FEELING SPACES: PRODUCING ARCHITECTURAL ATMOSPHERE

A THESIS SUBMITTED FOR
THE DEGREE OF THE
DOCTOR OF PHILOSOPHY
OF THE AUSTRALIAN NATIONAL UNIVERSITY

2020

© Copyright Francis Kenna 2020
All Rights Reserved
Declaration of Originality

I, ___________________________ hereby declare that the thesis here presented is the outcome of the research project undertaken during my candidacy, that I am the sole author unless otherwise indicated, and that I have fully documented the source of ideas, references, quotations and paraphrases attributable to other authors.
I would like to thank a number of people who have given me endless support and encouragement, without whom this research project would have never been possible. I extend my gratitude firstly to my amazing panel of supervisors, who have given their interest, inspiration and patience from the beginning. Thank you, Chaitanya Sambrani, Alison Alder, Rohan Nicol and Patsy Payne, and also to John Pratt for his part and continued interest. For the many conversations, thoughts, occasional criticisms, and persistence, I cannot thank them enough.

I would like also to thank various ANU School of Art and Design staff who have helped me greatly with the practice-led side of my research. Nicci Haynes and Millan Pintos-Lopez from the ANU Printmedia and Drawing workshop, who have lent me their brainpower, and occasionally their muscles, to solving the many problems that arise in practice. Here I also thank Ashley Eriksmoen, Nik Rubenis, Simon Ramsey, and also Sean Booth for their generous support and advice with my endless stream of questions, help with fabrication equipment and processes, and always more.

Lastly, my family deserve my endless gratitude for their incredible patience and love over the years. My parents, who have given me so much encouragement in so many ways for so long now, not to mention the many hours of proofreading which have gone into this document. Thank you of course to my incredible wife Kimberley, who has taken the many, many ups and downs in stride and has always encouraged me to do my best. And to my daughters, Hail, Elle, and Xandy, who never hesitate to ask “why?”
How do atmospheres ground the subject through embodied experiences of space? This thesis is an argument for embodiment and duration in architectural space, a theory of spatial hospitality that attempts to make some room for the subject as a spatial being. My research has proceeded over two lines of inquiry: on the one hand a dissertation forming a phenomenological study of contemporary atmospheric spatial practices, and on the other a practice-led studio investigation exploring perception, duration and the unfolded embodied experience of atmospheric spaces.

This exegesis discusses an expanded practice-led studio investigation into the themes of space, time and the embodied experience of atmosphere. My practice-led research has taken the form of a series of spatial installations and atmospheric interventions in architectural spaces that make room for the embodied subject, structures that emerge as diffuse multisensory atmospheres. Central to this investigation is the contingency of perceptual experiences that stretch the feeling of the “now” – the meeting of light and materials, scale, the haptic quality of a space, colour, surface, shadow, movement, openings and thresholds. These experiential qualities open up embodied-durational structures through the multisensory, topological experience of felt space. That is, a spatiality that is grounded in the subject and the active relationships of inhabiting space – lived space that is not abstract or sublime but simply an unfolding of our phenomenological contact with the world.

The exegesis contains deep ties to its other half: an accompanying dissertation exploring these themes through an exploration of atmosphere in contemporary art and architecture. By its very nature the concept of atmosphere is vague and diffuse. In these spaces, the felt experience of atmosphere acts upon individuals within their surroundings, which in turn are being co-constituted by that subject. At its core, this dissertation is an ontological study of subjectivity and atmosphere in the perceptual environments and spaces produced by artists Robert Irwin (1928 - ), James Turrell (1943 - ) and Olafur Eliasson (1967 - ) and architect Peter Zumthor (1943 - ). I argue that the intertwining of perception, embodiment and temporality enables a phenomenological understanding of subjectivity that is grounded in local spaces through atmosphere. These atmospheric environments unfold as an open exchange between viewer, object and environment that subverts the static in favour of the mutable encounter and opens the object up to the time and place of this encounter. Atmospheres unfold between a space and its inhabitant – a topological experience of space that is co-produced with the subject through their perceptual, embodied and temporal engagement.
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>List of Figures</td>
<td>8</td>
</tr>
<tr>
<td>01: Feeling Spaces: Producing Architectural Atmospheres</td>
<td>13</td>
</tr>
<tr>
<td>01:1 Towards Atmosphere: A Brief Introduction to Spatial Hospitality</td>
<td>15</td>
</tr>
<tr>
<td>01:2 Reflected Light</td>
<td>24</td>
</tr>
<tr>
<td>01:3 Materialised Light</td>
<td>40</td>
</tr>
<tr>
<td>01:4 Anchoring: Duration and Embodied Perception</td>
<td>50</td>
</tr>
<tr>
<td>01:5 Atmospheres</td>
<td>65</td>
</tr>
<tr>
<td>01:6 Findings: Grounding the Body in Atmosphere</td>
<td>81</td>
</tr>
<tr>
<td>Appendix</td>
<td>85</td>
</tr>
<tr>
<td>Bibliography</td>
<td>97</td>
</tr>
</tbody>
</table>
LIST OF FIGURES

Unless otherwise stated, artworks and photography are by the author.

Fig 1: Structure for reflected light, 2019
MDF, paint, natural light, 500 x 220 x 120 cm

Fig 2: Structure for reflected light, 2019
MDF, paint, natural light, 500 x 220 x 120 cm

Fig 3: Strike (magenta), 2014
Fluorescent light fixtures, theatrical light filters, Perspex, variable dimensions

Fig 4: Strike (magenta), 2014
Fluorescent light fixtures, theatrical light filters, Perspex, variable dimensions

Fig 5: hello, 2015
Lighting gels, lamp, timer, variable dimensions
Canberra Contemporary Art Space Manuka, installation view

Fig 6: hello, 2015
Lighting gels, lamp, timer, variable dimensions
Canberra Contemporary Art Space Manuka, installation view

Fig 7: hello, 2015
Lighting gels, lamp, timer, variable dimensions
Canberra Contemporary Art Space Manuka, installation view

Fig 8: untitled, 2015
catfish blues, Canberra Contemporary Art Space Manuka, installation view

Fig 9: untitled, 2015
Perspex, MDF, variable dimensions, studio test

Fig 10: untitled, 2015
Perspex, MDF, variable dimensions
ANU School of Art Foyer Gallery, installation view, 2015

Fig 11: untitled, 2015
Perspex, MDF, variable dimensions
ANU School of Art, Printmedia and Drawing stairwell, installation view, 2016

Fig 12: untitled, 2017
Perspex, MDF, dimensions variable, studio test

Fig 13: Grosvenor experiment, 2014
Fog machine, studio lights, light filters, dimensions variable
Grosvenor Building, Sydney
Fig 14: Grosvenor experiment, 2014
Fog machine, studio lights, light filters, dimensions variable
Grosvenor Building, Sydney

Fig 15: Grosvenor experiment, 2014
Fog machine, studio lights, light filters, dimensions variable
Grosvenor Building, Sydney

Fig 16: Grosvenor experiment, 2014
Fog machine, studio lights, light filters, dimensions variable
Grosvenor Building, Sydney

Fig 17: Grosvenor experiment, 2014
Fog machine, studio lights, light filters, dimensions variable
Grosvenor Building, Sydney

Fig 18: Grosvenor experiment, 2014
Fog machine, studio lights, light filters, dimensions variable
Grosvenor Building, Sydney

Figs. 19: Grosvenor experiment, 2014
Fog machine, studio lights, light filters, dimensions variable
Grosvenor Building, Sydney

Fig 20: Grosvenor experiment, 2014
Fog machine, studio lights, light filters, dimensions variable
Grosvenor Building, Sydney

Fig 21: Grosvenor experiment, 2014
Fog machine, studio lights, light filters, dimensions variable
Grosvenor Building, Sydney

Fig 22: Grosvenor experiment, 2014
Fog machine, studio lights, light filters, dimensions variable
Grosvenor Building, Sydney

Fig. 23: Train station at dawn, Ilanz, Switzerland, 2015

Fig. 24: View from Notre Dame du Haut, Ronchamp, Le Corbusier, 2015

Fig. 25: Kolumba, Peter Zumthor, Cologne, Germany, 2015

Fig 26: Olafur Eliasson, Yellow corridor, 1997, Monofrequency lights
The Winter Palace of Prince Eugene of Savoy, Vienna 2015
Photo: Anders Sune Berg
https://olafureliasson.net/

Fig 27: Olafur Eliasson, Fivefold tunnel, 2000, Stainless steel
The Winter Palace of Prince Eugene of Savoy, Vienna 2015
Photo: Anders Sune Berg
https://olafureliasson.net/
Fig 28: Olafur Eliasson, Fivefold tunnel, 2000, Stainless steel
The Winter Palace of Prince Eugene of Savoy, Vienna 2015
Photo: Anders Sune Berg
https://olafureliasson.net/

Fig 29: Olafur Eliasson, Your welcome reflected, 2003
2 colour-effect filter glass (blue, red), motors, HMI lamp, tripod
The Winter Palace of Prince Eugene of Savoy, Vienna 2015
Photo: Anders Sune Berg
https://olafureliasson.net/

Fig 30. Peter Zumthor, Kolumba, 2003-2007
Cologne, Germany
Photo: Helene Binet
http://helenebinet.com/

Fig 31. Peter Zumthor, Kolumba, 2003-2007
Cologne, Germany
Photo: Helene Binet
http://helenebinet.com/

Fig 32: the unbearable lightness of seeing, 2016
Perspex, lighting filters, lamps, tripods, cable, variable dimensions (disc approx. 120 cm diameter)
M16 Artspace, Canberra, installation view

Figs 33 (top) and 34 (bottom): the unbearable lightness of seeing, 2016
Perspex, lighting filters, lamps, tripods, cable, variable dimensions
M16 Artspace, Canberra, installation details

Fig 35: Laszlo Moholy-Nagy, Light Prop for an Electric Stage (Light-Space Modulator), 1930
Metal, plastics, glass, paint, wood, electric motor (replica 1970)
Photo: Bauhaus Archiv Foto Studio Bartsch
https://www.bauhaus.de/en/

Fig 36: Structure for reflected light, 2019
MDF, paint, natural light, 500 x 220 x 120 cm

Fig 37: Structure for reflected light, 2019
MDF, paint, natural light, 500 x 220 x 120 cm

Figs. 38 (top) and 39 (bottom): Structure for reflected light, 2019
MDF, paint, natural light, 500 x 220 x 120 cm

Figs. 38 (top) and 39 (bottom): CAD renderings for Structure for light and shadow

Figs. 40 (top) and 41 (bottom): CAD renderings for Structure for light and shadow

Fig 42: Structure for reflected light, 2019
MDF, paint, natural light, 500 x 220 x 120 cm

Fig 43: Structure for reflected light, 2019
MDF, paint, natural light, 500 x 220 x 120 cm
Fig A1: studio test, 2014
Lamp, fluorescent, lighting filters, variable dimensions

Fig A2: untitled, 2014
Perspex, fluorescent lights, lighting filters, dimensions variable
catfish blues, Canberra Contemporary Art Space Manuka, Canberra

Fig A3: hello, 2014
lighting filters, installation detail
catfish blues, Canberra Contemporary Art Space Manuka, Canberra

Fig A4: untitled, 2015
Gold mirror perspex, wood, 70 cm diam.

Fig A5: untitled, 2015
Perspex, MDF, dimensions variable
Practice, ANU School of Art Foyer Gallery, Canberra, installation detail

Fig A6 – A9: Grosvenor experiment, 2014
Fog machine, studio lights, light filters, dimensions variable
Grosvenor Building, Sydney

Fig A10: reflected light filter, 2016
Natural light, wood, Gyprock, paint, studio test

Fig A11: reflected light studio test detail, 2017
MDF, paint

Figs A12 – A13: studio production for reflected light structure

Fig A14: reflected light structure, studio tests, 2018

Fig A15: reflected light structure, studio tests, 2018

Fig A16: Structure for reflected light, 2019
MDF, paint, natural light, 500 x 220 x 120 cm

Fig A17: School of Art and Design Gallery Courtyard, 2019

Fig A18: School of Art and Design Gallery Courtyard, 2019

Fig A19 CAD renderings for Structure for light and shadow

Fig A20: CAD renderings for Structure for light and shadow

Fig A21: Construction details for Structure for light and shadow

Fig A22: Construction details for Structure for light and shadow
Feeling spaces: producing architectural atmospheres
Francis Kenna
Fig 1: Structure for reflected light, 2019
MDF, paint, natural light, 500 x 220 x 120 cm
A feeling of presence in architecture can sometimes give a sense of grounding us in that space and time, of giving us a feeling of heightened contact or friction with the world. My research opens up to the field of architectural atmospheres and spatial experience, which I have investigated through a series of installations that question in some way what it really means to be inside a space as it is lived and felt. The scope and methods of my research are phenomenological, centred on an atmospheric recovery of the themes of the subject, space and time-consciousness in architectural experience. I have set out to explore the perceptual limits of architectural atmospheres, not by delimiting their boundaries as such, but by trying to expand a given spatial field through an open-ended investigation into various atmospheric relationships in lived experience. This might be the experience of a space that is activated by light falling through a window, a sense of contraction or expanse, a transition or the experience of passing through a threshold into a light-filled space. These atmospheric experiences lend themselves to the experience of temporality and the feeling of spatial hospitality.

The intertwining of perception, the body and time enables an understanding of phenomenological subjectivity that is grounded in atmospheric architectures. Over the course of this exegesis I will explore the following research questions:

- How do atmospheres ground the subject through embodied experiences of space?
- What processes are involved in atmospheric perception?
- How do atmospheric investigations of site and body anchor the subject through architectural conditions of embodiment and emplacement?
These questions have been explored in a body of practice-led research in the form of a series of installations and atmospheric interventions in architectural space that make room for the embodied subject. These research questions and their underlying artistic and philosophical principles have also been explored from a more theoretical perspective in my accompanying dissertation: *Feeling spaces: grounding the body in architectural atmosphere*. The general aim of this research was to investigate phenomenological perceptual processes and temporal structures in which the subject is grounded in embodied experiences of the architectural site.

My practice-led research explores my research questions from the position of the spatial inhabitant who unfolds felt space through perception, through the body, and through the durational experience of time and attempts to make these phenomenological processes explicit. On the concept of spheres and networks, Bruno Latour has said:

> There is probably no more decisive difference among thinkers than the position they are inclined to take on space: Is space what *inside which reside* objects and subjects? Or is space *one* of the many connections made by objects and subjects? In the first tradition, if you empty the space of all entities there is something left: space. In the second, since entities engender their space (or rather their spaces) as they trudge along, if you take the entities out, nothing is left, especially space.1

My practice-led research is situated firmly in this second tradition. It is an attempt to place the subject in relation to the spatial-temporal horizon of their surroundings and thereby grounding experience in the architectural site. Broadly speaking, my research into atmospheric experience is phenomenological in scope and methods. Phenomenology acknowledges that an object is never given as a self-contained entity, but always enmeshed in a complex set of relationships that expand outwards and intertwine with the conscious subject. The artist Robert Irwin states “It doesn’t just happen to us – we make it happen, we participate directly in the forming of that envelope of the world and our being in it, and we do so at every moment of our lives.”2 I have used a topological-phenomenological methodology to open up the field of exchange between subject and object in a series of atmospheric installations that challenge the notion of a static object in homogenous space.

---

Central to this studio investigation is the experience of contingency in materials and light that stretch the experience of the “now”.\(^3\) The meeting of light and materials, scale, the haptic quality of a space, colour, surface, shadow, movement, openings and thresholds – these qualities open up durational structures through multisensory, topological experiences of felt space over time. Atmospheres, like the weather, are always changing.\(^4\)

The conceptual and historical context for this practice-led body of research is explored in depth in my dissertation *Feeling Spaces: Grounding the Body in Architectural Atmosphere*. At its core, the dissertation is an ontological study of subjectivity and atmosphere in the perceptual environments and spaces produced by artists Robert Irwin (1928 - ), James Turrell (1943 - ) and Olafur Eliasson (1967 - ) and architect Peter Zumthor (1943 - ). In my dissertation I argue for an understanding of subjectivity that is grounded in local spaces through atmosphere, intertwining perception, temporality and embodiment in atmospheric spatial experience. The history of light and perception opens onto atmospheric practices and theory – all of which provide a rich context of phenomenological practice. These practices and spatial theories provide a critical context that rejects static representations in favour of more phenomenological, fluid approaches to spatial atmosphere.

An investigation into atmosphere involves a move away from static representational language of ‘forms’ and ‘contents’ in favour of integrative multisensory and multiperspectival conditions of our embodied experience. Peter Zumthor asks “... how are we to achieve this wholeness in architecture at a time when the divine, which once gave things a meaning, and reality itself, seem to be dissolving in the endless flux of transitory signs and images?”\(^5\) My project of atmospheric spatial practice draws from practices that favour a situation and encourage spatial multiplicity, that imply the viewer’s experience to be co-productive and grounded in the unfolding of the living present. Contemporary

\(^3\) For a fuller discussion of Husserl’s phenomenology of time consciousness, please see my dissertation, chapter 04: The Production of Environments. Husserl’s theories of duration is discussed in detail in section 04:3.


artists and architects have become increasingly critical of representational space, in which there has been an attempt to shift content in contemporary art to more process-based notions like performativity, ephemerality, and participation. My project seeks to problematise perception as an integrative network of atmospheric spatial relationships, processes and exchanges – a kind of ontological contact that is expansive rather than reductive. I am investigating the contingency and complexity found in the interrelationships that span the divide between subjective and objective reality.

I will begin by discussing my initial perceptual experiments into light and contingency that subsequently opened into two lines of practice-led inquiry, which are discussed thematically in section 01:2 Reflected Light and in section 01:3 Materialised light. These lines of inquiry were developed in a series of exhibitions and immersive installations that explored the perceptual experience of light to charge a space with presence. These environments were designed to challenge the static perception of space and time, emphasizing the dynamic interplay between perception and environment.

---

6 Many other artists are extremely relevant to a discussion of subjectivity, architecture, temporality and atmosphere. In addition to those discussed in extensively in my dissertation, this could be expanded to include other contemporary artists such as Anish Kapoor, Carsten Holler, Fujiyo Nakaya and Monika Sosnowska. This discussion is particularly relevant in the history of art over the past fifty years or so, after the expansion of the field of sculpture that emerged during and after minimalism, artists such as Richard Serra, Donald Judd, Dan Flavin, Nancy Holt, Mary Miss and Walter de Maria, to mention just a few. Out of this context in the 1970s, further California light and space artists such as Doug Wheeler and Larry Bell, and “fringe” artists to this loose movement such as Maria Nordman, Michael Asher, and Bruce Nauman are of particular interest for their exploration of phenomenological and social experience. Similarly, South American artists Carlos Cruz-Diez, Julio le Parc, Jesús Rafael Soto represent another exploration of both perceptual and social implications of light and space. In addition, Lee Ufan and Nobuo Sekine of the Mono-ha group in Japan provide another perspective on phenomenological spatial practices that has been very influential on my own practice. Contemporary artists working in this broad tradition include Veronika Ann Janssens, Tara Donavan and Liz West, as well as contemporary Australian artists such as Leslie Eastman, Natasha Johns-Messenger, Consuelo Cavaniglia, Rebecca Baumann, Michaela Gleave, Brendan Van Hek, and Jonny Niesche. Lastly, of particular importance for my practice is the exploration of perception and time in the experiential prints, paintings and colour theory of Josef Albers, from whom many of these themes were anticipated. Other relevant artists to the spatial practice of social atmosphere may include other perspectives, including feminist and queer theory, that question the subject as a unified self and interrogate the relation of identity to architectural space. Relevant artists here may include Louise Bourgeois, Nam June Paik, Dan Graham, Helio Oiticica, Mona Hatoum, Felix Gonzalez-Torres, Rirkrit Tiravanija and Tino Seghal.

7 Architects who might be described as concerned with atmospheric experience include Le Corbusier, Alvar Aalto, Louis Kahn, Tadao Ando, Steven Holl, Juhani Pallasmaa, Rick Joy, Gluckman Tang, Glenn Murcutt, SANAA, Alberto Campo Baeza, Diller + Scofidio (+Renfro) and Studio Mumbai.

8 “Over the last 40 years many artists and theorists have repeatedly criticised 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. It seems necessary to insist on an alternative that acknowledges the fundamental connection and interplay between space and time and ourselves.” See Olafur Eliasson, Your Mobile Expectations : Bmw H2r Project (Baden: Lars Muller, 2008), 227.
of objects and draw out an awareness of our own perceptual structures and spatial engagement in atmospheric experience, focussing on the apperception of light and spatial experience. However, reflection upon these atmospheres revealed an underlying and difficult question for my research: were the participants in these atmospheric installations being grounded in the space, or alienated from it?

With this question in mind, I undertook my fieldwork research across various sites of contemporary light art and atmospheric architecture, giving me the opportunity to experience atmospheric spaces by Olafur Eliasson and Peter Zumthor.\(^9\) I have discussed the effect of these sites on the development of my practice-led research in section 01:4 Anchoring: duration and embodied perception. These sites explore the relationship of light and atmosphere to time, the body, and place generated by a topological, multisensory and multiperspectival experience that is gathered by the architecture and unfolded by the spatial inhabitant. In response to these experiences, my studio-research deepened through a number of architectural interventions that modify the durational perception of the architectural site, grounded in an extended embodied-atmospheric situation. In order to ground the experience of these quasi-architectural installations I began to actively explore the body and the haptic senses through a deeper consideration of atmosphere, materiality, scale and movement, as I will show in section 01:5 Atmospheres. Lastly, I will demonstrate the findings of this body of practice-led research in 01:6 Findings: Grounding the Body in Atmosphere.

Over the course of this research, my practice has led to the development of various spatial installations that explore the related structures of the body and relative duration in atmospheric experiences of architectural space. These atmospheric installations draw upon unfolding multisensory and multiperspectival experiences in felt spaces. Olafur Eliasson describes his spatial artworks and architectural interventions with the hope that “... they will be perceived as radically inclusive, making even people whose attention is elsewhere feel some basic spatial hospitality... To me, these spaces are not utopian, but defined through their atmospheres and agency.”\(^10\) Embodied and durational experiences are commonly diminished in other forms of knowledge and consequently the experience of atmosphere is alienated from our everyday spatial experience. In this sense, an exploration of

\(^9\) A number of these sites and their ramifications for atmosphere theory have been discussed in detail in the dissertation half of this thesis. See chapter 03: The Construction of Spaces.

perceptual and temporal atmospheres is a critical inquiry into the hospitality of space. My research will broaden the understanding of the atmospheric contingency of the site activated by spatial practices in contemporary art and architecture. The open situation of these atmospheric installations condenses and unfolds in a co-produced relation between things and people, to the embodied and durational horizon of experience of being physically present in these spaces. This is the crux of spatial hospitality.
Fig 2: Structure for reflected light, 2019
MDF, paint, natural light, 500 x 220 x 120 cm
Fig 3: Strike (magenta), 2014
Fluorescent light fixtures, theatrical light filters, Perspex, variable dimensions
Fig 4: Strike (magenta), 2014
Fluorescent light fixtures, theatrical light filters, Perspex, variable dimensions
How do atmospheres ground the subject through embodied experiences of space? What processes are involved in atmospheric perception? In addressing these research questions, I began to experiment with light to set up an ambiguous spatial situation that unfolds in the presence of the subject, explicating the perceptual processes through which a phenomenological subject co-produces that space. In my practice I have set out to explore the perceptual limits of spatial experience through an investigation of architectural atmospheres, not by delimiting the boundaries as such, but by expanding the perceptual field of subject-object relationships in lived experience. In this chapter I will discuss my initial studio-based installations that use light as an immersive condition that merges ideas of objecthood, perception and the experience of architectural space, before moving on to the consequences of these experiments on my practice and the subsequent directions of my inquiry.

Light heightens the contingency of the viewer’s perceptual and physiological processes in spatial experience. My initial experiments explored the effect on our perceptual processes by entering an intense visual field of colour and the subsequent production of after-images. The purpose of these installations was to transform the architectural space into a kind of perceptual apparatus of light by wrapping existing fluorescent lights in magenta theatrical filters. The intensity of the subsequent colour-field had the effect of making explicit the role of the viewer as an active perceptual participant in the temporal-spatial situation, and the contingency of their own perceptual structures and physiology. These perceptual environments were designed to enable self-reflective, spatio-temporal experience that turns upon the perception of the spatial situation and the relational modes of spatial engagement activated by the inhabitant.

In these studio tests I also began to experiment with reflective Perspex surfaces that are highly responsive to light and movement, leading to the work Strike (magenta) [Figs 3 and 4]. In a corner of
the room I propped a thick sheet of black Perspex. Behind this I placed another fluorescent light that projected an even volume that further de-emphasised the corner.\(^{11}\) The sense in which the presence of the work is experienced as a spatial illusion was complicated by the relationship between the illusory volume of light and the scale and weight of the material, which resisted a simple flattening of the surface into pure reflection.\(^{12}\) This simple angled reflective surface created an ambiguous plane that inverts itself visually as a void or surface, reflecting contingent pools of light, objects and bodies depending on the position of the observer.

The use of colour and reflection in these early tests focused on the perceptual interaction of light and surface to ‘dematerialise’ the object and draw out the viewer’s own perceptual and physiological processes into the experience of the space. The filters cast a relatively pure colour that dramatically altered the range of visible light within the space.\(^{13}\) In addition, the prolonged exposure to the red light produced an image of magenta’s complementary colour, so that the space outside was tinted with a light blue haze as the eye readjusted to normal light levels. This phenomenon is known as an after-image, an illusory colour that is produced by the eye as it readjusts slowly to white light after the prolonged saturation of magenta.\(^{14}\) The spatial ambiguity of this charged environment set up various perceptual tensions between light as an object and as a form of subjective relation, and altered the perception of space and time through the movements and actions of the observer in relation to the contingency of surfaces and colour.

\(^{11}\) The installation sets up the experiential presence of light and encourages a self-critical perception of “seeing yourself seeing”, however unlike a Turrell ganzfeld the bare structure of this illusion was demystified by peering over the edge – an exposed fluorescent light, theatrical lighting filters and a reflective sheet of Perspex propped against a corner. For a discussion of presence, light and space art and the experience of “seeing yourself seeing” refer to my dissertation, section 02:1 and 02:2.

\(^{12}\) A 2400 mm x 1200 mm x 10 mm sheet of black Perspex. The thickness creates a subtle friction or resistance between the reflection and material. The illusion was further exposed as a simple propped structure that exposed the methods of its production that is revealed by the actions and curiosity of the viewer.

\(^{13}\) After some initial testing with various colours, high-quality magenta theatrical filters were used as they produced a very narrow spectrum of colour, allowing roughly 9% of visible light composed entirely of red light and a very small amount of blue to pass through the filter.

\(^{14}\) The after-image or simultaneous contrast is a guiding “psycho-physiological” principle in Josef Albers’ colour theory. In *The Interaction of Color*, he states “One theory maintains that the nerve ends on the human retina (rods and cones) are tuned to receive an of the 3 primary colors (red, yellow or blue), which constitute all colors. Staring at red will fatigue the red-sensitive parts, so that with a sudden shift to white (which again consists of red, yellow and blue), only the mixture of yellow and blue occurs. And this is green, the complement of red.” See Josef Albers, *Interaction of Color*, New complete ed., 2 vols. (New Haven Conn.: Yale University Press, in association with The Josef and Anni Albers Foundation, 2009), 23.
Later this basic setup became the basis for an exhibition at Canberra Contemporary Art Space Manuka, where in addition to the existing fluorescent lights I covered the doors with the same magenta light filters so that the intensity of the colour shifted over the course of the day [Fig A3]. The filtered window allowed magenta views out onto the street, through which the activity of passers-by in the street could be seen from inside the space. At night another dialogue was activated with the street by a light projecting through the window back on to the pavement [figs. 5, 6 and 7]. By shifting spatial awareness to include the contingent perception of light (colour), shadow (after-image), and surface (reflection), the atmospheric situation placed the viewer in an active, co-productive relationship with their surroundings, encouraging a response and action by the observer as spatial inhabitant. The viewer is made spatial participant by introducing this performative relationship to the heightened perceptual context.

CONDITIONAL SITUATIONS

These initial experiments were most successful where they became responsive to the spatial situation and the perceptual structures of the observer, opening up to movement and temporal experience. The exhibition led to two new avenues of investigation into the conditions for an open exchange between viewer, object and the surrounding architectural environment. The first line of inquiry focussed on the perceptual qualities of reflective surfaces, which I will discuss here, while the second investigation aimed to draw out temporal presence in the experience of materialised light, discussed shortly in section 01:3 Materialised light. In different ways each line of inquiry attempted to subvert the static experience of architecture in favour of the mutable encounter and opened up to the time this encounter takes.

I began experimenting with laser cut Perspex discs as a way to refocus attention on the contingency of light, reflection and shadow and the movement of the observer in specific architectural spaces. The polished surface of the acrylic material is responsive to ephemeral light conditions and incidental

---

15 This exhibition, *Catfish Blues*, was held at Canberra Contemporary Art Space Manuka, ACT in April 2015.
16 The perceptual investigation of the after-image phenomenon has specific history in contemporary art to which I am indebted, in particular the phenomenon has been repeatedly explored in the environments of light and space artist James Turrell, Robert Irwin and Olafur Eliasson. Carlos Cruz-Diez here deserves special mention also for his immersive explorations of colour and light, as well as the paintings and colour theory of Josef Albers which have greatly informed my understanding of colour perception and feeling.
Fig 5: hello, 2015
Lighting gels, lamp, timer, variable dimensions
Canberra Contemporary Art Space Manuka, installation view
Fig 6: hello, 2015
Lighting gels, lamp, timer, variable dimensions
Canberra Contemporary Art Space Manuka, installation view
Fig 7: hello, 2015
Lighting gels, lamp, timer, variable dimensions
Canberra Contemporary Art Space Manuka, installation view
Fig 8: untitled, 2015
catfish blues, Canberra Contemporary Art Space Manuka, installation view
reflections over the time it takes the observer to move through the space. By patterning the discs they could be expanded and reconfigured to fit the scale of the space, the availability of natural light in relation to lines of sight and movement and thresholds—a conditional structure that finds its form in response to the architectural site. The open structure of the installation can be expanded through pattern and rhythm in relation to the architecture, ideally in natural light, to activate otherwise disused non-gallery spaces such as thoroughfares, corridors and stairwells. The discs are machines for generating reflections and shadows that react to the movement of the observer to alter the perception of the architecture.

The reflective surface of the discs responds to shifting light patterns and shadows. What becomes important is the experience over the formal or spatial composition, which can be reiterated in infinite compositions and patterns in response to the architectural conditions of a specific space. One early iteration of this work was installed in a stairwell in the ANU School of Art and Design in a simple repeating pattern from floor to ceiling next to a large central window, through which natural light filters down into the space. By situating the discs in the centre landing of the stairwell they could be approached from either above or below with no clear vantage point or ideal moment of seeing over another. Instead, the stairwell creates a looped spatial sequence of approach and exit that doubles back on itself. By placing the discs next to the window of the stairwell, they activated a continuum of reflected images from the window, other passers-by and the viewer’s own body as he or she negotiated the narrow transitional space. In this sense, the tensions between material, surface and light activate the space only in relation to the engagement of the perceptual inhabitant.

These tensions between material, surface and light could be activated in the extended perception, unfolded in the embodied movement and drawing in the spatial context of the architecture. Hintikka notes the central role of Husserl’s concept of “filling” in his phenomenology—the virtual expectations or anticipations that form around a (temporal) perceptual experience of an object that are possibly fulfilled (or not fulfilled) in the course of further experience. He asks “…how can we hope to

---

17 Eve Blau states of Eliasson’s work that it “…constructs a set of conditions and sets in motion a process that demands action on the part of the viewer/user. For Eliasson, this process constitutes a “negotiation”, an active engagement between user, work, and the time and space that both inhabit.” see Eve Blau, ”The Third Project,” in Olafur Eliasson : Your Chance Encounter, ed. Eliasson Olafur, Andreas Koch, and Caroline Eggel (Baden, Switzerland: Lars Müller Publishers, 2010), 101.
understand the processes through which we constitute that object?” The answer to this question must involve making these constitutive processes available to phenomenological reflection, an apperception of their experiential properties and interrelations that take place in temporally structured modes of givenness. The disc installations aimed to open up the viewer’s awareness of this contingent structure, determined by experiential relations of scale and rhythm, the orientation of the space for movement and changing perspectives.

The disc installations open perceptually to the subject and their surroundings, making them co-relative in a temporal continuum. Merleau-Ponty shows us that perception “… by its nature, admits of the ambiguous, the shifting, and is shaped by its context.” By engaging transitional architectural spaces, corridors and stairwells, these installations are situated in a real-world encounter that is perceived both spatially and temporally. Systems of vision, movement and orientation are related within a contingent field of temporal presence that is extended along the lines of retentional and protensional experience as explored in Husserl’s theories on duration. The boundaries between subject, object and surroundings overlap and intermesh in lived experience.

---

20 According to Husserl, durational experience is stretched by a form of primary memory of the immediately just-past, and an anticipation or expectation of possible phases or perspectives that may unfold in the immediate future, which Husserl names retention and protension respectively. See dissertation, section 04:3.
Fig 9: untitled, 2015
Perspex, MDF, variable dimensions, studio test
Fig 10: untitled, 2015, Perspex, MDF, variable dimensions
ANU School of Art Foyer Gallery, installation view, 2015
Fig 11: untitled, 2015, Perspex, MDF, variable dimensions
ANU School of Art, Printmedia and Drawing stairwell, installation view, 2016
Fig 12: untitled, 2017
Perspex, MDF, dimensions variable, studio test
Fig 13: Grosvenor experiment, 2014
Fog machine, studio lights, light filters, dimensions variable
Grosvenor Building, Sydney
Figs. 14 (top) and 15 (bottom): Grosvenor experiment, 2014
Fog machine, studio lights, light filters, dimensions variable
Grosvenor Building, Sydney
Fig 16: Grosvenor experiment, 2014
Fog machine, studio lights, light filters, dimensions variable
Grosvenor Building, Sydney
Following these explorations of colour and reflection, I designed an ephemeral experiment to materialise an atmosphere of light and colour within an architectural situation, involving a fog machine pumping vapour into a field of orange light. I wanted to draw out the relationship between the optical experience of light and the role of the body in spatial experience, as walking through this dense fog requires a kind of recalibration of our bearing within the space. The installation enabled an experience of “performative atmospherics,” subverting the static experience of the architectural site in favour of contingent temporality. By staging this theatrical experiment in a public foyer in the heart of Sydney I hoped to create a situation in which the building itself became a ground for new temporal, perceptual and social relationships.

The building in question, Grosvenor Place, was designed by Harry Seidler in 1982. Derived from two opposing circular quadrants offset to the site, the double-curved building is a Modernist monument to “… rational geometry, structural ingenuity, and heroic form.” A former student of Bauhaus masters like Walter Gropius and the painter Josef Albers in America, Seidler later worked with Modernist architects like Marcel Breuer and Oscar Niemeyer before moving to Australia. Architecture tends to be codified in a complex system of built form – signs and referents that reinforce a static experience of the city. In the everyday experiences of spaces and objects these imposed structures of meaning are not necessarily known by the subjects within, who tend to accept these ‘social facts’ as a matter of

---

21 This installation was included in the Expanded Architecture: Temporal Formal exhibition, a temporary exhibition staged across three buildings designed by Harry Seidler in the Sydney Central Business District – namely Australia Square, 9 Castlereagh Street (formerly Capita Centre), and Grosvenor Place. Curated by Sarah Breen Lovett and Claudia Perren, the exhibition took the form of a number of ephemeral art interventions, projections, performances and sound installations staged over one night within these architectural contexts on the 7th November 2014. For further information see Claudia Perren and Sarah Breen Lovett, Expanded Architecture: Temporal Spatial Practices (Braunach, Germany: Spurbuchverlag, 2016).

In contrast to the architectural ordering of a rational plastic space, atmosphere fundamentally implies the viewer’s experience as an unfolding of this temporal atmosphere. Much like Albers’ colour studies, atmosphere problematises the static concept of architecture. The fog installation partially dematerialised the architecture, sublimating the form of the building to enable a temporal experience to emerge.

The architectural site provided a structured entry from the high foot-traffic rhythms of the street, which transitions through a semi-open plaza. The façade extends this transitional movement, creating lines of sight from the street into the building through a ground-floor wall of glass. A fog machine and studio lights were laid bare through the windows, exposing the simple means of production of the experiment from the exterior. Orange filters were attached to several lamps and placed near the entrance to the foyer. Looking deeper through the windows into the fog-filled void, the space appeared opaque and flat, light materialised. However once inside the structured sequence broke down. The thick haze materialised orange beams of light, through which the silhouetted bodies of others emerging in and out of this hazy atmosphere became central to the inter-subjective experience. As the viewer became immersed in a disorientating orange field, he or she was forced to make his or her own decisions and actions in response to the disorienting situation.

I feel it is necessary here to include a note on the role of “dematerialisation” of the object at work in this situation. Caroline Jones discusses the concept through the examples of Irwin and Eliasson, for both artists paradoxically work with the ephemerality of light in order to focus on the materialisation of their spatial research. Irwin’s research into ganzfeld experiments, for example, only meant something when they were taken out of isolated rooms and placed in real life situations, extended in the experience of the viewer. Jones continues, “In much contemporary knowledge production, what counts is non universalist, localised, and embodied. The subjectivities generated by contemporary art can be performative, relational, networked, or (in Eliasson’s case) restless phenomenological.”

---

24 As with the reflective disc installations, the heightened awareness of a temporal sequence was a central concern in the work. By exposing the machinery I wanted to demystify the experience, as well as layer these overlapping experiences of the space in a kind of protentional landscaping of the viewer’s expectations in phenomenological terms.
these artists, the twinned problems of temporality and the finitude of the subject are explored in material and spatial terms that remain open to the possibilities of the architecture – the perceptual awareness of the co-constitutive relation between the site and the contingent situation through which it is perceived and felt.

“Form” here is not a closed system that defines objecthood, but an open relationship. The point is not so much to create a non-object as it is to expand our understanding of what an object might be in terms of its temporal operations. Irwin discusses the potential of a perceptual art in terms of a structural shift from abstraction to participation, perspective to synaesthesia, and permanence to impermanence – processes that implicate the viewers’ participatory presence as co-productive in the spatial experience of the work.26 This is asking for a greater generosity on the part of the observer, who is in turn being asked for a more involved form of spatial and temporal engagement. Ephemeral atmospheres make this spatial relationship particularly ambiguous, connecting the visual to the embodied and haptic experience of space and architecture. Juhani Pallasmaa states:

... atmosphere is certainly almost completely peripheral and unconscious perception. To the degree that when aspects of atmosphere become conscious then they tend to lose their atmospheric power. In visual perception there is the Gestalt quality that holds the form, the shape together, whereas in atmospheric perception there is no such rule or principle. I would say atmospheric experience always centres on your own existential experience, which suggests that atmospheric experience is a much more internalised experience than a visual one. Such an approach makes architecture definitely more embodied, and also by definition more multisensory and integrated because in an embodied experience the haptic experience is so important.27

Walking through dense fog will make you acutely aware of your body within space and the bodies of others. Every step is measured carefully, a tactile perception of space.28 These modified relationships

26 In his 1973 lecture notes, Irwin argued that modern art is these various shifts from abstraction to participation, perspective to synaesthesia and permanence to impermanence are the “... three radical shifts acted out by Modern Art, each one with the potential to affect that structure of perception.” See Robert Irwin, Being and Circumstance : Notes toward a Conditional Art (Larkspur Landing, Calif.: Lapis Press, 1985), 63.
Fig 17: Grosvenor experiment, 2014
Fog machine, studio lights, light filters, dimensions variable
Grosvenor Building, Sydney
Fig 18: Grosvenor experiment, 2014
Fog machine, studio lights, light filters, dimensions variable
Grosvenor Building, Sydney
of scale and perspective activated a new contingent relationship with the space, a temporal field held together by the perceptual mediation and relative duration of the phenomenological subject.

INTRODUCTION OF THE SOCIAL HORIZON

Through the active spatial engagement of the viewer, the installation aimed to break through the habitual shell of everyday spatial experience and allow a complex temporal process to emerge, a durational relay between perceptual and social relationships in the space. I discovered that by leaving the work open to the architectural context not only alters the perception of space but also leaves it open to these social or collective experiences. The bodies of other subjects emerging in and out of this hazy atmosphere became a performative part of the intersubjective experience. How did we perceive other bodies in the fog? Are they shadowy representations only, or were they somehow more implicated in our own being in the space? The fog produced modified relationships of scale and perspective and activated a new contingent field of temporal presence, unified by the movements and actions of collective embodied subjects. In other words, the installation altered the perceptual and social horizons of the architecture.

Sublimating the monumental architecture with this ephemeral situation of dense orange fog altered the performative atmospherics of the space, connecting the perceptual with the social as they are both performed in space. Central to the Grosvenor installation was how it interacted with a given architectural site and a given social situation. Participants adjusted their movements and interactions within the installation as though on a temporary stage, some even choosing to break into spontaneous song and performing theatrically in the atmospheric mist [fig. 19]. In a discussion of contemporary artists Robert Irwin, James Turrell, Olafur Eliasson and Bill Viola, Foster is highly critical of the perceptual environments of “mediated spectacle” that have a tendency to “confuse the actual with the virtual.” Foster’s critique is levelled particularly at the light-environments of James Turrell, which far from producing a critical-phenomenological experience he argues merely replace one form of uncritical experience with another:

... Turrell tends to reverse the Minimalist move to produce delineated spaces and reflexive viewers; rather, his environments often disorient us, even overwhelm us, with the very apparitions we seem to call into being... a sublimated abstraction of luminous forms of mediated spectacle on offer elsewhere in contemporary culture...30

Foster instead argues for an architectonic recovery of the phenomenological conditions of embodiment and emplacement. By materialising a field of orange light and fog within the foyer, the installation was an attempt to re-contextualise Grosvenor Place as a site for temporal and spatial engagement – not produce a fetishized, immersive experience of the spectacle.

What processes are involved in atmospheric perception? Through the active engagement of the viewer, the orange fog aimed to break through the habitual shell of everyday experience and allow a temporal encounter to emerge. These processes activate an atmospheric situation – a spatio-temporal relationship between the subject and their surroundings which I have termed here “performative atmospherics”. Drawing on Husserl’s phenomenology, another way of stating this is that the atmospheric situation altered the co-constitutive horizons with the architectural site, enabling new perceptual and intersubjective relationships to form in the living present. By acknowledging the contingency of space in perceptual and social contexts, we can begin to breakdown the static idea of space in favour of a more temporal exchange with presence, challenging the static conception of representational space in favour of an open encounter.

These perceptual processes are unfolded by the viewers’ participatory presence as co-productive in the spatial and intersubjective experience of atmosphere. These performative atmospherics activate experiential relationships and heightened temporal presence, the network of atmospheric processes through which the subject co-produces his or her environment and gives it relative duration. However, in the process of the Grosvenor installation my research stumbled into a new and potentially difficult question: were the conditions of performative atmospherics enabling a durational and embodied experience of architecture, or in heightening its performativity were they alienating the subject from the space?

---

31 For a contextual discussion of temporality and duration, see my dissertation, chapter 04: The Production of Environments.
Figs. 19 (top) and 20 (bottom), Grosvenor experiment, 2014
Fog machine, studio lights, light filters, dimensions variable
Grosvenor Building, Sydney
Figs. 21 (top) and 22 (bottom), Grosvenor experiment, 2014
Fog machine, studio lights, light filters, dimensions variable
Grosvenor Building, Sydney
Atmosphere in architecture is concerned with the sphere of a specific place and context, the envelope of individual networks that make up a local space/place. These networks concern the perceptual, physical, material, historical and social relationships that influence our pre-conscious experience of space. Atmospheric relationships play a fundamental role in the various ways that we as spatial inhabitants perceive and reside in spaces – the ways that space is felt. These conditions implicate the viewer’s performative experience in shaping atmosphere. As such, acknowledging the contingency of atmosphere represents a spatial ontology that makes room for the subject, their co-constitutive duration and embodiment. However, another interpretation renders the atmospheric in terms of the sublime and the spectacle, a non-critical experience, and as such a condition that overwhelms its inhabitants. How could I, through my research, heighten those temporal and perceptual experiences and processes through which the subject is grounded in the site, that enable a sense of integrative spatial participation that is temporal, embodied and grounded in place? This thinking led to the addition of the following research question to my practice:

How do atmospheric investigations of site and body anchor the subject through architectural conditions of embodiment and emplacement?

With this in mind, in late 2015 I travelled to Europe to undertake experiential research in various sites of contemporary art and architecture. Travelling by train through the winter landscapes of Germany, Austria, Switzerland and France, I was able to experience first-hand the philosophical themes I had been working with in real architectural contexts. My fieldwork enabled me to visit specific examples of spatial practices, installation and light art, and atmospheric architecture:

32 A number of these sites and their ramifications for atmosphere theory have been discussed in greater detail in my dissertation. See chapter 03: The Construction of Spaces.
Fig. 23 (top): Train station at dawn, Ilanz, Switzerland
Fig. 24 (centre): View from Notre Dame du Haut, Ronchamp, Le Corbusier
Fig. 25 (bottom): Kolumba, Cologne, Germany
The primary sites of my fieldwork research were:

<table>
<thead>
<tr>
<th>Site</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bruder Klaus Field Chapel</td>
<td>Wachendorf, Germany</td>
</tr>
<tr>
<td>Centre for International Light Art</td>
<td>Unna, Germany</td>
</tr>
<tr>
<td>Kolumba</td>
<td>Cologne, Germany</td>
</tr>
<tr>
<td>Sammlung Boros</td>
<td>Berlin, Germany</td>
</tr>
<tr>
<td>Bauhaus Archive</td>
<td>Berlin, Germany</td>
</tr>
<tr>
<td>Olafur Eliasson: Baroque Baroque</td>
<td>Belvedere Winterpalais Prinz Eugen Vienna, Austria</td>
</tr>
<tr>
<td>Lightopia exhibition</td>
<td>Hofmobiendiendepot, Vienna, Austria</td>
</tr>
<tr>
<td>Therme Vals</td>
<td>Vals, Switzerland</td>
</tr>
<tr>
<td>Chappelle Notre Dame du Haut</td>
<td>Ronchamp, France</td>
</tr>
</tbody>
</table>

The overriding theme of my fieldwork was the production of atmospheric conditions grounded in architectural space. My aim was to explore the relationship of light and atmosphere to time, the body, and place generated by these specific sites of art and architecture. To this end, the Centre for International Light Art is housed inside an underground disused brewery in Unna, Germany, which houses installations by artists working with light, including Olafur Eliasson, James Turrell, Cerith Wyn Evans, Francois Morrellet, and Mischa Kuball. The subterranean chambers, passages, vats and freezers of the old brewery become the architectural support system for many of these atmospheric light works. The museum at Unna engages the architectural context through light art and installation practices within the atmosphere of the historic building.

---

33 In addition, the permanent collection at Unna includes installations by Christian Boltanski, Johannes Dinnebier, Rebecca Horn, Brigitte Kowanz, Joseph Kosuth, Mischa Kuball, Christina Kubisch, Mario Merz, Francois Morellet, Jan van Munster, and Keith Sonnier. The artists at Unna are invited to work with the museum, choosing a space to realise a particular installation with light. The diversity of light art explores the perceptual, metaphysical, and poetic possibilities of light in contemporary practices.
Fig 26: Olafur Eliasson, Yellow corridor, 1997, Monofrequency lights
The Winter Palace of Prince Eugene of Savoy, Vienna 2015
Photo: Anders Sune Berg
The material atmosphere of the site enables a heightened negotiation (at times hostile) between artworks and a charged architectural context. The material atmosphere of the brewery at Unna “... ties the experience of the light installations to the bodily experience of space. Viewers become players. The installations are not objects of detached viewing, but visitors passing through the light spaces experience new dimensions of light and of their own perception – with all senses.” The same can be said of the Boros bunker, and in a somewhat different context the exhibition Baroque Baroque by Olafur Eliasson in Vienna. These experiences became formative for my practice-led research towards an awareness of the body as the locus for durational experiences that are both atmospheric and fundamentally grounded in place.

OLAFUR ELIASSON - BAROQUE BAROQUE

A ring of monofrequency lights saturated the vertical space of a baroque double staircase in pure yellow light. Olafur Eliasson’s Yellow corridor [fig. 26] changes the appearance of everything within the space to various shades of yellow-grey – in this case, the ornate sweeping entrance to the Winter Palace of Prince Eugene of Savoy in Vienna, Austria. Statues, carpets, paintings, and people alike are saturated in the narrow spectrum of yellow monofrequency light. The light is intricately bound to the architectural context of its staging, typically in transitional spaces – in this way Yellow corridor is a little more grounded that its predecessor, the Room for one colour. The experience is at once both relational and durational – in part determined by the movements of the observer (and the subsequent blue after-image) and also the shape, materials, scale and context of the surrounding space.

Eliasson’s works are felt in temporal terms of emergence and disappearance – contingency, approach, hesitation, attention, doubling back, duration and movement – that take place in the overlapping

34 “The effect of the rooms is so individual, strong and self-accentuated, that any attempt at using them as backdrop or setting only is out of the question.” See Regine Anacker, “Introduction,” in The Essence of Light: Centre for International Light Art Unna, ed. Zentrum für Internationale Lichtkunst Unna (Cologne: Weinand, 2013), 24.
36 Much the same can be said of Sammlung Boros in Berlin, which houses a private collection of contemporary artists inside a monumental WWII bunker – a labyrinth of raw concrete that now bears witness to contemporary spatial practices. The installations are presented with minimal change to the bunker so that the brutal atmosphere becomes part of the work. At the time of my fieldwork the Boros bunker included diverse spatial installations by Alicja Kwade, Tomas Saraceno, Ai Wei Wei, Rirkrit Tiravanija, Cerith Wyn Evans and Olafur Eliasson, among many others.
Fig 27: Olafur Eliasson, Fivefold tunnel, 2000, Stainless steel
The Winter Palace of Prince Eugene of Savoy, Vienna 2015
Anders Sune Berg
Fig 28: Olafur Eliasson, Fivefold tunnel, 2000, Stainless steel
The Winter Palace of Prince Eugene of Savoy, Vienna 2015
Photo: Anders Sune Berg
Fig 29: Olafur Eliasson, Your welcome reflected, 2003
2 colour-effect filter glass (blue, red), motors, HMI lamp, tripod
The Winter Palace of Prince Eugene of Savoy, Vienna 2015
Photo: Anders Sune Berg
spheres of lived experience. A sixty-five metre long mirror spanned the enfilade of rooms across the upper floor of the palace, simultaneously dissecting the spaces and doubling the rooms (and the bodies of their inhabitants) in a multiperspectival sequence of movement and time. Light setups, colour projections and shadows, kaleidoscopes, wind fans and mirrors redefined perceptual awareness in the baroque setting to invite the viewer’s participation in the historic spaces. Architectural thresholds are productive areas of transition for Eliasson also, articulated in terms of duration and lived experience. The locus for these experiences is the body.

In as much as this work is about encountering (or perhaps confronting?) the horizon of our own perceptual faculties, it is equally about an encounter with other bodies in the space of our shared, collective horizon. Architecture is rendered multiplicitous and relational, open to the contingent spontaneity of other things and people. The works bridge differences that coexist in the collective space, even sparking conversation between individuals. The atmospheric forms a background to the intersubjective and social. Sandra Noeth suggests that the collective is a “precarious, transient construction” that arises in the encounter with Eliasson’s works. “… the body of the collective comes about through a body in interaction, as a challenge to take responsibility for one’s own movements and to understand that they mobilize and actualize not only one’s own body but also the bodily space that it inhabits, which is also always a shared space.” To this end, the theory of atmospheres may provide some answers to the relation between duration and the body. The sphere of its operations and movements take place in a space that is always already open to shared experience.

---

37 This is noted by Blau in her discussion of Eliasson’s exhibition Your chance encounter at the Kanazawa museum. “Eliasson negotiates the architecture in ways that change not only how the spaces are used, but also how they relate to one another. The negotiation unfolds in terms of transformative encounters between individual works and spaces … in terms of duration.” See Blau, “The Third Project,” 104.

38 This point is made also by Jonathan Crary, who argues that “Sublimity, in recent critical usage, has come to characterize a range of experiences and affects in which there is both a loss of individual agency and a breakdown of one’s ability to control language or representation… if the indeterminate and the ineffable are key qualities of his art, they are present as the inevitable conditions out of which other (distinctly non-sublime) events might tentatively occur, out of which communication, interpersonal exchange, and provisional forms of understanding might be possible. Eliasson’s destabilization of certainties has little in common with a celebration of inexpressibility.” Jonathan Crary, "Illuminations of the Unforeseen," in Olafur Eliasson : Your Colour Memory (Glenside, Pa.: Arcadia University Art Gallery, 2006), 4.

KOLUMBA

Buildings such as the Kolumba, the Bruder Klaus Field Chapel and the Therme Vals by Zumthor, and Ronchamp by Le Corbusier point towards a particular architectural history of surface, topology and above all atmospheres. In these buildings, the atmospheric properties of architectural space are a powerful generator of spatial presence, embodiment and emplacement. In other words, the attention to light and materials, thresholds and atmospheric conditions in these works of architecture is fundamental to the ways they move out of abstract spatial concepts into genuine feelings of spatial inhabitation of site and place. They are defined by their hospitality to temporality and atmospheres.

The Kolumba is a phenomenological building, a structure for embedding durational experiences of material presence in multisensory and multiperspectival atmosphere. Artworks within the museum are placed within a series of architectural movements, temporal durations and subjective horizons.

On the street level of the museum, below the main gallery spaces, a porous shell encloses and protects the archaeological remains of the former St. Kolumba church, destroyed by allied bombing during WWII, together with the small chapel Madonna in the Ruins subsequently built on the site by Gottfried Böhm. A timber platform zigzags over the historic site. Although the space is relatively dark and enclosed, the apertures in the wall allow parcels of natural light and the sounds of urban life to seep into the space. I was struck by the dramatic shift in atmosphere here: this interior space felt surprisingly cold and open to the weather. Zumthor’s design integrates the old remnants of the church walls into the new brick skin. Stefan Kraus, curator at Kolumba, describes the spatial and temporal complexity of the ruins:

---

40 The Bruder Klaus Field Chapel and the Therme Baths in Vals by Zumthor, as well as the chapel in Ronchamp by Le Corbusier, are discussed in Chapter 02: The Construction of Spaces. These discussions are based directly on my own experiences during my fieldwork at these sites.

41 If we go back to Husserl, he outlined three distinct horizons around the object – Firstly, the inner horizon through which we form the expectation that the object can be reengaged through time from different perspectives. Second, its perceptual horizon through which we can at any time choose to shift our perception to other objects within the broader field of perception. And lastly the temporal horizon, through which the object is extended temporally in retention and protension – and through which the first two horizons are made possible in the temporal flow of phenomena. Husserl’s concept of horizon is discussed in my dissertation, see section 04:3.

42 The history of the site is discussed in Stefan Kraus, “The Museum as a Laboratory of Aesthetics: Interview with Stefan Kraus,” Kolumba 2011.
Fig 30. Peter Zumthor
Kolumba, 2003-2007
Cologne, Germany
Photo: Helene Binet
Fig 31. Peter Zumthor,
Kolumba, 2003-2007
Cologne, Germany
Peter Zumthor managed to realize a space here that is at once ancient and contemporary. It is both interior and exterior space; it conveys warmth and security as well as the remembrance of the massive destruction by war. The footbridge has the function that enables us to assume various perspectives in this room, since the floor plan of the Late Gothic church is irregular. Therefore, the room has various dimensions of depth.43

The Kolumba is like Heidegger’s bridge.44 It is a spatial gatherer, a place maker within its broader spatial context. The building acts as a mediator for negotiating local spheres – interior, exterior, subject and space, and the surrounding city of Cologne. At Kolumba these aspects of our being are experienced simultaneously as gathered relations which enable a profound connection with the place. Natural light from an unseen source filters down long, narrow stairwells that take the body some time to climb, enabling “… a vertical connection of time, space, impressions, and thoughts.”45 Light filled spaces are activated by windows and thresholds within the building that open onto and frame landmarks and city scapes, drawing connections with the city and its historical locations. These experiences form via modes of contact within the architecture as a set of experiential situations and relational structures, activated by the dwelling subject, human scale and the multisensory experience of atmosphere.46 The threshold intensified the feeling of being in the space which is connected to the broader history and context of Cologne, which was folded through my own experiences of walking, seeing and atmospheric feeling performed by my body.47

43 Ibid., 8.
44 For a discussion of Heidegger’s bridge as a structure that demonstrates the concept of “dwelling”, see my dissertation, section 03:3.
45 Kraus, "The Museum as a Laboratory of Aesthetics: Interview with Stefan Kraus," 38. Climbing the stairs thereby involves a sense of body, gravity and light that eventually realises views of the city. Notably the spires of the Kölner Dom are carefully framed by large windows from within the museum.
47 This supports Pallasmaa’s claim that architecture invites activity and movement and might be considered a verb rather than a noun: “In my view, a door is not architecture, whereas passing through a doorway, crossing the threshold between two realms, is a genuine architectural experience. Similarly, a window in itself is not yet architecture; it is the act of looking through the window, or of light falling in, that turns it into a meaningful architectural experience.” See Bohme et al., “Atmospheres, Art, Architecture: A Conversation between Gernot Bohme, Christian Borch, Olafur Eliasson, Juhani Pallasmaa,” 99.
ATMOSPHERE AS A FIELD OF GATHERED RELATIONS: EMBODIED PERCEPTION AND DURATION

These various sites became important experiences for the development of my research. They marked a turn from an engagement with architecture, to more integrated forms of spatial engagement. Architectural experiences were generated by thresholds, light, and the durational tensions between interior and exterior, simultaneity and discontinuity – these relationships were gathered by the spatial interventions and architectural sites in terms of embodied perception and duration. My experiences of these architectural sites prompted various questions about the relationship between materiality, temporality and the body. Sometimes this was explicit, although more often as a “pre-thetic” or “pre-conscious” ground upon which my various spatial experiences were in some way formed. They were also deeply atmospheric spaces, suggesting a deeper relationship between the spatial theory of atmospheres and kinaesthetic experience. In a discussion of Husserl’s ideas surrounding kinaesthetic experience, Daniel Birnbaum shows that there is a relationship between the experience of duration and kinaesthetic experience of the lived body:

With regard to both of these spheres – the self-appearance of the “absolute flow” and the “auto-sensing” of the lived body – one can find an inchoate theory of a form of self-consciousness which does not involve the objectifying acts of reflection, but which takes place on the level of pre-objective consciousness. There is a crucial difference between one’s self-awareness as a lived body and the awareness of one’s body as an object in objective space.48

This would seem to support the body as a pre-thetic support system for experiencing architectural atmospheres. These relations are unfolded by the subject who simultaneously perceives and performs architectural space, folding these actions, movements and emotions back through the felt body as a locus for these durational experiences. Architecture is both perceived and performed by a subject who has a body, who unfolds space through their relative duration and multisensory and multiperspectival experience. In other words, over the course of my fieldwork I came to understand architecture as a field of gathered relations that ground the embodied subject in place. What’s more, atmosphere is constantly renegotiated by the subject within shifting perceptual, temporal and social horizons.

Here, we might then return to the research question: **How do atmospheric investigations of site and body anchor the subject through architectural conditions of embodiment and emplacement?**

Atmospheric experience implicates the inhabitant’s complete multisensory and multiperspectival being-in-a-space. The nature of these atmospheric encounters, while indeterminate and often disorientating, were integrated into the architecture in such a way as to connect the perceptual to the body. They altered conditions of perception that were folded back through the embodied movements, actions and perceptions of the engaged spatial participants, giving their own relative duration to the space. The sphere of felt space then unfolds along multiple co-constitutive structures of embodied and durational perception, enabling a more grounded model of subjectivity.
THE UNBEARABLE LIGHTNESS OF SEEING – A MODEL FOR THICKENED TIME

The unbearable lightness of seeing was a kinetic light-based installation that explored the perception of colour and the threshold between light and shadow.⁴⁹ The exhibition was staged at M16 Artspace and Gallery, Griffith ACT in November 2016. The installation consisted of a simple light setup that continually transformed the atmosphere of the gallery, washing the space in shifting colour and shadow to explore the relationship between the viewer and the gallery. A large, coloured disc was suspended from the ceiling, rotating slowly in the space, illuminated by a pair of slightly offset studio lights that projected a slow-moving double-shadow of the disc into the corner. The light installation recurrently transformed the atmosphere of the room, analogous to passing from a dark space through a light-filled threshold. At the heart of this installation was the constantly unfolding relationship with our surroundings, the basic question of seeing that emerges over time.

In preparation for this exhibition I conducted a number of tests with suspended aluminium elliptical discs, and later with transparent materials, layers and membranes illuminated by multiple light sources to activate architectural elements with light, shadow and colour. Where I had used theatrical lighting gels previously, in this case I experimented with the filters as a surface colour, as a membrane produced by sandwiching multiple sheets of gel and a semi-circle of diffusion paper layered within the discs. Following these tests, I fabricated a pair of large Perspex discs between which I could sandwich large sheets of theatrical lighting gel and translucent diffusion paper. I found that when illuminated, the multi-layered gel takes on its own luminance and materiality, creating a subtle interplay of rippling

⁴⁹ The Unbearable lightness of being by Milan Kundera begins with a discussion of weight, lightness, and Nietzsche’s concept of the eternal return. “The heavier the burden, the closer our lives come to the earth, the more real and truthful they become. Conversely, the absolute absence of burden causes man to be lighter than air, to soar into heights, take leave of the earth and his earthly being, and become only half real, his movements as free as they are insignificant. What then shall we choose? Weight or lightness?” I borrowed from Kundera’s title to reference themes of light in a double sense: to the recurring phases of lightness and darkness in our perceptual lives, and our groundedness in spatial situations. Milan Kundera, The Unbearable Lightness of Being, Paperback ed. (London ; Boston: Faber and Faber, 1985), 3.
Fig 32: the unbearable lightness of seeing, 2016
Perspex, lighting filters, lamps, tripods, cable, variable dimensions (disc approx. 120 cm diameter)
M16 Artspace, Canberra, installation view
Figs 33 (top) and 34 (bottom): the unbearable lightness of seeing, 2016
Perspex, lighting filters, lamps, tripods, cable, variable dimensions
Fig 35: Laszlo Moholy-Nagy, *Light Prop for an Electric Stage (Light-Space Modulator)*, 1930 (replica 1970)
Metal, plastics, glass, paint, wood, electric motor
Photo: Bauhaus Archiv Foto Studio Bartsch
shadows that pass over the surface of the illuminated discs as it rotates and projects multiple surface reflections upon the gallery space. The material absorbs more than half of white light, so that when illuminated the disc allowed only orange light to pass through – an orange shadow surrounded by a subtle halo produced by the two offset lamps.

While earlier installations in my research dematerialised aspects of the architecture, here I aimed through similar means to confront and alter the perception of the architectural container itself. The installation was an attempt to activate a durational experience of emergence and disappearance within the ugly, static architectural situation of the gallery space – no natural light, white-brick walls and a locked storage door at the back of the room. Annelie Lutgens notes that the tradition of twentieth-century light and space art activates the participation of the viewer in “…a process of recognition and understanding, challenging both the intellectual and emotional sides of his perception – that is, his feeling and his thought. The possibility of perceiving art in this way is exactly what lends art its power to liberate and hence to change the shape of society….” By borrowing from this language of feeling in emergence and disappearance – phases of light, shadow, colour and reflection – I wanted to subvert the static architecture in the experience of a shifting durational “now”.

CONDITIONAL STRUCTURES FOR ATMOSPHERE

the unbearable lightness of seeing set up a conditional situation to explore the shifting quality of atmosphere in the gallery space. The installation was an initial attempt to work through the findings of my fieldwork in an extended experience of architectural atmosphere – the rotating disc is an alternative model of thickened temporality. In this way, the installation set up a number of the

50 In this sense, I aimed to activate the architecture as a site of productive resistance to the “sublime” reading of colour and time. I chose to breakdown the “image” by projecting the shadow across the corner and the doorway, scaled only to fit uncomfortably within the white-brick wall and wrap over architectural elements. 51 Annelie Lutgens, “Twentieth-Century Light and Space Art,” in Olafur Eliasson: Your Lighthouse: Works with Light 1991-2004, ed. Holger Broeker (Zurich, New York: Daros; Hatje Cantz, 2004), 34. Following my fieldwork research, I drew upon references to Lazlo Moholy-Nagy’s Light Prop for an Electric Stage (Light-Space Modulator) [fig. 35] and various disc works by Olafur Eliasson, as well as the architecturally charged works from Unna and Sammlung Boros I experienced on fieldwork. In addition, other references could include artists such as Julio Le Parc, Ann Veronica Janssens, Mischa Kuball, Micheala Gleave and Leslie Eastman. 52 For an extended discussion on duration with particular attention to Husserl’s theories please refer to my dissertation, chapter 03: The Production of Environments.
Fig 36: Structure for reflected light, 2019
MDF, paint, natural light, 500 x 220 x
Fig 37: Structure for reflected light, 2019
MDF, paint, natural light, 500 x 220 x 120
atmospheric themes I would develop in the final stages of my research that explored the atmospheric relation between body and duration that anchor the subject in the site.

How do atmospheric investigations of site and body anchor the subject through architectural conditions of embodiment and emplacement? To explore this research question through my final works, I began with the site of my final examination and exhibition – the ANU School of Art and Design gallery. A large white-brick volume with little access to natural light, the cavernous space itself is not very hospitable to the ephemeral experience of atmosphere. Attached to the back of the gallery however is a disused brick-paved courtyard, sheltered by a curving white brick wall that extends out from the gallery wall. I began slowly developing the idea of a pair of connected structures that could unfold the transition from the gallery to the courtyard, structures that are porous to natural light and actualised by movement. Through these site-specific structures I intend to create a tension between the interior and exterior in order to ground an embodied relationship in place and duration. These experiential processes unfold as co-constitutive phenomenal interrelations between a subject and their surroundings – a manifold of peripheral perception, synaesthesia, colour interaction, relative duration, movement and proprioception, transitions and orientation, and the interaction of light, materials and surfaces. In this way, these structures activate atmospheric perceptual processes are multisensory and multiperspectival, a network of contingent relationships that take place in the living present.

The atmospheric conditions of light and embodied movement make these structures responsive to time, the body and to place. The interior and exterior structures will form a temporal and spatial tension between the interior and exterior. This basic idea evolved into a corridor-like structure that complicates the relation between inside and outside and extends the time involved to walk through the space. In this way, the structure sets up a transitional experience performed by the inhabitant walking through a light-filled atmosphere of reflected colour and shadow, and extended through to a concentrated wall structure that opens onto the experience of place. The space is actualised by the performative spatial engagement on the part of the viewer and their bodily presence.

---

53 Zumthor, Atmospheres: Architectural Environments; Surrounding Objects.
THE INTERACTION OF LIGHT AND MATERIALS

The structures are designed to respond to the interaction of light and materials – one inside and one outside. In order to catch shifting atmospheric light conditions, I designed an open louvred structure that reflects and filters indirect light and shadow. The surfaces are animated by the shifting play of natural light in a constant state of change. Following numerous studio tests, I painted the surface of the interior structure magenta to reflect coloured light, which intensifies as it passes through and reflects off multiple surfaces. Fig. A10 and Fig. A11 show an early window filter that reflects natural light as colour in my studio, and a 1:1 scale model for the louvres respectively that informed the studio process. The narrow apertures of the interior structure allow only indirect light to pass through the porous membrane. The surface is painted a matte, deep magenta to diffuse and intensify reflected colour as light passes through the structure. The louvres knit together to form a self-supporting structure, an alternating rhythm of intersecting blades that form multiple perceptual planes and surfaces, gradients and perceptual micro-interactions of colour and shadow.

I responded to the hard, curved space of the courtyard with a long timber wall, a screen of ply louvres attached to a timber frame that concentrates the volumetric atmosphere of the courtyard. Oriented to the sun and the gallery, the structure is designed to create an interplay of light and shadows across the depth of the surface. Where the pink structure reflects light as colour, the courtyard structure creates an atmospheric interplay of shadows to draw a sense of temporality and duration into the existing concrete courtyard - a multilayered wall that would cast moving shadows onto itself and onto the space. Malpas notes that topological experience is related to an “… attentiveness to “surface,” and so to just appearing or presencing as such.” By dissecting the courtyard with a wall I intend to

experienced by being in it – through bodily presence. And the simplest and most convincing way to ascertain one’s bodily presence in a space is through movement.”

Multiple layers of paint were sprayed onto MDF to achieve a surface quality to filter reflected colour into the volume. MDF was chosen for its flatness to reflect the light in through the louvred structure, which under certain conditions interaction with light to create ambiguous perceptual tensions, particularly in depthless “micro-ganzfeld” effects, where the ambiguity of the surface depth appears like solid light between magenta louvred blades. In other conditions the louvres become particularly animated by moving shadows which move in and through the material surface.

After extensive studio research I developed a system of spraying multiple layers of paint on MDF which produced a matte, smooth surface to reflect soft, diffuse colour. The MDF was glued, then sawn to produce narrow self-supporting louvre-blades for the walls and ceiling planes of the long structure. The surface colour of the louvred-skin shifts towards red or blue/purple depending on the interaction of the material with available light, preferably oriented to natural light.

Figs. 38 (top) and 39 (bottom): Structure for reflected light, 2019
MDF, paint, natural light, 500 x 220 x 120 cm
Figs. 38 (top) and 39 (bottom): CAD renderings for Structure for light and shadow
Figs. 40 (top) and 41 (bottom): CAD renderings for Structure for light and shadow
create a new volume that resonates with the concrete conditions of the courtyard, the curved wall and the movement of sunlight. The movement of sunlight and shadows from surrounding walls set up a contingent atmosphere that changes dramatically over the course of the day. By situating the structure in the courtyard opens the experience up to the ephemeral atmospheric conditions of that specific time and place; the filtered sounds, smells, and weather of the surrounding atmosphere in a state of subtle but constant change. 58

MOVEMENT, PLACE AND INTERSUBJECTIVE ATMOSPHERE

Passing through a threshold can concentrate the experience of place. Thresholds of transition through a portal, of light passing into and activating a space, of the body – these conditions will set up suggestions for movement and topological forms of experience that open up in terms of atmospheric duration. The performative transition from one structure to the other operates through the participation of the spatial inhabitant. Relations of scale, orientation, contraction and release in response to the threshold and the curved wall of the courtyard are activated by the subject who unfolds these spatial experiences. In addition, the louvred-skin allows the observer to simultaneously look at the space but also beyond or through the structure to the surrounding space, inviting a simultaneous condition of looking at and looking through as the user moves around and through the structures. Together the installations enact a condensation of perceptual and performed spatial relationships, a discontinuous experience of anticipation and retention folded back through embodied horizons of multisensory and multiperspectival experience.

These quasi-architectural interventions ask the viewer to reconsider their relationship to the site in the terms of their own felt spatial experience. The structures don’t close off to the concrete context or historicity of the site, but rather provide an open situation in which these various ways of relating to

58 Initially, I had intended to create two box structures that would respond to the interior and exterior light conditions. This developed on the one hand into an elongated corridor structure, with a geometry that pared away from the interior to develop a complex unfolding of perspectives and movements. With the exterior box however, I felt I could not develop an appropriate sense of volume within the scale of the courtyard, and would merely dominate rather than respond to the conditions. In response, I exploded the box into a long screen-wall that would play off the curved wall, rather than delineate a smaller portion of the space. The screen structure opens up to the embodied perception and movements of the viewer, connecting the threshold experience and the atmosphere of the courtyard at the specific time and place of the encounter.
Fig 42: Structure for reflected light, 2019
MDF, paint, natural light, 500 x 220 x 120 cm
the place are folded through an atmospheric language centred around the subjective and intersubjective. At any one time a body passing through the space might be observable by someone else in the gallery or courtyard. Depending on the light passing through and their relative positions, they may cast diffuse shadows upon the ribs of the structure that could be seen moving along the length of the structure from the outside. The work is about making the space more hospitable to its context and approaching the situation as openly as possible to the perceptual and social interactions of its users.

In this sense, the site-specific nature of these installations is the logical endpoint of my research, which is not really an endpoint at all in the experience of the work which opens out into the world. By opening to the complex experience of place the works also by necessity open to the space of embodied intersubjectivity as an open invitation that may or may not be activated. In any genuine notion of place there is a background possibility for shared and collective experiences, to go from a subjective to an intersubjective situation. The presence of others in the space unfolds in the contingent and temporal nature of the encounter, a part of the thickened relation between the site and the situation. The shared experience is not manufactured interpersonal events, but rather made possible within the structure of place. The very possibility of the shared encounter between bodies becomes a part of the mutable or porous experience of place that is fundamentally more habitable.
Fig 43: Structure for reflected light, 2019
MDF, paint, natural light, 500 x 220 x 120 cm
The intertwining of perception, embodiment and temporality enables an understanding of phenomenological subjectivity that is *grounded* in atmospheric architectures. Over the course of my research and through various atmospheric environments I have explored my research questions:

How do atmospheres ground the subject through embodied experiences of space?

What processes are involved in atmospheric perception?

How do atmospheric investigations of site and body anchor the subject through architectural conditions of embodiment and emplacement?

Atmospheres can ground subjects in multi-perspectival, topological spaces. Crucial to this possibility is the role of the body as a temporal structure and atmospheric resonator. In this way, atmospheric theory and practice open up to the sphere of felt bodily presence that interweaves and overlaps the co-constitutional topological, temporal and social horizons of the feeling subject. To create the conditions for this kind of experience requires an empathic approach to the design, one that attempts to make room for the subject in the fullest sense, a temporal-perceptual being who engages with and performs spaces. If for Heidegger the bridge is a structure that gathers space, then it does this via the

---

59 Bohme describes the spatial mood of atmosphere as “... the sphere of felt bodily presence.” See Bohme, *Atmospheric Architectures: The Aesthetics of Felt Spaces*, 69. This is discussed in my dissertation, see chapter 03: The Construction of Spaces.
co-constitutive spatiality of Merleau-Ponty’s embodied subject. Without the potential actions and experiences of the subject, the structure is unable to perform this gathering of space.

My practice-and-theory-led research is a phenomenological investigation of multisensory atmospheric space with the aim of drawing out the structures of durational and embodied experience. Through the interaction of materiality and light, colour, plane and surface, I have developed a number of perceptually charged environments over the course of this research that reflect the observer back to their own conscious modes of sensory organisation and render explicit the atmospheric experience of the living present. Atmospheric practices need to remain sensitive to these qualities in order to produce thickened experiences of lived space and time. By adding the observer to the situation this adds also their spatial performativity and relative duration – a co-produced space that includes the individual’s history, body, psychology, memories, expectations, moods and emotions as part of the performative atmospherics of the space. These processes are not simply the passive actions of an individual acted on by their environment, but implicate the coproduction of a spatial situation in the performative actions and perceptions of the individual as they negotiate their surroundings.

The concern with embodiment and emplacement that I have explored through these installations has developed in response to questions generated through my practice. In this sense, the Grosvenor installation has an important place in the arc of this project, marking a shift in thinking concerning the grounded nature of atmospheric experience and the possibility for intersubjective experiences which I have explored through my final works. Atmosphere alone is no guarantee for genuine forms of phenomenological spatial participation that are anchored in place. The research project has opened up new avenues of investigation into atmospheric space for embodied and temporal modes of perception. Sensitivity to place, embodiment and duration enables a deeper connection to place that is also always a shared space.

If atmosphere fails to successfully ground the feeling subject this can conversely lead to conditions that alienate them from place. In response to this, Juhani Pallasmaa suggests a greater awareness of the role of “empathic imagination” in architectural design as a concern with possible lived situations.

---

mood and embodied experiences of atmosphere that contrasts sharply with the closed and rational nature of geometric formalism.61 Broadly speaking, this has been the aim of my practice-led research into atmospheres via an open-ended exploration of surface, colour, hapticity, orientation, movement, proprioception and active forms of spatial engagement in relation to atmosphere. The installations and architectural interventions that have come out of this iterative practice have explored the temporal processes of atmospheric perception and felt space.

Decisions made both in the studio and in situ were conditioned by the site and based upon empathic considerations of what it would be like to be in the space, asking what kind of atmosphere will this produce? Many of the questions regarding scale, volume and construction details were then refined and resolved in the making process in terms that responded to the materials, light and the experiential conditions of the site. In this sense, I have attempted to respond to the final exhibition space of the Australian National University School of Art and Design gallery for my final body of work. While earlier works from my research project will be re-configured in response to the gallery space, the exhibition will be structured primarily around the two site-specific structures that draw out the transition between the interior gallery and the external courtyard. The structures are anchored in the courtyard site and as such the experience will respond to the conditional atmosphere of the place, activated through the embodied movement and relative duration of the observer turned spatial participant.

This research has opened questions about the nature of atmospheric experience, body, duration, place and intersubjectivity. Far from a simple answer to the research questions, this project has explored the atmospheric field of exchange between subject and environment – centred around the experiential gathering of space, perception, body and time as they intertwine through contact within the site. This process has generated new questions for my practice concerning the experience of spatial hospitality, inhospitable spaces and intersubjective atmospheres to be explored moving forward. In this way, this research project has provided an expansive model for understanding subjectivity, temporality and place that open out onto broader spatial concerns.

---

61 “Maurice Merleau-Ponty introduced the evocative notion of “the flesh of the world,” to denote the lived reality in which we dwell. The empathic imagination evokes multi-sensory, integrated and lived experiences of this very flesh.” See Juhani Pallasmaa, “Empathic and Embodied Imagination: Intuiting Experience and Life in Architecture,” in Architecture and Empathy (Finland: Tapio Wirkkala-Rut Bryk, 2015), 9-10.
The embodied subject has its own field of presence (which includes the perceptual-kinaesthetic structures of the body, movement and temporality) that is in constant conversation with atmospheric spaces. The deeply phenomenological experience of these atmospheric spaces proposes a way to *ground* the subject – perceptually, temporally and bodily – in atmosphere. That is, a spatiality that is grounded in the subject and the active relationships of inhabiting space – lived space that is not abstract or sublime but simply an unfolding of our phenomenological contact with the world.
Fig A1: studio test, 2014
Lamp, fluorescent, lighting filters, variable
Fig A2: untitled, 2014
Perspex, fluorescent lights, lighting filters, dimensions variable
*catfish blues*, Canberra Contemporary Art Space Manuka, Canberra
Fig A3: hello, 2014
lighting filters, installation detail
catfish blues, Canberra Contemporary Art Space Manuka, Canberra
Fig A4 (top): untitled, 2015
    Gold mirror perspex, wood, 70 cm diam.

Fig A5 (bottom): untitled, 2015
    Perspex, MDF, dimensions variable
    Practice, ANU School of Art Foyer Gallery, Canberra, installation detail
Fig A6 – A9: Grosvenor experiment, 2014
Fog machine, studio lights, light filters, dimensions variable
Grosvenor Building, Sydney
Fig A10 (top): reflected light filter, 2016
Natural light, wood, Gyprock, paint, studio test

Fig A11 (bottom): reflected light studio test detail, 2017
MDF, paint
Figs A12 – A13: studio production for reflected light structure
Fig A14 (top) and Fig A15: reflected light structure, studio tests, 2018
Fig A16: Structure for reflected light, 2019
MDF, paint, natural light, 500 x 220 x 120
Fig A17 (top) and Fig A18 (bottom): School of Art and Design Gallery Courtyard, 2019
Figs A19 (top) and Fig A20 (bottom): CAD renderings for Structure for light and shadow
Figs A21 (top) and Fig A22 (bottom): Construction details for Structure for light and shadow


