A MILE AT GROUND ZERO
REMEMBERING, HEALING, MOURNING

Matthew Lawrie
M.Arch. Candidate

This Essay is divided into two halves; Part One deals with the specific issues of how our particular design responded to and answered the demands put out by the brief, Part Two deals with the issues of space on a broader scope that appear in this project. The four specific questions answered in Part One are: how is each individual who was a victim of the attack recognized, how are spaces for contemplation provided, how is a unique and powerful setting provided, and how is historic authenticity maintained. In Part Two, space is discussed as a combination of the existential and subjective space of experience, and the material and haptic space of reality. I draw from memories and experiences that coloured my design contribution to this competition entry.

Part One: The Competition Entry

1.1 The recognition of each individual who was a victim of the attack

At the center of the site, also the center of the memorial, the unidentified remains of the victims are housed in a simple, dark stone building. The structure, rising ten feet above grade is partially submerged so that the victims may rest in peace. The names of the victims, and their time and place of birth are inscribed on three of the four sides of the building. From above the building is read as a pool, water gathered at the top washes down the sides of the building in a thin veil. The water animates the names with continuous movement and the play of light. Along the north face of the building water gathers more quickly pouring over the large reveal into a collecting pool where it enters the mile long watercourse. The watercourse starts and finishes at the reflecting pool adjacent to the building for the unidentified remains. Between its beginning and its end, the course is inscribed into the landscape, leading the visitor on a contemplative journey to mourn for and pay tribute to all those who lived and died through the events. Each victim is

represented on the path not with a name, but a measure of space, 21 inches- standing shoulder to shoulder, 3022 people form a line 1 mile long. The mile long route insists on the magnitude and gravity of the loss, quantifying it in time and space. The visitor is encouraged to follow the path of water, paying tribute to each life lost and participating in a process that moves toward healing through action. The watercourse not only brings the visitor over difficult territory, but through moments of inspiration, and hope. The landscape is inflected with contemplative seating areas, dedicated to those who chose to mitigate the impact of the tragedy through their kindness, dedication and generosity. These people are the unspeakably brave members of the New York City Fire Department, the New York City Police Department, the Port Authority Police Department, the nurses and doctors, and all the unsung heroes.

1.2 Spaces for contemplation

The watercourse reveals many places of contemplation; small spaces pressed into the earth allowing for moments of repose. These areas stipulate varying degrees of intimacy responding to the both very public and private nature of the program and site. Secondary spaces are insinuated into the site through a textured, gently undulating landscape. The building for the unidentified remains is partly submerged below the ground plane, 20' below street level. The cocooned nature of the building not only fulfils the necessity for a private place of mourning for friends and family, but a place where the remains of the victims may rest in peace. The space is accessible through a remote access where the populous nature of the site can be temporarily left behind. Sky lights bring in dappled light filtered through the pool of water on the roof.

1.3 A unique and powerful setting

The reflecting pool and the place of the unidentified remains are both physically and visually dominant from all approaches and views onto the site. Once having descended into the memorial, however, the planting and planer elements of the scheme dematerialize the otherwise obvious geometry of the interrelating elements. The watercourse colonizes the entire site, concentrating its presence in the space of the towers. The visitor spirals into

first the north and then the south footprint, engaging the places of contemplation as they pass. The watercourse ends where it began- the reflecting pool- the manifestation of our shared hope and sorrow. The ground treatment is organized by the ten foot perimeter grid of Minoru Yamasaki's towers. The grid becomes increasingly evident on the sites of the towers themselves, further emphasized by a stand of trees that blossom in the spring and bear their fruit in the fall. The life of the trees is an important commemoration of the event reminding us of the responsibility to act in the face of adversity and that goodness must be borne out of evil. The memorial is an outdoor public space that can be engaged visually from the street level and surrounding buildings, or experientially through the intimate gesture of placing a flower or candle onto the watercourse and following it along its journey. The collecting of the offerings in the large central pool is symbolic of the personal tragedy that is shared by the collective. Healing, while individual need not be solitary.

1.4 Historic Authenticity

The textures of the ground plane include areas of rubble of the physical destruction so that recognizable elements of the fallen structures might be reunited with the site. The Libeskind scheme preserves the awe-inspiring scar in the fabric of the city. The site remains primarily flat and unobstructed to recall the destruction of the events. This proposal respects the notion that scaring is a mechanism for remembering, healing, and mourning.

2.1 Existential Space:

Our human existence takes place in the existential space that includes our personal and collective dreams and fantasies; the mental worlds we inhabit are as real and important as the physical world. The Finnish architect, Juhani Pallasmaa, states, "We do not live in an objective world of matter and facts, as common place naïve realism assumes".¹ Ours is a world in which "the experienced, remembered and dreamed, as well as the present, past and future, constantly fuse into one another".² It is a Kafka-esque existence in which reality and dreams overlap, weaving together a complex layering of time and space. This layering causes a differentiation between the space we live in, and the measurable, physical space which we occupy. The composite space in which we live is termed *Existential Space*.

Existential space is composed of layers of both personal and collective experience. Space is unique to the individual occupying it. Psychologist Carl Jung, when discussing the unconscious aspects of our perception of reality, states "even when our senses react to real phenomena, sights, and sounds, they are somehow translated from the realm of reality to that of our minds." The existential space that occurs during this translation is a personal, construct caused by the filtering of the perception of our senses through our psyche. It is fluid and changing, dependant on the projection of the occupier's mood, cultural background, and memories. However, aspects of existential space are also collective. Certain experiences are common to all human existence, and the recognition of these phenomena are universal across all cultures, religions, and times.

Art and architecture give us meaning in the experiential world and provides a framework for our existence. Swiss architect Peter Zumthor states that architecture is "an envelope and the background for life that goes on in and around it". This sentiment is also expressed by Norberg-Shultz, who believes that we know who we are as individuals and as a

¹ Juhani Pallasmaa, *Lived Space: Embodied Experience and Sensory Thought* http://www.theo.tu-cottbus.de/wolke/eng/Subjects/011/Pallasmaa/1Pallas.html, pg. 3

²Juhani Pallasmaa, *The Space of Time*. <u>Oz</u>, College of Architecture and Design, Kansas State, 1998. v. 20, p. 54-57.

³ Carl Jung, *Man and His Symbols*, New York, Dell Publishing, 1968, pg. 4

⁴ Peter Zumthor, *Thinking Architecture*, Basel, Birkhauser 1999, pg 13.

society through "dwelling" in our settlements, urban spaces, institutions, and homes.⁵ It is through these man made constructs that we are able to identify ourselves. Existential space is formed through the blending of images, recollections, and memories both personal and collective, with the objects and architecture that we create.

2.2 Personal Recollections and Images:

In this World
love has no colouryet how deeply
my body
is stained by yours.
-Izumi Shikibu, (974-1034)

The experiences we have shape how we interpret the world. The idea of being "stained" by an experience is telling as it speaks of the indelible marks that are left in our memories and how these stains then colour the way we perceive the physical things around us.

When I move through the house that I grew up in, the intensity of my experience is deeper than that caused by the physical space. As I enter the kitchen, I pass "Keltie's Spot", the place where my childhood dog used to sit and greedily observe the family during mealtime, when I go down the stairs, I am reminded of a kamikaze tricycle mission whose physical scar still marks my eyebrow, and when I look at the piano, I see more than a physical object, I see all of the evenings gathered around it, parties filled with family, friends, and music, experiences impossible to reconstruct and memories distinctly my own. All of these recollections are rooted to the spaces and things I am moving through and around, and are no less real than the physical walls and floors. The understanding of the spaces we occupy is intensely related to our past experience.

The existential layer of personal recollection is evident in many works of literature. While on a trip to Kyoto, Oki Toshio, the main character, in Yasunari Kawabata's novel,

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⁵ Christian Norberg-Shulze, *The Concept of Dwelling*, New York, Electra/Rizzoli, 1993

Beauty and Sadness, wanders through the city, occupying a realm in which the memories of a past affair with Otoko Ueno, an elusive artist many years younger than himself, merge with the physical features of buildings and roads to create his experience. Sounds act as segways which pull him between the past and the present. A far off train whistle reminds him of the premature death cry of Otoko's baby, and while dinning, the ringing of temple bells pulls conversations from the past to the forefront, the memory of long-ago meals occupying the same space as the meal in front of him. Otoko too lives in an existential space, memory blending with the present. Kawabata states about her memories, "rather than mere recollections, they were her reality". The experiences of the past are layered upon the physical spaces that both characters occupy.

2.3 Collective Recollections and Images:

The basic human condition is the same now as it has always been. The most powerful pieces of art or architecture contain as an integral component, a distillment of some aspect of the archetypal human experience. Jung states that the collective thoughts of humanity have remained essentially unchanged since their primitive inception:

...although the specific shape in which they express themselves is more or less personal, their general pattern is collective. They are found everywhere and at all times, just as animal instincts vary a good deal in the different species and yet serve the same general purposes. We do not assume that each new-born animal creates its own instincts as an individual acquisition, and we must not suppose that human individuals invent their specific human ways with every new birth. Like the instincts, the collective thought patterns of the human mind are innate and inherited. They function, when the occasion arises, in more or less the same way in all of us.⁷

⁶ Yasunari Kawabata, *Beauty and Sadness*, Toronto, Vintage Books, 1975. pg 119

⁷ Carl Jung, Man and His Symbols, New York, Dell Publishing, 1968, pg. 64

The biological and psychological remnants of our past existence are primary aspects of our current, collective reality. Mythology is the earliest expressions of the primitive human condition. Joseph Cambell refers to myth as the "song of the imagination" and states that all myths poetically and metaphorically deal with the universal inner mysteries of our being. Jean Genet states: "in order to achieve significance, every work of art has to patiently and carefully descend the stairs of millennia, and fuse, if possible, into the timeless night populated by the dead, in a manner that allows the dead to identify themselves in this work." Great works of art involve complex sets of images that include both those from everyday life, and the ancient timeless images found in mythology and our pre-history. Gaston Bachelard states about poetic images that they "have both a history and a pre-history; they are always a blend of memory and legend,"10 This sentiment is also expressed by Alberto Perez-Gomes when discussing the meaning of art in his essay, Chora: The Space of Architectural Representation. He states: "We recognize the meaning as new and yet we cannot name it; we are invited to silence and yet must proclaim the utterly familiar." The utterly familiar referred to is buried deep within our collective memory but it has been presented so that we identify with it in a way we haven't before. This essential layering of the collective human experience on top of the geometric and measurable contributes another stratum of complexity to our existential space.

The collective human experience is evident in Alvar Aalto's *Villa Mairea*, an architectural expression that is both modern and timeless, referring simultaneously to a primitive past and a faith in the utopian dreams of the future. The building is sensitively situated in the landscape; on a slight crest of a hill and "c" shaped to form a protective wall for the private exterior courtyard and pool. The imagery evoked is modern, with white washed walls, flat roofs, and selectively positioned large expanses of glass, but also primitive, with sections of sod roof, and rough flagstone fireplace, stair, and ground treatments. The predominant images are those of primitive construction and the Nordic

⁸ Joseph Cambell, *The Power of Myth*. New York, Broadway Books, 1988, pg 22

⁹ Jean Genet, *L'atelier d'Alberto Giocometti*, Marc Barbezat, L'Arbalet, as quoted in Juhani Pallasmaa *Lived Space: Embodied Experience and Sensory Thought* http://www.theo.tu-cottbus.de/wolke/eng/Subjects/011/Pallasmaa/1Pallas.html, pg. 13

Gaston Bachelard. *The Poetics of Space*. Boston, Beacon Press, 1994, pg 33

¹¹ Alberto Perrez-Gomes. *Chora: The Space of Architectural Representation*, Chora 1: Intervals in the Philosophy of Architecture, Montreal; McGill- Queen's University Press, 1994. pg 29

woods, in which the courtyard and swimming pool appear as a primordial clearing. The irregularly shaped entrance canopy is held up by a forest of structure, varying from a solitary concrete column, to clusters of bound, wooden poles, to a flowing screen of unpeeled saplings. Inside, the regular structural grid is varied by treating each support member differently, like the canopy, they are often bound in clusters, as in primitive post and lintel construction. The forest metaphor is also evident, the uniqueness of each column, alluding to the intricacy of the surrounding forests. The primary interior staircase, screened by wooden poles, creates a copse-like polescape, through which the exterior court, the rustic sauna building, and forest beyond are visible. Throughout the building, Aalto refers to both the primitive forest dwelling and the rustic northern farmhouse. These allusions, however, are neither formal nor literal, but are material and phenomenological. We recognize in them the reference, but are surprised at their phrasing and expression.

2.4 Material Space:

Key to this project was the consideration of how we perceive physical reality and the relationship of our bodies to our surroundings. Merleau-Ponty states, "I cannot conceive myself as nothing but a bit of the world." This fundamental relating of ourselves to that around us, as being of the same material as our surroundings, is investigated through phenomenological thought centering on the work of the French philosophers Maurice Merleau-Ponty and Henri Bergson. These writers stress that our relationship to the world is through our ability to sense stimuli. Our bodies have a direct connection to their surroundings and they have the capability of remembering and storing knowledge beyond that of our mental capacity. After establishing the primacy of our perceptions, the possibilities of *haptic awareness* are investigated as an expansion of our definition of sensorial perception.

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¹² Marc Treib. *Aalto's Nature*, in Peter Reed's *Alvar Aalto: Between Humanism and Materialism*, New York, Museum of Modern Art, 1998.

¹³ Maurice Merleau-Ponty. *Phenomenology of Perception*, London, Routledge Classics, 1962, pg ix

2.5 Embodied Perception:

Phenomenology, as the study of essences, attempts to arrive at an understanding of our world and our experience in it. It is concerned with how we perceive what is other than ourselves. It strives to achieve, and imbues with philosophical weight, the task of realizing an immediate and primitive contact with the world around us, and it attempts to define an understanding of the world through its 'factility'.

Our body is finite; no matter how technology stretches our abilities of perception the result will always be limited, no matter how strongly we love another human, our existences will never fully overlap. This means that our bodies are in a constant process of engagement with *otherness* (defined as any object, thing, or being). Although we can grasp this *otherness* to some degree, it can never be completely understood, there is always more to be perceived. Art and architecture, as the condensation of the self into an object or work, structures and expresses the human experience and the relationship between self and other. It does not present an exact image or understanding, instead offering an intense experience of the boundary between ourselves and the world.

Our understanding of *otherness* is through our senses; we understand who we are by the way in which we sense stimuli. Merleau-Ponty claims "I am the absolute source." The first order of expression is that which our body perceives, all other expressions, (including those of science), will never have the same fundamental significance because they are based on a second order of expression that attempts to rationalize or explain the first order, our perceptions. Our fundamental relationship to the world is through our body; our perceptions embodied.

Our bodies and muscles, have the ability to store knowledge and relate to the world independent of our mental capacities, they contain a physical memory. Bachelard states, "but over and beyond our memories, the house we were born in is physically inscribed in us." He further discusses how our bodies can remember after many years of being away, a difficult stair on an old staircase, and marvels how the "feel of the tiniest latch has

¹⁵ Gaton Bachelard. *The Poetics of Space*, Boston, Beacon Press, 1994. pg 14.

¹⁴ Maurice Merleau-Ponty. *Phenomenology of Perception*, London, Routledge Classics, 1962, pg ix

remained in our hands". Peter Zumthor, in his book, Thinking Architecture, remembers the particular sound of gravel crunching underfoot as he approached the garden door of his grandmother's house and the "feel" of the door handle as he entered. 17 Likewise, I have had memories triggered not mentally but through my body sensing a particular stimuli; a smell reminding me of a long-ago event, my fingers remembering how to perform on an instrument that my mental memory has long forgotten. These moments of physical memory function as reminders that architecture should consider the senses other than vision.

2.6 Haptic Awareness:

The concept of *haptic*, stemming from the greek term, to lay hold of, is an integral component to the consideration of architecture. The term haptic perception is used to describe the integration of multiple sensorial stimuli. The origins of this word are traced through its beginnings in psychological research, use in philosophy and art criticism, and conclusions are drawn on what the term means in the search for the poetic possibilities in architecture.

Our awareness, understanding, and perception of objects are filtered through an ever shifting field of sensorial stimuli. In 1956, psychologists Jean Piaget and Baerbel Inhelder introduced the concept of *hapacity* to express a more complete understanding of three-dimensional space, which includes beyond visual, the sense of touch, smell, sound, body memory, and positional awareness.18 In my opinion, these senses contribute to overall perception in varying combinations. The resulting *haptic awareness*, as a mix of various sensations, can be difficult to describe because it is constantly changing and adjusting, each sense varying its contribution to the overall whole. This is why we perceive the same object differently upon distinct engagements with it. We perceive an object differently if we are allowed to hold it, and in a dimly lit setting, where we rely less on vision, we do not

Bachelard. pg.15
 Peter Zumthor, *Thinking Architecture*, Basel, Birkhauser, 1999. pg 9

¹⁸ Jean Piaget and Baerbel Inhelder. *Child's Conception of Space*, Lomdon; Routeledge, 1956, as discussed in Maire Eithne O'Neil. Corporeal Experience: A Haptic Way of Knowing, Journal of Architectural Education, Sept. 2001, pp- 3-12

perceive the same as in bright conditions. The term *haptic* is not exclusive of visual perception, but it is a visual perception interested in texture, detail and colour, it is a perception of nearness, not an overall ocular understanding.

In *A Thousand Plateaus*,¹⁹ Deleuze and Guatari analyze a way of perceiving the world through the oscillation of near and far interpretations. The word haptic, is understood in the description of "smooth space" as being constantly related to a comprehension of closeness, in constant reference to that immediately at hand. The opposite of this is described as "striated space", the space of distant vision. These two spaces exist in inclusion, as different layers piled upon one another, and as opposite ends of a sliding scale. There should be flow between smooth and striated space, our perception shifting between the two.

In the essay, *Video Haptics and Erotics*, Laura Marks expands on the idea of an oscillation between near and far perception and discusses "haptic visuality", erotic visual relationships, and why we are drawn to fuzzy or blurry images:

Like the Renaissance perspective that is their progenitor, cinema's optical images address a viewer who is distant, distinct and disembodied. Haptic images invite the viewer to dissolve his or her subjectivity in the close and bodily contact with the image. The oscillation between the two creates an erotic relationship, a shifting between distance and closeness. But haptic images have a particular erotic quality, one involving giving up visual control. The viewer is called on to fill in the gaps in the image, engage with the traces the image leaves. By interacting up close with an image.... the viewer gives up her own sense of separateness from the image.²⁰

This oscillating relationship is required to understand *otherness*. In a far visual encounter we comprehend intellectually the object and its relationship with its surroundings. In a haptic encounter, we are invited to engage in a more intimate understanding, we appreciate

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¹⁹ Gilles Deleuze and Felix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, Minneapolis, Minnesota Press, 2002.

²⁰ Laura Marks. Video Haptics and Exotics, in Touch, Minnesota, University of Minnesota Press, 2002.

minute details, and enjoy a rich sensory experience. With optical perception we are able to define and categorize the image, but without the haptic experience we are stuck in a world of visual abstraction without contact with the real and tangible.

The idea of the haptic is crucial in architecture. As with Laura Marks discussion of "visuality" in film, architecture requires a balancing of a distant visual and haptic perception. Architecture requires ocular observation to get an overall appreciation of a space and allow us to navigate through it, but a full and rich experience is not had without haptic perception. The experience of haptic perception can range from the particular feel of a wood rail in our hands to moments of overwhelming physicality and materiality.

Encountering the Richard Serra sculpture, *Torqued Ellipses*, we are directly engaged by an overwhelming materiality. Walking around the monumental walls, we are aware only of their solidness, their heaviness, and their steelness. Being inches away from their surface we are engulfed by rusting metal, its gouged and scratched texture, patina of reds, pinks, and deep sienna colour, and oily, machine smell. Sculpture that overwhelms us in this way, like being close to large canvases of paint, allows us a feeling of freedom; a release from the world of visual abstraction and our optically biased culture of distance. Art that fills our entire peripheral vision puts us in a position where we are no longer able to distance ourselves from it. It allows us to get lost in internal thoughts. In our intimacy to the richly textured surface, we are unable to pull back visually and get the ocular distance required to be analytical. Instead, like Francis Ponge imagining the Andes and the Alps in the surface of bread, we are pulled into its intimate vastness, a landscape of texture, colour, and smell in which we are able to imagine an endless immensity.

2.7 Architecture of Material Mortality

If all objects and events are irreducible in their materiality, then in order to bond with them we must come to terms with the imperfections and faults of the material world; celebrate things for their uniqueness and particularity.

We are drawn to the decay of buildings and the ruination of material things. A recent example of this fascination is evident in the work of Tacita Dean, whose video pieces explore the condition of the modern ruin; the texture and erosion caused by the effects of weathering and environment. Showing us the ideals of the modern movement in a state of decay, she invokes a mood of melancholy contemplation, and a sense of compassion for inanimate objects. Her work *BubbleHouse*, depicts the ruin of a radical 1960's home. Located at the edge of a tropical shore, it is in a bad state of repair. Water drips through the ceiling and splashes into puddles on the floor. Through broken and missing windows we see dark and menacing clouds retreating back to the sea, placing us in the moment shortly after a violent weather encounter. We see the house as a failed monument, struggling with its environment; slowly but surely losing ground to the greater force, locked in a struggle of ultimate survival. Dean's films are presented as dreams of ruination, placing objects in a particular place and time, and demonstrating the mortality of the material world.

To be made of material is to be mortal. Architects that work with symbolization and abstract ideals attempt to hold mortality at bay. One only has to think of the work of many modernists architects to see how this mindset affects how gracefully a building ages. The whiteness of early Corbusier work represents an ideal that is realized before the buildings occupation and weathering occurs. Because the building is in its ideal state immediately after construction, any aging or patterning of surfaces due to climate and use is seen as harming to the overall effect and intention.

The concept of weathering is discussed in Mostafavi and Leatherbarrow's book, *On Weathering*. This text postulates that the effect of weathering, normally seen as a force that subtracts from the surfaces of buildings, can if properly considered and anticipated, enhance a building. Weathering has the potential to become a second skin demonstrating a patina of time which represents the tension between a work of art and its environment. The accumulation of detritus or the erosion of a surface can be seen as a tragic return to the original source, a comment on all living things inevitable journey towards destruction. The effects of weathering as a considered event are seen in the later work of Le Corbusier, whose rough concrete surfaces collect and display the random but predictable patterns and effects of age and environment.

The architecture of Louis Barragan accepts the passage of time and seasonal change through its materiality. The brightly coloured walls of Barragan's architecture match the exact colours of local blossoms, accenting the season in which they bloom. Flooring materials that contrasts the colour of the bougainvillea flower bring our attention to the season in which the petals drop and collect on the ground. Particular attention is also paid to the cycles of time on a smaller scale. Walls are positioned to catch the moving shadows of trees as the sun passes overhead. Pools catch and reflect this passage as shimmering, dappled patterns that play on specifically textured wall surfaces. All through Barragan's houses, materiality is expressed. Walls are given specific personalities; low walls meet high walls, thin walls meet thick walls, their differences accentuating each as imbued with a specific material character. Careful attention is paid to their surface, either a semi-smooth plaster finish or rough, hand-troweled texture is applied, both, through their imperfections, accentuating the effects of the light and their environment.

Conclusion and Summary:

In Conclusion, this project tries to bring together aspects of existential and material reality. The memory of the event will be forever etched into the consciousness of the city, and this must be taken into consideration when considering the material reality of how to engage the site.

This project proposes a mile long walk at ground zero. The mile gives physical dimension to the death tolls of September 11, 2001 and February 26, 1993. We have memorialized the events through the experience of a journey; a journey which honors in time and space all those affected by the attacks. Central to this scheme is that one is asked to engage; to mark the ground, walk the mile, light a candle, offer a flower, and trace with ones finger the names etched in stone and washed with water. This project was inspired in

a large part through the imagining of rituals that would allow people to participate in a collective process of healing and remembering.