

Immensity

by
Sonja Storey-Fleming

A thesis
presented to the University of Waterloo
in fulfillment of the
thesis requirement for the degree of
Master of Architecture

Waterloo, Ontario, Canada, 2014

© Sonja Storey-Fleming 2014

I hereby declare that I am the sole author of this thesis.
This is a true copy of the thesis, including any required final
revisions, as accepted by my examiners.
I understand that my thesis may be made electronically
available to the public.

ABSTRACT

This thesis is concerned with the moments, places, and circumstances in which the great magnitude of the world is felt. I live within the vast space of the spherical earth and the infinite space of the universe, however, it is rare that I consider the immensity of this space in which I live and endeavor to build. This thesis is an examination of the ability of both architecture and landscape to frame immense space and phenomena of the earth, reinforcing our relationship with the larger space that we inhabit.

This work is rooted in two accounts of immensity: The first is a landscape, a beach on the small Danish island of Rømø, where I stood on a vast, flat plane, surrounded by the seemingly limitless extension of space. The second is an architectural space, Kunsten Museum of Modern Art Aalborg in Northern Denmark by Finnish Architect Alvar Aalto. There I stood in an interior that framed an experience of immensity unnoticed from the exterior. The beach was for me a rare and profound experience of immense space, and the museum an architectural examination of immensity mediated by mass and interiority.

I weigh these personal accounts against immensity portrayed in art, architecture, fiction, and philosophy. I consider paintings by German Romantic painter Caspar David Friedrich, an *Infinity Environment* installation by contemporary artist Doug Wheeler, and the documentation of sand-filled homes in Namibia by contemporary photographers Yû Ogata and Ichirô Ogata Ono. I examine the portrayal of immensity in Michael Ondaatje's novel *The English Patient* and Karen Blixen's short story *Babette's Feast* and consider how immensity is manifest in space, people, and architecture in the writing of philosophers and theorists Dom Hans Van der Laan, Emmanuel Levinas, and Otto Friedrich Bollnow. Lastly, I consider the role that architecture plays in framing immensity by analyzing Kunsten Museum of Modern Art Aalborg and Grundtvig Church in Copenhagen by Danish architect Peder Vilhelm Jensen-Klint alongside Henry Plummer's writing on the Salk Institute and Kimbell Art Museum by American architect Louis Kahn.

ACKNOWLEDGEMENTS

To my supervisor, Robert Jan Van Pelt, thank you for your unwavering dedication to this thesis. Your support, guidance, and careful criticism have been invaluable.

To my committee members, Philip Beesley and Dr. Anne Bordeleau, thank you for your insight and engagement in this work.

Thank you to my external reader, Fred Thompson, for the care with which you approached the defence.

To Dereck Revington, I owe to you a great debt for the challenging and insightful M1 studio from which the primary questions of this thesis developed.

To my family, who have encouraged me throughout this long and at times bewildering indulgence, thank you for your unending love and support.

To the students and faculty of the School of Architecture, I feel very fortunate to have been a part of such a challenging and inspiring community. Thank you for this education.

CONTENTS

	<i>List of Illustrations</i>	viii
	<i>Epigraph</i>	x
	<i>Introduction</i>	1
Part One	<i>Two Accounts</i>	3
	The Beach at Rømø	5
	Kunsten	17
Part Two	<i>Where we go to be Alone</i>	29
	Solitary	33
	Pair	43
	Group	53
Part Three	<i>Spatial Definition</i>	61
Part Four	<i>Built Works</i>	73
Postscript	<i>Conclusion</i>	95
	<i>Afterword</i>	96
	<i>Bibliography</i>	100

LIST OF FIGURES

- 1 Rømø, Denmark
aerial image from Google Earth
Google Earth 7.1.2.2041. (May 31, 2011). Aerodata International Surveys. *Rømø, Denmark*. Accessed December 11, 2013. <http://www.google.com/earth.html>.
- 2 Sønderstrand Beach. Rømø, Denmark
photo by author
- 3 Sønderstrand Beach. Rømø, Denmark
photo by author
- 4 Sønderstrand Beach. Rømø, Denmark
photo by author
- 5 Sønderstrand Beach. Rømø, Denmark
photo by author
- 6 Kunsten Museum of Modern Art Aalborg, Denmark
aerial image from Google Earth
Google Earth 7.1.2.2041. (May 31, 2011). Aerodata International Surveys.
Kunsten Museum of Modern Art Aalborg. Accessed January 07, 2014. <http://www.google.com/earth.html>.
- 7 Kunsten Museum of Modern Art Aalborg
photo by author
- 8 Section through the South-East Galleries
drawing by author
- 9 Kunsten Museum of Modern Art Aalborg
photo by author
- 10 drawing by author
- 11 The North Sea at Sylt, Germany
photo by author
- 12 *Wanderer Above the Sea of Fog*
by Caspar David Friedrich, 1818 (Kunsthalle Hamburg, Hamburg, Germany)
http://upload.wikimedia.org/wikipedia/commons/1/1c/Caspar_David_Friedrich_032_%28The_wanderer_above_the_sea_of_fog%29.jpg
- 13 *The Monk by the Sea*
by Caspar David Friedrich, 1808-1809 (Alte Nationalgalerie, Berlin)
http://upload.wikimedia.org/wikipedia/commons/a/ab/Caspar_David_Friedrich_029.jpg
- 14 drawing by author
- 16 Islands Brygge, Copenhagen
drawing by author. Base file from OpenStreetMap.
- 15 Islands Brygge, Copenhagen (detail)
drawing by author. Base file from OpenStreetMap.
- 17 *Man and Woman Contemplating the Moon*
by Caspar David Friedrich, 1818/1824 (Alte Nationalgalerie, Berlin)
http://upload.wikimedia.org/wikipedia/commons/9/94/Caspar_David_

- Friedrich_028.jpg
- 18 drawing by author
- 19 drawing by author
- 20 drawing by author
- 21 *Moonrise Over the Sea*
by Caspar David Friedrich, 1822 (Alte Nationalgalerie, Berlin)
http://upload.wikimedia.org/wikipedia/commons/0/01/Caspar_David_Friedrich_-_Mondaufgang_am_Meer_-_Google_Art_Project.jpg
- 22 *The Stages of Life*
by Caspar David Friedrich, 1834 (Museum der bildenden Künste, Leipzig, Germany)
http://upload.wikimedia.org/wikipedia/commons/5/5c/Caspar_David_Friedrich_013.jpg
- 23 *Chalk Cliffs on Rügen*
by Caspar David Friedrich, circa 1818 (Museum Oskar Reinhart, Winterthur, Switzerland)
http://upload.wikimedia.org/wikipedia/commons/b/b2/Caspar_David_Friedrich_023.jpg
- 24 drawing by author
- 25 drawing by author
- 26 Sectional diagrams
Kunsten Museum of Modern Art, Aalborg and Kimbell Art Museum, Fort Worth
drawing by author
- 27 Grundtvig Church, Copenhagen
photo by author
- 28 Grundtvig Church, Copenhagen
photo by author
- 29 Grundtvig Church, Copenhagen
photo by author
- 31 *Row House, Kolmanskop 2006*
by Yû Ogata & Ichirô Ogata Ono. *House (2009)*, unpaginated.
- 32 *Row House, Kolmanskop 2006*
by Yû Ogata & Ichirô Ogata Ono. *House (2009)*, unpaginated.
- 33 *Row House, Kolmanskop 2006*
by Yû Ogata & Ichirô Ogata Ono. *House (2009)*, unpaginated.
- 34 *Family Flats, Kolmanskop 2006*
by Yû Ogata & Ichirô Ogata Ono. *House (2009)*, unpaginated.
- 35 drawing by author

The word *immensity* derives from the French word *immensité* from the fourteenth century, or the Latin *immensitas* or *immensus*. The meaning of the word evolved between the fourteenth and nineteenth centuries with no recent amendments. The *Oxford English Dictionary* describes three definitions of immensity that differ primarily in terms of whether or not it is quantifiable. The first definition refers to that which cannot be measured—immensity is boundlessness and infinity. The second refers to quantifiable immensity, referring to great magnitude, vastness, or quantity. Thirdly, immensity is understood in absolute terms referring to infinity or great extent—an immensity or many immensities.¹

Compiled from the Oxford English Dictionary.

¹ “immensity, n.” OED Online, last modified September 2013. Oxford University Press. <http://www.oed.com/view/Entry/91861?redirectedFrom=immensity>.

INTRODUCTION

I've observed immensity both as a measure of space and phenomena, and as a setting for solitude. As a rather solitary person I find solace in vast spaces framed by fog, rain, sand, the ocean, changing daylight, and the night sky. Such spaces evoke the vast expanses of the earth, and the immeasurable universe, and are both familiar and mysterious, providing a setting to contemplate my own being and place in the world. This is the immensity of which I write.

This thesis offers a series of personal observations and inquiries into the social, spatial, and architectural influences of immensity. The structure derives from themes that have emerged in my inquiry into immensity, and begins with two accounts of my own spatial experience in Part One. Part Two addresses the experience of facing the immense alone, in the presence of another person, and in the presence of a group. Part Three examines immensity through the lens of spatial definitions—such as the horizon—that create spatial hierarchy and enclosure within seemingly infinite space, and Part Four examines the immense through the lens of architecture.

This is in many ways a Romantic work, a thesis built firmly upon my own individual experience and emotional and critical response to the affective qualities of immensity in the natural world. The subject of *Immensity* is also closely related to the sublime: concerning the infinite, the unknown, and spaces and landscapes of great magnitude or dimension. As such, this work has ties to the enduring qualities of romanticism and the sublime as traditions that lend authority to personal experience and inquiry into the unknown.

PART ONE
TWO ACCOUNTS



1 Rømø, Denmark
aerial image from Google Earth

SØNDERSTRAND

Rømø, Denmark | March, 2009

Sønderstrand is a wide, flat beach on the southwest side of Rømø, an island off the west coast of Denmark. The beach is several kilometers long and wide and appears perfectly flat. Its dimension and uniformity present an experience of immensity like that of a desert enclosed by fog.

I'm at Sønderstrand beach on a whim, as it's my last night on Rømø and I've yet to walk along the shore. I follow the road up over the dunes and down the other side where it is supported on the left by a low fence of densely spaced wooden posts. The road continues out towards the unseen ocean, a faint tracing of parallel tire marks in the sand, flanked by wooden posts. By this point the posts are spaced ten meters apart. I follow the posts and tire tracks and faint lines they trace towards the indistinct horizon.

The sky is ill defined; a homogeneous haze hovers above the sand and descends to the ground at the horizon, enclosing the beach. The beach itself is very clearly present, its features legible in the near distance. The sand underfoot is firm and dark with dampness. It is marked by bands of tire tracks extending outwards to the sea: a muted highway extending into the fog. Circular tracks bounded with feathery traces of sand from land-sailing vehicles further delineate the space and create points of reference on the expansive beach.

Walking upon the clearly discernable beach, I am under, and to some degree within, the light, nebulous sky. As I venture further out towards the sea, the sand below my feet continues to present tracks, traces of past activity, and the sky remains unchanged. The beach presents immensity as a traversable horizontal plane wherein space is assessed by observing visible points of reference. The sky suggests vast three-dimensional space without





(previous page)

2 Sønderstrand Beach. Rømø, Denmark
photo by author

3 Sønderstrand Beach. Rømø, Denmark
photo by author

points of reference; its homogeneity and ubiquity support an illusion of infinite space. Together, the ground plane and sky present a nuanced reading of space; the vast sky frames a portion of the finite earth creating a confluence of two differing images of the immense.

The landscape is engulfing, and in it I am reminded of my smallness, my insignificance. I take small but deliberate steps into space that seems infinite in scale. My progress seems insignificant; I seem insignificant. Yet I continue, intrigued by the burgeoning tension between my body and the space around it, intrigued by the feeling of envelopment. My perception of the space of the sky appears to shift with my movement; the boundary of its obscurity re-orientates itself upon my changing position. I am wandering in an obscure, expansive landscape with few reference points; however, I myself have become a reference point. The discernible landscape is that which surrounds me at each point of perception. I am at once an insignificant being in a vast landscape and a nucleus about which space is oriented.

I am not alone on the beach. There are parked vans and land-sailing vehicles gliding noiselessly in the hazy distance, tracing silent arcs across the sand. The hazy dome of the sky encloses us all. We are distant yet ever-present; we are faced with each other while faced with our own solitude. I presume that the others occupy a similar field of perceived space, that like me, they experience the immense plane of the beach and the diaphanous sky, cut off from the world but also grounded in their surroundings. I imagine they too calibrate the seemingly limitless space around them. It is shared immensity; we have distinct experiences of this vast space, constellated across the plane of the beach, held in a web of known proximity and shared escape.







(previous page)

4 Sønderstrand Beach. Rømø, Denmark
photo by author

5 Sønderstrand Beach. Rømø, Denmark
photo by author

Whenever I turn around, the faint tree line of the dunes is still visible behind me, making the distance of my progress apparent, but also breaking the spell of the illusion of immensity. The tree line, like the vehicles on the beach, is a distant protective presence. To revel in the feeling of being overcome, to face seemingly infinite space, to feel I calibrate the space around me, all are dependent on a deeply felt sense of security.

The still, foggy air presses against me, as though holding me in a casting of my own body. My feet stand firm upon the sand, and my body is held by the space, space which is a negative cast of myself. There is only my body and that which is not my body. I revel in this contrast between my single being and the seemingly infinite space that surrounds me. The experience goes beyond spatial perception; in facing immense space, I am facing the universe—the universe of unknown dimension is the ultimate expression of the sky. In turn, the universe is facing me. I remain upright, I am diminished by the vastness that I perceive and imagine, and yet I face it, I interrogate my own presence and humanity in the face of the infinite.



6 Kunsten Museum of Modern Art Aalborg, Denmark
aerial image from Google Earth

KUNSTEN MUSEUM OF MODERN ART AALBORG

Elissa & Alvar Aalto, Jean-Jacques Barué, 1972

Aalborg, Denmark | February 2009

Kunsten Museum of Modern Art Aalborg was built in 1972. In their winning competition entry, the designers stated, “Light is of the same importance to an exhibition room, an art museum, as acoustics to a concert hall.”

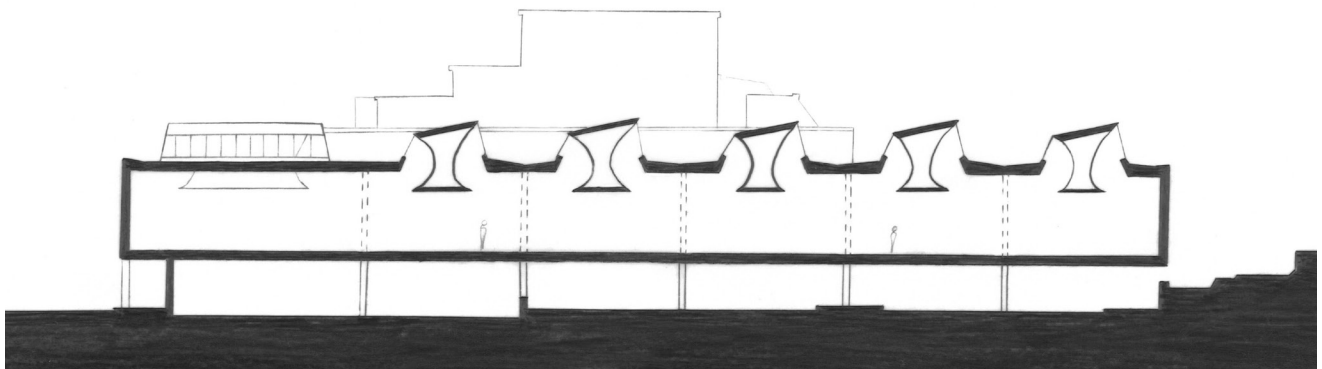
Light washes across the painting in front of me, interrupting the stillness. It seems liquid, as though it should flood over me like a rush of water; however, I do not feel it. I watch it wash down the painting and then back up, silently lightening and darkening its surface. Stepping back from the wall, I can see a subtle but discernible change in the lighting levels of this long low gallery. Long pulsations of light flood in and out from above.

The roof receives the soft light of Northern Denmark into the long windowless galleries of the southeast wing of the building. Long strips of inclined skylight admit light onto curved light scoops that run the length of each gallery.

I face a painting, the subject of which is at the level of my eyes; across its surface the character of the sky flits rhythmically. I stand in a room, a long low hall through which this rhythm floods, engulfing this space and the adjacent, immersing me and the space in the changing light of the immense sky above. My initial impression of the gallery is a space in which my eyes scan a horizon of painted works suspended at the height of the standing adult, a room in which my feet click across white-grey marble floors and shuffle on soft, wooly, grey carpet, a space of bricks that would fit in my hand and canvas whose texture I wish to touch. It is a tactile and human space.



7 Kunsten Museum of Modern Art Aalborg
photo by author



8 Section through the South-East Galleries
drawing by author

Now, light is inhaled deeply and fully into this lung of a gallery, and is swiftly and silently exhaled back out into the vast sky beyond. With this event, the space of the gallery has changed. The gallery is both the space of the human and the space of the sky; the immensity and seeming infinity of the sky is invited into the interior.

The depth of the light-scoops is equal to the height of the gallery below; thus, in terms of sectional hierarchy, the space afforded to the human is equal to the space afforded to the sky.

I stand in a building that breathes light. The change is rhythmic and extensive, as though the building is a lung, inhaling the light of the sky and enveloping me in its breath. I stand in this gallery that is my own lung—it echoes my own breathing—but is also the lung of the universe—a spatial structure for the breath of the sky. In one moment I identify with this building whose rhythm of changing light I associate with the rhythm of my own breath. In the next moment I am made to feel small; I am diminished by this room that admits and harbours a phenomenon whose immensity is overwhelming.

Each of the five long parallel bays of the gallery receives primarily northeast and southwest light along the length of the double concave light scoops in the ceiling. As clouds move between the sun and the roof, they alter the consistency of the daylight, imbuing the light that curves inward on the concave forms of the ceiling with movement.



9 Kunsten Museum of Modern Art Aalborg
photo by author

I do not see the sky. I occasionally see a sliver of it in the space between the light scoops and the flat ceiling that surrounds them, but these glimpses reveal little. The sky is, however, present. I do not see the clouds move between the earth and the sun, but their effect penetrates the room. I did not notice the changing daylight when I was outside earlier; the sky was simply an ample yet benign backdrop to the unexplored art gallery. Inside, the careful geometry of the roof makes the changing daylight immediate, animating the interior of the gallery with the dynamic light conditions of the vast sky. I do not see the sky, and yet I cannot escape it.

This room that has admitted me has admitted traces of the unseen heavens that shroud this building and extend in various conditions across Denmark, Europe, the entire earth. The magnitude of the heavens is not something that I can ever fully observe, comprehend or represent. I do observe snatches of it, but my observations are always limited by time and horizon. I stand now in this shared space, shared with a wandering few, and with the immense, unknowable sky. This building is an architectural device built within the space of the sky. I stand within an art gallery and within the infinite volume of the sky.

¹ Hélène Binet and Aase Bak, *Nordjyllands Kunstmuseum: Elissa & Alvar Aalto, Jean-Jacques Barnéï* (Copenhagen: Foden til udgivelse af Arkitekturtidsskrift B, 1999) 68.

PART TWO

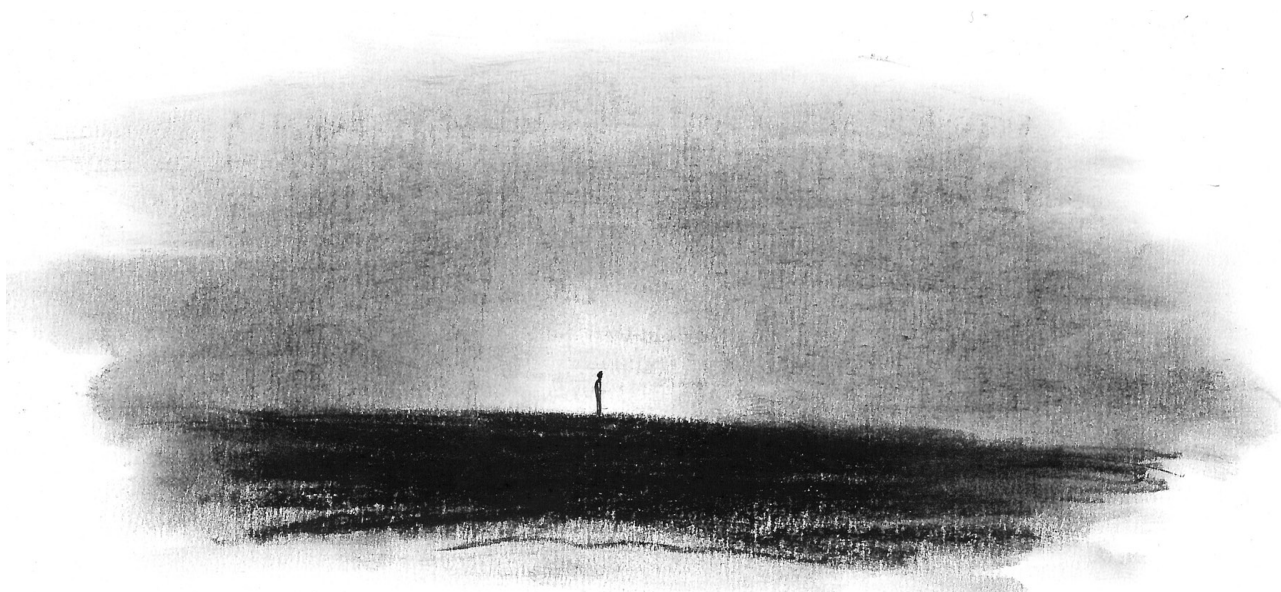
WHERE WE GO TO BE ALONE

I stood on the flat beach at Rømo, on sand made firm by the damp ground—residue from the ocean two kilometers away—and by tires whose marks seemed to extend outwards indefinitely towards that same ocean. The roads, meadows and small homes of Rømo were far behind me; there were only faint and distant reference points, the primary presence being space itself. I was in direct relationship with this space, it consumed my thoughts and pressed against my body from all sides; its incredible presence made me feel contained. This containment, the feeling of being held by space, was somewhat threatening, yet also empowering. I stood upright, a challenging form which interrupted the vast, flat field. I was at the center of my perceived space; my physical presence calibrated the apparent limitless space around me and challenged its infinite expansion. The relationship between my body and space was amplified. There was a tension between myself and my surroundings, each informed the other.

I was not entirely alone on the beach; there were a few vans and land-sailing vehicles at a distance, obscured by the fog. Though they were distant, their presence was felt. Did we share a similar experience of the vast beach, did we each feel held by the space, figures acting as nuclei for our own unique perception of the space? If I had walked out onto the beach with another person, how would this have altered my experience of the immense space of the beach? Would we have been held in space together, or as two unique beings in close proximity? Of what influence would our familiarity to one another have been as we faced the challenging unknowns of our immense surroundings?

I consider the experience of immensity to be a solitary experience that emphasizes my individuality and inspires me to turn inwards, isolating myself within my own thoughts. Though I do not fully understand why, when I face an immense setting, such as the physical grandeur of a building, landscape or phenomenon, I face myself in what I see and feel. My existence as a lone, physically insignificant human is emphasized by the vastness that surrounds me; thoughts of my physical isolation crowd my mind and I become acutely aware of my own being.

Though I face myself, I may in fact be in the company of others, foreign or familiar, few or many. Looking at several works by German Romantic painter Caspar David Friedrich alongside my own experiences of immensity, I examine the social influence on this personal experience. I analyze immensity experienced alone, as a pair, and as a member of a group or a crowd.



10 drawing by author

SOLITARY

I have stood alone at the edge of the ocean and felt isolated and diminished by its physical grandeur. I admired the power and beauty of the ocean but was measured by it; I saw myself as small and insignificant before waves that surged towards me, paused briefly, and drew back out to sea. The rhythmic waves originated from wind and weather patterns hundreds or thousands of kilometers away and by tides influenced by the gravitational pull of the sun and moon as the earth turned. As I looked at the ocean, I saw the influence of the universe; I recalled forces beyond the limits of the earth. I also imagined shipwrecks and hurricanes, scenes that I recalled from myths and news stories. All of this reminded me of the magnitude of the unknown and unknowable and of my own small place in it. I sat on the shore close enough to feel the rush of the waves and appreciate their scale and force but they did not physically threaten me. I sought this edge between security and wonder, between the finite and the infinite.

Watching the ocean, the shore was a distinct spatial barrier that separated me from the immense ocean that I admired. On the beach at Rømø, I found that in the midst of apparent endlessness a much more fragile barrier existed; I myself seemed to demarcate space, as though my location at any moment was a place of spatial significance. I struggle with this perception, wondering if I was focusing on the enclosing nature of the fog that allowed for visual clarity in my immediate vicinity but increasing obscurity in the distance. Had I created a mental construct of enclosure to feel secure within my immense surroundings? Was this an effort at self-preservation in the unnerving immensity of the beach? Is this simply a typical human reaction to immensity?

From an architectural perspective, these are difficult questions to address since they allude to space that is very loosely defined. In his 1983 book *Architectonic Space: Fifteen Lessons on the Disposition of the Human Habitat*, Dutch architect and Benedictine Monk Dom Hans van der Laan suggests that there are two types of space, *architectonic space* and *human space*. He describes *architectonic space* as the void that a building carves out of the space of the world. The void is a shell-like empty space that has been physically demarcated from the exterior by the placement of walls or other architectural elements. *Human space* refers not to physically defined space, but rather to experienced space, and is defined from the interior by bodily presence.¹ It is composed of perceptions of our surroundings as well as by our movements and actions within them.² I presume the small radius of clarity that moved



11 The North Sea at Sylt, Germany
photo by author

with me on the foggy beach at Rømø to be my experience space, space that referred to me at each moment and was a result of my senses and presence within the larger space of the beach. I consider Van Der Laan's theory of two types of space to be human-centric; *architectonic space* deals with the physical, built world, and human or experience space deals with the human navigation of both defined architectonic space and more loosely defined space. In both cases his theory describes space that pertains to human presence that is centered upon the human body and its movement and activity in time. I agree with Van Der Laan's description of *human space*, and though I do not often consider it in everyday life, it becomes clear in large buildings or vast landscapes where I feel isolated by my surroundings.

In my research on immensity I have been drawn to the desolate, pensive works of German Romantic painter Caspar David Friedrich. Many of his paintings have a tone of lonely reverence and solitude tinged with wonder, qualities that have accompanied my experiences of immensity. The solitary figure in Friedrich's *Wanderer Above the Sea of Fog* stands before an expansive landscape of mountains and valleys shrouded in fog. He occupies the edge of an enormous space that isolates and diminishes him, and yet he stands confidently. I find it thrilling to stand at the edge of such immensity, to ponder the exhilarating edge between joy and peril. The wanderer stands atop a rocky outcropping with one foot forward and the other back. He does not stand at the highest point, but a few steps below and the rocks in front create a subtle barrier, providing a secure place from which to gaze out at the challenging unknown. I consider this outcropping the *human space* of the wanderer. It is a space centered upon his body, and in it in he stands confidently and stares out at an isolating, overwhelming vista. This twofold perception of space, the smaller *human space* within a larger undefined space, illustrates the tension that I feel in immense space. When I face the immense I do not simply face it as an individual but rather as a being who creates and occupies space; the tension lies between my own *human space* and immense space beyond.

Fine arts professor Linda Siegel examines Friedrich's work in her book *Caspar David Friedrich and the Age of German Romanticism*. She suggests that in the painting *The Monk by the Sea* we see Friedrich himself, both the inner and outer man. We see the outer man standing by the edge of the ocean



12 *Wanderer Above the Sea of Fog*
by Caspar David Friedrich

and see his thoughts echoed in the turbulent landscape beyond. This dual portrayal of the physical and emotional being is, Siegel asserts, one of the objectives of romantic art.³ I use Siegel's theory as a reference point in my reflection upon Friedrich's depictions of immense landscapes and my own experience of the immense.

As I contemplate *The Monk by the Sea*, the enormity of the sky encloses me, and to a greater degree, the monk. My eye follows the darkening sky downwards where it settles at last on the ominous sea, where it is held at the bleak and turbulent horizon, contained by the expansive sky above. I identify with the monk, this solitary figure who stands in the foreground but is firmly *in* the turbulent landscape, looking out at the horizon. He is dwarfed and enveloped by his setting, the salty air whipping around him, emphasizing his isolation and vulnerability. I imagine that he, like myself, gazes out at the ocean and considers his own insignificance in the landscape as in life. I presume that he is besieged by thoughts and worries and yet stands fast against the assault—confident, engrossed.

In placing the figure of the monk in the foreground with his back to the viewer, Friedrich does two things: firstly he hides the face of the monk, necessitating that we interpret his mood from his posture and, if we are to consider Siegel's explanation, from his setting; secondly, the figure of the monk stands at a distance, engulfed by his vast surroundings where his own perspective would be of a much larger space. He knows, I imagine, how the water meets the shore and what lies to the left and right of the limits of the painting. As I contemplate the enormity of the sea and sky, I can guess but cannot know the immensity and envelopment that he experiences, nor how exactly it affects him, two details that contribute to the intrigue of the painting and the space that it suggests.

The homogeneity of the foggy landscape of the beach at Rømø had a deep, pensive quality to it. I gazed outward into the ambiguous depths of the fog, able to see far along the ground, marked by tire tracks, but unable to distinguish anything in the nebulous sky. The lack of definition and measurable depth in the sky made the immense appear very close. The space held me in my own solitude, inviting me to examine my influence, both physical and intellectual, and to consider my fragile yet determined existence. The calm limitlessness of my setting invited speculation about my mortality and contribution to society and the world. I became very self-centered, fluctuating between feeling small and insignificant under the hazy sky and feeling that my body defined a space of clarity and significance around me. I began to relish my own musings and perceptions in a setting that promoted both wonder and withdrawal, as though the landscape were the medium of my thoughts. My eyes and mind searched the vague sky together. Like the figure of the Monk in Friedrich's *The Monk by the Sea* I was isolated in a space that both challenged me and reflected my thoughts and worries, I stared out at the infinite and saw my inner self in the landscape.

I have not been to the Salk Institute in La Jolla, California but it has been described to me as a complex that frames its immense surroundings, tying the buildings of the institute to the Pacific Ocean nearby. As with many of Louis Kahn's buildings, the Salk is both precise and monumental, displaying the stoicism of a place that feels as though it were designed for solitary experience. The central court consists of a large flat rectangular plinth of



13 *The Monk by the Sea*
by Caspar David Friedrich

white travertine, bounded along its length by identical four storey concrete buildings. The travertine court is bisected by a thin channel of water that runs west to the open side of the court, tracing a line of sight towards the Pacific Ocean beyond. In his book, *Masters of Light*, author and professor Henry Plummer describes the central court as a void united with sea and sky.⁴ Its form frames the ocean beyond, uniting the immensity of the ocean with the finite space of the court. The rectangular buildings with inclined walls that line the court are detailed with similar care and restraint to the travertine paving below, uniting the built elements of the space. Kahn has created a geometry that is wedded to the sky and sea beyond such that, as Plummer adds, “As visual noise disappears, human consciousness turns back upon itself—there to sense its own being, and tenuous existence in the world.”⁵ Here, like on the beach at Rømø, the setting resonates with the individual that experiences it. The stone and concrete, and perhaps to a greater extent, the sea and sky they receive, emulate or externalize the internal vastness that we, as sentient beings, possess.

Each of these experiences of the immense is an encounter with the unknowable; each provokes emotion, the awe and wonder of curiosity and perhaps the fear and loneliness of isolation—both empathy and alienation. Standing at the edge of the ocean and on the vast beach at Rømø were experiences that called into question my ability to perceive, understand, and explain. Each prompted me to withdraw into myself to consider what I found intriguing and confounding. Both experiences challenged the manner in which I related to intimate *human space* and immense space. Although I feel that I can relate in part to the monk in Caspar David Friedrich’s *The Monk by the Sea* and to the wanderer in his *Wanderer Above the Sea of Fog*, I also recognize that they, like I as I look at the same scene, possess an untouchable authority pertaining to their individual experience of the immense before them.

¹ Hans van der Laan, *Architectonic Space: Fifteen Lessons on the Disposition of the Human Habitat* (Leiden: Brill, 1983), 12.

² *Ibid.*, 14.

³ Linda Siegel, *Caspar David Friedrich and the Age of German Romanticism* (Boston: Brandon Press, 1978), 72-73.

⁴ Henry Plummer, *Masters of Light* (Tokyo: a+u Pub.Co., Ltd., 2003), 178.

⁵ *Ibid.*, 176.



14 drawing by author

PAIR

One afternoon, while wandering on my own in a park near the harbor area of Copenhagen, I was caught in a sudden downpour. I ran to seek shelter under the hull of a large overturned boat. It was a long wooden boat with a shallow hull held above the ground by two clusters of wooden posts. I noticed a man running towards the boat as I did and for the duration of the downpour we stood under the boat and stared out at our surroundings, which had been transformed by the presence of the rain. We did not speak or make eye contact; we were two strangers standing in a space compressed by rain gazing outwards at the larger space we had just fled.

We stood at some distance, not at the furthest extents of the boat but rather close enough that I felt his presence. The rain poured down upon the park, the harbour, and the apartments nearby, I imagined that it poured down upon the entire city, isolating people in their cars and homes and more informally in doorways and under awnings. As the rain subsided these new informal interiors would bleed back into the obscurity of built and urban fabric, just as the people who sought refuge in these spaces would spill back out to regain their original domain. It was a city stalled. The rain was a barrier that seemed to compartmentalize the inhabitable space of the city. The space that now pertained to my body and actions, my human space, was reduced to the very small area under the boat, an area shared with another person. The space beyond the boat had also changed: it was suddenly an extensive, homogeneous volume that defined this interior. There were buildings, trees, and park structures nearby but their influence on the definition of space was overpowered by this new volume established by the rain.

I stared out at the rain and thought of its impact on space, thought of its enveloping, compressing qualities, and thought of how, like the experience of standing at the beach in Romo, I felt reduced to a single, fragile being. In this case, rather than standing exposed on vast flat beach, I occupied an intermediate space under the cover of a boat, a very small, focused space, a fragile interior from which to consider the extensive presence of the rain. Rather than feeling isolated in the faint, obscuring enclosure of fog and the sheer immensity of undifferentiated space, here I felt isolated by the physical presence of the rain, an isolation that seemed to emphasize the immensity of my surroundings. I occupied a space of a few square meters and looked outward.

As I contemplated this isolation, I could not escape the presence of the other person who stood under the boat. Our lack of acquaintance facilitated the illusion—fragile though it was—that I faced the immense alone, however, despite our distance his presence was felt, and even as strangers I imagined that we were united in a shared experience. Our human space, though distinct, was close, limited by the enclosure of the boat, the rain, and

by the distance we established when we sought opposite ends of the boat a few minutes before. We were contained by the boat, the rain, and our mutual presence, held for a few minutes in this tension. We were stranded for a moment by the presence of the enveloping rain and an unknown other.



15 Islands Brygge, Copenhagen (detail)

(following page)

16 Islands Brygge, Copenhagen

In Caspar David Friedrich's painting *Man and Woman Contemplating the Moon*, the experience of immensity—in this case shared with another person—is depicted differently than in the paintings discussed previously. In this case the composition and tone of the painting emphasize the relationship of the pair to one another. They stand together at the edge of an abyss considering what appears to be a valley of meadows and forest. Though Friedrich provides only faint hints of the valley beyond, I get the impression of a valley bathed in the soft light of the evening sun. The confident stance of the pair suggests that they behold a tranquil landscape; however, Friedrich has positioned them under the protective cover of trees, within the well-defined foreground that fills most of the painting, suggesting that they face a scene whose vastness is nevertheless formidable. Whether an extensive, threatening landscape such as in *Wanderer Above the Sea of Fog* and *The Monk by the Sea*, or this ambiguous vista painted in soft, romantic light, the immense does appear to challenge those who face it, whether alone or in a pair. In *Wanderer Above the Sea of Fog* and *The Monk by the Sea*, I interpret the setting of each to be an allegory of the figure's uncertain fate, the challenges and unknowns that assault him, and his solitude in facing his own mortality. In *Man and Woman Contemplating the Moon*, the two figures stand close; the woman rests her hand on the shoulder of her companion indicating their familiarity and probable intimacy. Perhaps they consider their lives together and the future that will involve the other, either in presence or at the very least in thought. The previously examined isolating and enveloping characteristics of immensity apply differently in this situation: the man and woman face the immense together and are thus isolated together, enveloped as if one. Though they remain separate beings, the tone of the painting and indications of their relationship suggest that they face the immense as a pair, that even their solitary reflection is done within the comforting proximity of a partner, the presence and promise of whom distracts each from their solitary fate.

The tone and composition of these three works by Friedrich suggest that the solitary experience of the immense is different than the experience of the immense if shared with another person. Though I acknowledge the influence that one member of a romantic pair can have on the other, I feel that Friedrich's romanticized depiction is reductive. Rather, I emphasize the distinction that the pair in *Man and Woman Contemplating the Moon* consists of



17 *Man and Woman Contemplating the Moon*
by Caspar David Friedrich

two individuals, and though they are together and may contemplate a shared future, I maintain that they remain fundamentally alone.

Consider French philosopher Emmanuel Levinas's theory that we human beings are distinguished from one another by the infinite that we each possess, and that by virtue of this inherent infinity, we are separate beings.¹ I am eager to agree that I possess infinite thought and potential and I recognize that I can never know another person entirely, thus they too must be infinite in thought and potential. Levinas argues that it is our ethical responsibility to maintain the infinity and separateness of the other. This is a moral obligation because maintaining the infinity of the other requires that they be respected as a separate being who has the right to live as an individual.² Levinas's theory recognizes relationships between people but disregards totalization—the assimilation of more than one person into a common identity—emphasizing that a pair consists of two distinct individuals. As such, a landscape that inspires an individual to feel alone, to some extent, still inspires this feeling in an individual that stands with another, even if they are partners.

I consider the experience of the immense to be very personal; it

emphasizes my solitude and relation to space, and in meditative landscapes such as the beach at Rømø or an ocean shoreline, the immense provides an exterior setting for my thoughts—the inner immensity of my mind. Though the presence of another does seem to distract from this experience, it is interesting to consider that in fact the infinite that the other possesses is inescapable. When I stood under the boat with another person in Copenhagen and when I imagine myself as one of the amorous two in Friedrich's *Man and Woman Contemplating the Moon*, I not only appreciate the immensity that is before me, but also the infinite of the other, the silent contemplation that occurs alongside mine.

¹ Emmanuel Levinas, *Totality and Infinity: An Essay on Exteriority*, trans. Alphonso Lingis (Pittsburgh: Duquesne University Press, 1969), 79-80.

² *Ibid.*, 194-197.



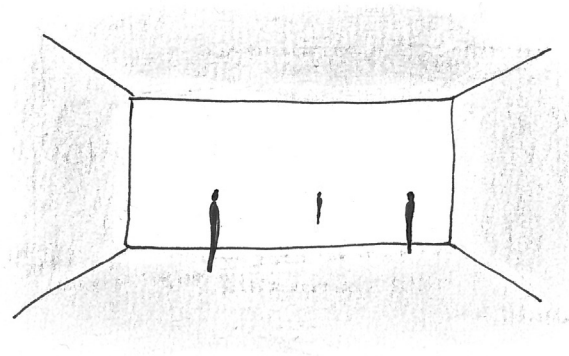
18 drawing by author

GROUP

In February 2012, I attended Doug Wheeler's installation SA MI 75 DZ NY 12 - Infinity Environment at the David Zwirner Gallery in New York City. Doug Wheeler is an American artist whose work explores light, surface, and space. I had read about the installation and was curious to discover the promise of the infinite in the physical confines of a gallery. It was to be an installation that would indicate immense space. I went alone but was soon well acquainted with the other visitors; we stood together in line waiting for the exhibit to open, chatted while sitting on chairs lining the walls of the entry, gathered in groups of six or seven to don booties and listen to the preamble, and finally entered the exhibit together. Though I had spoken to the people on either side of me during our two-hour wait, once we entered the exhibit we each sought our own solitude and silent contemplation.

I wanted to feel the extension of immensity, to suspend disbelief and sink into the reverie of this illusion of infinite space. At first I lingered—we all lingered—in the deep, white, rectangular antechamber, open on the long face, and gazed outward to the space beyond. It did not appear to be a space but rather a surface, a hazy painting of white and near-white pigments stretched across the rectangular opening. I knew it was not a painting but struggled to see otherwise. As I searched the false surface, a man approached it and then stepped through, irrevocably shattering the illusion. He transformed the space and accelerated the sequence of the installation. As others proceeded to step through the newly revealed opening and walk into the ambiguous space of the room beyond, they seemed to recede into a thick cloud without being enveloped in it, to hesitate at the edge of oblivion but never disappear. Our initial impressions were accelerated by the group. We found our way into the installation, seeing it through each other's eyes as we saw it through our own.

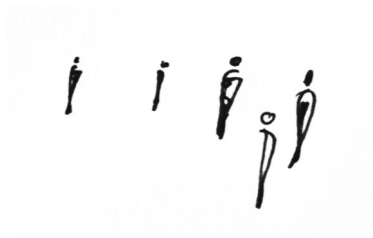
I approached the obscure limits of the egg-shaped interior with cautious curiosity; I was intrigued about the physical limits of the room but also eager to suspend disbelief and be immersed in the visual obscurity of this dream of the infinite. I slipped into a feeling of disorientation, unable to see the ground beneath my feet or the curved wall ahead. I then noticed the people on each side of me—this space that seemed to assault my senses was challenging us all. We had gravitated to the outer limits of the flat floor area, tracing a boundary that we could feel underfoot but could not see, standing together at the edge of the infinite and gazing outward. Searching. I held out my hand slowly, reaching in the hazy obscurity to secure with my hand what I could not see with my eyes. I watched as others did the same. Silently, we faced the same unknown. In the visual obscurity we were each other's constants; we held each other in the tangible as we each looked out into the intangible.



19 drawing by author

My openness and vulnerability to spatial experience is influenced by how familiar I am with those around me; whether our relationship is intimate, friendly, casual, unfamiliar, or hostile affects my ability or willingness to find solitude in their presence, a condition that contributes to my experience of the space. I would have preferred to visit Wheeler's infinity environment installation alone. It was a work that invited solitude, a place where I could get lost in the obscure space that challenged my spatial awareness, a focused yet sparse installation that presented a boundless and mysterious spatial illusion. Unlike more typical spaces that might evoke immensity such as an ocean, sunset, or a church which are all rich with narrative and symbolism, the Wheeler exhibit emphasized phenomenon and perception, inviting my engagement. The installation was so demanding of my senses that it did not leave much room for other thoughts. I was aware of my own wonder and confusion and could see the same in the other members of the group: the focus and scale of the exhibit emphasized a shared response to the infinite and a compassionate response to an otherwise solitary experience.

Doug Wheeler and James Turrell, along with fellow artist Robert Irwin, were part of an art movement in the 1960s and 1970s in California



20 drawing by author

known as the Light and Space Movement¹ or West Coast Minimalism. Both Turrell and Wheeler were influenced by the deserts of Arizona and California growing up, and much of their work concentrates on representing light and space, both strong presences in the desert. Peter Schjeldahl, art critic for the *New Yorker*, reviewed James Turrell's 2013 exhibit *Aten Reign*, an immersive work of soft, changing light that filled the spiral atrium of the Guggenheim New York in the summer of 2013. Schjeldahl concludes his review of *Aten Reign* by saying, "The Guggenheim show hits an unchanging sweet spot of what we want from any museum: a place where we can go en masse and be alone."² I find this interesting for two reasons: firstly the distinction of seeking solitary experience while in the presence of others, and secondly, that this social experience is promoted by a type of building—the museum.

I went to the Wheeler exhibit to be alone, to seek an immersive space that would challenge my senses. When shared with the group, the exhibit became a very compassionate experience: we seemed to be lost together as a result of our defeated senses. We were lost in the delight of spatial ambiguity, in the disorienting white glow, all of us caught between knowing and not knowing, between being alone and being united. Often large or otherwise

immersive spaces have an imposing presence, making me feel small and alone. In terms of space, Doug Wheeler's installation at the David Zwirner Gallery was immersive, and though physically modest, the limits of the space were curiously ambiguous, inviting me to feel small and alone rather than forcing the feeling upon me. As an art piece, the installation was both thoughtful and introspective, inviting me to pause and measure myself—even if among others. Both the scale and content of the Zwirner Gallery promoted the effect Schjeldahl references—it was a place that invited us to be alone.

In Caspar David Friedrich's *The Stages of Life*, *Moonrise over the Sea*, and *Chalk Cliffs on Rügen*, he depicts three calm ocean scenes with a group of people in the foreground. I feel that each painting illustrates Schjeldahl's description. All three depict groups, of varied association, that facilitate a solitary experience of immensity. In *Moonrise over the Sea*, the three people present appear to sit in silent contemplation of the vast scene before them, physically close but consumed in private thought. They sit at the shore together but don't speak, each alone in their thoughts. In *The Stages of Life* the man with his back to the viewer is considered by art historian Linda Siegel to be Friedrich near the end of his life. His family is present in the middle ground and the calm ocean beyond is an allegory of life with the ships representing each member of his family.³ Though I consider Friedrich's family to be very important in the narrative of the painting, their presence is significant primarily because it informs his contemplation. I presume that the twilight scene echoes his reflections on his own mortality and legacy, concerns that do not trouble his young family who fittingly have turned their backs on the scene beyond. In *Chalk Cliffs on Rügen* one man stands with his back to the viewer and gazes out over the calm sea. The two figures in the foreground, though close enough to be with the man, appear to react with wonder and some apprehension to the dramatic cliffs. Their distraction illustrates a second reading of the awe-inspiring scene and allows him the privacy to consider the vast ocean alone. In all three paintings, the contemplative vistas in the background appear to reflect the mood of the figures that consider them, largely overshadowing the social opportunities of their company.

From a design perspective Schjeldahl's comment suggests that one role of architecture is to provide a setting in which to be alone, even if it is a public setting. This concept is challenged by buildings such as stadiums



21 *Moonrise Over the Sea*
by Caspar David Friedrich



22 *The Stages of Life*
by Caspar David Friedrich



23 *Chalk Cliffs on Rügen*
by Caspar David Friedrich

that accommodate a large crowd of people to support a singular event with clear focus, either a sporting event or concert. In such a crowd I oscillate between feeling small and anonymous, alone in the crowd, and feeling a part of the enormous crowd. This is facilitated by my physical nearness to others; the homogeneous crowd becomes like a homogenous fog isolating me as an individual or as a member of a group if we are acquainted. However, since the crowd is a collection of people rather than fog, overwhelmingly I empathize with it on a social level, feeling part of the assembly of humanity.

Kunsten Museum of Modern Art Aalborg, is a building that seems to be designed to admit the immense sky, placing the gallery visitor, who might not otherwise notice the sky, in direct contact with it. The inescapable presence of the sky at Kunsten was one of the most moving experiences of immensity that I have encountered and I continue to be intrigued by the building and its emphasis on this phenomenological presence. The roof is a central design element and creates a serene yet challenging environment for viewing modern art, which even amongst others, is a solitary communion between the artist and the viewer. The design of the roof makes this contemplative art gallery a place where I was made to feel alone, where I measured myself not only against the art but against the entire building and the vast sky beyond. Like in Wheeler's installation *SA MI 75 DZ NY 12 - Infinity Environment*, Alvar Aalto would have anticipated that the building be used by groups, however with both the design and program of the building, he invited me to be alone, to challenge my consciousness, in the presence of others.

¹ Randy Kennedy, "Into the Heart of Lightness," *New York Times*, January 15, 2012, accessed October 24, 2012, <http://www.nytimes.com/2012/01/15/arts/design/doug-wheeler-builds-infinity-environment-at-david-zwirner.html>.

² Peter Schjeldahl, "Seeing and Disbelieving: James Turrell at the Guggenheim," *New Yorker*, July 1, 2013, 73.

³ Siegel, *Caspar David Friedrich and the Age of German Romanticism*, 128-129.

PART THREE

SPATIAL DEFINITION



24 drawing by author

The expansive flat beach of Rømø, Denmark was marked by tire tracks that extended outwards across the dark sand, accompanied by a line of widely spaced wooden posts. I followed these lines from the dune out towards the unseen North Sea. In the undifferentiated space of the beach my movement was measured in relation to that which broke the homogeneity. The wooden posts traced a datum line, a standard by which to read both the space and my progression within it. The beach was also dotted with vans and land-sailing vehicles with which I was able to estimate distance in the otherwise undefined landscape. As I walked out further, the beach became more enveloping and the emphasis of these features diminished. With every step, I inhabited a different semi-spherical enclosure determined by the hazy horizon that surrounded me and the solid mass of the earth below; ahead the horizon was the line where the sky touched the sand and behind me it was the tree line that traced the upper ridge of the dune.

Ahead, the beach appeared to continue indefinitely, unchanging, as though I stood in the midst of boundless space. This is the promise and the betrayal of the horizon. To the north and south the beach continued for the length of the island; to the west it was bound by the North Sea which lay about one kilometer away. I was aware of these limits but was seduced by the false infinity of my obscure surroundings. When I reminded myself of the nearby village of Havneby, of mainland Denmark a few kilometers to the east, and of my home on another continent, I located these places spatially in relation to the beach and its implied infinity. I inhabited a space of two scales: the scale of my hazy enclosure—whose physical limits are fragile and easily breached—and the larger scale of my wider surroundings: the limits of the island which I knew from memory or pieced together from faint landscape features in the haze, and the wider world beyond.

My attraction to the immense is born out of desire for both infinite and finite space, a yearning for unsheltered limitlessness and for enclosure. I think that we experience space in this manner, that enclosure and definition are inseparable from immensity. This essay examines spatial definitions that create hierarchy, distinction, and enclosure within immense space. With the designation *spatial definition* I exclude architectural enclosures such as buildings but include physical features such as fences, landscape features, human presence, ephemeral enclosures caused by light and fog, and the intangible human-centric boundary of the horizon. I examine spatial definition in immense space through the lens of my visit to the beach at Rømø, the theories of Otto Friedrich Bollnow, a fictional account of the desert in Michael Ondaatje's *The English Patient*, and an analysis of accounts of Le Corbusier's visit to the Acropolis.

In his 1963 book *Human Space*, German writer and teacher Bollnow wrote a thoughtful and focused analysis of how we relate to space that considers architecture, philosophy, and phenomenology. Bollnow observes that the discoveries of Christopher Columbus and Nicolaus Copernicus had a marked effect on the evolution of our spatial understanding as a people. Columbus's voyage to the Americas in the late fifteenth century initiated concentrated relations with the new world, introducing landmasses not previously prominent in the European consciousness. I presume that the concept of a spherical earth and its promise of unexplored lands must have also added to the transformation of accepted spatial boundaries. Shortly after Columbus's voyage to the Americas, Copernicus's heliocentric model of the universe established that the sun, rather than the earth, occupied the center of the universe.¹ Italian philosopher, mathematician, astronomer, and occultist Giordano Bruno, working in the late 1500s, extended Copernicus's heliocentric theory, suggesting that the universe is infinite and contains many worlds.² Bollnow writes of the excitement that must have accompanied these discoveries,

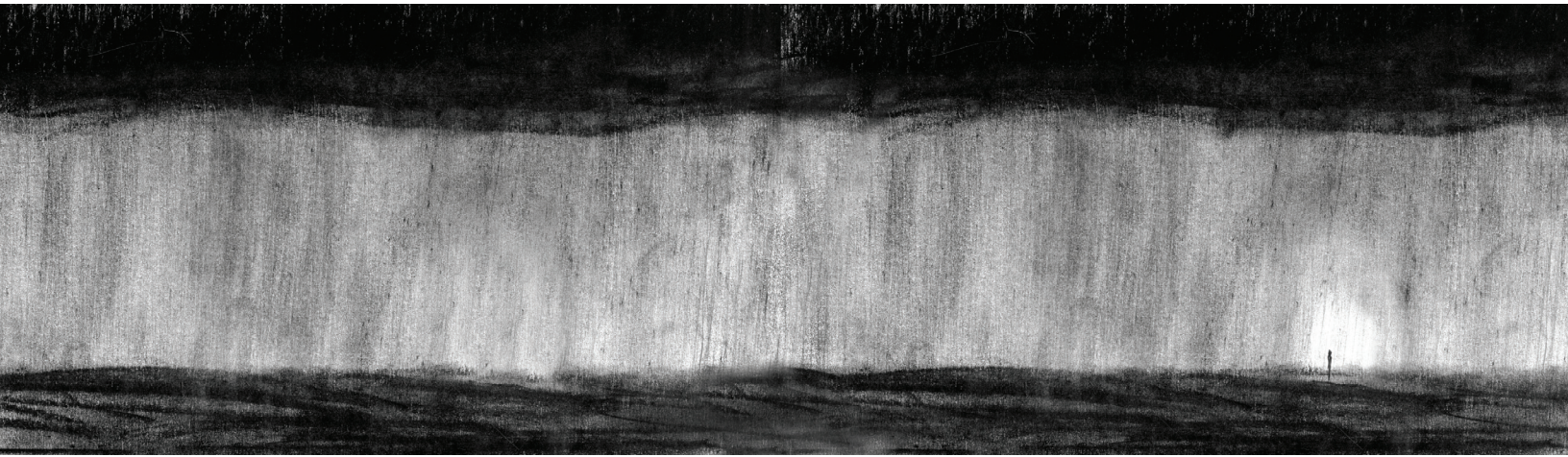
The striving for infinity at this period made people dizzy with the perspectives opened up by astronomical thought. They positively revelled in the celestial spaces. For this reason, we can speak of the

achievements of Columbus and Copernicus as a positive revolution in the consciousness of space. The concept of the closed nature of a finite space surrounding and sheltering mankind collapses, and opens up into the hitherto unknown expanse of infinity.³

This essay does not focus on historical or chronological explanations of the changing understanding of space; however, I consider Bollnow's observations to be pertinent to this discussion because, although the transformative influences on spatial understanding that he describes took place centuries ago and their concepts are generally well accepted, I find that personal, sensory-based experience of immense space often contradicts these established theories, complicating our experience of the immense.

Upon the surface of the earth, space is bound by a horizon, a spatial definition that limits visual perception and creates an enclosure that suggests that the earth is flat, conflicting with the scientific truth that it is spherical. At one time the line of the horizon indicated the limits of a finite world: the ocean met the sky at an edge beyond which wayward ships disappeared, an edge determined by the limits of human knowledge and perception. I know that the earth continues to curve downwards beyond the horizon; however, this is rarely confirmed by experience as the curvature of the earth is rarely visible from the vantage points of daily life. As a result, the manner in which I experience space reinforces the model of the finite space of a flat earth, a model that I know to be false. Knowledge and observation are at odds. Additionally, though Bruno indicated that there is no known limit to the universe, the sky appears to form a dome over the space bound by the horizon, emphasizing the enclosure of the horizon and an allusion to finite space. I inhabit thus the infinite and the finite: the finite spatial world that is centered upon my own body, and the infinite world of the universe that is centered upon the sun.

Bollnow suggests that as beings of the earth, we have a mysterious trust in the world that derives from our identification with space and its protective, sheltering character.⁴ Bollnow's reasoning is rather vague but I agree with his observation as I too feel a trust in space that is difficult to articulate. This concept of trust may explain why I approach immense space without the terror that is often evoked by objects and forces of great



25 drawing by author

magnitude and influence. I suspect that the shelter of the horizon, though abstract and fictional in terms of the immensity of the world and universe, also contributes to trust in space. We inhabit space bordered by a horizon at all times in our lives, the limits of which create an discernable yet immaterial enclosure in space that is defined by the extent of our vision and knowledge. The horizon pertains uniquely to each being in accordance to their position in space and is thus a spatial boundary that is both familiar and constant.

In Michael Ondaatje's novel *The English Patient*, the cartographer Almásy recounts both the pleasure of vastness in the desert and the subtlety of loosely defined enclosure. The desert he describes does not seem conducive to cartographic documentation; he recalls absence and mystery, immaterial boundaries supported by myth and memory, a fluid landscape of sand, wind, and time. Nevertheless, he and his colleagues seem intertwined with the desert, and Almásy in particular with the characteristics of the desert that defy cartographic documentation. Never having been to a desert myself, nor lived in a space of similar vastness, I am intrigued by the relationship that Ondaatje's characters develop with the desert, and the significance he attributes to both immensity and enclosure.

In one passage, Ondaatje describes Almásy's restless longing for his lover Katharine Clifton with whom he has a tempestuous relationship. They are both in Cairo, she with her husband, he on his own. It is noted that Almásy feels alone in Cairo knowing that Katharine is somewhere in the city without him. In the desert he had never felt alone, even when alone in remote, uninhabited areas. Ondaatje adds, "A man in a desert can hold absence in his cupped hands knowing it is something that feeds him more than water."⁵ While the absence of a loved one is a deprivation, absence in space is fulfilling. Ondaatje refers to the scarcity of water and the abundance of space in the Libyan Desert. He suggests that while Almásy feels alone in bustling Cairo, the absence in the desert paradoxically has a presence that satisfies him.

I am sympathetic to Ondaatje and Almásy as I also find solace and fulfillment in absence. As I walked out into the beach at Rømø, at a certain point the wooden markers and vehicles faded from my attention and I perceived my hazy surroundings as a vast expanse that might continue indefinitely. Enveloped and for a moment alone, I found it thrilling to face

the immense, measure myself against it and search meditatively in its hazy depths. Space pressed against me, held me, and enticed me into the distance. I was present in an equilibrium of gains and losses fought by degrees at every moment between my lone, small self and space. It was an invigorating feeling of tension and wonder that reinforced my relation to my vast surroundings.

Throughout the novel, Ondaatje provides further images of the desert that emphasize the tension between Almásy and the immense space he inhabits, tension that is most often mediated by spatial definitions in the desert. Almásy describes a desert of many presences: tribes of people who inhabit the desert, as well as the less tangible presence of history, absence, and the unknown. He describes the immensity of the desert in terms of myth and division, recounting that the early Egyptians defined a separation, both physical and mythical, between the space in the desert that was familiar to them and the space beyond. They describe a boundary in the desert beyond which there is no available water, a line that coincides with the end of the world.⁶ Almásy, however, seems to disregard this boundary noting, “But in the emptiness of deserts you are always surrounded by lost history. Tebu and Senussi tribes had roamed there possessing wells that they guarded with great secrecy.”⁷ In a landscape where the wind and sand would have erased the traces of the cartographer’s camps and the paths they carved through the vastness, spatial definitions and boundaries between finite and infinite space are understood in terms of myth, memory, and time.

At their desert camp, Almásy and his colleagues sit together in the night around a fire, bound to one another by their familiarity, physical proximity, and inward focus. They trace the perimeter of the circle at the extents of the fire’s glow, defining a small space within the immense, dark desert. The modest and temporary interior emphasizes that which they have turned away from: the dark, unknown expanse of space masking yet-undetermined threats, which presses close on all sides. The gathering, light, and fragile security of the fire bring the exterior into being. The fragile interior—a volume defined by the dark enveloping desert—exists in time as well as space, fading as the fire dies or the sun rises, waning as people step out of its glow. Almásy recalls, “If a man leaned back a few inches, he would disappear into darkness.”⁸ When the fire dies, the dark presence of the desert will wash back over the place where they sat, homogenous once again.

In his 1999 book *Warped Space*, architectural critic and historian Anthony Vidler writes of anxieties such as agoraphobia and claustrophobia and their influence on modern architecture. He describes Le Corbusier's visits to Athens, explaining that during an early visit to the Acropolis he found it to be an overwhelming and even terrifying spatial experience, however, upon his second visit in 1933, he seemed to move beyond his initial perception of the Acropolis and saw it more favorably within its spatial context.⁹ Vidler expresses Le Corbusier's description of the Acropolis framed within the landscape:

A frame formed by the surrounding mountains, that operated, in Le Corbusier's simile, like a shell holding a pearl. Nature came first, but meaning was formed by architecture: "Les temples sont la raison de ce paysage."[†] The exterior is an interior.¹⁰

From Le Corbusier's description, the buildings of the Parthenon and its surrounding structures complete their setting, additions that rectify an imbalance in the existing landscape. As a result, both the landscape and the buildings are strengthened by their relationship to one another. Consider this alongside the examples of Almásy's fire in the desert and my standing alone on the beach at Rømø: each case documents a different type and scale of spatial definition in immense space and each can be described in terms of something or someone being *held* by space. Vidler suggests that while Le Corbusier was initially intimidated by the Acropolis and surrounding landscape, his second reading is more enthusiastic; he is at ease with the setting regardless of its vastness and describes the buildings of the Acropolis as being activated in and by space.¹¹ Similarly, the experiences of the beach at Rømø and Ondaatje's vast desert oscillated between the wonder and tension of vast, undifferentiated space and recognition of the influence of enclosure and spatial definition on these spaces.

[†] ["The temples are the reason for this landscape." – translation SSF]

¹ Otto Friedrich Bollnow, *Human Space*, trans. Christine Shuttleworth, ed. Joseph Kohlmaier (London: Hyphen, 2011), 83.

² “Giordano Bruno,” Encyclopaedia Britannica Academic Edition, accessed November 28, 2013, <http://www.britannica.com/EBchecked/topic/82258/Giordano-Bruno>.

³ Bollnow, *Human Space*, 84.

⁴ *Ibid.*, 280-281.

⁵ Michael Ondaatje, *The English Patient: A Novel* (Toronto: McClelland & Stewart, 1992), 155.

⁶ *Ibid.*, 135.

⁷ *Ibid.*

⁸ *Ibid.*, 143.

⁹ Anthony Vidler, *Warped Space: Art, Architecture, and Anxiety in Modern Culture* (Cambridge, Mass.; London: MIT Press, 2000), 55.

¹⁰ *Ibid.*

¹¹ *Ibid.*

PART FOUR
BUILT WORKS

Peter Zumthor is a Swiss architect whose thoughtful writing describes architecture that is sensitive to the properties of materials, time, memory, and setting. In his book *Thinking Architecture*, Zumthor presents a very deliberate and conscious approach to the framing of space. He writes,

In architecture, there are two basic possibilities of spatial composition: the closed architectural body which isolates space within itself, and the open body which embraces an area of space that is connected with the endless continuum.¹

When light flooded into the gallery where I stood at Kunsten Museum of Modern Art, and seemed to be inhaled and exhaled through the roof, I stood within the gallery and within the changing sky. Kunsten employs the second of the two possibilities of spatial composition. As architects we are, as Zumthor explains, always working with small measures of space within the infinite space that encircles the earth.² Whenever we build, we build with such space, and with the potential to illustrate the relationship of the finite to the infinite through architecture. I am interested in buildings that navigate the boundary between the possible shelter provided by a building, and the exposure that I have felt in buildings such as Kunsten, which register space or phenomenon of great magnitude.

I have sought out buildings that promised the immense, such as Doug Wheeler's *Infinity Environment* installation in New York City. I stumbled upon both Kunsten Museum of Modern Art and Grundtvig Church as well as the sand-filled houses of Namibia photographed by Yû Ogata & Ichirô Ogata Ono. *Babette's Feast* was recommended to me during my research and its setting stood out immediately. Though a small selection, these buildings stand apart from most of the buildings I've encountered because each of them frames immensity in terms of space or time. Those which I visited in person—*Infinity Environment*, Kunsten Museum of Modern Art, and Grundtvig Church—each allowed me an experience that I had otherwise found only in vast outdoor spaces, they placed me within the context of immense space or phenomena, allowing me to measure myself against the immensity of the world and universe I inhabit and to interrogate my place in this immensity, two experiences that I consider fundamental to my being.

I am revisiting Van der Laan's assertion that there are two types of space: *architectonic space* and *human space*. His descriptions of space, architecture, and the influence of both on human beings are pragmatic, almost scientific, despite the phenomenological nature of the theme, adding structure to this topic that is difficult to articulate otherwise.

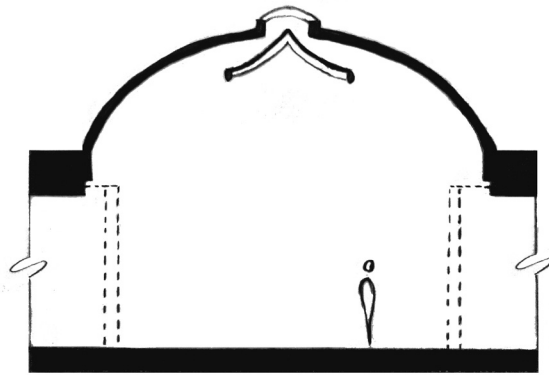
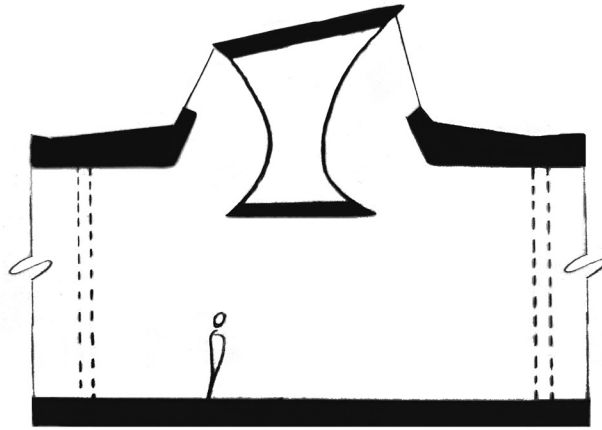
Human space, as I mentioned previously in Part II, is defined by Van der Laan as space in which we are present and in which we carry out the actions of our lives. If I were to stand upon a flat plane, I would imbue the space around me with distinction due to my presence and actions within that space. I am the center of my perceived world and the center of my own *human space*, or as it is also termed, experience space. Van der Laan describes *human space* as fullness within emptiness.³

Architectonic space, without considering human use of the space, is defined from the exterior by architectural elements such as walls. If we consider once again that same flat plane, and upon it four walls are erected to enclose an area of space, Van der Laan would describe the enclosed space as having been subtracted from the fullness of natural space. He specifies that *architectonic space* is space that is defined from the exterior and is thus understood to be a void—emptiness within fullness.⁴ This methodical description reaches a balance when Van der Laan describes how the two notions of space are combined in the habitation of the house:

The walls, which seem to divide us from natural space, in fact enable the space of our human experience to be assimilated into the greater space, so that through the medium of the house[†] we are able to bear and inhabit the space of nature in all its vastness.⁵

I suggest that in investigating the immense through the lens of architecture we consider the presences that Van der Laan introduces: the presence of the individual and their transformative influence on the space around them, that of the exterior brought about by the creation of an interior, and the meeting of both in the inhabitation of architectural space.

[†] Though Van der Laan specifies the house, I think that the same applies to a wider selection of building types.



26 Sectional diagrams
Kunsten Museum of Modern Art, Aalborg (top) and Kimbell Art Museum, Fort Worth (bottom)
drawing by author

KUNSTEN

Kunsten Museum of Modern Art Aalborg was built outside of downtown Aalborg on the site of an old quarry. The gallery building and sculpture garden were nestled into a small valley, bound by a forested hill to the south and a cemetery to the north that sloped downwards toward the center of Aalborg. The setting was rather unremarkable, however, the building enables an experience of immensity within a landscape that did not itself inspire such an experience.

Initially this museum was to me many things: it was a tactile building with finishes and details that invited my touch and it was a series of gallery rooms of varying heights and sizes with movable walls for ease of curation, but it quickly became evident that it was primarily a building in which to view art within the setting of the sky. When I watched a gentle wash of light pass across the painting in front of me, and upon stepping back, watched it create a datum line of light that swept through the building, the building became overwhelmingly a device for measuring the immense, for bringing the presence of the immense sky into the space of the human.

The roof very determinedly admitted the light of northern Denmark, characterizing the interior with the dynamic conditions of the expansive sky above. Architecture made tangible a phenomenon that was present but would otherwise have gone unnoticed. Standing where a moment before I considered artwork, I suddenly saw, felt, and contemplated the magnitude of the sky above and that light of Northern Denmark. The sky challenged the modest scale of the building and myself as I stood within it. Interior and exterior intertwined.

In Henry Plummer's book *Masters of Light*, he describes the Kimbell Art Museum in Fort Worth, Texas, which appears to provide a similar experience to Kunsten within the light of the Southern United States. Designed by American architect Louis Kahn, the museum consists of a parallel arrangement of long narrow galleries with barrel-vaulted ceilings. The gallery rooms are similar in scale and sectional profile to the long low galleries in the southeast wing of Kunsten, and are clad in the muted, though warmer, materials of wood and travertine as well as concrete. The vaulted ceilings admit daylight through narrow slits that run along the length of the highest point of each vault, directing light onto two curved screens that reflect this light back onto the underside of the vault. Like at Kunsten, the indirect light of the sky illuminates the galleries, though at Kimbell this occurs through a narrow opening suited to the harsh light of Texas. I have not been to the

Kimbell, but am struck by Henry Plummer's description of the changing light in the museum, which is reminiscent of my visit to Kunsten:

The intensity and hue of natural light transforms with the hours and seasons, and more suddenly with changing weather, dimming and brightening as if a switch has been pulled. When a cloud passes overhead, its moving shadow is felt like an electric current running through the length of the building.⁶

Both buildings are carefully calibrated instruments that admit the light of their surroundings, and in making the light and rhythms of the immense sky tangible in their interiors, each museum is grounded in the space and light of its respective setting.



27 Grundtvig Church, Copenhagen
photo by author

GRUNDTVIG CHURCH

I first visited Grundtvig Church on an overcast day in March 2009. It was in the Bispebjerg district of Copenhagen and was a short bicycle trip from my apartment. The church was a massive vertical presence amidst smaller two- and three-story buildings that surrounded it and lined the road leading to its entrance. The smaller buildings were built of the same yellow brick of the church and positioned like set pieces, implying a small, idyllic village serving a monumental church. Their scale and arrangement emphasized the striking presence of the church and tied it to its surroundings.

Tall narrow openings rose up the austere façade of the church like organ pipes carved out of a mountain, and at the base three small wooden doors lead into a comparatively open and delicate, though large, light-filled interior. The tall windows behind the altar filled the apse with glowing light that spilled back through the nave, pausing upon the ridged columns that lined the aisles, fainter with each step back. The soft grey light of the hazy sky seemed to rest softly on the bricks of the silent interior. Light entered from windows in the side-aisles as well; the vertical ridges of the columns illustrated the reach of the soft, grey light within the homogenous interior, creating a gradient of yellows and greys as the light stepped back through the nave. Light and brick met, and communicated one another's properties with honest simplicity.

Outside, the sky was unremarkable, the faint, glowing grey of so many winter days in Copenhagen. Inside the church, the grey light lent majesty and stoicism to the interior; tracing the lines of the columns and arches, it illustrated the dramatic verticality of the church and imbued it with lightness. The meticulously detailed interior was composed entirely of humble yellow bricks, the size of which could fit in my hand. These bricks climbed upwards to the high arches above and combined in the thousands to create a sky-filled structure, relating my anatomy to the soaring height of the church. Similarly, the interior elevated the banal light of the sky, giving it presence and beauty in the setting of the church.

The humble yellow bricks created an awe-inspiring unity within the space, relating me to the majestic interior and to the sky that it admitted. Like Kunsten and Kimbell, Grundtvig presented the immense at the scale of the individual. It is a building that, as Van der Laan suggests, allows the space of the human to be integrated with the immense.



28 Grundtvig Church, Copenhagen
photo by author



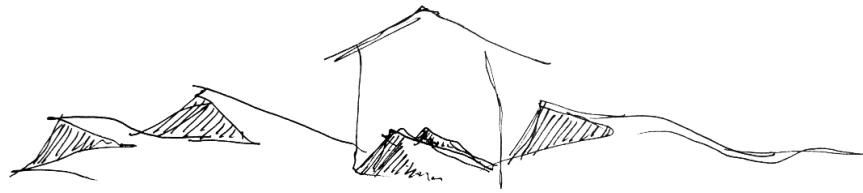
29 Grundtvig Church, Copenhagen
photo by author

BABETTE'S FEAST

Babette's Feast by the Danish author Karen Blixen—also known under her pen name Isak Dinesen—is a short story about two women, who, in their devotion to their late father's religion and memory, have denied themselves the pleasures of romantic love and material excess. The sisters are part of a small religious community that lives in a remote village where they carry on the religious devotion and charity work inspired by their late father. They are a pious, insular group with little interest in the world beyond their small community. In the story the village is located along a fjord in Norway, but in the famous film made on the basis of Blixen's story in the 1980s the location is the bleak windswept hills of the west coast of Jutland, Denmark.⁷ It was this landscape that captured my imagination.

Blixen writes a short description of the home of the two sisters where the community meets to pray: "This low room with its bare floor and scanty furniture was dear to the Dean's disciples. Outside its windows lay the great world."⁸ In this setting, the remoteness of which echoes the social and ideological seclusion of the community, the modest house both excludes the great exterior which lies beyond the attention and influence of the inhabitants, and brings the great exterior into being. I recall Ondaatje's scene in *The English Patient* when Almásy and the other cartographers sat around a campfire in the desert. The circle of light and people around the fire emphasized the immense dark desert that began immediately where the light faded. The circle of light both excluded the dark desert and brought it into being.

The home in *Babette's Feast* and Almásy's fire both illustrate a tension between a small enclosure and a vast landscape. The immense setting of the sparse rolling hills of the Danish coast seems to emphasize the interiority and enclosure of the house that is so small relative to the landscape in which it sits. Similarly, the narrative of the religious community that has turned away from the wide world emphasizes the presence of that which it excludes. Though the house depicted in the film has only a few small windows to the outside, and does not seem open either architecturally or ideologically to the world beyond its walls, I feel as though in this house, as in the fire light in *The English Patient*, the contrast of modest interior and immense exterior contributes to a very palpable presence of the exterior and emphasizes the great world beyond.



NAMIBIA

I discovered the sand-filled houses of Namibia through the photographs of Yû Ogata & Ichirô Ogata Ono published in their book *House*.

In the abandoned mining towns of Namibia lie vacant German colonial houses, which, through open doors and broken windows, accumulate a fluid landscape of sand. The wind, which acts across vast areas of land of the Namibian landscape, continuously forming dunes by addition and subtraction of sand, creates a similar record of its force in smaller interior landscapes.

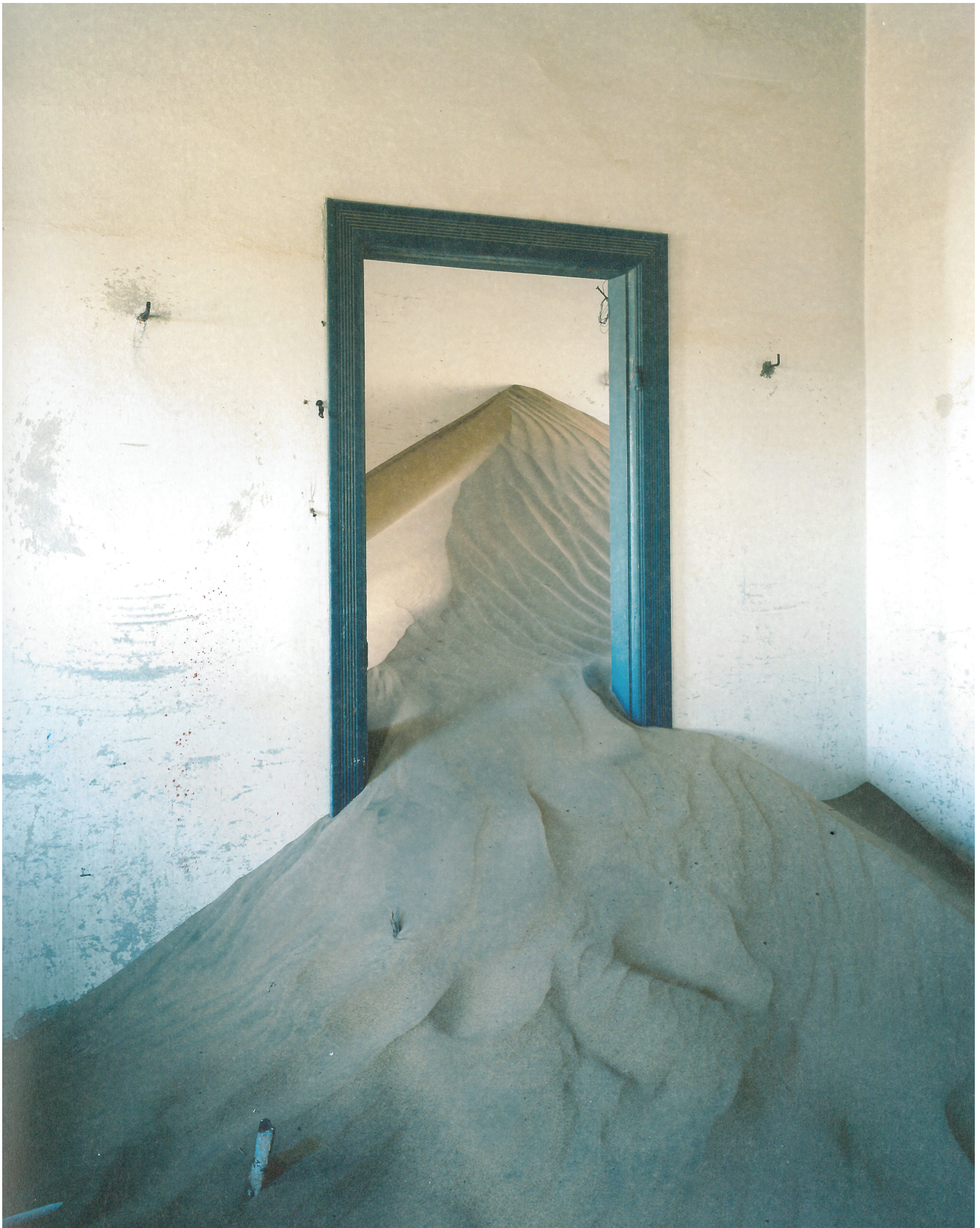
The rooms of the houses act as measurement devices, assessing the effect of the dynamic phenomenon of shifting sand against the stable setting of the house. The rooms register the influences of the force and direction of wind, the size and orientation of openings, and the passage of time on the accumulation of sand. The shape and dimension of the interior affects the form and distribution of sand mounds, and in turn, the sand alters the volume and inhabitable space of the interior, emphasizing the openings and orientation of the rooms. The presence of the sand is further emphasized when I consider its weight in the comparably light and fragile framework of the house. Its weight might in fact lend stability to the house, reinforcing each building and guarding it against structural failure caused by the incessant stress inflicted by the very same wind and sand. The house and dunes are hence closely intertwined, each an interrogation of the other.

Desert dunes have a scaleless quality to them, they may be tens of meters tall, and yet are almost indistinguishable in terms of form and appearance from the small dunes that accumulate in the houses. This juxtaposition lends a quality of eternity or the infinite to the interior dunes. They are smaller, more articulated models of the vast dunes surrounding the houses, and elsewhere in the Namibian landscape. They reference the vastness of the desert in the intimate confines of domestic space, allowing me to confront the immense space and form of the desert landscape, and its endless transformation over time, within a room the size of my bedroom.

The time of the dunes is long and slow. They have been forming and reforming for thousands of years through steady erosion and accretion, always maintaining their distinctive, timeless form. Smaller interior dunes have formed within the rooms, which represent a fast and brief measure of time. The photographs I have included, a selection from those in *House*, all depict



31 *Row House, Kolmanskop 2006*
by Yû Ogata & Ichirô Ogata Ono.



32 *Row House, Kolmanskop 2006*
by Yû Ogata & Ichirô Ogata Ono.



33 *Row House, Kolmanskop 2006*
by Yû Ogata & Ichirô Ogata Ono.



34 *Family Flats, Kolmanskoj* 2006
by Yû Ogata & Ichirô Ogata Ono.

doorways where children might have paused, leaning against the doorframe as they learned to walk, and through which adults might have rushed countless times, completing household tasks and preparing for work. The rooms would have witnessed a structured measure of time, a rhythm of meals, sleeping and rising, cleaning and dressing, coming and going from work and school. Time would have been measured in minutes, hours, days and weeks as well as in stages of life, marking holidays, birthdays, anniversaries, and yearly events that multiplied to indicate duration in terms of generations of human life. All of this is dwarfed by the large measures of time represented by the dunes that have drifted in. These interiors of wood, paint, and shifting sand layer the brief with the timeless, the time of the landscape and the time of the home. The result is a domestication of eternity, a dynamic study of space, scale, form, and time at the intersection of architecture and landscape.

¹ Peter Zumthor, *Thinking Architecture* (Basel: Birkhäuser, 2006), 21-22.

² Ibid.

³ Hans van der Laan. *Architectonic Space: Fifteen Lessons on the Disposition of the Human Habitat*. (Leiden: Brill, 1983), 12.

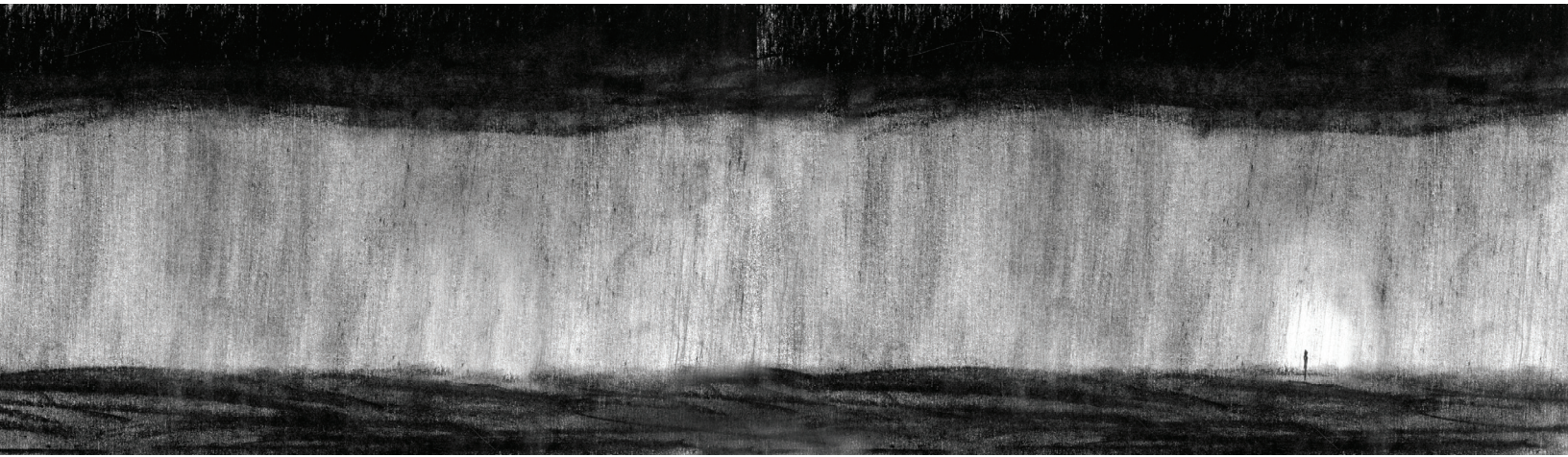
⁴ Ibid.

⁵ Ibid., 13.

⁶ Henry Plummer, *Masters of Light* (Tokyo: a+u Pub.Co., Ltd., 2003), 190.

⁷ "Babette's Feast: 'Mercy and Truth Have Met Together,'" The Criterion Collection, accessed November 28, 2013, <http://www.criterion.com/current/posts/2842-babette-s-feast-mercy-and-truth-have-met-together>.

⁸ Isak Dinesen, *Babette's Feast (Penguin Mini Modern Classics)* (London: Penguin Classics, 2011), 31.



35 drawing by author

CONCLUSION

In closing, I propose once again the image of a solitary figure standing in the midst of vast, undifferentiated space.

This image, though a simplified abstraction, is in many ways the foundation of this work, I have drawn it in the margins of my drafts and repeated it throughout my sketchbooks as I struggled to both understand and explain my experience of immensity, both mediated and unmediated, both alone and with others. This image has been a standard by which I have considered the influences of other people, of limits, and of enclosure on my own experience of immensity.

The references that inform this work, though diverse, each contribute to this image of immensity. They refer to three primary themes: that of solitude; the vast, unmediated extension of space; and the mediating influence of both perceived limits, such as the horizon or the *human space* centered upon my being, and the influence of actual limits defined by objects, landscape features or architectural enclosure on such space. Each of these references informs and alters the image of the solitary figure standing within vast space. As a designer, I consider this to be my work. I am interested in the role of architecture to shape spaces that negotiate the edge between the infinite and the finite, between immensity and enclosure. This will result in spaces that demonstrate an awareness of their surroundings: the time, light, weather, and landscape of which they are part and allow us to challenge our being and influence in the spaces in which we live.

In advocating for architectural works that engage with these themes of immensity, I raise the question of the role of the architect in designing for the individual. I consider the experience of immensity to be solitary, and am intrigued by the responsibility of architecture to provide a setting in which to be alone, in both public and private buildings, spaces that accommodate the infinite within and the infinite without.

AFTERWORD

I wish to reflect on the themes of Romanticism and the Sublime in this work.

A great deal of the material of this thesis is drawn from reflections, notes, and sketches from the time I lived in Copenhagen from January to April, 2009. There I visited the beach at Rømø, Kunsten Museum of Modern Art Aalborg, Grundtvig Church in Bispebjerg, and sought refuge from the rain under an overturned boat near the harbour in Copenhagen. The soft light and sparse, understated beauty I encountered in Danish landscape and architecture seemed to provide a setting for contemplation—space for my thoughts. With the indulgences of time and frequent solitude I wandered, dreamt, and indulged in the light and space of Denmark.

Though I did not categorize these experiences at the time, they were in many ways those of a romantic. Romanticism, of the late 1700s to mid 1800s,¹ emphasized the experience of the individual, of imagination, of an emotional response to the natural world, of solitude, and a longing for the infinite, the remote, and the mysterious, all of which are familiar to me and to this work.

SOLITUDE

Kunsten Museum of Modern Art Aalborg, the Salk Institute, Doug Wheeler's *Infinity Environment*, Grundtvig Church, and the beach at Rømø are all spaces where I have found solitude or where I imagine I could go to experience the immense alone. These places all provide a setting in which the familiar details of everyday life fall away and I am faced with immense space, and myself.

German Romantic painter Caspar David Friedrich emphasized the influence of solitude in his observation of the dramatic landscapes he depicted: "I must surrender to what surrounds me, unite myself with my clouds and rocks in order to be what I am. I need solitude in my communication with nature."² The intense and, in many cases, immense landscapes that Friedrich depicts, reflect not only the image of the landscape but also Friedrich himself; "The artist should not only paint what he sees before him, but also what he sees within him."³ The solitary figures of the

The Monk by the Sea and *Wanderer Above the Sea of Fog* are important references in this work and have been helpful in analyzing my own emotional response to the experience of solitude within immense space.

Babette's Feast chronicles the social and ideological isolation of its characters who in turn echo the physical isolation of their setting. In *The English Patient*, Michael Ondaatje also presents a cast of solitary figures, however, I focus primarily on Almásy and his constant companion—the vast space of the Libyan Desert. The immense space of the desert both mirrors his solitude and provides a comforting presence; the absence that is for him a companion.

INFINITY AND THE SUBLIME

I consider *Immensity* to be a small and specifically spatial subset of the wider category of the sublime.

Though I live within a universe of infinite dimension, it is difficult to observe it as such. Even within the infinite, the space I observe is limited by boundaries such as the horizon—definitions that limit what I know to be infinite space. As such, the term *immensity* refers to space or phenomena of great magnitude but also hints at the infinite; it accommodates extension beyond the limits of the observable. The concepts of infinity and of vast, unmediated space are central in this work and relate to both Romanticism and the Sublime.

Contemporary scholar Barbara Claire Freeman provides a very apt general definition of the sublime, which I interpret as such: I consider the sublime to exist in the encounter of an individual with that which resists comprehension, definition, and representation; it represents that which is greater than and irreconcilably independent from the being who encounters it. I understand the sublime to be thus contingent on the authority and centrality of human experience.⁴

In his treatise *A Philosophical Enquiry into the Origin of the Sublime and the Beautiful*, published in 1757, Edmund Burke describes a rich emotional response to landscape, an admiration for the infinite, and a careful navigation amongst nuances of human response to that which is awe-inspiring and overwhelming. Of infinity, Burke writes, “Infinity has a tendency to fill the

mind with that sort of delightful horror, which is the most genuine effect, and truest test of the sublime.”⁵ The immensity that I present in this work diverges from the Burkian preoccupation with terror and the separation of the sublime and the beautiful, however, I respect these designations on account of their contribution to the wider discussion raised by the sublime.

In the same text, Burke examines his separation of the sublime and the beautiful by listing categories of experience and emotion and relating them either to the sublime or the beautiful. As his text progresses, the categories he develops demonstrate some variation within his strict separation:

[whatever] operates in a manner analogous to terror, is a source of the sublime; that is, it is productive of the strongest emotion which the mind is capable of feeling. When danger or pain presents too nearly, they are incapable of giving any delight, and are simply terrible; but at certain distances, and with certain modifications, they may be, and they are delightful. ⁶

The immensity I explore in this work is born out of my own wonder and curiosity in space, and is grounded in trust in the space that I encounter. The trust I have in space, though not entirely understood, precludes the terror that Burke associates with the sublime, however, I consider the unknowable aspects of seemingly infinite space to be thrilling, and acknowledge that in situations, such as the beach at Rømø, the implied security of the horizon and familiar tree line behind me allowed me the emotional freedom to perceive my surroundings with just enough apprehension to elicit awe and wonder.

¹ Encyclopædia Britannica Online, s. v. “Romanticism,” Accessed December 03, 2013, <http://www.britannica.com/EBchecked/topic/508675/Romanticism>.

² John Leighton and Colin J. Bailey, *Caspar David Friedrich: Winter Landscape* (London: National Gallery Publications, 1990), 8.

³ Ibid.

⁴ Barbara Claire Freeman, Introduction to *Feminine Sublime: Gender and Excess in Women's Fiction* (Berkeley: University of California Press, 1995).

⁵ Edmund Burke, *Philosophical Enquiry into the Origin of our Ideas of the Sublime and the Beautiful*, (London: printed for R. and J. Dodsley, 1757), 52.

⁶ Ibid., 13-14.

BIBLIOGRAPHY

- Andrews, Richard. *James Turrell: Sensing Space*. Edited by James Turrell and Chris Bruce. Henry Art Gallery and University of Pennsylvania. Institute of Contemporary Art. Seattle: Henry Art Gallery, University of Washington, 1992.
- Attali, Erieta and Alessio Assonitis. *In Extremis: Landscape into Architecture*. 1st ed. New York, NY: Graduate School of Architecture, Planning, and Preservation, Columbia University, 2010.
- Babette's Feast*, directed by Gabriel Axel (1987; Denmark: The Criterion Collection), MPEG video, <https://itunes.apple.com/ca/movie/babettes-feast/id547400946>.
- Bachelard, Gaston and M. Jolas. *Poetics of Space*. Boston: Beacon Press, 1994.
- Banham, Reyner. *Scenes in America Deserta*. Salt Lake City: Gibbs M. Smith, Inc., 1982.
- Binet, H el ene and Aase Bak. *Nordjyllands Kunstmuseum: Elissa & Alvar Aalto, Jean-Jacques Barui l*. Copenhagen: Foden til udgivelse af Arkitekturtidsskrift B, 1999.
- Bollnow, Otto Friedrich, *Human Space*. Translated by Christine Shuttleworth, edited by Joseph Kohlmaier. London: Hyphen, 2011.
- Burke, Edmund. *Philosophical Enquiry into the Origin of our Ideas of the Sublime and Beautiful*. London: printed for R. and J. Dodsley, 1757.
- David Zwirner, "Doug Wheeler: January 14 - February 25, 2012," Press Release. Accessed March 2, 2012, <http://www.davidzwirner.com/wp-content/uploads/2011/12/DWpress2rev.pdf>.
- Dinesen, Isak. *Babette's Feast (Penguin Mini Modern Classics)*. London: Penguin Classics, 2011.
- Encyclop edia Britannica Online, s. v. "Giordano Bruno." Accessed November 28, 2013. <http://www.britannica.com.proxy.lib.uwaterloo.ca/EBchecked/topic/82258/Giordano-Bruno>.
- Encyclop edia Britannica Online, s. v. "History of Europe." Accessed November 30, 2013. <http://www.britannica.com.proxy.lib.uwaterloo.ca/EBchecked/topic/195896/history-of-Europe>.
- Encyclop edia Britannica Online, s. v. "Romanticism," Accessed December 03, 2013, <http://www.britannica.com/EBchecked/topic/508675/Romanticism>.
- Hill, Jonathan. *Weather Architecture*. Abingdon, Oxon ; New York: Routledge, 2012.
- Honour, Hugh. *Romanticism*. New York: Harper & Row, 1979.
- Jensen, Thomas Bo. *P.V. Jensen-Klint: The Headstrong Master Builder*. Copenhagen, DK: The Royal Danish Academy of Fine Arts, School of Architecture Publishers; Distributed by Routledge, 2009.
- Kant, Immanuel. *Critique of Pure Reason; the Critique of Practical Reason, and Other Ethical Treatises ; the Critique of Judgement*. Great Books of the Western World; 4. Chicago: Encyclopedia Britannica, 1952.
- Kennedy, Randy. "Into the Heart of Lightness," *New York Times*, January 15, 2012, accessed October 24, 2012, <http://www.nytimes.com/2012/01/15/arts/design/doug-wheeler-builds-infinity-environment-at-david-zwirner.html>.

- Laan, Hans van der. *Architectonic Space: Fifteen Lessons on the Disposition of the Human Habitat*. Leiden: Brill, 1983.
- Lane, Barbara Miller. *National Romanticism and Modern Architecture in Germany and the Scandinavian Countries*. Cambridge UK: Cambridge University Press, 2000.
- Le Corbusier. *Journey to the East*. Translated by Ivan Kakni. Cambridge, Mass.: MIT Press, 1987.
- Leighton, John, and Colin J. Bailey. *Caspar David Friedrich: Winter Landscape*. London: National Gallery Publications, 1990.
- Levinas, Emmanuel. *Totality and Infinity: An Essay on Exteriority*. Translated by Alphonso Lingis. Pittsburgh: Duquesne University Press, 1969.
- Maleuvre, Didier. *Horizon: A History of our Infinite Longing*. Berkeley: University of California Press, 2011.
- Norberg-Schulz, Christian. *Nightlands: Nordic Building*. Cambridge, Mass.: MIT Press, 1996.
- OED Online. "immensity, n." Last modified September 2013. Oxford University Press, <http://www.oed.com/view/Entry/91861?redirectedFrom=immensity>.
- Ogata, Yû, and Ichirô Ogata Ono. *House*. Tokyo: FOIL, 2009.
- Ondaatje, Michael. *The English Patient: A Novel*. Toronto: McClelland & Stewart, 1992.
- Pallasmaa, Juhani. *Eyes of the Skin: Architecture and the Senses*. Chichester : Hoboken, NJ: Wiley-Academy ; John Wiley & Sons, 2005.
- Plummer, Henry. *Masters of Light*. Tokyo: a+u Pub.Co., Ltd., 2003.
- Schjeldahl, Peter. "Seeing and Disbelieving: James Turrell at the Guggenheim," *New Yorker*, July 1, 2013, 72-73.
- Siegel, Linda. *Caspar David Friedrich and the Age of German Romanticism*. Boston: Branden Press, 1978.
- Sliwka, Ryszard. "Sublime Phenomena: Notes on the Architecture of the Horizon," *Internasional Journal of Architectural Theory* Vol. 13, No.1 (2009): 1-7. Accessed November 14, 2012, http://www.tu-cottbus.de/theoriederarchitektur/Wolke/wolke_neu/inhalt/en/issue/issues/108/Sliwka_1/sliwka_1.php.
- The Criterion Collection. "Babette's Feast: 'Mercy and Truth Have Met Together'." Accessed November 28, 2013, <http://www.criterion.com/current/posts/2842-babette-s-feast-mercy-and-truth-have-met-together>.
- Turrell, James, Richard Bright, and Paul Gazing engine Schütze. *James Turrell Eclipse*. London: Ostfildern-Ruit : [New York, N.Y.]: Michael Hue-Williams Fine Art ; Hatje Cantz ; Distributed in the USA by D.A.P., 1999.
- Vidler, Anthony. *Warped Space: Art, Architecture, and Anxiety in Modern Culture*. Cambridge, Mass.; London: MIT Press, 2000.
- Wolf, Norbert. *Romanticism*. Edited by Ingo F. Walther. London: Taschen, 2007.
- Zumthor, Peter. *Atmospheres: Architectural Environments, Surrounding Objects*. Basel: Birkhäuser, 2006.
- Zumthor, Peter. *Thinking Architecture*. Basel: Birkhäuser, 2006.