JUSTĖ PEČIULYTĖ

# Atmospheric Spatial Modelling

Ways of Staging Space with Textile Setups

Vilnius Academy of Arts Vilniaus Dailės Akademija

Justė Pečiulytė

Art Project Atmospheric Spatial Modelling Ways of Staging Space with Textile Setups

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The art project is available at Martynas Mažvydas National Library of Lithuania, and the library of Vilnius Academy of Arts.



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The disciplinary boundaries of physical modelling are stretched considerably when it is used in an art-based research context. This practice-based research looks at the ways in which the concept of "atmospheric" redefines and expands our understanding of spatial modelling practice. The research is underpinned by emerging theories that posit the performative, embodied, and cinematographic potentials of spatial modelling.

Atmospherically rich dwelling environments do not arise from conceptualised, representational modelling frameworks, as these simply do not allow for atmospheric expressions. The design perspective adopted in this inquiry placed the focus on modelling practice and, consequently, related acts and gestures. The aim of this research was to explore the potential of spatial modelling as a fundamentally atmospheric activity, and staging as a spatial modelling act. The practical work investigated the expressive potential of textile materiality with regard to design acts and gestures; a conceptual framework

called The Atmospheric Staging Studio was used for the methodological exploration of staging with textile setups.

This research presents a definition of and foundations for an atmospheric spatial modelling practice, and a methodological interior design framework for creating embodied architectural images. It contributes to the current research on design methodologies and atmospheres, and research into the nexus between performance, stage practices, and architecture.

The Atmospheric Staging Studio sensitises designers to modelling acts and gestures. The design conditions it suggests highlight the importance of awareness, humbleness, and adaptability within interior modelling. In design education programmes, the further development of this framework could lead to a design model based on embodied spatial knowledge.

Keywords: Modelling, atmospheres, design gestures, interior design process, ideation.

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# **Research** lexicon

Here, a compilation of the major notions that are systematically tackled throughout this research is provided. These terms and concepts are foundational to the explored area of artistic practice, and are discussed in relation to the contexts in which they are used and their meanings, mostly through phenomenological, aesthetic, and design perspectives. Most of them relate to the physical and less physical conditions of spatial design: materiality, atmosphere, effects, performance, and gesture.

# Aesthetic(s)

The perspective on aesthetics used in this work integrates the understanding of embodied cognition and connectedness: 'aesthetics, with full consideration of the importance of language and synesthesia as its central components, since it concerns cognition as a whole and not merely our "emotional brain centers."<sup>1</sup>

<sup>1</sup> Alberto Pérez-Gómez, Attunement: Architectural Meaning After The Crisis of Modern Science (Cambridge: MIT Press, 2016), 135.

In an architectural context, I use "aesthetic" in a sense of sensitive awareness of one's acts:

'The excentric disposition of human experience already contains an aesthetic moment: the aesthetic attitude too is based on a sense of distance in relation to specific situations; it detaches the situation like a scenic > image from purely functional reality. Architecture favours this aesthetic perspective through the scenic framing of everyday situations. But it is neither a question of theatre architecture nor of theatrical architecture, nor of settings that are prepared scenographically. Instead, every designed space can potentially convey to us the impression that it was made for us as a scenic frame that converts our actions into the object of our own attention.'<sup>2</sup>

# Modelling (spatial)

The idea of spatial modelling as a model-making practice for imitation, testing, and communication purposes is being challenged by the current academic debate, which my research contributes to. For example, the Centre for Information Technology and Architecture's curriculum acknowledges that the development of tools in architectural design entails the 'spatial and experiential potential.'<sup>3</sup> They state that drawings and models are used

- 2 Alban Janson and Florian Tigges, *Fundamental Concepts of Architecture: The Vocabulary of Spatial Situations* (Basel: Birkhäuser, 2014), 272-273.
- 5 Paul Nicholas and Phil Ayres, CITAstudio: Computation in Architecture 2015, (Copenhagen: The Royal Danish Academy of Fine Arts, Schools of Architecture, Design and Conservation, 2016). Retrieved from https://adk.elsevierpure.com/

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as 'speculative sites of design investigation and discovery.'<sup>4</sup> Physical modelling, when utilised in an art-based research context, sees its disciplinary boundaries considerably stretched. Catharina Dyrssen, a Professor of architecture and design methodology, takes architectural thinking and transfers it into artistic practice-based research as an artistic modelling activity. Modelling is defined by her as an 'active tool' and 'a spatial and material fiction.'<sup>5</sup>

# Model (spatial)

The term "model" and its conventional functions have recently been redefined in relation to the performative paradigm and performative and reality-constructing dimension of models:

[T]here is also another dimension to the model, linked to invention and imagination more than to the pragmatic needs of the scenographer and architect in that models are physical and conceptual instruments of the cosmopoietic (world-making) act – they are able to comprise entire worlds.<sup>6</sup>

files/62353123/Nicholas\_Ayres\_CITAstudio\_2015.pdf

<sup>4</sup> Ibid.

<sup>5</sup> Catharina Dyrssen, "Navigating in Heterogeneity: Architectural thinking as research," *The Routledge Companion to Research in the Arts*, ed. Michael Biggs and Henrik Karlsson (London: Routledge, 2010), 232.

<sup>6</sup> Thea Brejzek and Lawrence Wallen, *The Model as Performance: Staging Space in Theatre and Architecture* (London: Bloomsbury Publishing, 2017), [Kindle book]. Retrieved from http://www.amazon.com.

In this emerging approach, which is close to scenographic practice, physical models test their own boundaries and atmospheric<sup>7</sup> and performative potential.<sup>8</sup>

# Atmosphere

Very often in a spatial design context, designers refer to an atmosphere as an affective quality of space, and so the affective terms of mood, feeling, and emotion are those that are associated most strongly with this notion. However, in this research I want to emphasise the aspects of performativity, interplay, and dynamic interaction, which I argue are the essence of atmosphere as seen from a design perspective.

I use the polysemic notion of atmosphere in a sense of dynamic and elemental conditions as described by the academic Michael Tawa:

'Examples abound of architecture which makes time, and in particular the experience of time's passage, a fundamental condition of experience. To do this architecture needs to create conjunctions between static geometric and formal components of its fabric and certain dynamic conditions in the ambient world such as the movement of people, climatic variations, diurnal rhythms and elemental conditions that are conveyed by sounds, light, air, water, earth and so forth.'9

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Janson and Tigges give a similar definition of atmosphere, which is not only or essentially about mood, feeling, or character; rather, it is an interplay between atmospheric components:

Architecture allows > situations to emerge that are equipped with > atmospheres, and that we experience with all of our senses, as well as through the interplay between constructive-spatial properties and our bodily movements, our activity as users, and our mental states.<sup>10</sup>

# Atmospheric (architecture)

As with the notion of atmosphere, which is understood as an interplay, 'atmospheric' implies 'multisensory gesture.'<sup>11</sup> It therefore becomes more of a verb than a noun or an adjective: 'certain fundamental architectural experiences are verbs rather than nouns.'<sup>12</sup>

It also refers mainly to the atmospheric approach to architecture: 'Architectural quality that extends far beyond the form and function.'<sup>15</sup>

Architecture (Newcastle: Cambridge Scholars Publishing, 2010), 38.

- 10 Janson and Tigges, Fundamental Concepts, 22.
- 11 Juhani Pallasmaa, "Space, Place, and Atmosphere: Peripheral Perception in Existential Experience," *Architectural atmospheres: on the experience and politics of architecture*, ed. Christian Borch (Basel: Birkhäuser, 2014), 12.
- 12 interview with Juhani Pallasmaa in *Architectural atmospheres: on the experience and politics of architecture*, ed. Christian Borch (Basel: Birkhäuser, 2014), 99.
- 13 Pallasmaa, "Space, Place, and Atmosphere, 15.

<sup>7</sup> Ibid.

<sup>8</sup> Ibid.; Dyrssen, "Navigating in Heterogeneity."

<sup>9</sup> Michael Tawa, Agencies of the Frame: Tectonic Strategies in Cinema and

# Effects

Tawa defines effects produced by elemental conditions and their interactions:

'Diurnal and seasonal variations, the directionality of light, how and when it is admitted to into the space of buildings, all have significant effects on the quality of space. Beyond the pragmatic need to adequately illuminate for use, these effects can contribute to the constitutive character of spaces, their potential to refer to realities beyond the utilitarian, and their capacity to signify and connect architecture to broader levels of meaning—symbolic, aesthetic, emotional, existential, socio-cultural and so forth.<sup>14</sup>

# Representational regime

"Representational regime" in spatial production refers to a mimetic act, which is based on the literal translation(s) of concepts into built, tectonic forms<sup>15</sup>. It fulfils the representational function of modelling: 'mimesis is at work throughout the modelling processes of the designer as iterative and explorative conceptual, material and structural research.<sup>16</sup>

16 Brejzek and Wallen, The Model as Performance, [Kindle book]. Retrieved from http://www.amazon.com

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# Performance

I primarily refer to the use of this term in relation to the context of art-based research. 'Performance is both *to act* in a situation and *to make something act*, that is, to investigate by making-action as well as composing the set-up for it'<sup>17</sup>. In the context of architecture I also refer to performance as an activity enabling the scenic experience, comparable to scenography and theatre with the difference that 'we experience architecture scenically primarily as actors, and as the spectators of our own actions.'<sup>18</sup>

# Performative

In the modelling context the performative is understood to be the capacity of a model or research setting to comprise and enable performance.<sup>19</sup> Barbara Bolt precisely defines the distinction between "performance" and "performative": 'Performative is not merely an adjective of performance': 'it does things in the world',<sup>20</sup> therefore it implies transformation, modification, and movement in thoughts, words, and deeds.

# "Performative" also indicates scenic capacity: *'We do not experience architecture primarily by "reading" meanings or "assigning" functions;*

- 17 Dyrssen, "Navigating in Heterogeneity," 226.
- 18 Janson and Tigges, *Fundamental Concepts*, 272.
- 19 Brejzek and Wallen, *The Model as Performance*.
- 20 Barbara Bolt, "Artistic Research: A Performative Paradigm," *Parse Journal 3* (2016): 42.

<sup>14</sup> Tawa, Agencies of the Frame, 2010, 201.

<sup>15</sup> Ibid.

instead, we comprehend architectural reality through our corporeal involvement, through which the performative – or better, scenic – character of our dealings with architecture become explicit (> scene). The scenic capacity of architecture takes priority over its functional or semantic capacities.<sup>21</sup>

I also use the notion of "performative" to define the character of a medium. The architectural imagery researcher François Penz emphasises the performative character of film and cinema, arguing that it potentially closes the gap between lived and built expressions moreso than other media<sup>22</sup>.

# Materiality

I refer to Mäkelä's and Löytönen's brief overview of the development of the concept. They highlight the recent acknowledgement of the agency of matter that comes with the new materialism, and thus possesses the 'constitutive and independent factor'<sup>23</sup>. The researchers define materiality in relation to places, environments, and (organic) matter.

- 22 François Penz, *Cinematic Aided Design: An Everyday Life Approach to Architecture* (London: Routledge, 2017).
- 23 Maarit Anna Mäkelä and Teija Löytönen, "Rethinking materialities in higher education," *Art, Design & Communication in Higher Education* 16, no. 2 (2017).

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# Gesture

In the large sense, '[g]estures are movements of the body that express an intention'<sup>24</sup>. In the context of spatial design, a gesture is defined as a visual tool of architectural design<sup>25</sup>.

# Staging (space)

In the context of scenography, staging is understood as a representational technique for creating carefully 'staged mood settings'<sup>26</sup>.

In an architectural and artistic research context, however, it is understood to be a tool for modelling: 'Apart from investigating materialities, spatial thinking in modelling and experimentation can also stage locations, heterotopias and liminal states.'<sup>27</sup>

# Setup

In the context of artistic and architectural practices this term is used along with 'installation' and 'model', but implies a wider understanding based on negotiability and open-endedness. "Setup" relates to the particular

- 24 Vilém Flusser, *Gestures*, (Minneapolis: University of Minnesota Press, 2014), 1.
- 25 Christian Gänshirt, *Tools for Ideas: An Introduction to Architectural Design* (Basel: Birkhäuser Architecture, 2007).
- 26 Sabine Schouten, "Dramaturgy of atmospheres—the perception of staged mood settings," in *Designing atmospheres*, ed. Jürgen Weidinger (Berlin: Universitätsverlag der TU Berlin, 2018), 123.
- 27 Dyrssen, "Navigating in Heterogeneity," 230.

<sup>21</sup> Janson and Tigges, Fundamental Concepts, 41.

technicality of a working situation and is 'the assembly and arrangement of the tools and apparatus required for the performance of an operation'<sup>28</sup>. It also refers to scenographic and cinematographic practices.

The artist Olafur Eliasson uses the term 'experimental set-up'<sup>29</sup> to talk about his artworks, as well as the notions of 'installation', 'spatial project', and 'model'. 'Setup' in his terminology indicates a spatial arrangement that does not conceal how it is made, and suggests that it is open to negotiation<sup>30</sup>. His works are described on his website as 'site-specific installation[s]'<sup>31</sup> and 'setup[s]': 'The Natural Light Setup' (2008), 'The Light Setup' installation (2005).

Catharina Dyrssen discusses the notion of the 'research set-up' as an open system in artistic practice-based research and explores how it functions as an assemblage:

Starting off by a precise action, or a question, or an observation (or a given situation which one senses can be viewed in an alternative way), the architect-researcher gradually constructs – or composes – the assemblage, the open system which forms the research set-up with its relevant components and their internal/external connections.<sup>32</sup>

- 28 Merriam-Webster, s.v. "Setup," accessed month October 5, 2020, https://www. merriam-webster.com/dictionary/setup.
- 29 Olafur Eliasson, "Models Are Real," *A Journal of Emergent Architecture and Design* 11 (2008), 19.
- 30 Ibid.
- 31 "Olafur Eliasson," Olafur Eliasson, n.d., accessed October 2, 2020, https://olafureliasson.net.
- 32 Dyrssen, "Navigating in Heterogeneity," 226.

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### Situative reality

Janson and Tigges define the situative reality of architecture, which is very close to performative and atmospheric considerations:

'In contrast to the objective reality that is attributed to a building as a mere object, and differently from the ideal reality of a pictorial work of art, the situative reality of architecture as I perceive it is at the same time my subjective reality. In a performative act, we experience our interaction with space – including its practical > use – from a self-referential perspective – if often only subliminally. It is tempting to draw a parallel with a > scene in a theatre.'<sup>35</sup>

# Foundational definition

'A foundational definition is a definition that introduces some of the basic notions we use to build a certain practice. This is what we in practice, implicitly or explicitly, refer to as our foundation in design process communication.'<sup>34</sup>

- 33 Janson and Tigges, Fundamental Concepts, 22.
- 34 Lars Hallnäs, "The design research text and the poetics of foundational definitions," *Art Monitor* 8 (2010): 111.

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# Introduction

# Doctoral studies model

This practice-based design research is the outcome of an unprecedented doctoral studies model in the arts in Europe. Based at the Vilnius Academy of Arts, it involved participation in the three-year-long cross-disciplinary nomadic research project ArcInTex European Training Network (ETN). Combining the disciplines of architecture, interaction design, and textile design, the project set a framework for collaborative research and learning, as well as individual training in textile techniques. The main programmatic direction of the ArcInTex ETN was 'Sustainable forms of future living', with the overarching aim of formulating foundations for 'textile thinking.'

The training programme consisted of multiple workshops, seminars, summer schools, and secondments (shortterm exchanges with another involved institution or company) held at the participating institutions: The Royal College of Art (London), Heriot Watt University (Edinburgh), Eindhoven University of Technology, The Berlin University of the Arts, and The Swedish School of Textiles at the University of Borås. The consortium also involved two companies: Philips Electronics Netherlands B.V. and Svensson AB, Sweden. Fifteen early-stage design researchers with diverse backgrounds were divided into three work packages on three scales: the body, the interior, and the building. Each of us was given an individual research topic, and was also asked to create collaborative projects within the work packages. My individual research was framed around 'Textile thinking for adaptive and responsive interior design – the scale of the interior' research cluster, and on the topic of 'Designing bespoke textiles for interior performance.'

# Research subject and field

This thesis investigates the aesthetic foundations of spatial modelling acts and practically explores atmospheric ways of spatial modelling by staging interior scenes using textile setups. The driving force behind this research was on the following questions: What do designers take as a point of departure when designing interior spaces in the modelling phase? What are their motivations? More specifically, when it comes to the expressions of atmospheres in interiors, the nature of atmospheric space demands that particular attention be paid to the medium, vocabulary, and methodological framework used. Therefore, this research does not conform to an existing field of research; rather, it is a field of practice that emerges alongside the research.

# Relevance

The architectural theorist Alberto Pérez-Gómez suggests that the embodiment of atmospheres in literature can be a point of departure for designing interiors<sup>35.</sup> Pérez-Gómez argues for the importance of literary narratives in relation to architectural design, defending the use of poetic, metaphorical language as a paradigm for architecture due to its aptitude for conveying spatial atmospheres. The well-established modelling acts of visualisation and representation are unable to incorporate dynamic and mutual exchanges with material settings, nor a variety of temporalities - which are the key aspects of an embodied understanding of visual perception, inherent to atmospheres. One cannot expect atmospherically rich dwelling environments to be based on conceptualised, representational modelling frameworks as these simply do not allow for atmospheric expressions. In consequence, the search for ways of dwelling with atmospheres necessarily demands radical changes with regard to ways of designing. My research stands adjacent to this critical position by highlighting the necessity of reactualising the aesthetic foundations of spatial modelling practice, and suggests original spatial design processes that sensualise designers' relationships with modelling processes and tools.

35 Pérez-Gómez, Attunement.

# Research background

The growing body of research on atmospheres in spatial design theory and practice largely relates to design methodologies. Meanwhile, the phenomenological perspective on architecture discusses the experiential potentials of architectural elements and atmospheres, as well as accounts of these experiences. The design perspective adopted in this inquiry places the focus on modelling practice and, consequently, related acts and gestures. The notions of atmosphere and the atmospheric present opportunities for spatial design to revise these basic notions. Due to the emergent character of the concepts related to the research subject, I led the discussion with contemporary authors who, in their writings, oscillate between phenomenological, aesthetic, and design perspectives, mostly in relation to architectural production. The work of the philosopher Vilém Flusser, and specifically his Gestures,<sup>36</sup> was discovered in the latter phase of this study and would have deserved more attention.

Practitioners, researchers, and theorists have been critically revising the strategies, modalities, and categories of spatial design in relation to the aesthetic perspective. More generally, this need to inquire and challenge the act of designing can be historically linked to the turning point in Western culture in the 1960s, when design projects began to be thought of not as the creation of objects but JUSTĖ PEČIULYTĖ

of states of consciousness.<sup>37</sup> In architectural production, a similar attitude can be associated with the shift in focus from the building to the body and physical presence in a space. The philosopher Gernot Böhme, along with other authors, dates this shift to the beginning of the twentieth century, and suggests exploring the potential of architecture as an act of 'designing in space.'<sup>38</sup>

The architect, researcher, and educator Christian Gänshirt discusses the act of designing as the activity of architectural design: 'An attempt is made to explore design as an activity, to make it accessible, comprehensible, open to experience, not so much reflecting on the meaning of the term, but on the activity itself.<sup>39</sup> Together with Flusser's phenomenological analysis of design gestures,<sup>40</sup> he opened a discussion regarding aesthetic meaning and the expressivity of design gestures, questioning the dominance of rationality in design: 'Only simple regular things can be grasped rationally. The complex, multi-layered, holistic aspects of a design, which are ultimately the key to it, are accessible only to feeling, instinct, individual sensibility.<sup>241</sup> Gänshirt follows Flusser's phenomenological outlook with regard to architectural tools, which fosters the interpretation of design gestures as a way to assess designs, and in this manner encourages an awareness of

- 39 Gänshirt, Tools for Ideas, 52.
- 40 Flusser, Gestures.
- 41 Gänshirt, Tools for Ideas, 207.

<sup>37</sup> Jehanne Dautrey and Emanuele Quinze, Strange Design: Du Design Des Objets Au Design Des Comportements, (Villeurbanne: It: éditions, 2014), 23.

<sup>38</sup> Böhme, "Atmosphere as Mindful Physical Presence in Space," OASE Journal for Architecture 91 (2013): 25.

design acts. Consequently, the researcher claims that the freedom of not having rational criteria in the value system of design projects frightens designers, meaning that *'imitatio* primes the *inventio*.<sup>'42</sup>

A similar, more elaborate critique of the prevailing instrumentalised and rationalised approaches to spatial design processes and tools can be found in Alberto Pérez-Gómez's theoretical work on attuned atmosphere. This questions the viability of representational tools for expressing atmospheres, and encourages designers to be critical and aware of methodological design frameworks, which are still largely based on conceptual, geometric, cartesian spaces. 'The task of design emerges as a bringing to presence of qualitative and attuned settings for human action<sup>'43</sup>. In direct relation to atmospheres, Pérez-Gómez underlines the importance of 'emerging language,'44 i.e., emotions, perceptions, and feelings in relation to the act of design. His book Attunement: Architectural Meaning After the Crisis of Modern Science is reviewed as a 'guide for inhabiting and designing architectural atmospheres.<sup>45</sup> However, more recent research on the subject posits the impossibility of designing atmospheres on the basis that we 'can never predetermine or predict exactly how atmospheres will be experienced;<sup>246</sup> instead, designers

42 Gänshirt, Tools for Ideas, 208.

- 43 Pérez-Gómez, Attunement, 107.
- 44 Ibid, 156.
- 45 Rear cover of the book, review by David Leatherbarrow of Tawa, Ibid.

46 "Ambiances, Alloaesthesia. Senses, Inventions, Worlds: 4<sup>th</sup> International Congress on Ambiances," ambiances.net, accessed October 14, 2020, 6. https://0501.nccdn.net/4\_2/000/000/081/4ce/4thAmbiancesCongress-CallForPapers-April2020-update.pdf.

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should focus on 'processes and interventions of design, architecture and other forms of creative practice',<sup>47</sup> according to the researcher Shanti Sumartojo. The architect and academic Juhani Pallasmaa, a major figure in architectural discourse with a phenomenological outlook and atmospheric approach to architecture, has a similarly humble attitude towards design processes.<sup>48</sup>

Given these arguments, it is not surprising that contemporary architectural historians, theoreticians, and philosophers have foregrounded links between the fine and performing arts, architecture, and atmospheric approaches to space. Crossovers between paintings, moving images, installations, performance, and happenings have a longer tradition of acknowledging and dealing with atmospheres than spatial design disciplines. In order to develop new approaches to interior design, the editor of the publication 'Design Innovations for Contemporary Interiors and Civic Art<sup>'49</sup> invites the discipline of interior design to open up to the influences of other art forms in order to be able to 'embrace concepts such as the temporary, the ephemeral, and reversibility.'<sup>50</sup> In that respect, creative processes from

47 Ibid, 7.

<sup>48 &#</sup>x27;Due to this subliminal nature, materiality and formlessness of the atmospheric experience, it is difficult to identify, analyse and theorise, not to speak at deliberately aiming at in the design process. Architectural atmosphere is thus bound to be a reflection of the designer's synthetic existential sense, or sensitive feeling for being, which fuses all the sense stimuli into a singular embodied experience.' Pallasmaa, "Orchestrating Architecture: Atmosphere in Frank Lloyd Wright's Buildings", *OASE Journal for Architecture* 91 (2013): 53.

<sup>49</sup> Luciano Crespi, *Design Innovations for Contemporary Interiors and Civic Art* (Hershey: IGI Global, 2016).

<sup>50</sup> Ibid, 25.

cinema, theatre, and performing arts are of great relevance.

The discussion of the nexus between "stage set arts", spatial design, and atmospheres was popularised in the works of Gernot Böhme, who used it as a model for his theory of 'aesthetics of atmospheres,'<sup>51</sup> stating that aesthetics should learn from stage art rather than vice versa.<sup>52</sup> Thus, Böhme reflects on both the reception and production of atmospheres, and invites architects to seek a new awareness of their work through the perspective of stage design.

The parallels between architecture, theatre, performance, and atmospheres can be found in *Fundamental Concepts of Architecture: The Vocabulary of Spatial Situations.*<sup>53</sup> Their suggested 'conceptual network' of terms consists of phenomenological descriptions of the ways and circumstances in which we experience architecture, and architectural situations, which are similar to performativetheatrical conditions.<sup>54</sup>

The architect and educator Michael Tawa explores the semantic terrain of architecture and cinema in *Agencies of the Frame: Tectonic Strategies in Cinema and Architecture.* His intent is 'to discern within cinema those qualities,

- 51 Gernot Böhme, The Aesthetics of Atmospheres (New York: Routledge, 2017).
- 52 Ibid.
- 53 Janson and Tigges, Fundamental Concepts.
- 54 Architecture allows spatial > situations to emerge that are equipped with > atmospheres, and that we experience with all of our senses, as well as through the interplay between constructive-spatial properties and our bodily movements, our activity as users, and our mental states.[...] We experience the spatial relationships described above including those between body and space, interior and exterior, place and movement, as well as the structural order of the whole as situations in which we ourselves play active parts.' Ibid, 22.

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conditions and techniques that might be useful for design strategies, tactics and practices' and he thus discusses in what ways architects could be 'like cinematographers.'<sup>55</sup> He gives examples from cinema, which rely on the '*kinematic* conditions'<sup>56</sup> inherent to the medium rather than representational and metaphorical ideas, and suggests that architecture should do the same. In his introduction to *Agencies of the Frame*, the philosopher Jean-Luc Nancy makes a juxtaposition between the acts of carving and framing in the architectural context.

With regard to practical design examples and artistic research – the atmospheric and performative facet of spatial modelling – acts and gestures can be found in the works of the following contemporaneous practitioners: the architect, artist, and lecturer Oscar Hansen, artist Olafur Eliasson, architect Bernard Tschumi, artist Hélio Oiticica, and designer Petra Blaisse. Their explorations and idiosyncratic vocabularies challenge the foundations of spatial modelling processes through an emphasis on subjective and accidental acts.

Hansen saw architecture as an instrument of individual expression to be co-created and transformed by its users. As such, his focus is the daily activities that take place in a space, and so he suggests pedagogical tools based on performance, theatre, games, and concepts such as an 'open form.'<sup>57</sup> Tschumi conceptualised architecture

- 55 Tawa, Agencies of the Frame, 1.
- 56 italics originally in the text. Ibid. 32.
- 57 Marta López-Marcos, "Revisiting anti-space. Interview with Steven K.
   Peterson," *Risco Revista de Pesquisa em Arquitetura e Urbanismo* 15, no. 1 (2017): 144.

as 'the ultimate erotic act'58 and explored the idea of 'experienced space,'<sup>59</sup> which he saw at the border between conceptual and performance art. Hélio Oiticica explored colour, movement, and space through kinetic forms such as textile installations and worn objects during dance, performance, and theatre. These formal investigations were combined with the concepts of 'leisure strategies' and the 'supra-sensorial', which were based on the principle of inviting viewers to participate in his works in order to find joy and pleasure.<sup>60</sup> In Blaisse's work, the act of curtaining both shapes and activates atmospheres in a somewhat theatrical way, and light is the main protagonist: 'Blaisse's curtained universe is a moving space of fabric and matter that is activated by light.<sup>'61</sup> According to Eliasson, performative strategies, ephemerality, and negotiation are the key elements that co-produce space and time<sup>62</sup>. He is interested in how architectonics amplify ephemeral qualities, and how space is dependent on spectators' engagement. Eliasson's work was chosen as a pivotal reference for this thesis as it deals very closely with the ephemeral qualities of space and understanding of modelling and models.

- 58 "Sensuality has been known to overcome even the most rational of buildings. Architecture is the ultimate erotic act. Carry it to excess and it will reveal both the traces of reason and the sensual experience of space. Simultaneously.' Bernard Tschumi, "Advertisements for Architecture," 1976-1977. Photograph. Source: Bernard Tschumi Architects, n.d., accessed October 2, 2020, http://www. tschumi.com/projects/19/.
- 59 Martin Louis "Transpositions: On the Intellectual Origins of Tschumi's Architectural Theory," *Assemblage* 11 (1990): 27.
- 60 Simone Osthoff, "Lygia Clark and Hélio Oiticica: A Legacy of Interactivity and Participation for a Telematic Future," *Leonardo* 30, no. 4 (1997): 284.
- 61 Giuliana Bruno, *Surface: Matters of Aesthetics, Materiality, and Media* (London: University of Chicago Press, 2014), 93.
- 62 Eliasson, "Models Are Real," 19.

# Research focus and motivation

The atmospheric approach to space is complex as it involves temporal, situational, and experiential concepts, all of which are problematic in relation to the dominant representational interior design frameworks. Due to these frameworks being based on geometric space, formal and objective properties, and disembodied images, they do not allow genuine atmospheric expressions. Atmospheric architecture is concerned with such qualitative denominations as actions, habits, bodily gestures, temporality, settings, etc.<sup>63</sup> If we acknowledge the argument that atmospheres cannot be designed, represented, or modelled, we can turn towards the expressivity, qualities, and fundamentally atmospheric nature of modelling acts and gestures.

# Research aims and objectives

This research aimed to explore the potential of spatial modelling as a fundamentally atmospheric activity, and staging as a spatial modelling act. In that respect my practical work investigates the expressive potential of textile materiality with regard to design acts and gestures. The objectives of the research were:

• To contribute to the debate on methodological approaches for designing with atmospheres.

<sup>63</sup> Pérez-Gómez, Attunement, 10.

- To disrupt assumptions regarding modelling as being primarily a representational, instrumental activity.
- To introduce a design programme for spatial modelling practice based on the embodied, presentational, and performative aspects of modelling and models.
- To present methods of staging with textile setups as possible modes of atmospheric spatial modelling.

# **Research** questions

This research has involved a dialogue between my explorations and the relevant examples from artistic practice and architectural theory. Most of the discussed examples challenge the foundational notions of spatial design with regard to e.g. form, space, or models. The main research question was as follows: What is the potential of atmospheric spatial modelling in relation to establishing foundational definitions? This is a general question for the practice. Moreover, what is the potential of staging as a modelling act? And finally, with regard to exploratory actions, what are the expressive potentials of textile materiality for modelling gestures?

# Methodological approach

The methodological approach adopted in this thesis relies on a combination of the design and artistic

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research valuessuggested by the ArcInTex ETN<sup>64</sup> and the performative artistic research paradigm defined by the researcher and artist Barbara Bolt. I agree with the philosopher Lars Hallnäs that 'foundational definitions define the form of practice'<sup>65</sup>, and thus it would be apt to say that atmospheric modelling is intrinsic to performative design practice and a performative artistic research model. Performative design practice experimentally explores and exposes design processes and various, usually overlooked, facets of designing<sup>66</sup>. Similarly, Bolt argues that a performative understanding of artistic research 'invite[s] new ways of analysis, modes that focus on process, participation, events, expressive actions and experience'<sup>67</sup>.

# Research methods and tools

In order to explore atmospheric spatial modelling acts and the expressive potentials of textile materiality, the hybrid methodological tools of textile design, writing, performativity, and image-making were used. To tackle the main concepts in a methodological manner I used hermeneutics and visual research methods. The latter are based on a combination of the scientific use of

- 65 Hallnäs, "The design research text," 111.
- 66 Emile De Visscher, Justine Boussard, and Lucile Vareilles, *Obliquite #01 Paradigm* (Paris: Le Presse, 2016).
- 67 Bolt, "Artistic Research," 134.

<sup>64 &#</sup>x27;Methodologically, the ArcInTexETN has its research foundation in practice-based design/artistic research (research by design) concerned with design and artistic experimental work, and aims to develop and deepen practice by introducing new tools (techniques and methods) and new programmes for design and artistic work.' ArcInTexETN, *PhD and Supervisors Guide to ArcInTexETN* (2015), 3. http://www.arcintexetn.eu/wp-content/uploads/2016/01/PHDguide\_2016-01-18.pdf.

images to underpin a discussion and a more artistic approach, wherein montage and the choice of format play a distinct role. In order to assess exploratory actions, Bolt's guidelines for mapping performative effects, i.e. the discursive and material consequences of the research<sup>68</sup>, were used.

The practical explorations undertaken within the scope of this research had an idiosyncratic workshop-performance format under a conceptual framework defined as The Atmospheric staging Studio. An original vocabulary, bespoke textile coatings, and design examples gradually emerged from this framework as the research process continued. The four explorations presented in this thesis demonstrate four different modalities and modes of staging with textile setups: sometimes the studio was explored through ad-hoc, random interactions, and at others brief instructions were given to the performers beforehand.

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# Thesis statements

- An atmospheric approach to space expands the definition of modelling and its acts.
- Staging, as a spatial modelling act, opens up a productive gap for explorations of the expressivity of design gestures.
- Textile materiality has the potential to enrich gestural vocabularies of atmospheric modelling.

# Academic novelty

In this thesis I explore how atmospheric and textile materialities shape modelling gestures. In agreeing with the argument that matter has agency in learning – that different environments, settings, and materialities set the tone for and context of design practice<sup>69</sup> – designers are encouraged to consider aspects of collaboration, negotiation, and co-production between human and nonhuman "protagonists". In this manner the focus of a design process shifts from causal circumstances and precise, preconceived architectural images to situations and ambiguous, embodied architectural images. The previously presented doctoral study model suggests an original approach to practice-based design research. Collaborative and cross-disciplinary aspects are at the forefront, and were the major catalysts of this research:

- Opportunities to encounter the working environment, design materials, and techniques of previously unfamiliar fields of design practice, i.e. textile, fashion, and interaction design (cf. the ArcInTex ETN training programme).
- Parallel collaborative projects with work-package peers (cf. ArcInTex ETN).
- Opportunities to take part in workshops and academic events on emerging and related research, and to organise workshops in multiple educational institutions.
- Collaborations with researchers from scientific disciplines, specifically those involved in the development of non-traditional surface coatings and their combinations (Physical Science LAB, Vilnius, Lithuania).

# Research results and contribution

This research presents the following programmatic research results: 1) A definition of and foundations for an atmospheric spatial modelling practice. 2) A methodological interior design framework for creating embodied architectural images. This research contributes to:

• the current research on design methodologies and atmospheres.

• research into the nexus between performance, stage practices, and architecture.

# Thesis structure

This thesis consists of four parts, each of which is introduced in a distinct way: sometimes image montages are used, and other times epigraphs are employed.

The first part, 1."Research field", introduces the research field. Section 1.1 is a compilation of examples of "atmospheric forms", wherein the concepts used by the practitioners are described, as are their design materials and media. Section 1.2 is a compilation of theoretical speculations on event-based spatial expressions that also discusses examples of "atmospheric spatial expressions". In the Section 1.3 I underpin the choice of the category of "atmospheric" with theory relating to the subject, summarise the examples, and discuss the problems that they raise with regard to a representational approach to spatial modelling.

In the second part 2."Research" I examine the definition of spatial modelling (Section 2.1). By discussing examples of theory I explore how performing art and cinematographic practices can expand our understanding of spatial modelling practice, and demonstrate how they problematise the notion of representation and overly pragmatic design processes (Section 2.1.1).

I then juxtapose divergent spatial modelling acts in the Section 2.1.2 by discussing two artistic examples from the same historical period. I base the narrative on divergent motivations, and discuss these perspectives in relation to the concepts of installation, framing, and staging. I elaborate on staging as a potential modelling act, and discuss the focus placed in this research on the expressivity, values, and qualities of spatial modelling acts. Finally, in the Section 2.2 I examine the potential of textile materiality for modelling gestures by discussing my explorations alongside two other practical examples, and with theoretical underpinnings discuss the definitions of the dialogical and the sartorial.

The third part 3. "Explorations" presents the design examples and describes my practical investigations. The first compilation "Atmospheric Staging Studio" exemplifies some of the principles of the atmospheric spatial modelling practice. The second compilation contains of the four explorative actions that convey the methodological issues of the practice. I illustrate four workshops-performances with their respective aim, context, materiality and gestures.

The fourth part 4. "Discussion and Conclusions" summarises the research in terms of its consequences and results, and discusses possible future development.

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# 1 Research Field

# 1.1 Examples of atmospheric forms in spatial modelling



Experimental setup

Figure 1.1



Figure 1.2

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Figure 1.3



Figure 1.4

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Kinetic light device

Figure 2.1



Figure 2.2



Performative prototype

Figure 3.1



Figure 3.2



Performative installation

Figure 4.1



Figure 4.2

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Figure 4.3



Figure 4.4

# Experimental setup

Let's say that the spheres are machines that create space, they space. Some of them contain a light source inside that projects fragmented light out into the space where they are hanging, like a map projection. So it is not, or primarily, the physical object in the space that interests me, but the way the light and the shadows and the colours claim and create space together. They perform architecture you might say.

— Olafur Eliasson<sup>70</sup>

The architecture that is performed by the confluences of shadows, colours, and light – we can sense a scenographic approach in the way the contemporary artist Olafur Eliasson describes his research interests. The forms he works with are curiously referred to as 'spheres' and 'machines'. Eliasson describes his artworks as 'options', 'models', or 'experimental set-ups': '[t]he artworks are experimental set-ups, and experiences of these are not based on an essence found in the works themselves, but on an option activated by the users.'<sup>71</sup> An example of this is the installation *Seu corpo da obra (Your body of work)*, 'a labyrinth of coloured, translucent panels rearranged into chromatic variations as visitors walk through it.'<sup>72</sup> To

- 71 Eliasson, "Models Are Real", 19.
- 72 "Seu corpo da obra (Your body of work)," Olafur Eliasson, 2011, accessed November 12, 2018, http://olafureliasson.net/archive/artwork/WEK107097/seucorpo-da-obra-your-body-of-work.

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activate the optical effects of the installation, spectators have to move between the surfaces (Figs. 1.1-1.4). Eliasson assigns the following keywords to his installation: 'colour', 'experiencing depth', 'compositional layers', 'landscape', 'looking at, looking through.'<sup>73</sup>

# Kinetic light device

Ever since the invention of photography, painting has advanced by logical stages of development from pigment to light. We are ready to replace the old two-dimensional colour patterns by a monumental architecture of light.

– László Moholy Nagy<sup>74</sup>

With the aim of finding 'new spatial relationships'<sup>75</sup> during a historical period dominated by painting, Moholy-Nagy engaged in multimodal experiments with three-dimensional artefacts and photographic forms of expression. The well-known *Light Prop for an Electric Stage (Light-Space Modulator)*, which the artist-designer built to explore the expressive possibilities of kinetic light effects in space, is an illuminated, moving sculpture that can be considered to be multimodal (Figs. 2.1, 2.2).

Ivana Wingham, "Material Immateriality: Moholy-Nagy's search for space," in *The Camera Constructs: Photography, Architecture and the Modern City*, ed. Andrew Higgott and Timothy Wray (Burlington: Ashgate, 2012), 259.

<sup>70</sup> Nina Azzarello, "interview with artist olafur eliasson," *Designboom maga-zine* (2015), https://www.designboom.com/art/olafur-eliasson-interview-art-ist-designboom-02-16-2015.

<sup>73</sup> Ibid.

<sup>74</sup> Matthew S. Witkovsky, , Carol S. Eliel, and Karole P. B. Vail, *Moholy-Nagy: Future Present* (Chicago: Art Institute of Chicago, 2016), 300.

<sup>75 &#</sup>x27;The strategy of breaking up the volume into elements and "lightening" the material by searching for relationships was a search for invisible, unseen, as yet unfound space."

Moholy-Nagy also included photography and film to capture the effects produced by the modulator.<sup>76</sup> These explorations of scattered volumes were a part of the Bauhaus Stage Experiments, wherein the stage inspired cross-disciplinary workshops and gave rise to such notions as an 'atmospherical device', 'mechanised environments', and an 'atmosphere machine.'<sup>77</sup>

# Performative prototype

[T]he prototype for architecture that works between the neurologic and the atmospheric, developing like a landscape that is simultaneously gastronomic and thermal.

— Philippe Rahm<sup>78</sup>

*Digestible Gulf Stream. Architecture as Meteorology, Architecture as Gastronomy* is a work by Philippe Rahm architectes.<sup>79</sup> Half-naked actors enacted familiar everyday activities, e.g. reading and playing musical instruments, on a minimalist, stage-like, elevated platform (Figs. 3.1, 3.2). The installation, or a prototype as Rahm describes

- 76 Here I refer to his film Ein Lichtspiel schwarz weiss grau (1930).
- 77 '[K]inetic light devices designed at the Bauhaus were above all machines which demonstrated a fundamental analysis of the design potentialities of the phenomena of light and movement' and 'aimed to show the new, overwhelming diversity of simultaneous visual stimuli, to orchestrate these in abstractions and so give shape to a new space-time consciousness'. Torsten Blume, Christian Hiller, and Stephan Müller, Human - Space - Machine. Stage Experiments At The Bauhaus (Leipzig: Spector Books, 2014), 96.
- 78 "Digestible Gulf Stream," Philippe Rahm, n.d., accessed June 8, 2019, http://www.philipperahm.com/data/projects/digestiblegulfstream/index.html.
- 79 Commissioned by the Venice Architecture Biennale 2008 for the theme "Out There: Architecture Beyond Building."

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it, was accompanied by a booklet containing texts and drawings that illustrate similar scenes outdoors, in a forestlike environment. This was intended to suggest the links between the neurological, atmospheric, gastronomic, and thermal.

# Performative installation

This performative installation, that can be adapted to various type of spaces, produces substances through empirical transformations, by a slow superimposing of actions causing random chain reactions. The causal relationship creates synthetic landscapes in a fragile balance.

— Marie Luce Nadal<sup>80</sup>

The performative installation *Climateric Substances* is an example of a performative installation performed by a 'group of manipulators', composed of interdisciplinary artists and designers (Figs. 4.1-4.4). The technique and the medium used are very similar to scenographic practice: 'We focus on what appears anecdotic in theatre – accessories, decor... – and turn it into the main character. This object invites the spectator to enter a world of images in perpetual transformation through action and negotiation between the performers.'<sup>81</sup> In order to form the 'synthetic ecosystem' and compose the incidental and overlapping effects, various light sources, such as light

81 Ibid.

<sup>80 &</sup>quot;Les Substances Climateriques," Marie Luce Nadal, n.d., accessed March 1, 2017, http://marielucenadal.com/filter/nuages/Substances-climateriques.

projectors, an overhead projector, and coloured light sources, along with 'climacteric substances'<sup>82</sup> such as water and smoke, were used by performers.

# 1.2 Examples of atmospheric expressions in spatial modelling

# Perceptual events

Forms can be composed to operate as catalysts for perceptual events returning experience to its confound. A building can harbor foci of implicative vagueness, lucid blurs, dark shimmerings, not-quite things half-glimpsed like the passing of a shadow on the periphery of vision.

— Brian Massumi<sup>83</sup>

In 'Sensing the Virtual, Building the Insensible' (1998), the philosopher and social theorist Brian Massumi speculates on the ways in which architecture could be built using the 'accidental'<sup>84</sup>. It is a paradoxical point of view: poetically described effects – 'perceptual events' – appear to come from an 'outside', oneiric realm and are barely perceptible, almost dissolved into the surroundings. Massumi names the following atmospheric variables for 'composition':

movement changes, surface and volume changes, and material state changes induced by such atmospheric aspects as moisture, temperature, movement, sound, and the rhythms of daily life. He suggests that a building is a 'beginning of a new process' instead of an 'end-form'. Although Massumi discusses the architectural and urban scales, this perspective can be applied to the interior scale as well: an interior can be seen as a shelter for atmospheric effects that are yet to occur through open-ended objects that exist as if in a stage-like environment. The way Massumi summarises the composition of 'perceptual events'<sup>85</sup> is very similar to scenographic expression.

# Architectural scenes, episodes

Aalto suppresses the dominance of a singular visual image. This is an architecture that is not dictated by a dominant conceptual idea right down to the last detail; it grows through separate architectural scenes, episodes, and detail elaborations. Instead of an overpowering intellectual concept, the whole

<sup>82</sup> Ibid.

<sup>83</sup> Brian Massumi, "Sensing the Virtual, Building the Insensible," in Hypersurface Architecture, ed. Stephen Perrella, special issue, Architectural Design 68, no. 5/6 (1998). In Genosko, Gary. Deleuze and Guattari: Critical Assessments of Leading Philosophers (London: Routledge, 2001), 1078.

<sup>84 &#</sup>x27;[B]uilt form could be designed to make the "accidental" a necessary part of the experience of looking at it or dwelling in it'. Ibid.

<sup>85 &#</sup>x27;The building would not be considered an end-form so much as a beginning of a new process. Stable forms can be designed to interact dynamically, as bodies moves past or through them singly or in crowds, or as sounds mute or reverberate, or as relations of surface and volume change with the time of day or season, or as materials change state with levels of moisture or temperature, or as the connection between inside and outside varies as an overall effect of these variations in concert with the rhythms of activity pulsing the city or countryside as a whole. Forms can be composed to operate as catalysts for perceptual events returning experience to its confound. A building can harbor foci of implicative vagueness, lucid blurs, dark shimmerings, not-quite things half-glimpsed like the passing of a shadow on the periphery of vision.' Ibid.

is held together by the constancy of an emotional atmosphere, an architectural key, as it were.
— Juhani Pallasmaa<sup>86</sup>

In 'Hapticity and Time: Notes on Fragile Architecture' (2000), the contemporary architect Juhani Pallasmaa reflects on the architect Alvar Aalto's works, namely the Villa Mairea and Paimio Sanatorium. He uses them as instances of the 'architecture of experiential situations and events'87. Pallasmaa explains the paradoxical nature of this design approach: '[T]he usual design process proceeds from a guiding conceptual image down to the detail, this architecture develops from real experiential situations towards an architectural form.'88 According to Pallasmaa, beyond the understanding of architecture as 'visual syntax', it can be 'conceived through a sequence of human situations and encounters'<sup>89</sup>. He gives examples of the acts of entering/exiting a door and looking through a window; here, a person's engagement with interior elements constitutes an initial spatial design framework. As a result, the accustomed ideation process of going from concept to details is reversed. To Pallasmaa this is an architecture 'concerned with real sensory interaction instead of idealized and conceptual manifestations.<sup>90</sup> The design

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aim in this case is not an exact drawing or a fixed and clear image; rather, the architect is in pursuit of qualities that emerge from lived situations – such as episodes and scenes. Pallasmaa compares Villa Mairea to a theatrical play composed of acts, which prioritises ambience over structural form<sup>91</sup>.

# Ekstases, scenes, life spaces

What was still a revolutionary act in art – the departure from the object – is here a method. For all the talk of design, things and their form are not what are at stake. Rather, the focus is on scenes, life spaces, charisma. [...] To be sure, the designer also gives objects form. But what matters is their radiance, their impressions, the suggestions of motion. — Gernot Böhme<sup>92</sup>

In *The Aesthetics of Atmospheres* (2017) the philosopher Gernot Böhme examines the nexus between design and staging in relation to the 'aesthetics of atmospheres', which 'shifts attention away from the "what" something represents, to the "how" something is present.<sup>'93</sup> Böhme refers to this as 'ekstase', or 'tone and emanation.' This categorisation puts the focus on spatiality, locality, and physical presence, and in this manner 'liberates things

<sup>86</sup> Juhani Pallasmaa, "Hapticity and time: notes on fragile architecture," *The Architectural Review* 207, no. 1239 (2000): 81.

<sup>87</sup> Ibid, 80.

<sup>88</sup> Ibid. 80

<sup>89 &#</sup>x27;Architecture is usually understood as a visual syntax, but it can also be conceived through a sequence of human situations and encounters. Authentic architectural experiences derive from real or ideated bodily confrontations rather than visually observed entities.' Ibid. 81.

<sup>91 &#</sup>x27;[A]n early masterpiece of the episodic architecture of fragile formal structure; it is made from a sequence of architectural parts or acts in the same way as a theatrical play consists of acts and a piece of music of movements.' Ibid, 82.

<sup>92</sup> Gernot Böhme, *The Aesthetics of Atmospheres* (New York: Routledge, 2017), [Kindle book]. Retrieved from http://www.amazon.com.

<sup>93</sup> Ibid.

and works of art from the form.<sup>94</sup> Böhme thus opens a path for a novel design approach – for designers to study the expressive forms of things, – and so provides designers with a vast lexicon: 'scenes, life spaces, charisma', 'perceptual pleasures', 'radiance', 'aesthetic effects', 'synesthetic effects', 'sensitivities and sensibilities', 'incidences', and 'chance scenes'. This departure from the object thus becomes a design method – a way of setting conditions in which atmospheres appear and are closely related to the scenographic technique: 'the manipulation of objects serves only to establish conditions in which these phenomena can emerge.<sup>95</sup> 'Generators'<sup>96</sup> is another term that Böhme uses to define the production of such conditions.

# 1.3 Atmospheric spatial modelling

The practical and conceptual examples presented above were chosen in order to introduce an emerging field of practice. This introduction is therefore based on an instrumental rather than chronological narration. The means and modes of expression used in the systems of notation normally used in architecture and interior design, such as physical scale models, drawings, and other pictorial modes of expression, are insufficient with regard to the atmospheric nature of architecture. As is made

96 Ibid.

evident by the juxtapositions of the paradoxical examples, we inevitably come across unorthodox definitions relating to forms, interiors, and design methods. The chosen category of "atmospheric" serves here as a troublemaker – it challenges the foundations of artistic spatial expression and invites us to search beyond pictorial representation and explore a performative and embodied understanding of architectural images. This will be unfolded further in this chapter.

The practical examples presented in Section 1.1, which are categorised as "atmospheric forms", explore the experimental medium of spatial modelling and defy established static and pictorial approaches to visual creation. Instead of the traditional drawing and scale model, these works are an experimental setup, a kinetic light device, a performative prototype, and a performative installation. For Rahm, who relies on the performative prototype (Figs. 3.1, 3.2) to convey his vision of architecture, it is the 'physical and physiological realities' that initiate space, rather than a preconceived image or habitual gestures.<sup>97</sup> Here, the activities and placement of performers are influenced by temperature and the movement of air; this is a radical take and a paradigm shift in terms of design techniques. Instead of working with the composition as a whole (gestalt), Rahm composes by gradation, or what he calls 'fragmented' and 'dissociated' forms.<sup>98</sup> The prototype for architecture 'develop[s] like

<sup>94 &#</sup>x27;Aesthetics thus becomes the study of the relations between ambient qualities and states of mind, and its particular object consists in spaces and spatiality. Accordingly, it liberates things and works of art from the form in which their own reception was embedded and considers them in their ecstasies, i.e. with respect to the way in which they alter spaces by their presence'. Ibid.

<sup>95</sup> Ibid.

<sup>97</sup> Philippe Rahm, Architecture météorologique (Paris: Archibooks, 2009), 108.

<sup>98 &#</sup>x27;Our architectural and design work processes through a chemical dissociation of space in elementary particles [...] We are interested now in forms which are no more composed together to create a "whole gestalt". We are interested in forms

a landscape': the same approach, even outside of the architectural context, can be sensed in the performative installation Climateric Substances (Figs. 4.1-4.4). This involved the creation of a 'synesthetic ecosystem'99 in perpetual transformation as part of a performance/ game, the guidelines of which require at least three different materials, performers, and skillsets that meet to form a non-hierarchical relationship.<sup>100</sup> László Moholy-Nagy's work (Figs. 2.1, 2.2), which also relates closely to scenographic practice, is even more focused on the medium of spatial creation, and specifically light, which he considers to be a 'living medium' and a 'protagonist acting alongside or with the human performer.<sup>101</sup> Nagy aimed to dematerialise objects with 'dematerialization strategies'<sup>102</sup> through photograms, photography, and film. These investigations of new spatial relationships, effects, and understandings of space redefined artistic and design practices: '[W]hat most excited Moholy-Nagy was the fact that he could divert light without quite knowing what effects this would produce, or which vet-to-be-discovered spaces would be revealed through this process.<sup>103</sup> Eliasson's work (Figs. 1.2-1.4) pursues and actualises what

which are dissociated, exploded into fragments of reality, into sensible particles [...] into a new form, one more essential and contemporary.' Philippe Rahm, "The Anthropocene Style: Towards a New Decorative Style," in *Design Innovations,* 266.

- 99 "Les Substances Climateriques."
- 100 One of nine principles of the group. Ibid.
- 101 'The dynamic electric light, in particular, was thereby utilised as an engineered living medium. Thus, the light was able to become a protagonist, acting alongside or with the human performer.' Blume, Hiller and Müller, *Human Space Machine*, 98.
- 102 Wingham, "Material Immateriality," 261.
- 103 Ibid. 263.

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Moholy-Nagy initiated with his research into unpredictable light, space, and time interactions: 'Forms are therefore temporal, caught up in the tissue of exchange, constantly coloured by the ongoing negotiations and renegotiations with their surroundings, and time adds relativity to the idea as it travels through the world.<sup>'104</sup> Eliasson also uses the terms 'relative' and 'malleable' in relation to objects, suggesting that the application of form to ideas is fluctuant.<sup>105</sup> Eliasson's installation can be described as a landscape of colour, and in this manner connects to the emergence of space as a landscape or ecosystem in the other works described herein. Co-creation and activation by a spectator's movement and subjective perception are central to the initiation of space in Eliasson's works. This approach is present in all of the described examples except Moholy-Nagy's, whose explorations were of a more basic research nature and focused on the creation of visual effects.

The theoretical examples described in Section 2.2 deal with important concepts in theoretical works in terms of spatial expressions and design methods that challenge modes of interior visualisation. A rich alternative vocabulary invites us to think in new ways about the concept of the interior and how it is discussed. If in relation to the geometrical concept of space we rely on perspectival projections, elevations, and plans, we are

105 Ibid.

<sup>104</sup> Obrist, Hans-Ulrich and Olafur Eliasson. *Experiment Marathon* (Reykjavik: Reykjavik Art Museum; London: Koenig Books, 2009), 19.

instead invited to think in terms of scenes, episodes, experiential situations, and perceptual events.

Brian Massumi uses the term 'occurrent arts' in order to define 'practices of art that are relational and eventoriented.'<sup>106</sup> This idea can be brought to spatial modelling practice as well, in that architecture and interior space can be conceived of as processes or series of interactions. The three examples described are similar in the way they reveal how the focus on spatial production shifts from being static and on dominating forms to dynamic events and conditions, and suggest paradoxical design approaches and frameworks.

For Massumi, the composition of architectural forms in terms of their properties and elemental conditions is used to cause unexpected events, and functions as a catalyst for events. For Pallasmaa and Aalto, experiential situations and events should prime the (structural) form by bringing the user's engagement with interior elements and the sequence of acts to the forefront of spatial design. Böhme's proposal is that designed forms function as generators of atmospheres and scenes, thereby redirecting the focus from the design of forms to that of conditions. In consequence, the categories that matter are those that rely on the expressive forms of things and not the things themselves.

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The category of "atmospheric" assigned to both forms and expressions in the practice of spatial modelling aims to indicate and incorporate these paradigmatic shifts. Pallasmaa's and Pérez-Gómez's theoretical works comprehensively discuss the implications of an atmospheric approach to spatial design techniques and tools. They help to underpin the definition of atmospheric spatial modelling as a potential aspect of spatial modelling practice.

Atmosphere entails an understanding of visuality as embodied perception.

Pérez-Gómez advocates for the architecture of 'expressive bodily communication and desire.'<sup>107</sup> He encourages architects to consider the viability of their tools for the creation of architectural atmospheres, rather than focusing on the search for formal novelties. Architectural meanings need motility of embodied perception, because visuality is a synaesthetic experience and thus cannot be reduced to a pictorial act of making sections and projections, as is traditionally done in codified architectural language.<sup>108</sup> Drawing on Merleau-Ponty's ideas, Pérez-Gómez discusses the importance of an active understanding of visual perception for design, stating that '[perception] is less the result of an internal processing of sensory information

<sup>106</sup> Rear cover of the book, Brian Massumi, Semblance and Event (Technologies of Lived Abstraction): Activist Philosophy and the Occurrent Arts (Cambridge: MIT Press, 2011).

<sup>107</sup> Pérez-Gómez, Attunement, 8.

<sup>108 &#</sup>x27;The most significant architecture is not necessarily photogenic. In fact, often the opposite is true. Its meanings are conveyed through sound, silence, tactility, and poetic resonance of materials, smell and the sense of humidity, among infinite other factors that appear through motility of embodied perception and are given across the senses.' Ibid, 148.

and more the result of an interaction between body and environment.<sup>109</sup>

Working from the same phenomenological perspective, Pallasmaa advocates for 'atmospheric perception'<sup>110</sup> as opposed to visual. With the latter the *gestalt* quality holds the form, he argues, whereas with the former there is no such rule as it 'is certainly almost completely a peripheral and unconscious perception'<sup>111</sup>. To describe the nature of atmospheric perception he uses the terms 'diffuse', 'unfocused', and 'peripheral', providing architects with the notion of an 'embodied architectural image.'<sup>112</sup>

Atmosphere entails interactions with enhanced materiality.

In his seminal work *Eyes of the Skin: Architecture and the Senses* (2005), Pallasmaa highlights architects' attempts to 're-sensualise architecture through a strengthened sense of materiality and hapticity, texture and weight, density of space and materialised light.'<sup>113</sup> He uses the

109 Ibid,145.

- 110 Pallasmaa, "Space, Place, and Atmosphere."
- 111 '[T]he immediate judgment of the character of space calls upon our entire embodied and existential sense, and it is perceived in a diffuse and peripheral manner, rather than through precise and conscious observation. Moreover, this complex assessment projects a temporal process, as it fuses perception, memory, and imagination. Each space and place is an invitation to and a suggestion of distinct acts and activities. Atmosphere stimulates activities and guides the imagination.' Ibid, 19.
- 112 Juhani Pallasmaa, *The Embodied Image: Imagination and imagery in architecture* (Chichester: John Wiley and Sons Ltd, 2011).
- 113 Juhani Pallasmaa, *The Eyes of the Skin: Architecture and the Senses* (Great Britain: John Wiley & Sons, 2005), 41.

idea of 'haptic architecture'<sup>114</sup> based on slow, engaging, near-field experiences mediated by touch, in contrast to a distant and controlling pictorial mode. Within the abovediscussed juxtaposition of visual, focused perception and atmospheric, diffused perception, Pallasmaa juxtaposes 'images of form' and 'images of matter,' and defends the importance of the latter to architectural imagination. Atmosphere pertains to the realm of 'sensory realism,'<sup>115</sup> and therefore atmospheric architecture cannot emerge from conceptual, idealised images. Pérez-Gómez's stance is very similar: he states that architectural meanings are essentially conveyed through 'tactility and poetic resonance of materials', amongst other multi-sensorial elements. He therefore advocates for the use of tools, such as poetic narratives, that are able express 'the experiential, the situational and polysemic.'116

# Atmosphere entails multiple temporalities.

'Action (narrative) must be intertwined with the models that lead to architectural form generation'<sup>117</sup> argues Pérez-Gómez. Here, visualising is understood to be a pictorial act that ignores the passage of time as an intrinsic part of spatial experience. Even the most expressive architectural drawings do not open up the design process

- 115 Pallasmaa, "Hapticity and time," 80-81.
- 116 Pérez-Gómez, Attunement, 214.
- 117 Ibid, 203.

<sup>114 &#</sup>x27;Various architectures can be distinguished on the basis of the sense modality they tend to emphasise. Alongside the prevailing architecture of the eye, there is a haptic architecture of the muscle and the skin.' Ibid, 27.
to atmospheres, which are intertwined with temporality.<sup>118</sup> Pérez-Gómez denounces the misconception of the nature of 'lived temporality' and the dismissal of the 'temporality of presence' in the normative tools of architectural representation. In consequence, he distinguishes between a building's temporality and the temporality of the event.<sup>119</sup> Pérez-Gómez suggests literary expression and semantic innovation as methods of conveying embodied lived experiences and temporality, while Pallasmaa links architectural and cinematographic expressions: 'A film is viewed with the muscles and skin as much as by the eyes. Both architecture and cinema imply a kinesthetic way of experiencing space. The first takes place through actual embodied movement, the second through ideated action.'<sup>120</sup>

The logic of atmosphere is at odds with the logic of the system of notation of spatial design, which is based on the geometrical concept of space – 'the space of representations, of drawings and models.'<sup>121</sup> In *Translations from Drawing to Building and Other Essays* (1997), the architect and academic Robin Evans posits

- 118 I refer here to the historical overview that Gómez presents of the search for expressivity by architects with an interest in atmosphere in spatial design. Ibid, 18-20.
- 119 'In view of this we can speculate that that architectural meaning, offered to our presence, unfolds in two different temporalities: one pertaining to the building as object, obviously imbued with relative permanence, and the other to the temporality of the event, more elusive yet primary.' Ibid,154.
- 120 Pallasmaa, Juhani. "The Existential Image: Lived Space and Architecture." Phainomenon 25 (2012): 160.
- 121 Gernot Böhme, "Encountering Atmospheres. A Reflection on the Concept of Atmosphere in the Work of Juhani Pallasmaa and Peter Zumthor," *OASE Journal* for Architecture: "Building Atmosphere" 2, no. 91 (2013): 99.

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the impossibility of the development of installation, performance, and earth art through the medium of drawing: the effect of the installation cannot originate through drawing.<sup>122</sup> Atmospheric dwelling expressions cannot originate through representational space as atmosphere is based on the topological and relational understanding of space, as Böhme argues.<sup>123</sup> These expressions emerge from embodied activities, narratives, events, gestures, and tactile material settings. If the atmospheric as a category suggests a paradigm in design beyond the qualities of *gestalt* and the cartesian space, what then the potential of atmospheric spatial modelling in relation to establishing foundational definitions? This is the first research question.

- 122 Robin Evans, *Translations from drawing to building* (Cambridge: MIT Press, 1997), 157.
- 123 'The space essentially involved, at least if we take the term atmosphere seriously to the user's perspective is the space of corporeal presence. This space has the structure unlike that of geometric space. It is based not on measurements but on local relationships and skins and topological space; above all, it is not isotropic but includes direction, above and below, centring, narrowing and expansion.' Böhme, "Encountering Atmospheres", 99.

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ATMOSPHERIC SPATIAL MODELLING

# 2 Research

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# 2.1 Expanded spatial modelling practice



Modelling as performing

Figure 5.1



Modelling as enacting

Figure 5.2



Modelling as co-creating

Figure 5.3



Modelling as staging

Figure 5.4





Modelling as presencing

Figure 5.6



Modelling as framing

Figure 5.5

Accidental occurrences and even subtle micro-events such as shadow play are crucial to spatial experience. Yet, it is almost impossible for us to imagine a design brief in spatial design practices in which no concept is specified, and instead occasional and peripheral atmospheric effects are the main aesthetic goal. However, the opposite tendency can be witnessed. Pallasmaa severely critiques the 'sensory impoverishment' of our environments,<sup>124</sup> and Tawa denounces the practice of 'effacing chromatic difference by the exclusion of contrast and atmosphere' and 'remov[ing] any capacity of space to vield to the unexpected, the surprising, the strange and the uncanny.<sup>'125</sup> Fortunately, increasing acknowledgement of atmospheric concerns in architecture have fostered the integration of atmospheric components in design processes. The imperative for spatial design is to seek out relevant tools, methodologies, and practices. However, it is not less important to engage in 'critical and poetic modes of action', as Pérez-Gómez suggests, in order to 'recognize the difficulties and issues involved in an architecture seeking attunement.<sup>'126</sup> Moreover, it is crucial to seek potential that opens up the atmospheric paradigm. This is the main direction of this research. Through the examples presented above (Part 1, Section 1.2) I have focused on atmospheric spatial expressions, which constitute a wide variety of poetic ways of defining a design or a modelling act: 'catalyzing perceptual events' (Massumi), 'growing from architectural scenes'

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(Pallasmaa), 'generating atmospheres' (Böhme). These ideas enable us to think in more diverse ways in relation to spatial modelling processes. I will therefore explore the modelling definitions that disrupt a conventional understanding of modelling as a representational practice, based on geometric space and objective properties. Böhme claims that atmosphere redefines the art of architecture into the 'creation and design of spaces of corporeal presence.<sup>127</sup> This thesis elaborates on this claim by asking how atmosphere redefines and expands the practice and acts of spatial modelling. What happens to modelling when we bring it into the experiential realm that is more familiar in scenographic and cinematographic practices? How does this affect the aesthetic foundations of modelling, such as the vocabularies used and material practice? My explorations are compared with contemporary practitioners' and researchers' work in order to investigate and discuss the expanded understanding of modelling practice and basic notion of design gestures.

<sup>124</sup> Pallasmaa, "Hapticity and time," 78.

<sup>125</sup> Tawa, Agencies of the Frame, 210.

<sup>126</sup> Pérez-Gómez, Attunement, 98.

<sup>127 &#</sup>x27;The introduction of the term atmosphere leads to this redefinition of the art of architecture: architecture is the creation and design of spaces of corporeal presence.' Böhme, "Encountering Atmospheres," 99.

# 2.1.1 Atmospheric versus representational approaches to spatial modelling

The term "modelling" has connotations relating to representational and mimetic practice.<sup>128</sup> However, atmosphere is per se anti-representational. Pérez-Gómez dedicates a chapter to the issue of the representation of "intended moods" in architectural design in his book Attunement: Architectural Meaning After The Crisis of Modern Science. The tone of critique with regard to representation and representational tools can be sensed throughout the book, and Pérez-Gómez uses the term "representation" in quotation marks when he describes the challenges that architectural production faces: '[T]his is merely a "representation" of time that doesn't acknowledge the true nature of the lived present.'<sup>129</sup> Pérez-Gómez makes us consider the elusive and eventful character of architecture, which is different from the relatively permanent life of a building. He describes the historically performative aim of architects to create 'communicative settings for action in the lived presence'<sup>130</sup> – meaningful activities. The architectural meaning in his theory is based on the notion of attunement: architectural atmospheres are created by bodily actions and should be created for human actions.<sup>131</sup> From this perspective, 'architectural meaning emerges as "performance" in events' and therefore can

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be described as 'meaning as presence', and 'meaning as qualification of communicative space.'<sup>132</sup>

Olafur Eliasson problematises the representational function of architectural models and brings in a new perspective:

'Previously models were conceived as rationalized stations on the way to a perfect object. A model of a house, for instance, would be part of a temporal sequence, as the refinement of the image of the house, but the actual and real house was considered a static, final consequence of the model. Thus the model was merely an image, a representation of reality without being real. We no longer progress from model to reality, but from model to model while acknowledging that both models are, in fact, real.'<sup>133</sup>

Eliasson uses the notions of "model" and "modelling" in a broad sense: as a continuous navigation between diverse types of models, i.e. houses and artworks, perception, engagement, and reflection, and thus in relation to the modelling and remodelling of surroundings through our actions.<sup>134</sup> Just as with Pérez-Gómez, action for Eliasson is a key constitutive element, and his approach to modelling integrates the subjectivity and singular experience of time

 $<sup>128\</sup>quad$  See the Research lexicon where I analyse the definition.

<sup>129</sup> Pérez-Gómez, Attunement, 153.

<sup>130</sup> Ibid, Chapter 2 "Architecture as Communicative Setting 1", 31-70; Chapter 3 "Architecture as Communicative Setting 2", 71-106.

<sup>131</sup> Ibid.

<sup>132</sup> Ibid.

<sup>133</sup> Eliasson, "Models Are Real," 19.

<sup>134 &#</sup>x27;The conception of space as static and clearly definable thus becomes untenable—and undesirable. As agents in the ceaseless modelling and remodelling of our surroundings and the ways in which we interact, we may advocate the idea of a spatial multiplicity and co-production.' Ibid, 19.

and space. In this manner, through his models Eliasson empowers each participant by making them rely on their own perception and capacity to 'activate' the work. Spatial modelling through this perspective is associated with acts of 'negotiation', 'co-production', and 'performative strategy'<sup>135</sup> in relation to space that require continuous bodily engagement.

Thea Brejzek and Lawrence Wallen in *The Model as* Performance: Staging Space in Theatre and Architecture. use Eliasson's work to underpin their suggested definitions of 'model as performance' and 'autonomous model'. Such types of model are not intended to depict reality, nor to be translated into a built form: 'The autonomous model, we argue, is neither process-driven nor representational but conceptualized and built to be autonomous.<sup>136</sup> For the culture of architectural practice, which is strongly based on representational and iterative approaches, this category of model is a radically fresh approach. In addition to the 'performative' and 'autonomous model', Brejzek and Wallen explore other full-size models: 'atmospheric stage environments', 'dynamic mechanical environments', a 'performative spatial environment', and a 'staged and performative space'. In this manner, the researchers unfold and underpin the fictional and performative character of the modelling activity - the model's capacity to generate

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an atmospheric reality of its own through the interplay of atmospheric components.<sup>137</sup>

Another non-representational perspective on models and modelling is provided by the architectural imagery researcher François Penz in his book *Cinematic Aided Design: An Everyday Life Approach to Architecture,* wherein he critiques CAD (Computer Assisted Drawing) tools and problematises the absence of the performative dimension within architectural representations.<sup>158</sup> According to Penz, film and montage techniques also model space and everyday activities, and thus atmospheres – aspects that are 'notoriously hard to compute'. He discusses the complex relationship between film and architecture, which can be seen as a unique way of spatial modelling:

'Film helps us to attain something like fragments or moments of atmospheres, pertaining to everyday life situations. But while there are many overlaps between a cinematic atmosphere and an architectural atmosphere, there are no easy ways to transfer from one to the other. This is a complex "model", which

<sup>135 &#</sup>x27;In the last 40 years many artists and theorists have repeatedly criticized a static conception of space and objects. The idea of objecthood has, in part, been substituted with performative strategies, the notion of ephemerality, of negotiation and change, but today the criticism is, nevertheless, more pertinent than ever.' Ibid, 19.

<sup>136</sup> Brejzek and Wallen, *The Model as Performance*. [Kindle book]. Retrieved from http://www.amazon.com.

<sup>137 &#</sup>x27;Beyond their pragmatic value, architecture and theatre models carry cargo or semantic surplus that does not sit in strictly analogous relation to reality, scale or purpose but that might be best described as an atmosphere, a distinct aesthetics, and a set of meanings or symbolic representations. The sum of these immaterial qualities in coalescence with the material reality of the model comprises the world or the reality of the model and is testament to its cosmopoietic capacity.' Ibid.

<sup>138 &#</sup>x27;In my view, CAD tools have failed creative architects, because they do not incorporate new artistic thinking, rooted in scenographic and cinematic practice, into architectural design, visualization and communication.' Penz, *Cinematic Aided Design*, [e-book]. Retrieved from https://play.google.com/.

*opens potential new* avenues yet to be investigated, and one that pertains to the world of cinematicassisted imagination.<sup>'139</sup>

Through the new definitions of a model as a "setup", "option", "performance", atmosphere, or nexus between cinematic and architectural space, we are invited to think of modelling in terms of remodelling, negotiation, co-creation, etc. Furthermore, the activities that can be associated with the practice conventionally known as model-making are qualified in most of the presented examples as performative and cinematic. Brejzek and Wallen pinpoint how the genre of installation demands a performative act<sup>140</sup>, while Penz explores what cinema reveals about architecture and how the former transforms the latter. With the category of 'cinematic' he inquires into the potential of the medium of film to integrate relational and performative aspects into the ways architecture is practiced and studied. He categorises the ways of dwelling encountered through moving images as 'cinematic activities of everyday.'141

If our understanding of architectural models is extended beyond instrumental functions, i.e. it becomes a sovereign site for imagination and the creation of a world of its own, the definition of modelling consequently develops. The

141 Penz, Cinematic Aided Design, [e-book]. Retrieved from https://play.google.com/.

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outlined modelling practices rely on situative reality,<sup>142</sup> which is not the case within the representational regime.

# 2.1.2 Atmospheres and divergent acts of spatial modelling



Constructing moods

Figure 6.1

<sup>139</sup> Ibid.

<sup>140 &#</sup>x27;As an artwork that often literally takes place over time, the installation is closely related to performance, often demanding a performative act from the viewer such as operating an installative element or simply entering a structure'. Brejzek and Wallen, [Kindle book]. Retrieved from http://www.amazon.com.

<sup>142</sup> I make the distinction between these terms in the Research lexicon, p.24 and p.29.

Constructing moods

Figure 6.2

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# Constructing moods with moveable surfaces and devices

This 'endless expanse' of interior space is artificially lit and air-conditioned. Its inhabitants are given access to 'powerful, ambience-creating resources' to construct their own spaces whenever and wherever they desire. The qualities of each space can be adjusted. Light, acoustics, color, ventilation, texture, temperature, and moisture are infinitely variable. Movable floors, partitions, ramps, ladders, bridges, and stairs are used to construct 'veritable labyrinths of the most heterogeneous forms' in which desires continuously interact. Sensuous spaces result from action but also generate it: 'New Babylonians play a game of their own designing, against a backdrop they have designed themselves.

— Mark Wigley on Constant Nieuwenhuys's work<sup>143</sup>

This is how contemporary architectural theorist Mark Wigley describes the principle of 'mood construction'<sup>144</sup> with dynamic architectonic elements as a way of living envisioned by the Dutch artist-architect Constant Nieuwenhuys in his 20-year research project *New Babylon.* In the contemporary context, Constant's work

<sup>143</sup> Wigley comments on Constant's lecture 'Unitary Urbanism', held at the Stedelijk museum in 1960 where Constant introduced the concept of New Babylon, which was followed by an audio-visual slide projection. Mark Wigley, *Constant's New Babylon: The Hyper-architecture of Desire.* Rotterdam: 010 Publishers, 1998, 10.

<sup>144</sup> We can also find the notions of atmosphere, ambiance, situation, and even behaviour construction in the theoretical references compiled by Wigley. They usually link to the collaborations that Constant undertook throughout his artistic career, namely with the 'International Situationist' group. Ibid.

could be classified as artistic practice-based architecture research. His passionate inquiry into a nomadic 'new society' through the design of distinct interior-exterior atmospheres takes form in a variety of ways, ranging from texts to films, drawings, series of lithographs (Figs. 6.1, 6.2), numerous scale models, and even multimedia installations. To introduce the project to the public, Constant showed staged and photographed scale models: 'Translucent planes of different colours are suspended in intricate webs of metal. The overall lighting changes from red to blue to yellow to orange. Coloured shadows are cast in every direction, producing blurry zones of imagined activity.'145 The projection is made in an atmospheric, sensuous way through rapid cinema-like sequences, accompanied by sounds: 'a technological aesthetic acts as the prop for an intense fantasy about a new but unspecified way of life,'146 summarises Wigley. In the avant-garde merging of life and art, the 'New Babylonians' were also designers and performers on a stage, both onlookers and actors: 'The process of designing, the design itself and the life that will go on in it have to be the same thing.<sup>147</sup> The acts of dwelling and designing merged, and were not the usual pragmatic ones such as illuminating a space, but a subversive 'pleasure seeking drift through atmospheres.'<sup>148</sup>

Constant generally relied on literary, pictorial, and scale-model expressions to depict the interactions of his envisioned atmospheric future dwelling. An artist and

- 145 Ibid, 12.
- 146 Ibid.
- 147 Ibid, 18.
- 148 Ibid, 18.

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self-taught architect, he freely admitted that scale models (of which he made a considerable number) were not able to express the interactions he wanted to convey and, therefore, he returned to the pictural mode:

'[I]t is possible to form a fairly clear idea of an as yet uninhabited world. It is more difficult to populate this world with people who live so very differently from ourselves: we can neither dictate nor design their playful or inventive behavior in advance. We can only invoke our fantasy and switch from science to art. It was this insight that prompted me to stop work on the models and to attempt in paintings and drawings, however approximately, to create some New Babylonian life. This was as far as I could go.'<sup>149</sup>

<sup>149 &</sup>quot;Constant — New Babylon", Witte de With Center for Contemporary Art, n.d., accessed April 9, 2016, https://www.wdw.nl/en/our\_program/exhibitions/constant\_new\_babylon.



Wearing colours

Figure 7.1

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Walking into colour

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## ATMOSPHERIC SPATIAL MODELLING



Walking into colour

Figure 7.3



Figure 7.4



Figure 7.5

# "Walking into colour" through a chromatic environment

Nuclei enact a full leap to a luminous "vivência" in space. As a full blast lived experience, colour was not something to look at or to experience through movement but light that bounces off the chromatic panels, physically impacting the viewer-participant who now takes stage in Oiticica's chromatic experiments.

— Mari Carmen Ramirez on Hélio Oiticica's work<sup>150</sup>

In this excerpt, Mari Carmen Ramirez comments on one of Hélio Oiticica's installations, consisting of dynamic coloured environments and called Nuclei. According to Ramirez, Oiticica is a pioneering artist who dared to 'move beyond theoretical speculation to execute in practice the idea of a dynamic environment for the sensorial experience of colour in real space.<sup>151</sup> The series combined smaller pieces of work, which Oiticica called 'nuclei', into bigger pieces such as 'Grande Núcleo,' ("Large Nucleus") or 'Manifestação ambiental No 1' ("Environmental Manifestation No 1") - a cluster of chromatic arrangements. These combinations, constituted of both scale-model and full-size wooden structures that were covered in colour pigments, enabled embodied explorations of interactions between lights and colours. Nuclei was also a way for him to name one of the media

150 'vivência' means 'experience' in Portuguese. Mari Carmen Ramirez, *Hélio Oiticica: The Body of Color* (London: Tate Publishing, 2007), 56.

151 Ibid, 58.

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of his explorations (Figs. 7.3-7.5). Oiticica also explored interactions with textiles objects and environments to be worn and performed with that he named *Parangolé* (Fig. 7.1) to discover multiple sensorial ways of penetrating colour by e.g. 'walking into colour.'<sup>152</sup> The concept was developed into *Penetrable* – a closed, labyrinth-like booth with sliding panels and colored floor that 'expanded the spatial and temporal possibilities of colour' (Fig. 7.2).<sup>153</sup>

Oiticica's meticulous material and colour experiments led the artist to an advanced understanding of materials, and specifically the finishes of surfaces, which offered a new perspective on surface effects, or 'optical pulsation'<sup>154</sup>, that was not possible to convey through any other means of artistic expression. Through these 'structural expressions of colour' the artist strived to create the conditions for confronting, feeling, living, walking into, and experiencing colours as 'energetic phenomena'.<sup>155</sup>

# Installing, framing, staging

In Agencies of the Frame: Tectonic Strategies in Cinema and Architecture, Tawa denounces contemporary architecture practitioners who, seemingly concerned by the dynamic, unpredictable nature of space, base their acts on 'mimetic and formal representations'. Tawa critiques the use of complex parametric tools and pragmatic approaches

152 Ibid, 57.
153 Ibid.
154 Ibid, 56.
155 Ibid, 57.

to spatial design when dealing with the dynamic nature of space:

It is not a question of finding "elaborate devices" to represent certain conditions or to displace certain accepted modes of working. Rather, it is a question of remaining and working with the foundational and familiar existential characteristics, elements, and processes of reality in order to convey its unsettling and uncanny dimensions. The implication for architecture is that the most unsettling, the most unfamiliar and extraordinary experiences happen to take place precisely in the midst of the most ordinary and mundane of circumstances.<sup>156</sup>

Constant's work can be said to constitute an instrumental and mimetic approach (Figs. 6.1, 6.2). The depicted dwelling spaces are equipped with sophisticated material surfaces and devices that are supposed to enable the 'control' and 'construction' of the atmosphere. We learn from Constant's personal reflections that it is not possible to project people's behaviours, and instead we can only stimulate imagination. In contrast, in Oiticica's work (Figs. 7.1-7.5) we essentially find basic modelling elements, such as time, movement, and colour; instead of anticipating behaviours, Oiticica created conditions that assisted the viewer in confronting the physiological impact of the phenomenon of colour under different circumstances. In the same vein of critique of the mimetic approach, Tawa further explores the nature of the foundational spatial act: 'the fundamental act of architecture is a foundational act of installation accompanied by irrevocable violence directed at several scales.'<sup>157</sup> The author wants to bring our attention to the fact that an installation operates as a translation and representation of concepts through the built forms. As an alternative, Tawa suggests the notion of framing:

[A] non-mimetic and by implication a non-signifying regime of architectural engagement might involve framing place to enable a way of looking, a way of seeing that things are not the way they seem, a way then of witnessing the manner in which place takes place, the way it happens and eventuates.<sup>158</sup>

Moreover, it is not only the designer-architect but the architecture that frames atmospheres, according to Tawa. In this approach, the roles of materials and elemental conditions is 'to carry or convey presence, to directly and concretely manifest realities, existences and beings.'<sup>159</sup> On the scale of interior materiality, Oiticica's chromatic panels can be said to frame ambient light and manifest the presence of colour phenomena (Figs. 7.3-7.5).

Tawa borrows the notion of framing from the field of cinema. To him, the material constitution of both architecture and cinema can be used to accentuate

157 Ibid, 32.
158 Ibid, 32-33.
159 Ibid, 200.

material presence and improve care, attunement, and attentiveness. The act of staging, when seen from a nonrepresentational perspective, incorporates very similar values. Pérez-Gómez highlights the formative role of materials through the notion of stage: form embodied in materials does not seek to represent, but creates stage, which allows or limits inhabitants actions and habits.'<sup>160</sup> The same line of reasoning can be applied to the modelling process, in that the materiality of a modelling setting allows or limits a designer's actions and ways of designing. The setting, forms, and materials used constitute a stage to welcome what comes. As a result, I formulated a subquestion to the first research question: what is the potential of staging as an atmospheric modelling act?

The link between modelling and dwelling tend to overlap as a result of the notions of stage and staging. An early example of this blurring of boundaries can be found in the Bauhaus philosophy, which was based on the nonrepresentational movement, wherein the stage was a design laboratory for discoveries of new sensory qualities through unusual material use. At the Bauhaus Stage workshops (which took place between 1921–1933), which united theatre, set design, performance, and photography, formal and material investigations redefined both spatial design

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and scenographic practices<sup>161</sup>. Through the revolving stage and the abolition of the physical auditorium's limits, their wish was to be closer to the living environment.<sup>162</sup> Interestingly, there is a link to the stage in both Oiticica's and Constant's works. The former's practice invites the viewer to be the participant ('to take stage', in the words of Ramirez<sup>163</sup>); in the latter's, the 'New Babylonians' are performers who dwelled and designed on a stage-like environment.

Alban Janson and Florian Tigges, the contemporary authors of 'Fundamental Concepts of Architecture: The Vocabulary of Spatial Situations', describe human experience 'as fundamentally scenic experience.' Therefore, designed interior spaces are essentially 'setting[s] for such [scenic] experience',<sup>164</sup> and the authors describe and explore the concepts from an experiential perspective on architecture. Their vocabulary integrates the aspects

- 161 'The Bauhaus Stage's analysis of theater leads to a reclassification of the constituents of set design. The materials of the stage sets and scenery are considered and rediscovered in the interaction in their use of light, whereby the spatial impact of the production is intensified in manifold ways and resynthesised in the theater practice. In doing so, however, the space presents unfamiliar visual realms; indeed, they appear to defy connections to concrete images. Nonetheless, because the forms and materials simultaneously borrow from the familiar, they open up the space for multifarious and subjective visions.' Blume, Hiller and Müller, Human Space Machine, 36.
- 162 Ibid, 34.
- 163 Ramirez, Hélio Oiticica, 56.
- 164 'Since our bodies always assume positions in space, having their own extension and boundaries, and since our relationship to the world is always shaped spatially, this particularity of our excentric self-understanding is also experienced in specifically spatial terms. To become self-aware, to watch oneself, then, means to be aware of oneself in space, to regard oneself with and in a spatial > situation. In a fundamental sense, then, human > experience is always scenic experience. [...] For the human individual, space – and in particular designed space – plays an elementary role as the setting for such scenic experience. Janson and Tigges, *Fundamental Concepts*, 272.

<sup>160 &#</sup>x27;Form embodied in the materials that make up buildings is of immense importance in architecture, something that matters at the level of representation as it becomes memory and contributes a poetic image. [...] In regard to the configuration of atmospheres for focal actions, however, form matters in a different, arguably more fundamental way; it creates a stage whose properties, available to the inhabitants, both limit and make possible their actions and habits.' Pérez-Gómez, *Attunement*, 154.

characteristic of scenography and cinema, i.e. scene, stage, sequence, and performance, into an architectural context.

Janson and Tigges compare staging in theatre to architecture, and define the concept as both a way to depict fictional scenes and transform them into oneiric reality:

[E]very scene summons a suggestive image, and is the staging of something in the sense that it not only depicts a fictive set of events, but also shifts them into a particular light, thereby generating an imaginative image magic. Its medium is not the stage setting alone, but also the situative interplay of spatial design, atmosphere and action, in ways comparable to architecture. The equally vivid resources of spatial design, atmosphere, and the movements and actions of figures also produce a scenic image, albeit without a play.<sup>165</sup>

Staging in this sense works not for the sake of creating a fictional reality, but in order to shift from functional to experiential reality. The authors define this process as a 'scenic treatment' of space, i.e. opening up for architectural situations to create 'scenic images' or 'performative architectural images'; for example, the simple, daily action of climbing stairs becomes an aesthetic act when 'staged by an expressive gesture.'<sup>166</sup> The performative – the scenic

165 Ibid, 158.

character of space – becomes explicit through scenes of such corporeal engagement, which constitute 'active performance' with architecture. The main purpose is to disrupt the routine of our engagement with space so that we gain attentivity and awareness of a spatial situation and our acts.

Staging, which is understood to be the scenic treatment of space, is of particular interest in the exploration of the foundational definition of spatial modelling as it opens up for a new perspective on design gestures. Design gestures are the most basic design tool according to the architect, researcher, and educator Christian Gänshirt,<sup>167</sup> who defines gesture as a visual tool of design alongside the notions of movement, action, and staging, albeit without distinguishing between these terms.<sup>168</sup> According to Gänshirt, what should matter to architectural production are the values, expressivity, qualities, and aesthetic meanings of design acts, in order to move beyond overly rationalised design processes and to open them up to 'feeling, instinct, individual sensibility.'<sup>169</sup>

transformed into a dramatic sequence; perception and orientation are enriched by a characteristic > atmosphere.' Ibid, 273.

167 'The gesture is the simplest and most primitive of all design tools, and analysing it addresses all the fundamental questions of design. The gesture provides an ideal example for examining fundamental questions: the relationship between inner ideas and what is actually expressed in a gesture, the problems of designing form and of allocating meaning, and also the structure of the various levels of meaning.' Gänshirt, *Tools for Ideas*, 105.

<sup>166 &#</sup>x27;In architectural design, pure functionality is transformed into an experiential reality, one that thematizes the function itself. The function of level changes can be staged by an expressive > gesture; a purely functional movement can be invested with a certain rhythm; the effort of ascending (> ascent) can be

<sup>168</sup> Ibid, 105.

<sup>169</sup> Ibid, 207.

I want to argue that the expressivity, qualities, and aesthetic meanings of design acts and gestures are even more important to consider in the context of atmospheric spatial modelling. From a representational approach, modelling acts are based on rationality, communication, and mimicking. An atmospheric approach to modelling fosters acts that rely on sensibility, expressivity, and presencing.

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# 2.2 Expressive potential of textiles for spatial modelling gestures









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## ATMOSPHERIC SPATIAL MODELLING



Figure 9.1



Figure 9.2



Figure 10.1



Figure 10.2

The atmospheric character of a space becomes explicit through scenes of corporeal engagement with alreadyexisting architecture and architectural elements. As we have seen in the examples, the interactions also take place through objects such as devices, props, garments, structural arrangements, and probes. These are examples of working with materials, textures, colours, smells, etc. that are embodied in dynamic and active forms. In the atmospheric approach to modelling we seek what Janson and Tigges term 'eventful and processual qualities' of architectural situations.<sup>170</sup> These can also be considered to be the atmospheric qualities of a space, and have a great deal in common with the textural qualities of material surfaces on both practical and conceptual levels. This relates to the idea that their natures encourage us to engage in corporeal engagement. Material surfaces alone do not 'create atmospheres;<sup>171</sup> it is the interplay with surfaces and between surfaces that makes atmospheres tangible. amplifies certain elemental conditions, stimulates the imagination, etc. Moreover, an understanding of the surface of a moving image as a formative element of

- 170 'Neither technically nor formally is the production of objects the principal task of architecture; instead, it is charged principally with creating suitable spatial situations for lingering at various locations, for movement and for action. Decisive here is the interplay between the spatial features of the constructive elements involved and the circumstances under which they are perceived, used, and experienced.' Janson and Tigges, *Fundamental Concepts*, 5.
- 171 Here, I refer to Theo Van Doesburg's declaration (1929): 'Ultimately, it is only the surface which is decisive for architecture. Human beings do not live in designed and constructed buildings, but rather in the atmosphere created by the architectural surface.' Second-hand citation and translation by the academic Ivo Hammer in his paper "The Original Intention-Intention of the Original?" in *The Challenge of Change: Dealing with the Legacy of the Modern Movement: Proceedings of the 10<sup>th</sup> International DOCOMOMO Conference*, eds. Van den Heuvel, Dirk, Maarten Mesman, and Wido Quist, (Amsterdam: IOS Press, 2008) 369.

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space, rather than a mere screen for perspectival images, causes us to fundamentally re-evaluate the role of material surfaces in spatial modelling processes. Here emerges the second research question: what is the expressive potential of textile materiality with regard to spatial modelling gestures?

The visual and environmental studies researcher and academic Giuliana Bruno proposes a 'sartorial' theory of the pliability of surfaces in art, relating to the potential for clothing textures and kinematics to create space in cinema<sup>172</sup>. The artist, researcher, and academic Gabi Schillig explores through textile matter what she calls 'dialogical' work and space. She draws our attention to the multisensorial nature of textiles (their visual, tactile, and olfactory properties), 'behavioural aspects', and 'immanent creation processes'<sup>173</sup>. Both authors foreground the dynamic qualities of textile materiality in the context of spatial design. Through my exploratory actions, I investigated the dynamic role of textile materiality in spatial modelling. The practice was based on staging with full-size textile setups. I filmed the enactments with textile props in different atmospheric settings in order to discover material potentials for gesture expressivity.

172 Bruno, Surface.

<sup>173</sup> Gabi Schillig, "Immediacies Of Experience: Textile Spaces Of Communication In The Work Of Lygia Clark And Lygia Pape," in *Perception In Architecture. Here And Now*, ed. Claudia Perren and Miriam Mlecek (UK: Cambridge Scholars Publisher, 2015), 59.

[Textiles] demand action and enable change, maintaining a vision of space as alive and openended. Based on an embodied awareness, they empower via an artistic activity that includes the relationship we have with these structures. As a second skin, the textiles mediate realities and can be used as a powerful instrument to restructure our relation to the world.

Gabi Schillig<sup>174</sup>

In the paper 'Immediacies Of Experience: Textile Spaces Of Communication In The Work Of Lygia Clark And Lygia Pape' (2015), Gabi Schillig discusses and exemplifies the properties and capacities of textiles to manifest ephemeral spaces.<sup>175</sup> The author bases her research in spatial design on the artistic examples of Lygia Clark and Lygia Pape, whose work is known for shifting the focus in art away from objects and to activities prompted by objects. In these instances space is initiated by physical, somewhat enigmatic, interactions with various textile objects; some of these are unfinished, e.g. a large-scale textile mesh structure made in collaboration with spectators, who are also participants (Fig. 9.1, 9.2). The active participation of spectators and open-ended processes mark this artistic movement.

The 'multisensorial encounters' that textile materiality enables, described by Schillig, are close to what atmospheric modelling fundamentally seeks: tactility, an enhanced sense of materiality, movement, bodily presence

174 Ibid, 69.

175 Ibid.

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and awareness, and diffused perception. She defines the textile material as a mediator, a 'medium of touch' and a 'powerful instrument' in our relationship with the world. Through textiles we rediscover our presence: 'It is precisely their textile materiality that achieves a particular corporeality and therefore a multisensorial perception of space. It is a symbiosis: through breathing new life into the inanimate "object" by touch and movement, the user realises his own bodily presence and vitality.'<sup>176</sup> Textiles thus demand mutual exchange, an intimate relationship through touch and movement. Mutant textile structures encourage dialogue - they are 'dialogical', in the words of Schillig: 'textiles per se require an active dialogue; vitality is incorporated in their underlying structure.<sup>177</sup> Through such a 'dialogical' outlook, the emergence of bodily gestures during the process is facilitated; their expressivity is connected to that of the textile structures, and so the two are in mutual exchange. This level of intimacy and exchange is unachievable with tectonics and constructive architectural elements.

Textural aspects, just like atmospheric ones, pertain to an embodied understanding of perception. In the work of Clark and Pape, such paradoxical actions as knotting, knitting, or folding initiate space through woven, knitted meshes and a large surface membrane, respectively. Bodily gestures emerge from the undetermined physical encounters with mutant textile objects. Schillig describes engagement with large-scale textile surfaces through

176 Ibid, 62-63.177 Ibid, 59.

gestures of folding and motion. In comparison to tectonics, textiles are greatly malleable. Their properties respond to physical interactions immediately: 'the folds that are created through movement amplify the underdetermined, undefined, blurred and unstable spatial condition.'178 In my work, performers engage with textile props of different multisensorial properties in relation to light (Figs. 8.1, 8.2), smells, and tactility. Textural qualities and sensorial properties suggest the nature of props' and performers' dealings with space through them. It is the props that insinuate such gestures as (un)folding, (un) rolling, wearing, spinning, etc. in order to create situations in which spaces are illuminated or imbued with scent. Motion and speed also play important roles in opening up for a spectrum of expressive gestures and a dialogue with unstable ambient conditions, such as lighting changes.

The sartorial surface of this cinema joins dress to address in ways that engage the fundamental meaning of decoration. In dressing lived space while dwelling in clothes as modes of inhabitation, this cinema finally reminds us of the origin of fashion as a form of architecture.

— Giuliana Bruno<sup>179</sup>

In *Surface: Matters of Aesthetics, Materiality, and Media* (2015), Giuliana Bruno discusses surface materiality in relation to the nexus between fashion, architecture, and cinema. To exemplify how the surfaces of the cinema shape

178 Ibid., p.67.

architecture (both interior and urban), Bruno uses stills from the contemporary cinematographer Wong Kar-wai's movies (Fig. 10.1, 10.2) to demonstrate how the motions of the surfaces of clothes form architectural spaces.<sup>180</sup> Bruno argues that we experience the world as fashion, i.e. as 'transitive forms of material transformation.'<sup>181</sup> In that respect Bruno suggests the term 'architexture,'<sup>182</sup> and claims that fashion is a more active form of expression than architectonics.

Fashion forms space not only through clothing but by becoming part of the architectonics of a movie. Bruno demonstrates how clothes and walls merge through similar textures, and thus walls become partitions and function as activated screens rather than tectonic structures. This activation happens through the play of light and shadow and the kinesthetics of the dressed bodies. Furthermore, the interplay and changing of surfaces determine the sense of time of the movie, and thus its atmosphere. Clothes become, Bruno suggests, 'time pieces', and time is perceived 'as a tonality of the surface' and 'the rhythm of surfaces appearing in the frame'<sup>183</sup>. Moreover, surface interactions in cinematic images do not necessarily demand vivid bodily engagement: 'no bodily expression is an expression as well.'<sup>184</sup> Even if there is no motion, movement continues in the cinematic in the manner of mental

<sup>179</sup> Bruno, Surface, 48.

<sup>180</sup> It is interesting to note that Bruno names Wong Kar-wai as a 'filmmaker-tailor'. The movies selected are *In The Mood For Love* (2000) and 2046 (2004). Ibid, 36.

<sup>181</sup> The sartorial philosophy has the potential to 'render the way we actually experience the world-in life as in film-as fashion, indeed in transitive forms of material transformation'. Ibid, 41.

<sup>182</sup> Ibid, 18.

<sup>183</sup> Ibid.

<sup>184</sup> Ibid, 28.

imagery. Cinematographic form, as has been discussed above, enables embodied visuality. In this case, very subtle movements and motion are also expressions. In my explorations, wearable props work in a very similar manner: their properties in interaction with ambient conditions reveal the passage of time, and lighting effects change with the motions of surfaces and gestures of performers. Their role in the spatial setting is formative.

Bruno assigns the definition of "sartorial" not only to the surfaces of the cited movies but to their atmospheres. Although she is more concerned with an affective perspective on atmospheres, we also find insights in terms of atmospheric expressions, such as the interplays of light, shadow, and colour. Textile materiality and atmospheres are intrinsic in this visual realm, conceptually theorised by the researcher as 'sartorial'. By investigating the concept of the fold, Bruno explains how it produces the surface which makes us feel in the movie 'the material of light and the fabric of colour in a rich play of hues and shift of shades.<sup>185</sup> Light and colour are rendered tangible and are conveyed through different materials folded together, i.e. the surfaces of the screen, garments, and walls. Bruno argues that this novel understanding of the visual realm is a 'new form of materialism' - thinking about the visual in a material way. Instead of a mere optical framing, the surface emerges as a 'screen-membrane' and thereby 'turn[s] architecture and art into pliant planes of moving images.'186

186 Ibid, 5.

# **3** Explorations

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<sup>185 &#</sup>x27;In the fashioned world of Wong Kar-wai, the fold works at producing the dense, floating surface in which one senses the material of light and the fabric of colour in a rich play of hues and shift of shades.' Ibid, 49.

# The Atmospheric Staging Studio

"Atmospheric stagers" act as location scouts in the film industry: they look for inspiring interior and exterior environments as parts of the setting-. "Staging sessions" can take place during any season and at different times of day. Surfaces, lights, cameras, and bodies generate atmospheric effects, and performers use textile props with abstract shapes, diverse sizes, and different properties to stage interior situations. These "atmospheric props" can be carried, worn, or moved around. They modify existing spaces through dressed furniture, bodies, the surroundings, and additional staging equipment in order to change the lighting conditions, for example. Atmospheric stagers build atmospheric settings of diverse constellations and natures in response to what the space and material properties can offer. These settings enact interior situations, such as light-surface sequences, light-colour-surface sequences, and light-colour-smell sequences. Atmospheric stagings can be very slow and contemplative, or active and engaging. At times, the "atmospheric dwellers" follow instructions; at others they improvise. Settings can be activated by the performers or be left to unfold independently. As a result, the interior becomes a kind of landscape, a perpetual stage on which scenes unfold in unexpected ways, inviting sequences of lights, shadows, colours, smells, and sounds.

# The lexicon of the studio

atmospheric modelling atmospheric gestures atmospheric staging staging sessions atmospheric setup textile setup bespoke textile props atmospheric effects interior performance scenes

# The chronicle of the studio





A fishing harbour located under a parking structure in Grandville, Normandy. September. 2018

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At the time of my visit the tide was just turning and the water rising. The fishermen's boats noisily return to the harbour. Shadows, reflections, and millions of optical effects created by the movement of the water and goldenhour light are visible; marine smells and variations of green moss textures on the concrete beams and humid stones are discernible. A multisensory ephemeral spectacle is played out by an unintentional constellation of surfaces, atmospheric effects, water, and people. The smartphone camera frames and captures some of these microoccurrences.

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# Design instructions

Illuminating a prebuilt setting through enactment

Design and select 'light props' These can be light-reflective, emitting, or absorbent

Find an inspiring interior space

Select several sources of light and colour, which will function as your lighting setup

Position the static component of your setting, the textile props, and the lighting setup

Prepare different textile props, which are to be worn

Position two cameras: one for a still, distant perspective and one for a panning, tilting close-up

Frame your scene

Explore ways of lighting and staging the setting

Enact the same scene multiple times under different lighting conditions and using different wearable props

Select the best stills from the video material.

# Design examples



Still from a video montage.

Fig. 12

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Stills from a video montage.

Fig. 13.1



Fig. 13.2

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### ATMOSPHERIC SPATIAL MODELLING

# Four Ways of Staging Space with Textile Setups

1 Staging an atmospheric interior setup with free-standing, portable, and wearable surfaces through improvisation

# Aim, focus, context, outcome

The aim of this first workshop performance was to explore staging using portable structures, diverse textile props, and a framework of ad-hoc interactions under uncontrollable indoor conditions. The main focus was the interactions between light sources and textile props. The intention was to explore a wide array of surface properties and diverse shapes in order to investigate them and explore their assemblages and effects and the actions they invited. In the context of the educational artistic programme at the ARTVILNIUS'17,<sup>187</sup> two staging sessions were held with myself and four other designer-performers, who were asked to improvise together as the art fair visitors walked past. The outcome of this performance was a series of video stills and .gif animations that show the recorded interactions from two different angles.



The staging equipment and textile props.

Fig. 14

<sup>187</sup> Part of the educational programme, and organised by the Malunu 5 gallery (an exhibition space at Vilnius Academy of Arts), June 6-11, 2017, in collaboration with the textile designer Marija Garnak and the visual and performance artists Bon Alog, Eglè Prokopavičiūtė, and Donata Porvaneckaitė.

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# Atmospheric interior setup

The overall setup gradually grew and transformed within the fixed place, and consisted of the following components: Staging equipment: mountable c-stands, a head-mounted light, a portable LED projector, and a head-mounted light projector.

Textile props and material screens: free-standing, hanging, and wearable screens, wearable props, hangers for various material surfaces, light-reflecting and -absorbing materials such as wool, synthetic fabrics, coated foam, polyester, aluminium, and an indoor climate screen made by Ludvig Svensson (a Swedish textile company). In collaboration with textile designers, three 'wearable surfaces' were designed. These had abstract rectangular shapes, were reversible, and had adjustable belts in order to explore the role of surfaces close to the body with regard to other interior surfaces and the dynamic between the fixed and portable screens.



Wearable surfaces with interchangeable sides.



Fig. 15.2

# Spatial layout

The setup was placed in an area provided by the art fair: a corner with a white wall and a white curtain, which dimmed the natural light coming from the window behind it.

# Recording equipment and protocol

Two fixed cameras were used to record the activities. In order to explore different aspects of framing, two different points of view, angles, and shot distances were used.



The spatial layout and scale of the setup.

Fig. 16

# Performers

The group consisted of five participants, each of whom had a specific role: one was responsible for the camera, one for the lights, and two for creating and enacting the scenes. My role was both "internal" and "external", i.e. I both staged the setup and observed from off-stage. The performers were asked to wear black outfits so as to be distinct from the props and homogenous with the setting as a whole.

# Gestures and effects



Video stills showing the moving of the light source and light surface, and laying with, wearing, and playing with optical effects between the surfaces to create reflections and shadows.

Fig. 17

During the two staging sessions the performers were given several very general guidelines for building the setting: to create free-standing, permanent backdrops, to wear props in multiple ways, and to place portable light-reflecting screens in relation to other hanging surfaces. This was undertaken in order to create interactions between light, shadows, and surfaces that could be only be viewed by stepping back from the setup.

As the space provided by the fair this workshopperformance had minimal daylight and artificial lighting, the idea of 'micro-gestures relating to lighting' emerged. The interplay between the performer moving and wearing the props, the hanging surfaces, and the placement of the light projector created areas in which light and shadow interacted. The transformative nature of the wearable props induced the performers to use them in a manner similar to soft furniture pieces; when they were illuminated by the additional light sources, they became sources of light themselves.

The unexpected discovery was that when of all the performers left the installation, the setup continued "to act" on its own: the hanging light-reflecting surfaces were moved by the air currents, producing caustic light effects.

# 2 Staging two atmospheric interior setups with "light props" and "smell props" through enactment

# Aim, focus, context, outcome

The aim of this collaborative workshop-performance was to explore the potential of staging through a setup that was directed. It was composed of a "light setup" and a "smell setup", as well as written dialogues and image projection. The multimodal display was tested during two workshops in collaboration with a fellow researcher in textile design. The focus of this collaborative exploration was to further explore the potential of staging with textile props, this time integrating smell-embedded textile props, light, coloured light, and textiles. The intention was to explore different ways of activating what we termed a "dynamic spatial arrangement". The third iteration was held at the Swedish Research Council's Annual Symposium on Artistic Research (the context) as an example of performative research.<sup>188</sup> The outcome of these sessions was a series of video stills taken from two different angles, a script for two scenes, and .gif animations.

<sup>188 &</sup>quot;Staging a Smelly Atmosphere", a peer-reviewed presentation on the topic of "To meet the research practice – presentation format in artistic research", Stockholm Academy of Dramatic Arts, November 26–29, 2017, Stockholm, Sweden. Undertaken in collaboration with the researcher and textile designer Jyoti Kapur. See the list of publications.

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# Atmospheric interior setup

One textile setup was built for the light, colour, and shadow explorations with textiles. The other explored olfactory boundaries with designed "smell props". Each setup required different lighting conditions and gestures. We organised our presentation into two parts: "Scene 1" and "Scene 2".

# Staging equipment

This setup was created using two free-standing, moveable structures of different sizes that were constructed using rolling hanger stands; these were combined to create an irregular structure that could easily be rotated in the presentation room. The facilities of the Academy of Dramatic Arts were ideal in terms of adjustability and lighting control, and directional spotlights and a light mixer were at our disposal. A flashlight and handheld colour filter (red) were also used in the first scene, along with dimmed general lighting.





Two atmospheric setups: an exploration with smells and light, which were activated through movement and staging equipment.

Fig. 18.2

# "Light setup"

The selection of materials for this setup was guided by textural qualities: transparent, glossy, and shiny. Some were voluminous while others were stiff and rigid to the touch, allowing their shapes to create envelope-like structures.



The light-colour-surface scene; animating the setup with a light filter and flashlight.

Fig. 19

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# "Smell setup" and "smell props"

"Smell props" were designed by my colleague and collaborator and used as props for staging the second scene in order to explore the olfactory boundaries of a space. There were two types of object: ones that required physical interaction such as rubbing in order to release smells, and ones that needed to be moved in space or were activated by proximity to a performer.



Fig. 20.1



Two "smell props" were made: an "origami piece" to be rubbed, and surfaces into which smell-embedded sponge tubes were inserted, and which were to be moved in the space in order to release smells.

# Performers

We enacted both scenes, and thus became active participants. During workshop explorations prior to the event we used a smartphone as a remote control for the camera in order to replay our actions and see the effects produced from the side.

# Spatial layout

The room provided by the Academy of Dramatic Arts was intended to host performances and rehearsals. In the centre of the room there was a mounted ceiling with adjustable light projectors, as well as a curtain divider so as to create a "backstage" at one side of the room. Consequently, our presentation was held in the very centre, so that we could change the two setups easily and gather the spectators around the main action.

# Recording equipment and protocol

We recorded the presentation using two cameras: one fixed camera for an angled view and one placed on the ceiling for an overhead view.

# Scene dialogue

Our interactions with the two setups were staged through the dialogues we had written in advance. The acts that emerged spontaneously during the first two workshop

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iterations were taken as the basis for developing the final sequence, which evolved gradually with each iteration.



Fig. 21.1



The discussion with the audience, after the performance.

Fig. 21.2

# Gestures and effects

Textile materiality was a key factor in the emergence of gestures in relation to the setups. In order to animate the setup with an interplay of light, shadow, and colour we moved around it as well as into it, and overlapped and shaped the textile surfaces to create optical effects and different surface typologies. In the completely darkened room the setup and performers' silhouettes were made visible by a directional light. At times, the bodies in the structure, which were between the textile layers, merged with the setup.

The light effects created by the flashlight and colour filter amplified the textures visually; this effect was more or less pronounced depending on the distance, and involved optical effects of expansion and elevation. Shadows appeared through the overlapping and transparent layers, forming new textures on the textile surfaces.

In order to imbue the setup with smells, a series of movements was performed. Firstly, the olfactory origami prop (Fig. 20.1) was introduced, and folded and unfolded in the hands and rubbed in order to activate the smells locally. Then, a larger, rope-like piece was twisted and twirled in space, releasing smells that moved around and formed "smell pockets". Finally, an assemblage of all of the smell props was gathered and placed on the hanger, forming what we termed a "surround-smell setting". This became a cocoon that was immersive and possible to enter, facilitating very intimate engagement with the surfaces'

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features through touching and smelling the scents embedded in the sponge extensions.













Diverse local lighting effects on the surfaces, viewed from the side.

Fig. 22

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Diverse local lighting effects on surfaces, viewed from above.













Different interactions that were guided by the design of the "smell props". Selected frames from the angle view.



Fig. 24


Different interactions guided by the design of the "smell props". Selected frames from the top view.

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3 Staging an atmospheric interior setup using portable and wearable props and improvisation

Aim, focus, context, outcome

The aim of this workshop was to explore spontaneous interactions using props and found objects in relation to the existing lighting conditions of indoor spaces.<sup>189</sup> The focus this time was on the relationship between optical effects, prop materiality, and gestures. The staging sessions were held at the Vilnius Academy of Arts in four areas, including common ones (such as corridors) and less common ones (a loft). The outcome of this exploration was video footage, a series of video stills, a booklet with reframed stills, and .gif animations.

189 This workshop was undertaken in April 2018 in collaboration with the visual and performance artists Bon Alog, Dagnė Gumbrevičiūtė, Eglė Dambrauskaitė, and Juozapas Švelnys.



Fig. 26.1



Atmospheric setting 1. The material surfaces were placed and then gradually removed by the performer, who interacted with the lighting conditions of the space. Fig. 26.2

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Fig. 27.1



Atmospheric setting 2. Two performers interacted with each other and the lighting of the space.

Fig. 27.2

## Atmospheric interior setup

For this setup, wearable and moveable props were selected; no stationary backdrops were used, and instead the textiles were interacted with in an environment that was not lit by additional, artificial light sources.

## Textile props

Some of the props were designed for and used during the previous explorations; others had already been made, such as the photographic light reflector. Two types of coating were focused on: light re-emitting (in the form of fluorescent textile coatings and fluorescent fabric dye) and light-reflecting (aluminium and mirror coatings).

## Performers

The group consisted of five members. The scenes were performed in pairs as well as solo, according to the spatial setting. This workshop-performance resembled a smallscale film- stage set. The members of the group were all active in either the visual or performing arts. One person was responsible for the camera, one for lighting, and two for enactment; I functioned in the manner of a director of photography. Each scene was carefully framed in advance, and the action started and ended with an announcement. The performers were asked to freely enact one-off scenes with portable and wearable light props, with minimal guidelines.

## Spatial layout

The spatial layout was different for each scene. The recording protocol and the found spaces and objects defined the perimeter of the enactment. The idea was to have a distant view of an existing interior space in which sideways or backwards and forwards movements took place, similar to a recording of a theatrical production. The intention here was to architectonic elements, furniture, and interior plants in order to make the context tangible.

## Recording equipment and protocol

The scenes were filmed from a perspectival fixed viewpoint.









## Gestures and effects

Due to the fact that in this exploration there were no stationary backdrops, gestures emerged as a result of explorations of the interplay between the placement and volume of the surfaces through changes to both. The performers were asked to search for relationships between these conditions and the props, as well as between the props and the existing architectonics and furniture – the interstices. As the performers did not necessarily perceive the effects they produced through these interactions, some guiding comments were given: the performers were to hold, roll, unroll, and constantly move the surfaces in diverse ways and combinations in order to capture, animate, and create subtle illumination and colouring effects.

The shifting natural lighting conditions and positioning of the lighting greatly influenced these effects. Reflective surfaces appeared to be shiny and bright in some configurations, and dark when placed differently. The fluorescent surfaces changed hue under different lighting conditions and in response to the presence of other colours. Most interestingly, the slow movements of the performers and changes in natural lighting coloured the lights and the shadows for brief moments.

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Fig. 29.2



Fig. 29.3



Fig. 29.4

# 4 Staging an atmospheric interior setup with free-standing and wearable surfaces through action instructions

## Aim, focus, context, outcome

The aim of this staging session was to explore the formative role of the video medium in staging a setup through strict action instructions and a pre-built performing area. A montage technique was borrowed from the medium of cinema. The focus of this staging session was the potential of surfaces and expressive gestures to illuminate a space. As most of the surfaces were bespoke designs for this particular session. This exploration was undertaken in the context of an invitation to participate in a group exhibition, which had as a starting point the movie *Do The Right Thing* by Spike Lee (1989).<sup>190</sup> The outcome of this exploration was the exhibition display, which consisted of a video and design instructions; these were intended to exemplify the approach of atmospheric spatial modelling. JUSTĖ PEČIULYTĖ



Changes in general lighting and the performer's outfit within the same setup and action sequence. Fig. 30

"The Atmospheric Staging Studio" staging session, held at the Vilnius Academy of Arts in January 2019. Undertaken in collaboration with the visual and performance artists Bon Alog, Eglé Dambrauskaité.
"Do the Right Thing" doctoral exhibition curated by Marquard Smith. Titanikas, Vilnius Academy of Arts, Vilnius. March 28-April 14, 2019.

## Atmospheric interior setup

## Staging equipment

Three hangers were used to combine the different surfaces, creating an overall backdrop for the action. Multiple light sources were used: an LED light projector, a Philips EnergyLight lamp, a smartphone torch, and two halogen projectors with colour filters (red and blue). The filters were used to create different modes of general lighting for each scene. In addition to the lighting equipment, a freestanding red colour filter was used to alter the colour of the EnergyLight lamp in one specific location.

## Textile setup

Three stationary backdrops were built using several types of coated and/or dyed fabrics: light re-emitting (fluorescent), light-reflecting (a pearl powder and silicone combination, aluminium), and light-absorbent (Stuart Semple Black 2.0 – a black high-pigment water-based acrylic paint). Some of these coated fabrics, including light-reflecting strips and Lycra fabric in which aluminium was embedded, were purchased, while others were commissioned for this staging session.<sup>191</sup> In order to achieve variations in terms of light absorption and reflection, these bespoke fabric surfaces were partially coated so that the fabrics had additional qualities. A transparent thin fabric, for example, had both opaque

191 The bespoke textile coatings designed by the artist Miglė Kriaučiūnaitė.

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and light-reflecting qualities when partially coated with a bespoke mix of silicone and pearl. The black shiny fabric, which was partially coated in matte-black absorbent pigment, absorbed light in various ways.

In addition to the use of these fabrics for the free-standing installation, parts of the performer's outfit were altered by adding pieces of these coated fabrics in order to make the outfits part of the installation.



Cut-outs of coated fabrics that were applied to the performer's outfit.

Fig. 31



The performer's outfit, which was altered by adding pieces of coated fabric of abstract shapes.

Fig. 32

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Fig. 33.1



Fig. 33.2

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## Performers

One performer was invited to enact the same sequence of movements by following a script with a sequence of actions. Each time, however, different lighting conditions were used and the outfit was altered; the performer had to enact as similar gestures as possible against the static textile backdrop.

## Action instructions

To frame this staging session, I adopted the visual method from the opening scene of *Do The Right Thing.*<sup>192</sup> A storyboard based on the performer coming into a room and leaving it after a series of actions was defined. The same scene was repeated under six different ambient lighting conditions.



Fig. 34.1







192 As the dancer moves against the backdrop of a cityscape, her outfit and the lighting conditions change. The repeating dance moves are the joining elements in the montage, creating an impression of multiple temporalities within the same sequence.

160

## Recording equipment

In collaboration with a visual artist, the scenes were filmed from two distant perspectives: one panning and tilting for close up framing, and the other fixed for a distant view. Unlike in the *Do The Right Thing* montage, where the cameras were static: both for a distant view, and a close-up.

## Spatial layout

The setup was arranged in a dim room in three planes from a frontal perspective. The performer entered through a door in the back plane and exited the shot in the front. Therefore, the framing, action sequence, and spatial layout were closely correlated during this exploration.

## Gestures and effects

In this exploration, both materiality and the predefined video montage technique restrained and guided the gestural expressions. The gestures had to be simple and easy to repeat in order to use them as joining elements in the montage. As a result, they included switching on a lamp, slowly moving a light projector, and using a flashlight to light up parts of the setup. The focus was on the gestures that make surfaces (both wearable and static) become light sources.

In order to express multiple temporalities within the same video, the ambient lighting modes changed from

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blue to red (as well as blue and red at the same time), and white halogen lights were also used. The juxtapositions of the nuanced textile surface properties created a contrast during the darker scenes, in which the light re-emitting surfaces faded and the light-reflecting ones became more apparent. The colour of light-reflecting surfaces in response to coloured ambient lighting was also highlighted.



Gestures of illumination. The performer illuminating a static setup in multiple ways with the lighting equipment. The changes in general lighting and the performer's outfit within the same setup and action sequence. Fig. 35

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Intentionally, just as accidentally, illuminated surfaces became a source of lighting: the backdrop was illuminated by the performer and the materials of her outfit by the ambient light. Fig. 36

# 4 Discussion and Conclusions

# Discussion

The research presented in this thesis agrees with a statement made by the philosopher of aesthetics, Pierre-Damien Huyghe, that the primary task of artistic and design research is to bring substantial modifications to the field of practice considered by the research.<sup>193</sup> I want to assess here the consequences and potential of this research with regard to spatial modelling. What are the major ontological, epistemological, and methodological challenges brought? I will map the discursive (movement in concepts) and material (shift in methodology) consequences, and in doing answer the research questions. I will then present the research results and raise two major points for discussion in relation to possible future development.

# Consequences and potential of this research

# **Research Question 1**

What is the potential of atmospheric spatial modelling in relation to establishing foundational definitions?

Through the exploration of atmospheric spatial modelling as a foundational definition, the practice of spatial modelling is revealed to be an aesthetic, performative action – in contrast to the dominant representational

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approach. As a consequence, the concept of modelling and its acts has been expanded, and thus can be understood as: enacting, performing, framing, staging, tailoring, and fashioning space. These definitions of modelling acts thereby affect how the spatial design medium is treated. A model becomes an "atmospheric interior setup"; architectural images are "scenes of interior performance". When we bring notions originating from the performing, cinematic, and stage arts into the context of spatial design, e.g. setting, scenes, frames, props, setups, and sequences, a new path for the design process opens up. Consequently, these concepts shift the order of modelling. Instead of focusing on the expressions of designed objects and images as final outcomes for communicative purposes, the focus is on expressions and gestures undertaken using objects, atmospheric effects, and the situations these interactions produce. This approach affects not only spatial design, which here is initiated by the dynamic roles of textiles and interactions, but textile design practice, due to the fact that textile props for staging can be bespoke objects, designed in relation to a specific setting and the context of modelling. This suggests that the brief for textile design - which is generally the development of surface finishes - could be based on the nature of unique atmospheric interior settings.

<sup>193</sup> Pierre-Damien Huyghe, *Contre-temps. De la recherche et de ses enjeux. Arts, architecture*, design (Paris: B42, 2017), 92.

## **Research Question 1.1**

What is the potential of staging as an atmospheric modelling act?

When we consider staging to be a non-representational modelling act, we become sensitised to the rhythms and efforts of bodily interactions with material setups: we are invited to examine our gestures beyond functionality, i.e. their expressive possibilities and qualities. Staging bridges dwelling and designing acts, and thus the gestures of the everyday and those of designing, such as illuminating a space, tend to merge. Design gestures cannot be grasped solely as tools for expressing designers' inner ideas, and as such they are intrinsic spatial expressions: the expressive acts co-produce space over and over, together with atmospheric components and spatial design elements (furniture, walls, etc.). When treated as a modelling act, staging provides a new understanding of the interior, and becomes an atmospheric act that we can no longer see as a static image. In that respect, the interior design process opens for a new set of epistemic values. Designers are invited to look with more humbleness at their subjective and ambiguous gestures with modelling materialities and atmospheric elements.

# **Research Question 2**

What is the expressive potential of textile materiality with regard to modelling gestures?

Traditional architectural thinking is based on the representation of concepts through tectonics, whereas in this research paradoxical "textile thinking" is based on immediate interactions with textile setups and pliable and differently treated material surfaces with imprecise physical boundaries. This approach extends to mediated interactions, which initiate space in their own ways.

Textiles are more adaptive than static architectonic forms. They are smooth, lightweight, and easy to form, and their surface properties can be changed easily. Textile objects demand immediate interactions and are haptic, and their behaviour is unpredictable; they initiate action and can be activated by surrounding factors (light, changes in air current).

The activities and rhythms that emerged during the staging sessions can be defined as characteristics of staging gestures. Light-reflecting and light re-emitting surfaces, for example, allowed explorations of ways of illuminating space through surface interactions with surroundings, i.e. attentive awakening of light, slow animation of smells, sensual summoning of colour, vivid capturing of shadows and light. This could potentially lead to a gesture typology based on the expressiveness of interactions with different material surfaces. In consequence, textile materiality

extends gestural vocabularies, offers multisensory ways of shaping space, and integrates polysemic and poetic meanings based on bodily engagement.

When brought into the mediated realm of architecture, textiles enable a particular formation of space. On one hand, the formal qualities of a dressed bodies in motion such as tonality and rhythm suggest spatial atmospheres; on the other, the surfaces of screens and spatial elements merge and offer depth and dynamic performance, instead of a fixed perspectival mode.

# Programmatic research results: A methodological interior design framework

Well-established frameworks condition the visions of designers in both educational and professional contexts. Consequently, designers and architects model and transmit images of domestic life, deprived of accidents, rhythms, and surprises. However, the act and gesture of modelling when approached from an atmospheric perspective presents opportunities for the design process to be liberated from essentially pragmatic and mimetic ways of modelling. One of the main objectives of this thesis is to disrupt assumptions about spatial modelling practices as essentially representational and instrumental. Designing acts in general, and atmospheres more specifically, cannot be approached with a rational mind nor judgement. In that respect, the contribution of this thesis is the mapping out of a design programme based on modelling as staging

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with textile setups. The research direction 'Designing bespoke textiles for interior performance' assigned within the ArcInTex ETN programme<sup>194</sup> already suggests the exploration of the potential of textile materialities with regard to the design of interiors.

Most of the examples presented in this thesis investigate and/or discuss new typologies for designing with the ephemeral qualities of space. These works can be said to have a programmatic nature: the immanent design's endeavour to change existing situations and ways of doing, as well as to open up new paths.<sup>195</sup>

This movement in terms of concepts and methodological shifts provides a direction for interior design that prioritises embodiment, presence, and subjectivity as epistemic values. From this perspective the interior is not a projected, predetermined, and fixed space to attain; it is an embodied, emerging, and performative architectural image – a performative act stemming from an atmospheric setting. The Atmospheric Staging Studio is a framework for creating such images.

<sup>194</sup> ArcInTexETN, PhD and Supervisors Guide to ArcInTexETN (2015), 3. http:// www.arcintexetn.eu/wp-content/uploads/2016/01/PHDguide\_2016-01-18.pdf.

<sup>195</sup> See the entry "Itch-motive-programme". Thornquist, Clemens. *Get to Work: And Embarrass Yourself.* (Borås: The Swedish School of Textiles, 2015), 64.

## Adaptable forms of future living – designing

Even creative activity calls for an unfocused and undifferentiated subconscious mode of vision, one fused with integrative tactile experience [...] In creative work, both the scientist and the artist directly engage with their corporeal, existential and atmospheric experience, rather than with the external logical problem.[...] The potentials of atmosphere, weak gestalt and adaptive fragility will undoubtedly be explored in the near future, in a search for an architecture that will acknowledge the conditions and principles of ecological reality as well as of our own biohistorical nature.

— Juhani Pallasmaa<sup>196</sup>

The main ArcInTexETN research direction is defined as 'Sustainable Forms of Future Living'. However, instead of focusing on sustainability, I suggest discussing the notion of adaptability. Inspired by the notion of 'adaptive fragility'<sup>197</sup> as susceptible subjects to be studied in the future, I want to firstly look more closely at the meaning of adaptability and what it entails. Another aspect that I wish to address here is Pallasmaa's invitation to turn towards the essence of 'creative activities:'<sup>198</sup> if embodiment, diffused perception, and sensory-rich environments are the values for dwelling,

196 See the epigraph above. Pallasmaa, "Space, Place, and Atmosphere," 39.

- 197 Ibid.
- 198 Ibid.

as the architect advocates in many of his writings, the same applies to design processes.

The Oxford Dictionary of English provides the following definition for "adaptable": 'able to adjust to new conditions; able to be modified for a new use or purpose.<sup>199</sup> The Merriam-Webster dictionary defines the term as: 'capable of being or becoming adapted' and gives the following synonyms: 'plastic, pliable, pliant, ductile, malleable, adaptable mean susceptible of being modified in form or nature.'<sup>200</sup>

In the context of creative activities, Michael Tawa defines the adaptable as fundamentally open to recombination: 'The adaptable is therefore an apparatus open to multiple joints, connections or housings which brings elements into proximity – be they spaces, construction elements or materials in architecture; or temporalities, characters, images, narratives, and sounds in cinema.'<sup>201</sup> The other terms that Tawa associates with "adaptable" are receptivity, arrangement, composition, and adjustment. Through this large spectrum of synonyms, we can realise how much adaptability shares with textural and atmospheric aspects. These are the core values of The Atmospheric Staging Studio. By bringing dwelling and designing closer together

- 200 Merriam-Webster, s.v. "Adaptable," accessed March 10, 2020, https://www.merriam-webster.com/dictionary/adaptable.
- 201 Tawa, Agencies of the Frame, 25.

<sup>199</sup> Oxford Dictionary of English, Third Edition, (Oxford: Oxford University Press 2016), s.v. "Adaptable".

through the notion of the atmospheric, we can observe a radical shift in values.

I agree with Pallasmaa that the essence of creative activities is 'corporeal, existential and atmospheric experience'<sup>202</sup> and that they are not rational problem-solving endeavours at their core. Design pedagogy thus needs design models based on processes that integrate qualities relating to embodiment and presence. I propose that adaptability is a key aspect of designing, which asks practitioners to be receptive to what occurs and unfolds and to be more humble and caring about processes, design acts, and gestures. The epistemology of presence in design education and research suggested by Dillon and Howe<sup>203</sup> makes this direction tangible. Presence, which is one of the components of enactive consciousness, and thus atmospheres, is at odds with the well-established representational- instrumentalising approach.

Adaptable ways of living-designing call for other types of design processes than 'specifying, researching, prototyping, testing, refining, and evaluating,'<sup>204</sup> which are problem-solving acts. With regard to the atmospheric acknowledgement of the processes of creative activities, specifically spatial modelling, multisensory and

204 Ibid, 71.

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atmospheric gestures can be said to be the common denominator for both living and designing, as gestures are a part of the spatial expressions.

The Atmospheric Staging Studio opens a path for design acts and gestures based on observation, presencing, cocreating, and interpreting. In this manner, the practice of modelling is informed by the embodied spatial knowledge rather than speculations. The further development of atmospheric spatial modelling could see the framework being applied as a learning platform to improve our embodied spatial knowledge.

<sup>202</sup> Pallasmaa, "Space, Place, and Atmosphere," 39.

<sup>203</sup> Here I refer to Dillon and Howe's reconceptualisation of design based on the epistemology of presence, which 'provides a better alignment between how people experience the world through design and the ways in which they engage with it both intellectually and practically', i.e. through nonlinear intuitive processes. Patrick Dillon and Tony Howe, "An Epistemology of Presence and Reconceptualisation in Design Education," *Interchange 1*, no. 38 (2007): 69.

Textile thinking for adaptive and responsive interior design

[P]utting into question and enabling reflection on the manner in which we confront and deal with the world, the ways in which we are predisposed towards it, the subtexts of regimes that determine how we frame and regard it, visualise it, use and exploit it, how we distance ourselves from it, objectify and calculate it, receive and consume it. All of these conditions are open to tectonic and architectonic implication, manipulation and expression. They might prompt us to think differently and in a richer, more nuanced way about how a space is shaped, scaled, oriented, fenestrated, lined, lit and furnished in relation to the context in which it is situated, in which it is collocated and related.

Michael Tawa<sup>205</sup>

Michael Tawa points out the capacity for 'tectonic and architectonic implication, manipulation and expression' is indicative of our characteristic ways of designing, which could eventually lead to new ways of dealing with space. The same can be said not only for architectonics and tectonics, but for 'architexture.'<sup>206</sup> On the scale of the interior, I have explored the potential of textiles and gestures in relation to spatial modelling. 'Textile thinking for adaptive and responsive interior design' is another important topic within the ArcInTex ETN research programme, and the focus of the present inquiry. To tackle this topic. I decided to look at the ways in which designers and artists initiate interior spaces and the motivations behind their methods, while at the same time exploring them myself. Through the four ways of staging with textile setups, I explored how interior spaces can be initiated through staged and recorded scenes of performer interactions. The formulated framework of The Atmospheric Staging Studio provides conditions to explore the two major potentials of textile thinking for modelling that were raised: to immediate interactions and a textural reading of the visual (Section 2.2). Joining them both through staging could open a path for an adaptive design process, allowing designers to navigate between these two potentials and to tackle the old issue of the ambiguous relationship in architectural imagery between the immediate and the mediated.

<sup>205</sup> Tawa, Agencies of the Frame, 35.

<sup>206</sup> Here, I refer to Guliana Bruno's discussion on the textural form of space, in addition to the traditional understanding of architecture and architectural images, which I discuss in Section 2.2.

# Conclusions

The atmospheric paradigm opens numerous potentials in relation to spatial design processes. This research focused on the basic notions of spatial modelling practice: its acts and gestures. The new aesthetic foundations of modelling affect how these acts and gestures are conceptualised, qualified, and named. This paradigm also changes the idea of the interior and, in consequence, enables an ideation process in which space is initiated by interactions with textile setups and the effects created.

"Atmospheric forms" and "atmospheric expressions" defy the traditional system of notation of spatial modelling.

The systems of notation normally used in architecture and interior design are insufficient with regard to the atmospheric nature of architecture. Atmosphere entails multiple temporalities, tactility, and enactive visuality, and so the relevant notations systems are cinematographic, scenographic, and literary in nature.

The atmospheric forms explore the experimental medium of spatial modelling and defy established static and pictorial approaches to visual creation. Instead of the traditional drawing and scale model, the means of expression are an experimental setup, kinetic light device, performative prototype, performative installation, and textile setup. The atmospheric expressions challenge the modes of interior visualisation: in relation to the

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geometrical concept of space we rely on perspectival projections, elevations, and plans, whereas with atmospheric expressions we are invited to think in terms of scenes, episodes, experiential situations, and perceptual events.

An atmospheric approach to space expands the spatial modelling practice.

When we bring modelling into the experiential realm of scenographic and cinematographic practices, the way we approach and name design acts and gestures changes, as does the material practice. The modelling acts become fundamentally aesthetic, and the atmospheric approach makes us perceive modelling in relation to performing, enacting, framing, staging, and even tailoring and fashioning space.

Staging, as a spatial modelling act, opens up a productive gap for explorations of the expressivity of design gestures.

In the context of spatial modelling, staging creates a particularly fertile semantic and practical terrain. It involves a unique structuring of a spatial experience, and focuses attention on the characteristic, non-functional ways that materials, atmospheric components, and bodies interact and co-create interior spaces. Staging, as a spatial modelling act, leads to a new understanding of the interior. Through the explorations of staging with textile setups

and the conceptual example of dwelling in clothes as a

mode of inhabitation, we no longer perceive an interior as a static pictorial image. It becomes an atmospheric act – an embodied image of space in constant change, conceived of as processes or series of interactions.

Design gestures cannot be grasped solely as tools for expressing a designer's inner ideas, and as such they are intrinsic spatial expressions.

Gesture expressivity and qualities are crucial to multisensorial architecture. When we acknowledge that atmospheres cannot be designed, represented, or modelled, we can turn towards the expressivity, qualities, and fundamentally atmospheric nature of modelling gestures. As gestures and their expressivity – when used in combination with materials – are intrinsic to, and an essential component of, atmospheric effects, they become more than design tools; they become a formative part of dwelling with atmospheres, and create awareness of our engagement with interior spaces.

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Textile materiality has the potential to enrich the gestural vocabularies of atmospheric modelling.

The mediation of atmospheric elements (colour, light, smell, tactility, etc.) through textile materiality offers a variety of interactions and gestural expressions through both immediate interactions and recorded scenes. Bodily engagement is directed and shaped by the nature of setups and props, and more specifically by the surface properties of a material and the atmospheric effects that these trigger.

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# Santrauka

Šis praktika paremtas dizaino tyrimas yra Europoje precedento neturinčio meno doktorantūros studijų modelio rezultatas. Didžioji studijų dalis vyko Vilniaus dailės akademijoje, bei apėmė dalyvavimą trejų metų trukmės tarpdisciplininiame klajokliškame tyrimo projekte "ArcInTex European Training Network (ETN)". Derindamas architektūros, interaktyvaus ir tekstilės dizaino disciplinas, projektas nusibrėžė bendro tyrimo ir mokymosi bei individualų tekstilės technikų mokymosi praktikas (angl. *framework*). Pagrindinė programinė "ArcInTex ETN" kryptis buvo "Tvarios gyvenimo formos ateityje" su tikslu suformuluoti "tekstilinio mąstymo" pagrindus.

Mokymosi programą sudarė įvairios kūrybinės dirbtuvės, seminarai, vasaros mokyklos ir komandiruotės (trumpalaikiai apsikeitimai su kita dalyvaujančia institucija arba įmone), kurie vyko bendradarbiaujančiose institucijose: Karališkajame menų koledže (Londonas), Heriot Watt Universitete (Edinburgas), Eindhoveno Technologijų Universitete, Berlyno Menų Universitete, Švedijos tekstilės mokykloje Buroso Universitete. Konsorciume dalyvavo ir dvi įmonės: "Philips Electronics Netherlands B.V." iš Nyderlandų ir "Svensson AB" iš Švedijos. Penkiolika pradedančiųjų, skirtingo išsilavinimo dizaino tyrėjų buvo suskirstyti į tris darbo grupes pagal tris lygmenis: kūno, interjero ir pastato. Kiekvienam buvo paskirta individuali tyrimo tema ir paprašyta sukurti bendrus projektus darbo grupėse. Mano individualus tyrimas buvo apibrėžtas kaip "Tekstilinis mąstymas, skirtas interaktyviam interjero dizainui – interjero mastelis" ir susiaurintas į "Vienetinis tekstilės dizainas interjero performansui" temą.

## Įvadas

## Darbo tema ir laukas

Šioje disertacijoje nagrinėjami estetiniai erdvės modeliavimo veiksmų pagrindai ir praktiškai tiriami atmosferiniai erdvės modeliavimo būdai, pasitelkiant interjero scenų režisavimą su tekstilės instaliacijomis. Tyrimo imtis paskatino šie klausimai: kokius atspirties taškus pasirenka dizaineriai, kurdami interjero erdves modeliavimo stadijoje? Kokia jų motyvacija? Kalbant konkrečiau, kas liečia atmosferos išraišką interjeruose, atmosferinės erdvės pobūdis reikalauja ypatingo dėmesio pasirinktai medijai, žodynui ir metodologinei praktikai. Dėl to šis tyrimas nepaklūsta esamiems tyrimo lauko apibrėžimams – jis pats yra praktikos laukas, atsirandantis greta tyrimo.

## Tiriama problema ir jos aktualumas

Architektūros teoretikas Alberto Pérez-Gómezas teigia, kad atmosferų įkūnijimas literatūroje gali virsti atspirties tašku kuriant interjerus.<sup>207</sup> Pérez-Gómezas stengiasi pagrįsti literatūrinių naratyvų svarbą architektūrinio dizaino atžvilgiu, gindamas poetinės, metaforinės kalbos naudojimą kaip paradigmą architektūrai dėl jos sugebėjimo perteikti erdvines atmosferas. Tradiciniai, gerai įsitvirtinę vizualizacijos ir reprezentacijos modeliavimo veiksmai nepajėgia inkorporuoti nei

<sup>207</sup> Alberto Pérez-Gómez, *Attunement: Architectural Meaning After The Crisis of Modern Science* (Cambridge: MIT Press, 2016).

dinamiškos abipusės materialinės aplinkos apykaitos, nei daugialaikiškumo, kurie yra esminiai įkūnyto vizualinės percepcijos suvokimo aspektai, būdingi atmosferoms. Neįmanoma tikėtis, kad atmosferiškai turtinga gyvenamoji aplinka bus sukurta remiantis konceptualizuotomis, reprezentacinėmis modeliavimo praktikomis, nes šios tiesiog nepajėgios perteikti atmosferos. Dėl to atmosferinės aplinkos kūrimo būdų paieška reikalauja radikalių pokyčių dizaino atžvilgiu. Savo tyrimu palaikau šią kritinę poziciją, pabrėždama būtinybę naujai įvertinti estetinius erdvinio modeliavimo praktikos pagrindus ir pateikiu originalius erdvinio dizaino procesus, siekinačius pajautrinti diainerių santykį su modeliavimo procesu ir priemonėmis.

## Problemos ištirtumas ir literatūros apžvalga

Gausėjantys atmosferų tyrimai erdvinio dizaino teorijoje ir praktikoje stipriai siejasi su dizaino metodologijomis. Tuo tarpu fenomenologinė architektūros perspektyva aptaria eksperimentinį architektūrinių elementų ir atmosferų potencialą bei paaiškina šias patirtis. Dizaino perspektyva, taikoma šiame tyrime, sutelkia dėmesį į modeliavimo praktiką bei iš jos atsirandančius veiksmus bei gestus. Atmosferos ir atmosferiškumo sąvokos suteikia erdviniam dizainui galimybes peržiūrėti šias bazines sąvokas. Dėl sąvokų, susijusių su tyrimo tema, naujumo — aptarimui pasirinkau šiuolaikinius autorius, kurie savo darbuose laviruoja tarp fenomenologinių, estetinių ir dizaino perspektyvų, dažnu atveju remdamiesi architektūrine kūryba. Filosofo Vilémo Flusserio darbai, o ypač jo

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"Gestures",<sup>208</sup> buvo atrastas tik vėlesnėje darbo stadijoje, tad negavo viso jiems reikalingo dėmesio.

Kūrėjai, mokslininkai ir teoretikai kritiškai persvarsto erdvino dizaino strategijas, modalumus ir kategorijas estetinės perspektyvos atžvilgiu. Žvelgiant plačiau, šį poreikį kvestionuoti dizaino veiksmus galima susieti su Vakarų kultūros lūžio tašku pereito amžiaus 7-ajame dešimtmetyje, kai apie dizaino projektus imta mąstyti ne kaip apie objektų, bet kaip apie sąmonės būsenų kūrimą.<sup>209</sup> Panašų požiūrį architektūrinėje kūryboje galime sieti su dėmesio centro nukreipimu nuo statinio (ang. *building*) į kūną ir fizinį dalyvavimą erdvėje. Filosofas Gernotas Böhme, drauge su kitais autoriais, nurodo, kad šis poslinkis įvyko dvidešimtojo amžiaus pradžioje, ir aptaria potencialą tyrinėti architektūrą kaip " kūrimo erdvėje veiksmą."<sup>210</sup>

Architektas, mokslininkas ir lektorius Christianas Gänshirtas aptaria dizaino kūrimo veiksmą architektūrinio dizaino kontekste. Pasitelkęs fenomenologinę Flusserio dizaino gestų analizę,<sup>211</sup> jis užvedė diskusiją apie dizaino gestų estetinę prasmę ir išraiškingumą, kvestionuodamas dizaine dominuojantį racionalumą. Gänshirtas, kalbėdamas apie architektūrines priemones, laikosi fenomenologinio Flusserio požiūrio,

- 208 Vilém Flusser, Gestures, (Minneapolis: University of Minnesota Press, 2014).
- 209 Jehanne Dautrey and Emanuele Quinze, Strange Design: Du Design Des Objets Au Design Des Comportements, (Villeurbanne: It: éditions, 2014), 23.
- 210 architecture as an act of 'designing in space'. Böhme, "Atmosphere as Mindful Physical Presence in Space," *OASE Journal for Architecture* 91 (2013): 25.
- 211 Flusser, Gestures.

kuris puoselėja dizaino gestų interpretaciją kaip dizaino įvertinimo būdą, taip skatindamas sąmoningumą, atliekant dizaino veiksmus.

Panašia, tik kiek sudėtingesnę įsigalėjusio instrumentinio ir racionaliojo požiūrio į erdvinio dizaino procesą ir priemones kritika aptiksime ir teoriniame Alberto Pérez-Gómezo darbe apie harmoningą (ang. attuned) architektūrinę atmosferą. Autoriaus diskusija kelia klausimus apie reprezentacinių priemonių galimybes perteikti atmosferas ir skatina dizainerius kritiškiau ir samoningiau vertinti metodologines dizaino praktikas, kurios vis dar dažniausiai remiasi koncepcinės, geometrinės, dekartiškos erdvės suvokimu. Pérez-Gómezo knyga "Attunement: Architectural Meaning After the Crisis of Modern Science" pristatoma kaip "architektūrinių atmosferų apgyvendinimo ir dizaino gidas."<sup>212</sup> Tačiau naujausi šios temos tvrimai postuluoja. kad neimanoma kurti atmosferu, remdamiesi teze, jog mes "niekad negalime iš anksto apsibrėžti arba numatyti, kaip atmosferos bus patiriamos"; tad dizaineriai, anot mokslininkės Shanti Sumartojo, geriau turėtu sutelkti visa dėmesį į "dizaino procesus ir intervencijas, architektūrą ir kitas kūrybos praktikų formas."<sup>213</sup> Architektas ir akademikas Juhanis Pallasmaa, svari figūra architektūros

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diskurse, pasižymintis fenomenologiniu ir atmosferiniu požiūriu į architektūrą, dizaino procesus taip pat vertina su nuolankumu. Pasak jo, atmosferos neapčiuopiamumas kelia grėsmę bet kokiems mėginimams įsivaizduoti atmosferą kaip dizaino proceso tikslą. Architekto požiūriu, šiuo atveju reikia mąstyti apie individualią įkūnytą patirtį.<sup>214</sup>

Turint omeny šiuos argumentus, nenuostabu, kad šiuolaikiniai architektūros istorikai, teoretikai ir filosofai pabrėžia ryšius tarp vaizduojamųjų ir performatyviųjų menų, architektūros ir atmosferinio požiūrio į erdvę. Tapybos, judančių vaizdų, instaliacijų, performanso ir hepeningų praktikos bei jų deriniai pasižymi ilgesne atmosferų pripažinimo ir panaudojimo tradicija nei erdvinio dizaino disciplinos. Siekdamas išvystyti naujus požiūrius į interjero dizainą, publikacijos "Design Innovations for Contemporary Interiors and Civic Art"redaktorius kviečia interjero dizaino discipliną atsiverti kitų meno formų įtakai tam, kad atsivertų atmosferoms artimoms koncepcijoms.<sup>215</sup> Šiuo požiūriu, itin aktualūs kūrybiniai kino, teatro ir performatyviųjų menų procesai.

Diskusijas apie scenos dizaino, architektūros ir atmosferų ryšį išpopuliarino Gernoto Böhme darbai, kuris pasinaudojo šia koreliacija savo "atmosferos

<sup>212 &#</sup>x27;[g]uide for inhabiting and designing architectural atmospheres.' Galinis knygos viršelis, Davido Leatherbarrowo apžvalga iš Pérez-Gómez, *Attunement.* 

<sup>213 &</sup>quot;Ambiances, Alloaesthesia. Senses, Inventions, Worlds: 4<sup>th</sup> International Congress on Ambiances," ambiances.net, žiūrėta spalio 14, 2020, 6. https://0501. nccdn.net/4\_2/000/000/081/4ce/4thAmbiancesCongress-CallForPapers-April2020-update.pdf.

<sup>214</sup> Pallasmaa, "Orchestrating Architecture: Atmosphere in Frank Lloyd Wright's Buildings", *OASE Journal for Architecture* 91 (2013): 53.

<sup>215</sup> Luciano Crespi, *Design Innovations for Contemporary Interiors and Civic Art* (Hershey: IGI Global, 2016).

estetikos<sup>"216</sup> teorijos modeliui, teigiančiu, kad estetika turėtų mokytis iš scenos meno, o ne atvirkščiai.<sup>217</sup> Tad Böhme reflektuoja tiek atmosferų kūrimą, tiek suvokimą, ir kviečia architektus pažvelgti į savo darbą su kitokiu sąmoningumu, iš scenos dizaino perspektyvos. Paralelių tarp architektūros, teatro, performanso ir atmosferų galima aptikti ir "Fundamental Concepts of Architecture: The Vocabulary of Spatial Situations" terminų žodyne.<sup>218</sup> Jų siūlomą "konceptualų terminų tinklą" sudaro iš patyriminės perspektyvos aprašytos architektūrinės situacijos, kurias autoriai gretina su performatyviom-teatrinėm aplinkybėm. Pasak autorių, žmogaus potyris yra fundamentaliai "sceniškas".<sup>219</sup>

Architektas ir lektorius Michaelis Tawa savo knygoje "Agencies of the Frame: Tectonic Strategies in Cinema and Architecture" tyrinėja semantinį lauką, kuris susikuria sugretinus architektūros ir kinematografijos praktikas. Jo tikslas yra "kine išskirti tas savybes, sąlygas ir technikas, kurias būtų galima panaudoti dizaino strategijoms, taktikoms ir praktikoms" bei aptaria kaip architektai galėtų potencialiai kurti kaip kinematografai.<sup>220</sup> Jis pateikia pavyzdžių iš kino, kuriuose pasikliaujama kino

- 217 Ibid.
- 218 Alban Janson and Florian Tigges, *Fundamental Concepts of Architecture: The Vocabulary of Spatial Situations* (Basel: Birkhäuser, 2014).
- 219 '[h]uman > experience is always scenic experience.' Ibid. 272.
- 220 '[t]o discern within cinema those qualities, conditions and techniques that might be useful for design strategies, tactics and practices.' Michael Tawa, Agencies of the Frame: Tectonic Strategies in Cinema and Architecture (Newcastle: Cambridge Scholars Publishing, 2010), 1.

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medijai būdingomis "kinematinėmis sąlygomis,"<sup>221</sup> o ne reprezentacinėmis ar metaforinėmis idėjomis, ir siūlo to paties imtis architektūrai.

Kas liečia praktinius dizaino ir meno pavyzdžius bei atmosferinį ir performatyvųjį erdvinio modeliavimo aspektus ir modeliavimo gestų sampratą – pastaruosius galima aptikti toliau išvardintų šiuolaikinių kūrėjų darbuose: architekto, menininko ir lektoriaus Oscaro Hanseno, menininko Olafuro Eliassono, architekto Bernard Tschumi, menininko Hélio Oiticica ir dizainerės Petros Blaisse. Jų kūriniai, tyrinėjimai, o ypač idiosinkratiniai žodynai pabrėžia subjektyvių potyrių ir atsitiktinių ikūnytų interakcijų rolę erdvės kūrime. Tuo jie meta iššūkį tradicinių erdvinio modeliavimo procesų pagrindams.

# Darbo tikslai ir uždaviniai

Šio tyrimo tikslas yra išnagrinėti erdvinio modeliavimo kaip fundamentaliai atmosferinio veiksmo ir režisavimo kaip erdvinio modeliavimo veiksmo potencialą. Šiuo atžvilgiu mano praktinis darbas tiria tekstilės medžiagiškumo išraiškos potencialą dizaino veiksmams ir gestams. Tyrimas kelia tokius tikslus:

• Prisidėti prie diskusijų apie metodologines prieigas, skirtas dizainui su atmosferomis.

221 Ibid. 32.

<sup>216</sup> Böhme, Gernot. The Aesthetics of Atmospheres. New York: Routledge, 2017.

- Sugriauti prielaidas apie modeliavimą, kaip išskirtinai reprezentacinį ir instrumentinį veiksmą.
- Pristatyti dizaino programą erdvinei modeliavimo praktikai, remiantis įkūnytais, prezentaciniais (angl. *presentational*) ir performatyviais modeliavimo aspektais.
- Pristatyti režisavimo metodus, naudojant tekstilės instaliaciją, kaip galimus atmosferinio erdvės modeliavimo režimus.

# Tyrimo klausimai

Šis tyrimas apima dialogą tarp mano tyrinėjimų ir atitinkamų pavyzdžių iš meno praktikos bei architektūros teorijos. Dauguma aptariamų pavyzdžių kvestionuoja pamatines erdvinio dizaino sąvokas, susijusias su modeliavimu, kaip pvz., "forma", "erdvė" arba "modelis". Pagrindinis tyrimo klausimas skamba taip: kokį potencialą turi "atmosferinio erdvės modeliavimo" praktika pamatinių apibrėžimų atžvilgiu? Tai bendras klausimas praktikai. Be to, kokį potencialą turi režisavimas kaip modeliavimo veiksmas? Ir, galiausiai, atsižvelgiant į tyrinėjimo veiksmus, koks yra tekstilės medžiagiškumo išraiškos potencialas modeliavimo gestams?

# Metodologinė prieiga

Metodologine šio darbo prieiga sudaro dizaino ir meninio tvrimo vertybių derinys, pasiūlytas "ArcInTex ETN" programos,<sup>222</sup> ir performatyvaus meno tyrimo paradigma, kuria apibrėžė mokslininkė ir menininkė Barbara Bolt. Pritardama filosofui Larsui Hallnäsui, kad "pamatinės sąvokos apibrėžia praktikos formą",<sup>223</sup> teigiu, jog atmosferinis modeliavimas yra paremtas tiek performatyvaus dizaino, tiek performatyvaus meninio tvrimo modelio principais. Performatyvaus dizaino praktika eksperimentuodama tiria ir atskleidžia dizaino procesus ir ivairius, dažniausiai pražiūrimus, dizaino kūrimo aspektus.<sup>224</sup> Bolt teigia panašiai, kad performatyvus meninio tyrimo suvokimas "atveria galimybes naujoms analizės, i procesa nukreiptu režimu, dalyvavimo, įvykiu, išraiškos veiksmu ir patirčiu formoms,"225

- 223 Lars Hallnäs, "The design research text and the poetics of foundational definitions," *Art Monitor* 8 (2010): 111.
- 224 Emile De Visscher, Justine Boussard, and Lucile Vareilles, Obliquite #01 Paradigm (Paris: Le Presse, 2016).
- 225 Barbara Bolt, "Artistic Research: A Performative Paradigm," *Parse Journal 3* (2016): 134.

<sup>222 &</sup>quot;Metodologiškai, "ArcInTexETN" tyrimų fondas skirtas praktika paremtiems dizaino/meno tyrimams (tyrimams, atliekamiems pasitelkiant dizainą), nukreiptiems į dizainą ir meninį eksperimentinį darbą ir siekiantiems vystyti bei gilinti praktiką, įdiegiant naujas priemones (technikas ir metodus) ir naujas programas dizainui ir meniniam darbui. ArcInTexETN, PhD and Supervisors Guide to ArcInTexETN (2015), 3. http://www.arcintexetn.eu/wp-content/ uploads/2016/01/PHDguide\_2016-01-18.pdf.

# Tyrimo metodai ir priemonės

Praktiniai šio darbo tyrinėjimai įgijo idiosinkratinį kūrybinių dirbtuvių-performanso formatą ir buvo apibrėžti konceptualia "Atmosferinio režisavimo studija." Vykdant tyrimą, iš šios metodologinės dizaino praktikos (ang. *framework*) pamažu atsirado originalus žodynas, vienetiniai tekstiliniai audiniai, ir dizaino pavyzdžiai, kaip pvz. video montažai. Disertacijoje pristatomi eksperimentai atskleidžia keturis skirtingus režisavimo su tekstilės instaliacijomis modalumus ir rėžimus: kartais studija buvo tyrinėjama *ad-hoc*, per atsitiktines sąveikas, o kartais atlikėjams iš anksto buvo duodami trumpi nurodymai, ar griežtos instrukcijos.

Siekiant tyrinėti atmosferinio erdvės modeliavimo veiksmus ir tekstilės medžiagiškumo išraiškos potencialą, buvo pasirinkti hibridiniai metodologiniai įrankiai iš tekstilės dizaino, rašymo, performatyvumo ir vaizdų kūrimo (ang. *image-making*). Tam kad metodologiškai ištirti pagrindines sąvokas, pasitelkiau hermeneutiką ir vizualiųjų tyrimų metodus. Pastarieji paremti derinant mokslinį vaizdinių naudojimą siekiant pagrįsti diskusiją ir meniškesnę prieigą, kai esminį vaidmenį atlieka montažas ir formato pasirinkimas. Praktinių eksperimentų įvertinimui, rinkausi Bolt gaires, skirtas įvardinti performatyvius kūrinių efektus, t. y., diskursyviąsias ir materialiąsias tyrimo pasėkmes.<sup>226</sup>

# Ginami teiginiai

- Atmosferinis požiūris į erdvę praplečia modeliavimo ir jo veiksmų apibrėžimą.
- Režisavimas kaip erdvinio modeliavimo veiksmas atveria produktyvią spragą dizaino gestų ir jų išraiškingumo tyrinėjimui.
- Tekstilės medžiagiškumas turi potencialą praturtinti atmosferinio modeliavimo gestų žodyną.

# Mokslinis naujumas

Šioje disertacijoje tyrinėju, kokią įtaką modeliavimo gestams daro atmosferos ir tekstilinis medžiagiškumas. Pritariant argumentui, kad materija tarpininkauja mokymosi procese<sup>227</sup> – kad skirtinga aplinka, jos sąranga ir medžiagiškumas duoda toną ir suteikia kontekstą dizaino praktikai – ši disertacija dalyvauja aktualiame diskurse, kuriuo skatinama dizainerius-architektus apmąstyti bendradarbiavimo, derybų ir bendra-kūrybos aspektus dizaino procesuose. Tokiu būdu dizaino proceso dėmesio centras pasislenka nuo preciziškų, iš anksto numatytų architektūrinių vaizdinių į situacijas ir daugiaprasmius, įkūnytus architektūrinius vaizdinius.

<sup>227</sup> Maarit Anna Mäkelä and Teija Löytönen, "Rethinking materialities in higher education," Art, Design & Communication in Higher Education 16, no. 2 (2017).

Anksčiau pristatytas doktorantūros studijų modelis siūlo originalų požiūrį į praktika paremtą dizaino tyrimą, kuriame esminiais akcentais tampa bendradarbiavimo ir tarpdiscipliniškumo aspektai, kurie ir tapo pagrindiniais šio tyrimo katalizatoriais:

- Progos įgyti apmokymus nepažintuose dizaino laukuose, tokiuose kaip tekstilė, mada ir interaktyvus dizainas (plg. "ArcInTex" mokymo programa); susipažinti su jų metodais ir technikomis.
- Bendradarbiavimas projektuose su darbo grupės kolegomis (plg. "ArcInTex ETN").
- Progos sudalyvauti kūrybinėse dirbtuvėse ir akademiniuose renginiuose apie naujausius tyrimus bei organizuoti kūrybines dirbtuves tarptautinėse edukacinėse institucijose.
- Bendradarbiavimas su mokslinių disciplinų tyrėjais, ypač tais, kurie dirba su inovatyviomis medžiagų paviršiaus dangomis ir jų kombinacijomis (Fizinių mokslų laboratorija Vilniuje, Lietuvoje).

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# Tyrimo rezultatai ir aprobacija

Tyrime pristatomi štai šie programiniai rezultatai: 1) Atmosferinio erdvės modeliavimo praktikos apibrėžimas ir pagrindai. 2) Metodologinė interjero dizaino praktika (ang. *framework*), skirta įkūnytų architektūrinių vaizdų kūrimui. Šis tyrimas prisideda prie: dizaino metodologijų ir atmosferų tyrimų; tyrimų nagrinejančių ryšį tarp performanso, scenos praktikų ir architektūros.

# Tyrimo struktūra

Disertaciją "Atmosferinis erdvės modeliavimas. Erdvės režisavimo būdai, pasitelkiant tekstilės instaliaciją" sudaro keturios dalys, kurių kiekviena pristatoma skirtingu būdu: kartais panaudojamas vaizdų montažas, kartais pasitelkiami epigrafai.

Pirmojoje dalyje, "1.Tyrimo laukas", pristatomas tyrimo laukas. Skyriuje 1.1. pateikiama "atmosferinių formų" pavyzdžių kompiliacija, aprašomos jas naudojančių kūrėjų sąvokos, dizaino medžiagos ir medijos. Skyriuje 1.2 surinktos teorinės hipotezės apie įvykiu paremtą erdvinę išraišką ir aptariami "atmosferinių erdvinių išraiškų" pavyzdžiai. Skyriuje 1.3 rinkdamasi "atmosferos" kategoriją, remiuosi temą paremenčia teorija, apibendrinu pavyzdžius ir aptariu problemas, kurias jie kelia vyraujančiai erdvės modeliavimo sampratai. Antrojoje dalyje "2. Tyrimas" nagrinėju erdvės modeliavimo sąvoką (skyrius 2.1). Aptardama teorinius pavyzdžius, tyrinėju, kaip performatyvus menas ir kinematografinės praktikos praplečia erdvinio modeliavimo praktikos suvokimą ir pademonstruoju, kaip jie suproblemina reprezentacijos savoką ir pernelyg pragmatiškus dizaino procesus (skyrius 2.1.1). Tada supriešinu skirtingus erdvės modeliavimo veiksmus, aptardama du to paties istorinio laikotarpio meninius pavyzdžius. Skyriuje 2.1.2 šias skirtingas perspektyvas pagrindžiu instaliacijos, vaizdo komponavimo (angl. framing) ir režisūros (angl. staging) koncepcijų atžvilgiu. Plačiau aptariu režisavima kaip potencialų modeliavimo veiksmą, ir aptariu priežastis, dėl kurių tyrimas nukreiptas į erdvinio modeliavimo veiksmų išraiškinguma, vertes ir savybes. Galiausiai, skyriuje 2.2 apsvarstau tekstilės medžiagiškumo potenciala modeliavimo gestuose, sugretindama savo eksperimentus kartu su dviem kitais praktiniais pavyzdžiais bei teorija.

Trečiojoje dalyje "3.Eksperimentai" pristatau dizaino pavyzdžius ir aprašau praktinius savo tyrinėjimus: keturias kūrybines dirbtuves-performansus ir, atitinkamai, jų tikslus, kontekstą, medžiagiškumą ir gestus.

Ketvirtojoje dalyje "4.Aptarimas ir išvados" apibendrinu tyrimo pasiekimus ir rezultatus bei aptaria galimą plėtojimą ateityje.

# Išvados

Atmosferinė paradigma atveria daugybę galimybių erdvinio dizaino proceso atžvilgiu. Šis tyrimas buvo skirtas pagrindinėms erdvinio modeliavimo praktikos sąvokoms – jo veiksmams ir gestams. Naujieji estetiniai modeliavimo pagrindai turi įtakos šių veiksmų ir gestų konceptualizavimui, apibrėžimui ir įvardijimui. Be to, ši paradigma pakeičia interjero suvokimą ir dėl to įgalina idėjų generavimo procesą, kuriame erdvės kūrimas inicijuojamas sąveikų su tekstilės instaliacijoms ir besikuriančiais efektais.

"Atmosferinės formos" ir "atmosferinės išraiškos" konfrontuoja tradicinį erdvinio modeliavimo ženklinimą.

Architektūroje ir interjero dizaine paprastai naudojamos ženklinimo sistemos (ang. system of notation) yra nepakankamos architektūros atmosferinės prigimties atžvilgiu. Atmosfera pasižymi daugialaikiškumu, taktiliškumu ir įveiklintu vizualumu (ang. enactive visuality), todėl atitinkamos notacijos formos yra kinematografinės, scenografinės ir literatūrinės prigimties. "Atmosferinės formos" pasitelkia eksperimentines erdvės modeliavimo medijas ir konfrontuoja įsigalėjusį statišką ir paveikslinį požiūrį į vizualinę kūrybą. Vietoje tradicinių piešimo ir maketų, išraiškai pasitelkiamos tokios medijos kaip eksperimentinė instaliacija, kinetinė šviesos skulptūra, performatyvus prototipas, performatyvi instaliacija ir tekstilės instaliacija.
"Atmosferinės išraiškos" meta iššūkį interjero vizualizavimo būdams: geometrinei erdvei pasitelkiame perspektyvos projekcijas, pjūvius ir planus, o atmosferinių išraiškų atveju esame skatinami mąstyti scenų, epizodų, patyriminių situacijų ir percepcinių įvykių sąvokomis.

Atmosferinis požiūris į erdvę išplečia erdvinio modeliavimo praktiką.

Kai perkeliame modeliavimą į scenografinių ir kinematografinių praktikų laukus, kurie veikia patyriminiame registre (ang. *experiential realm*), pakinta ir mūsų požiūris į dizaino veiksmus, gestus bei jų įvardijimus. Modeliavimo veiksmai tampa iš esmės estetiniai. Atmosferinis požiūris kviečia suvokti erdvės modeliavimą performanso, vaidinimo, režisavimo ir net drabužių siuvimo (ang. *tailoring*) bei drabužių dizaino (ang. *fashioning*) veiksmų atžvilgiu.

Režisavimas kaip erdvinio modeliavimo veiksmas atveria produktyvumo spragą dizaino gestų ekspresyvumo tyrimams.

Erdvės modeliavimo kontekste režisavimas sukuria itin produktyvią semantinę ir praktinę dirvą. Režisavimas remiasi unikalaus erdvinio patyrimo struktūravimu, kur pagrindinis dėmesys skiriamas savitiems, nefunkciniams būdams, kuriais medžiagos, atmosferiniai komponentai ir kūnai sąveikauja ir kartu kuria interjero erdves.

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Režisavimas kaip erdvinio modeliavimo veiksmas, padeda naujai suprasti interjerą. Praktiniai režisavimo su tekstilės instaliacijomis pavyzdžiai kviečia kvestionuoti interjero kaip statiško atvaizdo sampratą. Interjeras tampa atmosferiniu veiksmu, įkūnytu bei nuolat kintančios erdvės vaizdu, kurį sudaro sąveikų procesai bei jų seka.

Dizaino gestų negalima suvokti vien kaip priemonių dizainerio idėjoms išreikšti, nes jie yra erdvinės išraiškos komponentas.

Gestų išraiškingumas ir jų savybės yra būtinos multisensorinei architektūrai. Kai pripažįstame, kad atmosferų neįmanoma projektuoti, reprezentuoti arba modeliuoti, galime atsigręžti į ekspresyvumą, savybes ir iš prigimties atmosferinę modeliavimo gestų prigimtį. Kadangi gestai ir jų ekspresyvumas, interakcijoje su medžiagomis, yra neatskiriama ir pamatinė atmosferinių efektų dalis, jie tampa kur kas daugiau nei dizaino įrankiai; jie tampa formuojančiu gyvenimo su atmosferomis dėmeniu ir ugdo sąmoningą santykį su interjero erdvėmis.

Tekstilės medžiagiškumas gali papildyti atmosferinio modeliavimo gestų žodynus.

Atmosferinių elementų (spalvos, šviesos, kvapo, taktiliškumo ir t. t.) mediacija per tekstilės medžiagiškumą atveria įvairias sąveikas ir gestų išraiškas tiek per tiesiogines sąveikas, tiek per užfiksuotas scenas. Kūno dalyvavimą formuoja ir įtakoja instaliacijų ir jos elementų pobūdis – konkrečiai, medžiagos paviršiaus savybės ir jų kuriami atmosferiniai efektai.

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# Appendices

# About the author

I organise cross-disciplinary workshops that seek to find experimental strategies for spatial design. My experience in a diverse range of design fields and sectors ranges from workshops to exhibition design and set design for retail, media, and architectural exhibitions. I studied interior design at the Vilnius College of Technologies and Design (BA) and media aesthetics at the Paris-Sorbonne University (BA and MA).

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# Exhibitions

"The Atmospheric Staging Studio", part of the group exhibition "Do the Right Thing". Curator: Marquard Smith. Titanikas, Vilnius Academy of Arts, Lithuania. March 28 – April 4, 2019.

"Scenes of Interior Performance", part of the group exhibition "Science and Life". Curator: Laima Kreivytė.

Titanikas, Vilnius Academy of Arts, Lithuania. April 6 – 29, 2018.

"Worktop. Desktop. Showtop", group exposition of artistic research.

Curator: Vytautas Michelkevičius.

Titanikas, Vilnius Academy of Arts, Lithuania. April 26 – May 14, 2017.

"Unveiling: Body. Landscape", a joint exhibition with Sara Lundberg.

Design Week Lithuania, Vilnius, Lithuania. May 2 – 8, 2016.

"What is Interior?", multimedia installation, part of the group exhibition

"Speculate, collaborate, define. Textile thinking for future ways of living."

Textile Museum of Sweden, Borås, Sweden. March 23 – May 7, 2017.

"YATOO. Global Nomadic Art Project", group exhibition. Curator: Saulius Valius. M. K. Čiurlionis National Museum, Kaunas. September 27 - December 27, 2017.

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# Workshops

"Designing Sensorial Dialogues" Research workshop with Jyoti Kapur (ArcInTexETN colleague) Peer-reviewed participation at 'Decipher 2018 Design Educators Research Conference' University of Michigan, MI, US. September 27 – 29, 2018.

"Interior Performance Workshop" Two workshop-performance sessions at ARTVILNIUS 17' educational programme International Contemporary Art Fair, Vilnius, Lithuania. June 8 and 10, 2017.

"Staging with surfaces and atmospheres" The Swedish School of Textiles, Borås, Sweden. March 13 – 17, 2017.

"Atmosphere staging" Workshop results displayed at the Malūnų 5 gallery during Design Week Lithuania Vilnius Academy of Arts, Lithuania. May 4 – 7, 2017.

# List of publications

"Designing Sensorial Dialogues" Peer-reviewed (co-authored) Jyoti KAPUR, Juste PECIULYTE. In Murdoch-Kitt, Kelly M., and Omar Sosa-Tzec. Decipher, Vol. 1., New York, NY: Dialogue: Proceedings of the AIGA Design Educators Community Conferences, 2019. Decipher, Vol. 1. ISBN: 978-1-60785-616-0.

"On Interior Atmospheric Staging. Design example" Peer-reviewed presentation of artistic research Juste PECIULYTE. The way of ambiances. The sensory experience of situations, Cerisy International Symposium, Cerisy-la-Salle, Normandy, France. September 4 – 11, 2018.

"Staging a Smelly Atmosphere" Peer-reviewed presentation of artistic research (co-author) Jyoti KAPUR, Juste PECIULYTE The Swedish Research Council's Symposium on Artistic Research, Stockholm University of the Arts . November 28 – 29, 2017.