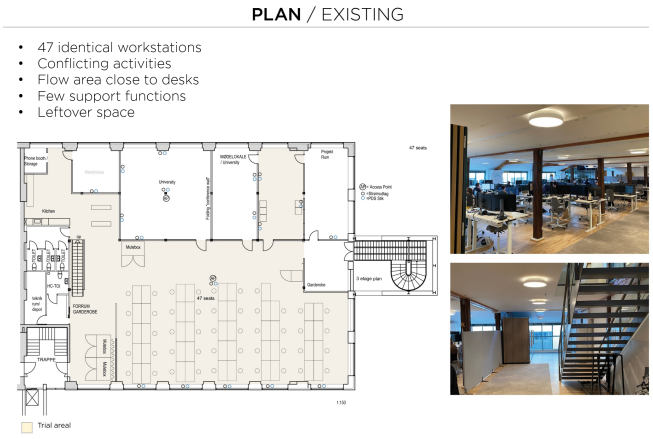

Figure 37 shows the existing plan accompanied by photos and key insights from the exploration of existing sociomaterial practices.

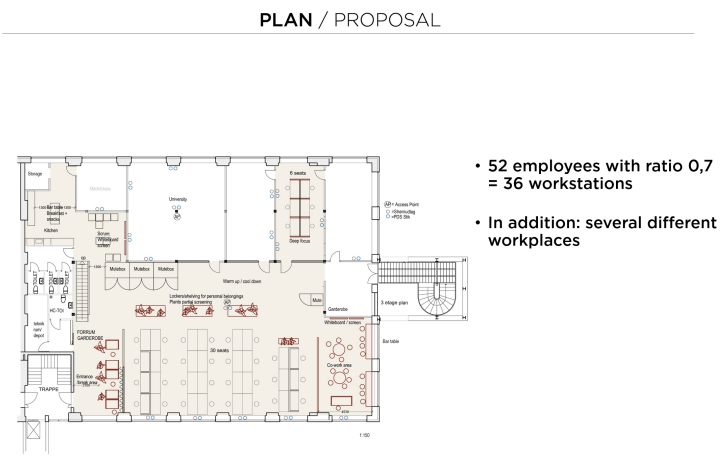

Figure 38 shows the plan proposal where some workstations are transformed to different types of supporting functions.

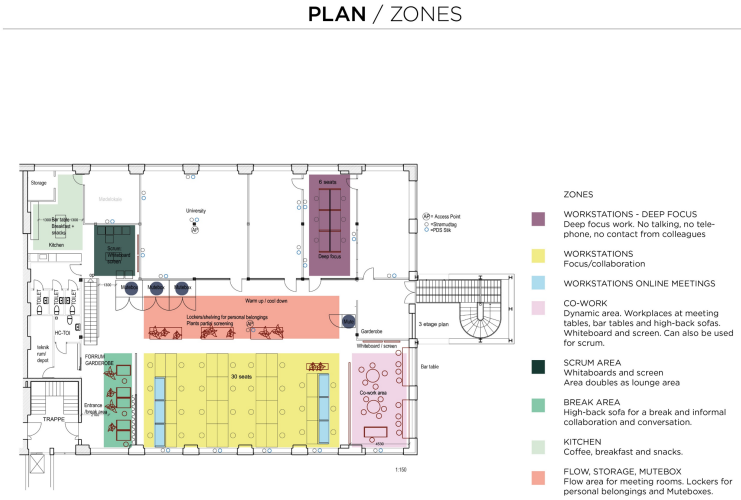

Figure 39 shows the new plan divided into different zones in relation to different types of activities – with a clearer separation of deep focus (in the top right corner) from collaboration and interaction (top left and bottom right).

These initial explorations and analyses also provide a good starting point for defining, designing, and carrying out practice experiments to try out different configurations and use these experiments to qualify the design and support change, as described in the following key activity C: practice experiments.

Key activity C: practice experiments

> Practice experiments (or 'trial actions' as they are called in the three AART social commissioning processes I have followed) relate to both the dual purpose and to the ongoing coordination. In the case of Vrå, it was quite clear how the ILE project succeeded in creating this space for dialogue and experimentation with the test rooms that created a feeling of ownership. this was attributed to the process of co-defining, co-designing, and iteratively trying out these reconfigured rooms and having invested the resources in testing it for an extensive period of time; how this qualified the design decisions made and also created a better understanding of what was needed in terms of making these new spaces work in practice.

What seemed important in Vrå was the combination of the material, the social, and the individual elements that the test rooms brought into play: it was about a new layout and furniture, a new approach to teaching and collaborating, and a new individual working environment for teachers (and pupils). In addition to this, the extended period of time, which allowed for ongoing adjustments and coordination, also played a central role.

In the AART social commissioning processes, I have followed, two sets of 'trial actions' have been carried out. In one of the cases, the trial actions ended up being quite limited in scope, due to limitations in what could be tried out in the existing office space.

The three trial actions selected were 1) an information screen, 2) a monthly clean up, and 3) 'clean desk' (meaning that desks must be cleared every day when employees leave the office). In a feedback session, participants said that it did not feel like much of an experiment. The information screen did not require them to do anything differently, the clean-up was something they already did, in part – or at least had done previously. The clean desk was the only thing that really required them to do something different – and

this still seemed quite limited, individual, or small – not a real experiment, or at least not the kind of experiment they had expected, as one of the ambassadors explained in the follow-up meeting:

> I feel somewhat mixed about the trial actions. It was hard to come up with something that felt new, and it ended up feeling a little 'small'. After all, we also signed up for something like this [being change ambassadors] because we want to help move something forward, and then you also have the expectation that it will somehow be a bit bigger than just cleaning up your desk…

Practice experiments can be a valuable tool in the process of reconfiguring practices but there is also the risk of disappointment. They can become too small, or individualised, in which case it might be better not to do them, because people might feel it is a waste of time. Other experiences (from projects not directly included in the thesis) show that trial actions work better when they contain more than one element: material, individual, and/or social. There needs to be a real change required, and a clearly defined timeline that allows for different explorations.

Key activity D: hand-over and commissioning

> This central phase in a building's life cycle, where buildings transition from projects to lived spaces is crucial in a social commissioning process. It is important that this phase is used to 1) update and communicate the central intentions and visions of the project, 2) prepare people for the ongoing effort required to make these spaces work in practice, and 3) create time and space for inhabitants settle in — without defining final solutions but rather showing different opportunities and keeping it open to grow in different directions.

The hand-over and commissioning marks the transition from intentions and visions to real experience and lived reality. The phase also represents a move from something familiar to something new and unknown, which makes it a time of uncertainty and can lead to people becoming less ready for change. However, it is also a phase of unique opportunity, because practices are very much in the (re)making as links between elements of practices get formed or reconfigured in new ways, as accounted for in the analysis of Balancen in

chapter 8, where the inhabitants' day was an example of an activity in this transition that actively worked to support the establishment of new practices of community as well as handing over the building to the inhabitants. This was also shown in the case of Vrå school, where the reintegration of reconfigured elements during the move-in created new experiences that moved to performatively stabilise new practices relating to good learning environments, as illustrated in Fig. 27.

In one of the AART social commissioning cases, an information meeting combined with a construction site visit was held a few months before the final move-in. At the initial information meeting, a group of employees showed clear signs of resistance, sitting back with their arms crossed, asking critical questions about the concept of ABW, whether this could ever work for them, and raising concerns that they did not feel heard or included in the process. This meeting did not resolve those conflicts, nor is a conflict-free process the ambition. However, providing a space for this exchange of perspectives and the opportunity to experience these emerging spaces created a shift in focus. The employees were still critical as to whether this new layout would work for them but the discussions at the construction site became more specific, beyond whether ABW is good or bad, and with a stronger orientation towards how these new spaces might be made to work for them, and what they could do in the individual departments to make it work in practice, thus moving the process forward without proposing a final solution.

This hand-over and commissioning is perhaps more a key phase than a key activity, or maybe both. It can hold different activities, such as *information meetings* (like the one in AARTs social commissioning process, used to both inform but also make room for people to voice their concerns and disagreements; creating a space to bring potential conflicts into the open before the move-in), *hand-over workshops* (like the one in Balancen) and *initial feedback after move-in*, where there is still a sense of instability or movement, which needs to fall into place (as much as these things can) before decisions about possible changes are made. In the case of Vrå, the process of inhabitation, in the first months after move-in, enabled new shared experiences, and the new school buildings created a different sensory experience that also required some getting used to and adjustments to be able to settle in a good way.

The key purpose is supporting the transition from project to lived space as best as possible and enabling inhabitants to take on the future values work.

Key activity E: post-occupancy evaluation (POE)

> POE is a central, but perhaps also one of the most difficult, elements of a social commissioning process, to make fit to existing project processes and the existing dominant project logics.
>
> Using POEs formatively, to continuously adjust, to keep the conversation going, and to potentially initiate new practice experiments to qualify the relationship between buildings and people (as elements of sociomaterial practices), makes sense from a social commissioning perspective built on a relational value understanding. In this perspective, POE becomes a natural iteration that fits well into a life cycle understanding attuned to the ongoingness of the built environment and the performativity of valuing, as something that requires continuous care.

However, this is still not the usual understanding of either POE or building projects. As I showed in chapter 6, with the cases of DGNB 2025 and the POE platform project, and through the framing of building-as-project and building-as-lived space in chapter 10, existing project logics are based on a linear project understanding that favours short-term goal achievement. Project structures and framework conditions, like ABR18 or YBL18, work against a stronger (and more formative) inclusion of POE.

As it is now, a POE is something that might be considered if things go wrong or do not work as planned; as problem solving more than a hygiene factor – and NOT part of the building project, but rather a new project in its own right.

One inherent problem of this logic is that the sociomaterial entanglements between buildings and inhabitants are complex and dynamic. They require ongoing balancing, negotiation, and coordination; continuous care. As shown in the POE platform case study, as well as in the cases of both Balancen and Vrå, it is not so much a matter of choosing or judging between different configurations as it is a matter of finding a balance or allowing for co-existence between them. Therefore, a POE in a social commissioning process is not simply about establishing worth or casting judgement, but about finding ways of enabling co-existence and facilitating coordination.

Some things do not show themselves until the building is taken into use and some things cannot be designed. This is exactly where POEs' potential for supporting social value creation lies. It creates a space where the relationship between people (individuals and organisation), values, and building can be openly discussed and negotiated through ongoing valuing. This requires a strong process focus, which includes understanding that the goal is not designing the perfect solution but rather creating spaces of in-betweenness where inhabitants are given the opportunity to discuss and reflect on existing configurations and invited to talk about, and experiment with, how things might be imagined otherwise; focusing on processes and practices rather than objects and entities.

Having now presented the principles and activities of a prototypical or ideal social commissioning process in the sections above, Fig. 40 maps the activities to the building-as-project/building-as-lived-space logic to show how the process is envisioned to create lines between the two and support ongoing valuing.

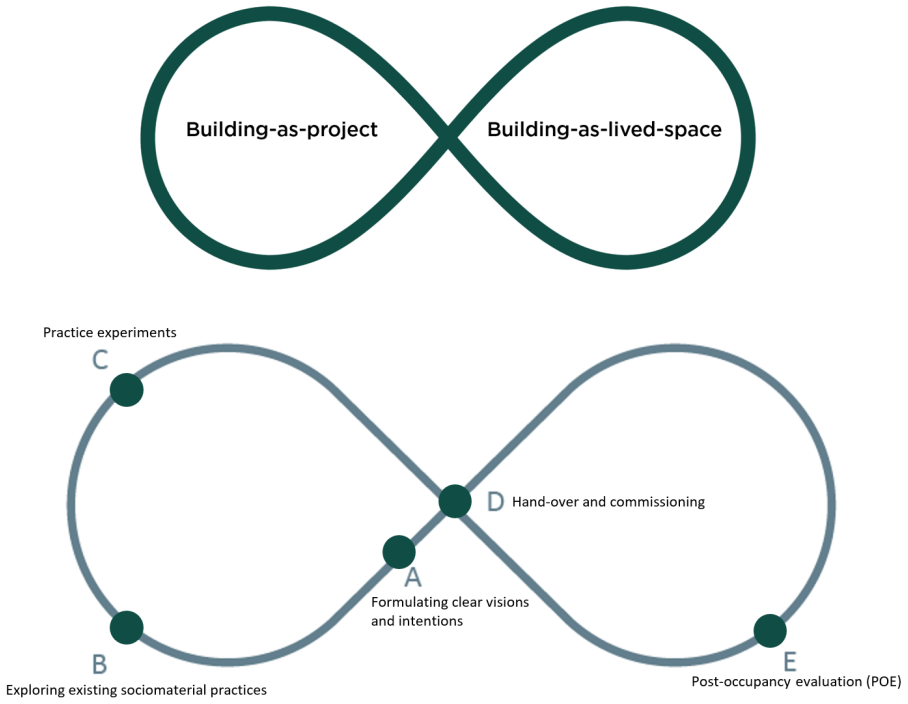

Figure 40 shows an 'ideal' social commissioning process where activities are distributed across building-as-project and building-as-lived-space, and value creation thus understood and supported as relational, ongoing, and open-ended.

For further elaboration on the work to develop social commissioning, as a service to support social value creation in relation to the built environment, I refer to the publication, *Social Commissioning - et cirkulært levetidsperspektiv* (Social Commissioning – a Circular Lifespan Perspective) (DanskeArk; and AART, 2024), shown in Fig. 41, which was developed in a collaboration between AART and Danske ARK (the association of Danish architectural firms) and published in July 2024. The publication is targeted to Danish architectural firms and other professional actors in the building industry and the content is based on my Ph.D. studies as well as the Ph.D. studies of Vibeke Grupe Larsen (Larsen, 2024), and AARTs work to develop social commissioning. It is written in Danish and focuses on providing new perspectives for thinking differently about value, user-involvement, and POE in construction- or renovation projects.

Figure 41 shows the industry publication, Social Commissioning - et cirkulært levetidsperspektiv (DanskeArk & AART, 2024), targeted to Danish architectural firms and other professional actors in the building industry.

The full publication can be accessed at:

https://realdania.dk/publikationer/faglige-publikationer/social-commissioning---et-cirkulaert-levetidsperspektiv

Examples of social commissioning process designs

Social commissioning processes may come in a variety of shapes and scales and can be adjusted to different project realities. The ideal, as described with the core principles and key activities, is a full process, starting from the early stages of defining intensions, visions, and change ambitions for a building- or renovation project, and carried along throughout the project and into the building-as-lived-space, where inhabitants take over and carry valuing forward.

Despite this ambition of social commissioning to promote a relational, holistic, life cycle perspective that focus on the ongoingness of value creation and looks beyond the limited timeline of building projects, the social commissioning processes proposed as part of building and renovation projects still need to be made to fit existing process plans that follow a linear, sequential logic, and have a well-defined beginning and end. This clear link to existing project phases is a deliberate design move. It is easier to include these aspects in projects when the phases or activities to which they refer already exist as part of the existing project frameworks. Still, it also challenges the ongoingness of social commissioning, and especially the later key activities like POE, because these anchor points in building projects or process plans tend to become vaguer, or disappear completely, after the Execution phase; there is no clear project phase to connect POEs to. Linking social commissioning closely to existing project processes thus also implies an orientation towards the Design phase, if the existing project logic continues to become performatively stabilised, and a more linear process than what is the aspiration of social commissioning, as shown in Fig. 40.

In the following, I highlight some of these challenges through examples from the initial social commissioning processes carried out by AART.

The last phases are left optional

The first external social commissioning project, AART initiated, was with a large commercial client who was in the process of building a new office building for some of their employees and had contracted with AART for this work. They wanted to also use the project and the move as an occasion to transition to activity-based working (ABW) as a new way of organising both the work of the organisation and the layout of the building.

The focus of the project, as defined by the initial visions in the impact compass, was creating an attractive workspace in harmony with nature and sustainable to operate.

The timeline for the project (shown in Fig. 42) shows the activities from the first ambassador workshop in February 2023 to the third follow-up ambassador workshop in November 2023. Activities after this workshop are left 'optional'. In the initial process draft, these POE elements were included on equal terms but the client wanted to wait and see if this would be needed. If so, this would require a new project and a new financial grant, as the existing project had to be completed by December 2023.

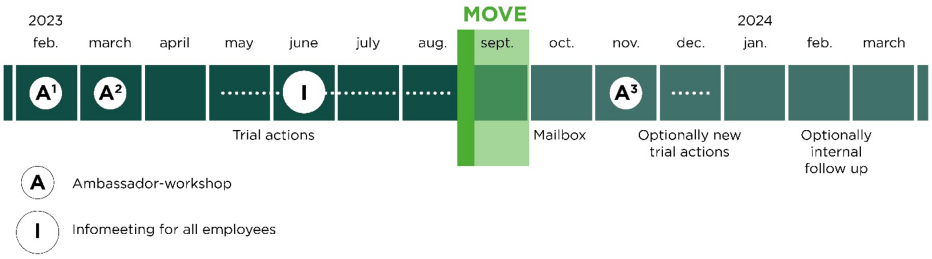

Figure 42 shows part of the first social commissioning process designed and executed by AART, with ambassador-workshops, trial actions, move-in, and follow-up.

This process points to two main challenges for social commissioning and a relational value understanding in relation to the built environment. One is the short-term focus of projects that carries with it a short-term understanding of value. The other is the understanding of POE as something that is only needed if the design fails, as a problem diagnosis tool rather than a support for ongoing valuing.

Navigating organisational complexities

In one of the following social commissioning processes, for a client building a new headquarters, the social commissioning process is scaled up. It is a bigger building project, over a longer period of time, and involving more people (both management and employees), which complicates both involvement and communication in the process. Like other projects and change initiatives, social commissioning is dependent on involving stakeholders at different levels to ensure mandate, anchoring, and progress.

Fig. 43 shows five different levels of involvement, as well as activities and communication for each of these levels, in one of the ongoing social commissioning processes carried out by AART. The multiple involvement timelines require a lot of effort to ensure that

information is shared across the various levels and that the right people (people who are able and willing to drive the project forward) are included in the process at the right times.

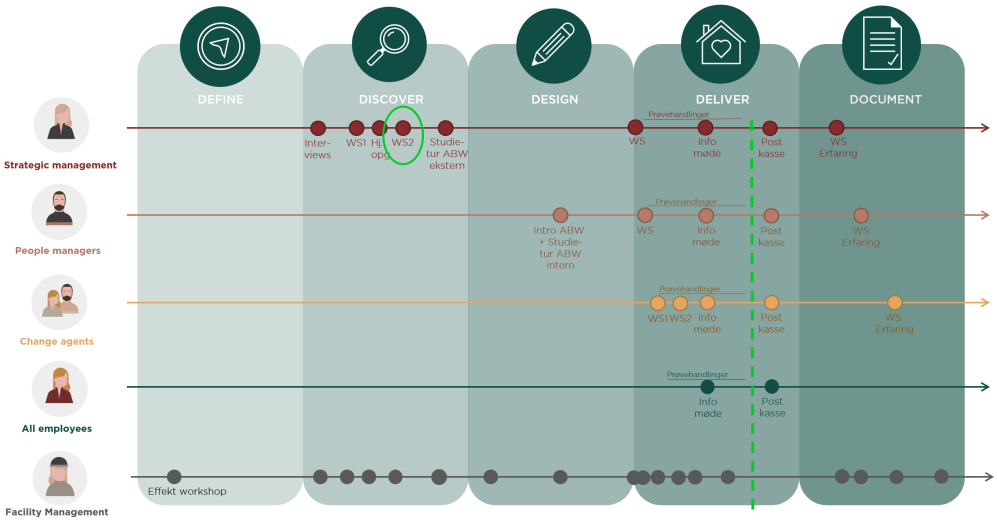

Figure 43 shows another example of an ongoing social commissioning process, carried out in collaboration with a facility management unit and project team at a large commercial client, to illustrate how activities are dependent on involvement at different levels.

In this case, it was not clear from the beginning what names to assign to people in the different categories. The organisational structures were continuously changing, which made it difficult to clarify who answered to whom and who should be involved in the process at what levels. This meant that a lot of time was spent trying to work out the organisational diagram and to figure out who to involve in the different phases.

This shows another element of the complexity, and contextual contingencies, of working which social commissioning. It is not just about existing project logics but also the complexity and changeability of contemporary organisations that make it difficult to position social commissioning in the right way to create anchoring and momentum. Projects compete for the attention of employees and managers, and tasks should preferably be limited and well-defined to fit into a busy work schedule. When projects extend over a longer period of time, they are also more exposed to organisational changes or changes in strategy or prioritisation.

The last process example included here illustrates the potential challenge of framing or communicating tasks in ways that fit existing corporate logics and ways of communicating and structuring projects. The trial action process for flexible working, shown in Fig. 44,

depicts a linear and delimited process flow, marked by a clear beginning and a clear end, with information moving up the levels of the organisation, ending with the steering group making a decision, based on input generated through the trial.

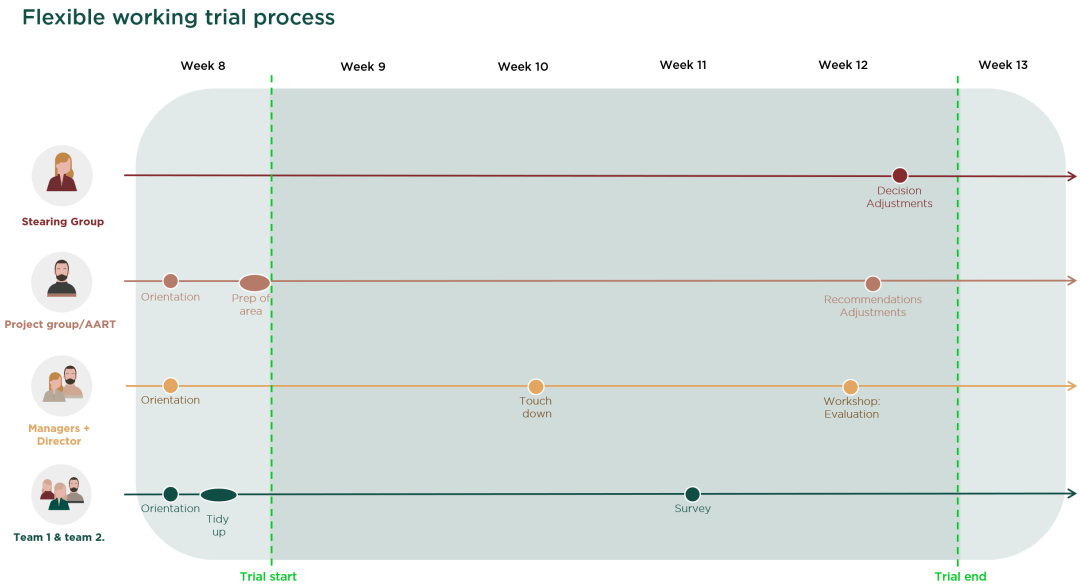

Figure 44 shows the timeline and involvement plan for a trial action process where AART is assisting a client in transitioning to activity-based working and preparing for a move to new office spaces.

This way of visualising the process is a way of making social commissioning more manageable (for the clients) and to make it fit existing organisational structures. However, it also buys into the existing linear project logic of clearly delimited tasks that provide input for decision making and design. This framing runs the risk of strengthening the existing project logic, rather than counterbalancing it, as is the original intention with social commissioning. To be fair, the process did also maintain a strong focus on the trial actions as an in-between space, where employees can experience and explore new ways of working and new configurations of office layouts.

Values work runs into the sands

In the only completed social commissioning process carried out so far, the last official activity was an evaluation- or follow-up meeting with ambassadors, project management, and facility management a couple of months after the building had been handed over and taken into use (shown in Fig. 41 as A^3). Originally, a POE was suggested as part of a follow up on how the new spaces and the new ways of working played out in practice, but this was opted out later in the process and has not been carried out afterwards.

POE is part of social commissioning but most often not part of building project timeframes or budgets, so this makes it more difficult to include – or sell in as a service – in relation to these projects. Builders/clients see a great value in working actively with practices and use in the Design phase, as a way to qualify the design and anchor the changes needed in practice, and there is an openness to extend the activities within the project period, to include a focus on reconfiguring sociomaterial practices and experiment with different configurations. However, extending the values work beyond existing project timeframes seems more difficult to do. The process runs into the sands after the building project ends and the building transitions to a lived space, without allocated project resources to keep the values work going, as shown in Fig. 45.

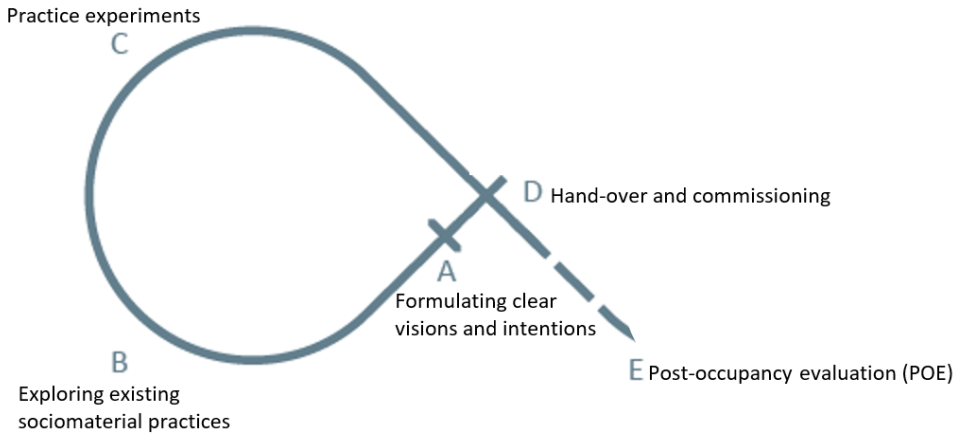

Figure 45 shows how existing social commissioning processes seem to run into the sands after projects end and resources get reallocated to the next project.

Social commissioning as a service is work in progress. The relational value approach does not translate easily to existing project practice, where an essentialist and short-term project logic still dominates. Links between the key activities of a social commissioning process, especially after a building has transitioned from project to lived space, are not yet fully formed, as shown in Fig. 45 and 46. There are still no structures in place to carry on the values work. The lines of the meshwork still need to grow stronger to become fully included or integrated, if they ever will be.

For now, the focus for AART therefore often remains on introducing a relational/building-as-lived-space logic into existing project practice and paying special attention to the hand-over and commissioning phase (D), where buildings transition from projects to lived

spaces, because this transition seems to make it difficult to keep the values work going, when clear project structures and resource allocation fade away. By proposing this reorientation of the values work (from attributional qualities to relational performances), social commissioning sets things in motion in slightly different ways, creates new diffraction patterns, and proposes alternative ways forward. In time, these elements or lines can potentially grow stronger and become included on equal terms in the ongoing values work throughout a building's life cycle.

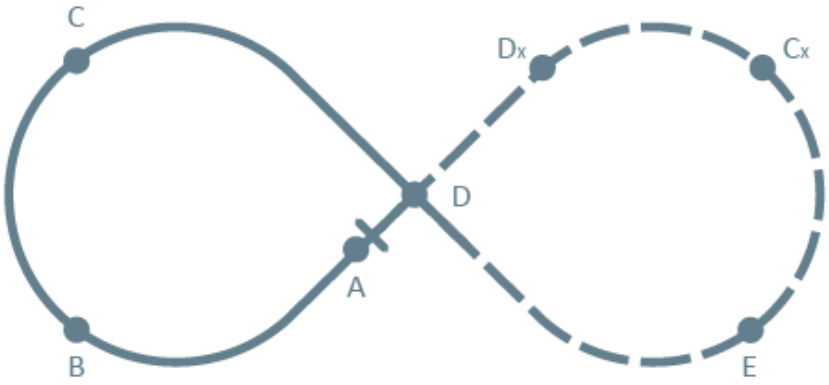

Figure 46 shows how links between the key activities of a social commissioning process, when buildings transition from projects to lived spaces, are not yet fully formed.

From a relational value understanding to a relational process design

To sum up, what social commissioning builds on and actively works to support is that change cannot be designed *for* others. It needs to be enacted as a lived experience and requires ongoing work. The liminality or in-between-ness of building projects offer a potential for collaborating and participating in shaping those different futures, by creating spaces for dialogue and experimentation. Some phases in a building project hold stronger affective capacities than others – due to the looser configuration of elements as well as wider contextual contingencies of existing project structures. Social commissioning positions itself in that in-between-ness and insists on the relationality, sociomateriality, multiplicity and ongoingness of values and valuing in practice.

Values are indistinguishable from the sociomaterial practices in which they become valuable. Therefore, enactments of values are always sociomaterial workings, tied to particular practices, as I argued in chapter 4. To be able to work to support social value

creation in relation to particular building projects or built environments requires a relational and contextual approach to understanding value in practice, rather than a universally-applicable social values definition. Continuous care and active involvement of inhabitants is needed. Another crucial aspect of this reorientation is including a stronger focus on what happens after buildings are taken into use to create a stronger link between building-as-project and building-as-lived-space.

A main ambition with introducing social commissioning as a conceptual framework as well as a concrete service and process design is to develop a way of working with social value creation that fits the relational onto-epistemological position of my research and at the same time can be made workable in existing project structures.

Social commissioning is made to fit existing project processes without conforming to existing project logics. This is done by introducing a relational values approach into building projects and using the affective capacity of projects to support and commission change in practice.

The aim is to enable coordination and edge work between the different logics and to challenge the existing domination of the building-as-project logic – to create speculative openings and explorations of future use through active intravention in sociomaterial practices and to look beyond the project to the total life cycle of a building, while using existing project structures to have this work introduced at the times in the building process when it has the potential to matter the most.

13: Social Commissioning as Anthropology/Design

In the previous sections of part III, I have explored social commissioning through two distinct, yet interrelated enactments: 1) social commissioning as a conceptual framework, and 2) social commissioning as a service. I have been complicit in developing social commissioning as a service and in the following I argue that this engaged position has also moved the project forward in particular ways and shaped the trajectory of my research. Social commissioning is not just an output of the project but also a particular position or location from which to explore social value creation.

In the project description, the relationship between the Ph.D. studies and social commissioning (as a service) was described as unfolding in parallel, with the development of the social commissioning service primarily carried out by the impact team at AART in close collaboration with the Ph.D. researcher (me), but with the focus of the Ph.D. studies to do research *of* these social commissioning processes unfolding. This would be done through case studies of buildings in use, where social commissioning was carried out, and through these case studies my Ph.D. research would help qualify the next iteration of the development, as shown in Figure 47.

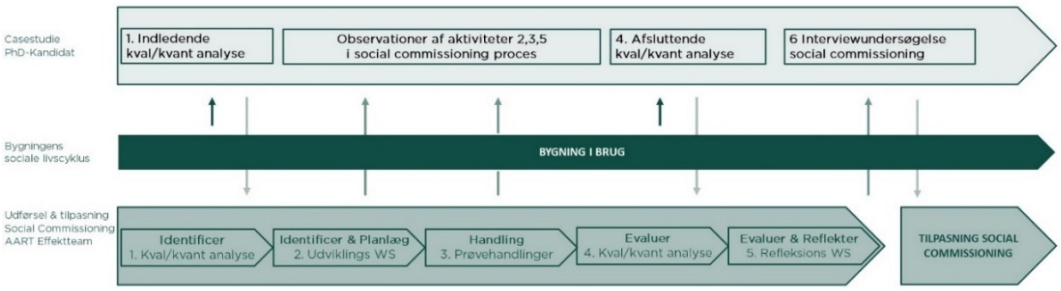

Figure 47 shows the envisioned relationship between the Ph.D. project and the development of social commissioning, as described in the project application.

In practice, it became more entangled, or messy, not following the neatly outlined process of consecutive iterations of development work, evaluation, and qualification, but rather continuously having to align with project schedules and changes along the way, and with the strategic work of AART to further develop their approach to 'impact' and 'redefining architecture'. As part of the impact team, my research is continuously related to and inscribed into that work, as described in chapter 12.

Taking the multiplicity of values and buildings as a starting point requires explicit attention to which understandings or enactments of values or buildings are in focus. There is no escaping this situatedness of values in practice, as these different enactments have consequences for what gets valued – and in what ways. However there are no definitive or clear-cut distinctions to be made, rather the question of position, or location, is part of our ongoing onto-epistemic practices (as engaged anthropological researchers), as described by Lucy Suchman in her chapter 'Border thinking about anthropologies/designs'(Suchman, 2021) in the book *Designs and Anthropologies: Frictions and Affinities* (Murphy et al., 2021), where she writes the following*:*

> We come in the end, then, to the question of location; specifically, the ways in which *where* we enact our anthropological practice — in relation to whom and to what initiatives, aims, and political or economic conditions — is crucial to the shaping of our ethnographic stance. There is, in other words, no definitive way of articulating a normative position between "of," "for," or "with" in the relations of anthropologies/designs. (Suchman, 2021: 31)

She goes on to elaborate how the different prepositions index the politics of ethnographic practice and the suspension between *'complicity and complexity'* (Corsín Jiménez, 2021: 97) and argues that:

> Along with whatever insights anthropology and design might have for each other, thinking at the border of anthropology/design insists that our practices take an analysis of their own conditions, and articulation of their own commitments, as integral and inalienable. (Suchman, 2021: 32-33)

This suspension between complicity and complexity has been ever-present for me during my studies. Understanding the relationship between people, values, and buildings as sociomaterial entanglements requires ways of knowing that attend to these dynamic and relational aspects. Challenging the view of futures, values, buildings, or organisations as singular, and putting people and practices at the centre for those futures, requires us to imagine all the above (futures, values, buildings, and organisations) in different ways, as more than static objects, beyond predictable and singular, as entangled and emergent.

This also requires us to do research differently, more engaged and from within, playing the edges between different logics. The topic of social value creation is complex and thus calls for thinking in between to find the hinges and friction points between disciplines

(Hollmén and Rose, 2013) and practice fields (Svabo, 2007), as I accounted for the introduction to my research position in chapter 2. What a posthuman practice approach enables in relation to social commissioning and values work is to move in between elements and scales, and to focus on the relationality, multiplicity, and ongoingness of these elements in practice.

An engaged and futures-oriented architectural anthropology explores possible human futures through intravention and ongoing collaboration. Engaging actively in these processes of co-creation enables enactments of social commissioning that would have otherwise not been available for me to explore. This positions engaged architectural anthropology as a diffractive research practice (Mellander and Wiszmeg, 2016) that engages and intravenes to imagine the future in different ways; *with* participants *for* change in practice.

An engaged architectural anthropology offers a particular approach to creating new knowledge through collaborative and diffractive fieldwork modalities that aspire to impact both research and practice. I understand my work with social commissioning along these lines. During my Ph.D. studies, I have engaged in policy work, like the formulation new criteria for the 2025 DGNB manual, and in the development of social commissioning as a service. I view these engagements as diffractive moves that generate new knowledge *and* create change in practice. There is, I would argue, no other way of doing this particular type of research. It would, of course, be entirely possible to study social value creation in the built environment by other means. It would also be possible to do a more detached study *of* social commissioning, but that would lead to different projects and different types of knowledge. This project is only possible because of my active engagement in practice where things and people are continuously set in motion; creating spaces of betweenness where we can transform and become together, through diffractive moves. The different diffractions challenge my own thinking in the project as well as provide new perspectives that in turn challenge current practices in relation to describing and working with social value in the built environment and thus expand the scope of the dialogue about how these values might be imagined otherwise.

14: Key Contributions and Perspectives for Further Research

Throughout this thesis, I have argued that a relational approach to value presents an alternative to the essentialist approaches that dominate existing project practices and that this relational values approach has the potential to challenge existing short-term value framings in the building industry that have a hard time dealing with the complexity of social values.

In part I of the thesis, I presented my research position as engaged architectural anthropology, accounted for the research design building on a multi-sited case study approach, and introduced the main theoretical perspectives of a relational values approach, through the concepts of 'relationality', 'sociomateriality', 'multiplicity', and 'ongoingness'.

To answer the 'research' part of sub question 1 (SQ1): *How do social values figure in the built environment today? (research + practice),* I then explored the concepts of 'social sustainability', 'building performance', and 'post-occupancy evaluation' in existing building performance research to better understand the types of discussions and complexities related to including social aspects, and an explicit focus on social values, into a field of research and practice that has traditionally been dominated by more technical interests and a natural science-inspired approach to research.

At the end of part I, I situated my research position in relation to a broader emerging field of more relational, engaged, collaborative, and qualitative building performance research and argued that this might be a way to develop new approaches to support 'values work' in practice.

In part II, I unpacked existing dominant value framings in the Danish building industry to explore the 'practice' part of SQ1. This was done with the primary case studies of the DGNB working group on social value and user involvement and the POE platform project, as well as my broader fieldwork experiences at AART, where I have taken part in a number of building projects and social commissioning processes. I showed how a largely taken-for-granted knowledge about, or understanding of, value as attributional and quantifiable has consequences for the ways in which social value can be accounted for in relation to the built environment and how this essentialist approach to value becomes performatively stabilised through ongoing sociomaterial practices in the building industry.

I then went on to explore a more relational approach to social value through the case studies of Balancen and Vrå school to answer *SQ2: What does a relational approach to value enable us to see and understand, and how does it relate to existing practice in the building industry in Denmark?*

The case of Balancen showed how community, as a social value, emerges continuously through sociomaterial practices and is enacted multiple. It cannot be designed in any definite sense but it can be given direction through ongoing valuing. This valuing becomes a meaningful link between the visions and values defined in the project and the continuous negotiations and reconfigurations of community, as these evolve over time; between Balancen-as-project and Balancen-as-lived-space.

The case of Vrå school showed how the transformation from 'old' to 'new' school is about more than the new building. It is a fluid and multiple process that moves in different directions, at different scales, following different trajectories. The building project, the ILE process, and the new building all contribute to the configuration of good learning environments in Vrå school. The different elements contribute to the weaving of a larger meshwork and they leave traces along the way that support, and sometimes also challenge, the reconfiguration of practices and learning environments. Both processes, the creation of community in Balancen and the reconfiguration of good learning environments in Vrå, hold formative moments of becoming that create the affective capacity of these projects to make practices tremble, set things in motion, and create new diffraction patterns.

This led me to conclude that the process orientation of the relational values framework offers a different approach to understanding and working with value as relational performance, rather than attributional quality, with a focus on flows and transformations rather than final end-products. If we want to understand and work with social aspects of building performance, we need to view buildings relationally rather than as static entities with a defined set of attributes that can be measured and evaluated in absolute terms, using numeric values.

When social values are understood as relational accomplishments that require ongoing care, it becomes clear that the short-term project focus on contractual obligations and predetermined objectives or KPIs is not enough to create value in the long run. However, my research also shows that existing project structures and current dominant valuing

registers in the Danish building industry still favour short-term, economic value for the stakeholders in the 'project' and put less emphasis on the long-term social values for the inhabitants of the buildings or society as a whole, and these structural barriers continues to challenge the introduction of different ways of valuing.

Another key insight from the case analyses is that a space can be created in building projects, where the relationship between people (individuals and organisation), values, and buildings (material configurations) can be discussed, negotiated, and reconfigured - if work and resources are put into this orientation towards 'building-as-lived-space'. Initiating a project potentially opens new types of conversations and this affective capacity has the potential to support social value creation. However, in many projects this potential is not fully realised today because of the very explicit separation between buildings-as-projects and buildings-as-lived-spaces and the short-term value focus of projects.

In part III of the thesis, I presented social commissioning as a particular conceptual framework as well as a concrete service for supporting a different approach to valuing in practice in response to the final sub question *SQ3: How can this 'values work' be supported in practice, going forward?*

Social commissioning challenges the view of futures, values, buildings, or organisations as singular or static, puts people and practices at the centre of those futures, and insists that the primary ambition is not designing perfect solutions for well-defined problems, but rather finding ways of enabling co-existence and coordination between multiple enactments, entangled and emergent.

I see the social commissioning framework as a contribution to existing building performance research and building industry practice. Social commissioning represents a different way of framing and working with value, or rather valuing, that contributes to a reconfiguration or reorientation of how social value can be supported and accounted for and provides concrete principles and activities to make this approach workable in practice. I also use the design of social commissioning as a service as a speculative opening to explore value creation further; as a particular form of engaged research *with* and *for*, rather than *of*, as described in chapter 13, by playing the edges between different modes of ordering. The active engagement with the essentialist logic of the building industry, through the work in commercial projects, the POE platform project, or the working group

for formulating social criteria in DGNB2025, is not the same as collapsing into it. The rejection of ontological separateness, for which Barad also argues (Barad, 2007), as I highlighted in chapter 4, does not mean that differences are conflated or collapsed. Rather, it means that entities or categories emerge through connections and therefore cannot be meaningfully singled out in any absolute sense but always need to be understood through their relational entanglements. Research and practice are not the same (and therefore neither are the various versions of social commissioning). However, reading them through each other, rather than insisting on keeping them separate, enables new understandings. It expands the scope of the dialogue, and the potential for change.

The central question I have been concerned with throughout my Ph.D. studies is not what buildings or values are (as entities), but what they make possible (as relational performances). Where technical commissioning is intended to make sure that the building services meet the set performance targets, social commissioning is less concerned with living up to predefined expectations or standards, and more concerned about qualifying the relationship going forward. This does not mean that no work can or should be done to support and set direction in the project or design phase. Strong social goal setting was shown to be important both in the case of Balancen and Vrå. However, it is less about 'getting it right' and more about 'making it work'; about learning, growing, and transforming the ways in which we work, learn, play, and live alongside these built structures in our environments. It is not the built environment in itself but what it potentially sets in motion that holds the affective capacity for change and value creation.

As introduced in the very first lines of the thesis, with the opening quote, this ongoing balancing between building and practice is often difficult for projects to navigate, and there is an apparent paradox between vision-driven design and a lack of focus on what happens post occupancy: *'…* Seemingly forgetting that it is the users who are there when the building is finished, who have to take over and carry the visions forward', as the architect in the initial quote reflected.

Throughout the thesis I have shown how the performance of buildings, or the social values they afford, cannot be understood without understanding the wider ecology of practices they are part of. My focus on values has gone in many directions. However, I still find that the analytical level that values have provided has been relevant and led me to new understandings about a building industry that I have been an insider/outsider of for more

than a decade. Focussing on the contextual contingencies of these configurations as they come into being in particular ways, without privileging human agency or moving towards material determinism, but insisting on the in-between as a viable analytical ground. This analytical middle ground requires transformative methodologies (Shirazi and Keivani, 2019:19) that tend to these contextual contingencies and I situate my current research within this broader field of more relational, engaged, collaborative, and qualitative building performance research. I argue that an engaged, practice-based, and future-oriented architectural anthropology offers a particular approach to creating new knowledge through collaborative, diffractive, and experimental fieldwork modalities that aspire to impact both research and practice.

An open-ended end to the project

Like all projects, this project, and my Ph.D. research, must also come to an end. However, tying a knot on the project does not mark the end or completion of my work with value creation and social commissioning. Social commissioning is still work in progress. It lives on and grows in different directions, which is one of the central points, emerging from the writing of this thesis. Following the relational logic of my overall argument, of setting things in motion, creating new diffraction patterns, and allowing for different versions to co-exist, my research does not provide a new or final definition of social value or propose to solve once and for all how to work with social value in relation to the built environment, nor was that ever the ambition of the project.

The studies presented in the thesis rely on a different ethico-onto-epistemological position. They explore, open up, and speculate potential futures to propose different ways forward. The explicit focus of the research has been following the ways of social value creation, through existing project logics and alternative values framings, to gain a deeper understanding of the ways in which social values figure in the built environment in Denmark today and to speculate and co-create new diffraction patterns and new potential paths forward with social commissioning. The studies thus set things in motion that have the potential to make current practices in the building industry tremble, if only just a little bit.

Much in the same way as social commissioning (as a service) is envisioned to set things in motion, showing paths without creating blueprints, with a dual purpose of ‘qualifying

design' and 'supporting change'; so too, social commissioning, (as a Ph.D. project) insists on multiplicity as a way of dealing with complexity in practice. Social commissioning will never become *one* thing, and it is impossible for me as a researcher to predict or control the things it might become, nor is it my ambition to try to do so.

However, this engaged position, and my complicity in the development of social commissioning, has also sometimes made me wonder if I have become too involved to be able to create sufficient analytical distance. I still struggle to find the 'right' level of engagement in practice, if I even still imagine that one such level might exist; when to engage and when to withdraw; when to be an active participant in defining and communicating social commissioning (as a service) and when to be an observer of these processes unfolding, to study how they develop and work in different contexts, as part of different sociomaterial practices. Maybe this is just one of the inherent challenges or tensions of doing practice-based research and one of the 'prices to pay' for a more engaged approach that joins with practice and practitioners in an ambition to create change. Still, I find the advantages outweigh the limitations.

The scientific contribution of the social commissioning Ph.D. research is not 1:1 the same as the social commissioning service, or the input provided for the development of policy documents along the way. However, bringing these different enactments into the same frame of analysis, rather than trying to separate them completely, moves both research and practice in new directions by working deliberately to introduce the relational approach into projects and studying what happens in those situations. Using these diffractive moves expands the repertoire of explanatory possibilities of how value might be accounted for in the built environment; how we might imagine and design this world becoming, in correspondence with the people and the fields engaged. These moves set things in motion and create a dynamic foundation from which values can grow. This, for now, is my approach to doing engaged architectural anthropology in practice.

Returning to the main research question outlined in part I: *How, and to what extent, can social value creation in the built environment be commissioned, and how might a relational approach to value contribute to this work?* This question was always more of a shared puzzle, as I introduced the concept in chapter 3, following Marcus and Fischer (1986), to guide the research than a problem to be solved. Standing here close to the finish line, looking back at what has been accomplished through the studies presented in

the thesis, my answer would be that if we understand commissioning in the broadest possible sense, as bringing into working condition – or setting in motion – then yes, it is possible to commission social value creation in the built environment. However, results cannot be guaranteed. A relational values approach insists on values as relational, sociomaterial, and multiple, which leaves values work ongoing and open-ended …

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