

TOWARDS THE POETICS OF THE IMMEDIATE EXPERINCE

by

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A thesis submitted in partial fulfillment
of the requirements for the degree

Masters of Architecture in Architecture

MONTANA STATE UNIVERSITY
Bozeman, Montana

April 2010

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Jaric Ross Pope

April 2010

DEDICATION

For my father, whose journey has always been a spiritual one.

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ABSTRACT

The title of this thesis is *Towards the Poetics of the Immediate Experience* because that should be the quest in attempting to embrace a process-relational worldview. In an attempting to create things we should embrace poetry because it begins to tap into our basic transcendental and mysterious way of experiencing the world. Our immediate and poetic experiences of the world are not only the beginnings of knowledge and reason, but by embracing poetry, we are also embracing a metaphysical and spiritual quality to the work. This pure way, which allows us to both create, experience, and know the world poetically is crucial to understanding a reality that is determined in each moment of 'becoming' and 'perishing' by what is in essence 'feelings'. By 'feeling' nature in its constant and flowing state of 'becoming' and 'perishing' we can begin to understand the 'true' nature of reality. The worldview that supports the universe as constantly in a state of 'becoming' and 'perishing', and interconnected is from process-relational thought. Acknowledging everything as determined by 'feelings', or what we as humans perceive as emotions, which are the true components of our poetic knowledge and found in our basic intuition, leads us to desire an architecture that is truly poetic and spiritual by evoking emotions from the dynamic changes found in nature.

INTRODUCTION

Statement of Intent

In beginning, I would like to state that I started this thesis with the intent to discover a means of both relating my own inherent beliefs and understanding the world within the emerging implications in scientific discoveries towards the realm of architectural thought. I wanted the outcome of this thesis to relate to science and technology due to the historical importance of scientific discoveries having been responsible for the development of our contemporary view of the world. I have come to realize that I may have only begun to scratch the surface of the philosophy supporting this thesis, and this marks the point at which I have embarked on a journey for years to come. This is the journey for understanding the nature of reality, or at least reaching an understanding of reality enough to be confident in one's own beliefs. For, it is our beliefs that enter into things that we create if we have a high degree conviction. However, I would like say that I have great hope for designers in this period of humanity at the turn of the millennium, as there are emerging modes of thought that are beginning to integrate everything from the apexes of quantum physics to our most intuitive common-senses in our experience of the world on philosophical, scientific, and metaphysical levels.

The philosophical framework for this thesis is from process and relational philosophy. For me such philosophy has reaffirmed many things in which I felt to be inherently true about the world. Yet, the true test of any philosophy comes through

application and that is the intent of this thesis. Process and relational philosophy holds that everything is interconnected and in relation by ‘feelings’ amongst the flow of the universe, and that everything is always in a state of ‘becoming’ or ‘perishing’ rather than an unchanged state of ‘being’. In addition, a process-relational view holds that everything is an ‘event’ rather than a ‘thing’. With the emergence of the eco-centric paradigm initiating the ‘green’ movement, it has become apparent in contemporary society that we are beginning to realize this need for an interconnected worldview. I know I am not treading in new waters on the level of working with in a paradigm of interconnection, and would not hope to be. However, process and relational philosophy resonates with me in that it offers a cohesive philosophical view that relates everything from an electron to the cosmos with our experiences of everyday life. The experiential concepts and design intents found within this thesis are from my own best understanding of process philosophy.

Where Architecture Is Today

In recognition of where architecture is at today, as well as the need towards an ecological framework in an interconnected paradigm, I would like to offer a framework that establishes a metaphysical and spiritual approach to architecture within the same interconnected paradigm. It is my belief that architecture should not merely optimize, architecture should also express the human spirit. The greatest architecture of both ancient and contemporary has recognized the potential for expressing the human spirit.

Within both the design and experience of architecture, we need to embrace the immediacy within our perceptual experiences amongst a constantly flowing world, because within that immediate experience lays our carnal and poetic knowledge of reality. By embracing the immediate experience of the world, we gain both the basis for poetic and artistic intuition in design that is truly in touch with the human spirit as well as the most pure of experiences within the interrelationship of the project and the site offering a transcendental quality to the work. Therefore, this thesis will be for the exploration of intuition and poetic knowledge amongst our immediate experiences of reality in the design process, as well as the experience of the architecture and its site. Once we move beyond the immediate experience, we begin to abstract the essence of our experience, and the nature of the entities we are experiencing. Hence, architecture must embrace the constantly flowing processes of the site, as well as the intensive and emotive catalysts upon our perception the site and the final outcome of the work.

An interrelated conception of architecture can provide, both an individual's design intent and one's perception, the opportunity to get in touch with the true nature of reality. However, I would hope, at this point, there is the realization that this thesis is still only an exploration or testing a set of ideas within an emerging paradigm. If the exploration of this thesis does not provide us with experiences that resonate in our souls than we must reanalyze the outcome, draw conclusions, and try again, but it is always a journey worth taking.

A CONTEMPORARY LOOK AT THE WORLD

At the turn of this millennium, both science and humanity, especially in the western culture, are in a profound relationship. This relationship exists as a byproduct of a constant attempt to harness and integrate the natural world into society through technology. We can see this relationship beginning to evolve through our attempts to both restore the damage done to the natural environment through technology and dismantle a view of the natural world that has established humans as separate and above nature. Science and technology are beginning to use natural models in the current generation of new materials and new technologies. Some of these methods can be seen in morphogenetic architectural approaches as well as emerging material technologies. However, these emerging approaches do not fully resolve a still felt inherent dualism between two versions of existence, the natural, and the socio-technological. This is due to the paradigm that has generated the powerful and intellectual infrastructure of our society found in industry, technology, and consumerism.

This social and technological manifestation has come out of the Cartesian and Newtonian “world as machine” paradigm, that is so potent in the offering of comfort and commodity that most people seem to have, in a lot of cases, lost touch with the natural world, and therefore their basic internal compass for knowledge of “real” life. Despite our intents for technology towards the natural world, and a coherence with eco-centric beliefs of the individuals taking these new avenues, we are still entrenched in the “world as machine” methods of technology, which one could argue only furthers our separation.

Our connection to the natural world in these emerging methods remains lost on a metaphysical and spiritual level, for the true processes of nature inherently provide not only physical, but metaphysical and spiritual nourishment. The “world as machine” paradigm only focuses on the empirical and the physical, ignoring the metaphysical and spiritual qualities within the composition of reality. Any new technological approaches in our contemporary times only accomplish an indirect and abstracted notion of interconnection. To make matters worse today’s machine driven sociological design we have arrived at is emerging at an exponential rate, and only compounding the dualism nature between society and nature.

The implications of this dual and conflicting nature between technology and the true nature of reality could ultimately result in a division of humanity never before witnessed. A division that not only relies on technology for resources, but also puts technology at such a high level of integration into our lives we rely on it for our basic perceptual lenses. The mind-set, which we as a society have generated out of this split paradigm, is separating metaphysics and spirituality from our human consciousness experience of the things we create not only architecturally, but also the emerging materials, methods, and technologies we seek to utilize within architecture. We can see this separation amongst architectural projects that are pushing towards complete energy efficiency, but more recently, computer generated forms from mathematical equations or parameters. It can be feared, that while a reverence for the natural world might be within the goal of these designs, a metaphysical and spiritual approach to the design process and therefore the outcome is non-existent, making it devoid of any true poetry.

On a metaphysical and spiritual level, we are also living in a time when many different belief systems are available to people from the emerging interconnection of different societies within humanity across the globe connected through technology. This availability also compresses the conflicting ideas and beliefs of different cultures and individuals. This interconnection amongst technology across the globe has led to both the discovery of correlations in beliefs, which is crucial to a relational analysis of belief systems, but also has negatively influenced some cultures as we can see with the rise in religious terrorism. However, it is only through our beliefs, and the depth of our confidence in them, which allows humans to gather from the sea of ideas our position in this universe, as it becomes ever more subjective and relative. Thus, perhaps now more than ever we can begin to see the necessity of a relational dialogue between separate belief systems and philosophies in an attempt to discover universals that tie us together. If we can continue to inspire a dialogue about the true nature of reality in the things we create suggesting a metaphysical, spiritual, interconnected, and process-relational view of the natural universe in our approach to design, then we are doing the most valuable thing we can do as humans.

THE MATAPHYSICS OF KAHN AND HOLL - ARCHITECTURAL POETS

Louis Kahn

In our quest for an honest advance in architecture, we should first look back to the works of Louis Kahn who was extremely metaphysical in his approach to architecture long before we establish our own methods of a metaphysical or spiritual architecture in a new interconnected paradigm. Kahn had beliefs in the potentiality of architecture that set him apart from all of his other contemporaries. To Kahn this potentiality was in what he referred to as monumentality. “By and large, what Kahn thought it to be of primary importance—the innate characteristics of materials, color, water, light and nature itself—were of secondary importance for his contemporaries...monumentality in architecture derived from its “spiritual quality,” meaning that all architecture was potentially monumental.”¹ Monumentality did not mean the same thing to Kahn as it did to others, it did not mean simply grand or classical.² For Kahn:

“Monumentality in architecture may be defined as a, a spiritual quality inherent in a structure which conveys the feelings of its eternity, that it cannot be added to or changed... Neither the finest material nor the most advanced technology need enter a work of monumental character for the same reason that the finest ink was not required to draw up the Magna Carta.”³

Kahn believed it was the architect’s duty to integrate metaphysical and spiritual aspects into the works of architecture via the constraints of structure and function.⁴ The reconciliation of spiritual aspects of architecture into actualization can be seen in Kahn’s process from ‘Form’ to ‘Design’.⁵ Kahn had a deep interest in primitive forms and the

persistence that they had through time and different cultures. The pyramids were of great inspiration due to their visual connection between heaven and earth. According to Joseph Burton, “It is with his discovery of the pyramid hieroglyphic, circa 1952, that the birth of Kahn’s architectural creativity apparently began.”⁶ Kahn’s adherence to ideal forms is similar to the Platonic notion of the archetype, which suggests that all of tangible reality is but an unperfected representation of an ultimate ‘idea’, and that ultimate ‘idea’ is divine.⁷ In Plato’s time, there was a divinity for each ultimate ‘idea’. Kahn’s notion of “form” seems to be similar to that of the Platonic ultimate ‘idea’, and though there is a switch in terms, it remains consistent in concept.⁸ To Kahn the ultimate ‘Form’, and as to Plato the ultimate ‘idea’, was the immaterial and transcendent, while ‘Design’ is what came to be in the architecture after all the elements that were required for its actualization were incorporated. Simply stated, ‘Form’ is ‘what’, and Design is ‘how’.⁹ In Kahn’s process from ‘Form’ to ‘Design’, he had great faith in his, or the architect’s intuition, which gave the ability to achieve ‘Order’, thus bringing the ‘Form’ into ‘Design’. For Kahn it started with the intellect and feelings, which initiated the presence of ‘Order’. “Order, the maker of all existence,” was perhaps the divine order of the universe and the beginnings of cohesion between knowledge and philosophy on the way to realization through the process.¹⁰ Kahn’s architecture was of a diminished ego, and it can be said that Kahn’s “work calls attention not to itself, but to the ‘unmeasurable’ it tries to reflect.”¹¹ Kahn’s process begins with the ‘unmeasurable’ and potential ‘Form’ and arrives in reality by its ‘Design’.

For Kahn wonder and intuition inspired the beginnings of any architectural manifestation. “Wonder has nothing to do with knowledge. It is a first response to the intuitive, the intuitive being the odyssey, or the record of the odyssey, of our making through the untold billions of years of making.”¹² Kahn was imbedded in the metaphysical, which was arrived at through the first intuitive reflection of the universe and the truths that were offered at that initial moment of thought. Intuitive reflection was the constant search throughout Kahn’s life; the search for ‘Order’ or the divine knowledge which arises out of intuition. Kahn believed that: “The more deeply something is engaged in the unmeasurable, the more deeply it’s lasting value.”¹³ As best put in the words of Kahn: “The poet is one who starts from the seat of the unmeasurable and travels towards the measurable, but who keeps the force of the unmeasurable with him at all times”.¹⁴

Steven Holl

To me, another architectural poet of our time in architecture, and perhaps one of Kahn’s predecessors, is Steven Holl. However, where Holl differs from Kahn is that his conceptions of architecture are not from a particular transcendental ‘Form’ so much as our phenomenal experiences of reality. Steven Holl’s notion of ‘intertwining’ is his way of combining what he believes to be the two most dominating experiences in architecture: “One is grounded in and out of situation; the other illuminated by sensory, perceptual, conceptual, and emotional experiences”.¹⁵ Much of Holl’s metaphysical and poetic

approach to architecture comes from his embracing of phenomenology in his approach to architecture. Holl states that:

“phenomenology concerns the study of essences; architecture has the potential to put essences back into existence. By weaving form, space, and light, architecture can elevate the experience of daily life through the various phenomena that emerge from specific sites, programs, and architectures.”¹⁶

This leads Holl to embrace certain ‘phenomenal zones’ in which to inform architectural concepts embracing of human sense perception. The different ‘phenomenal zones’ for Holl are found in his book *Questions of Perception*. Some of these ‘phenomenal zones’ are: 1) merging the architectural object with the field it inhabits to create an ‘enmeshed experience’, 2) the phenomenal difference between the perceived spatiality of day and night, and 3) how perspectival space, duration, proportion, and scale all influence our perception of natural phenomena.

Since so much of these ‘phenomenal zones’ are relative to circumstance, Holl puts much emphasis on the building’s site as being the starting point for inspiration of ideas and concepts, and that our initial perceptions of the site can lead to a ‘framework for invention.’ Holl recognizes that architecture engages our basic sensory perception and works from that fact, and this leads him to new intuitive and poetic works because he embraces the site and programmatic situation, in accordance with the phenomena he is initially presented at the beginnings of the design process. Holl says: “Architecture should have an experiential connection, a metaphysical link, a poetic link,”¹⁷ and that resolving the issues of program and site provide the poetic vehicles for the ‘physics’ to obtain ‘the metaphysics’.¹⁸

Both Louis Kahn and Steven Holl attempt to provide a poetic quality in architecture that search out the transcendental and immeasurable experiences of reality through architecture. As we begin to pave the way into a new paradigm and embrace some of the most implicating things in scientific and philosophical discovery, we would be short-handed as designers if we did not take these architect's poetic intents along with us. We must focus on the immeasurable in our quest to discover a new metaphysical and spiritual connection amongst a new way of seeing the world through the things we create.

MODERN AND PROCESS-RELATIONAL THOUGHT

Plato and Aristotle Within Architecture

As mentioned previously, Louis Kahn held Platonic conceptions of the ultimate 'Form' in his poetic quest for maintaining the 'unmeasurable' in his architecture, while Holl achieves a phenomenal and a more sensual architecture embracing of perceptual phenomena. At this point I would like to point out that the architectural transition of poetic intent from Kahn to Holl has direct correlation to the philosophical transition in ancient Greece from Plato to Aristotle. From an ideal "Form" conception to a sense based conception of reality. For Plato, like Kahn, was concerned pre-dominantly with that transcendental "Idea", and Aristotle, as in the focus of Holl's work, had great faith in human sense perception being able to understand reality. Perhaps Plato was so concerned with the idea underlying "Forms" he did not take human sensory perception as seriously as Aristotle.¹⁹ Aristotle was ultimately concerned with sense perception and how reality and metaphysics can be discovered from a sensual reality. This dynamic transition of both architectural and philosophical thought is worth exploring to see if there are any implications towards reconciling a process-relational view of the world and architecture.

We can best understand Plato's philosophy by looking at any one thing in the world and trying to understand it, or pursuing knowledge of it. By studying a certain thing in the world, we are studying its "Form" which is in itself imperfect, and may vary

from other "Forms" like it. What this process does is informs us of is the ultimate transcendent "Idea" from which the multiples of "Form" are manifest.²⁰ Aristotle's conclusion differed from, "Plato's conclusion that the basis of reality existed in an entirely transcendent and immaterial reality of ideal entities. True reality, he believed, was the perceptible world of concrete objects, not an imperceptible world of eternal Ideas."²¹

For Aristotle, in opposition to Plato, the problem was that he interpreted reality in the concrete objects. In addition, within these concrete objects there existed substance and quality²², rather than simply a single 'idea' for each 'form'. Aristotle thought that perhaps not all the attributes that went into something had to do with the emergence of a transcendental 'idea' materializing the object.²³ This led Aristotle to develop different categories of 'being' in regards to substances.²⁴ To Aristotle substance was the basis of reality, and that the different categories of substance determine what a thing is. There are three major categories of substance in Aristotle's metaphysics:

"The first two kinds of substance are physical(or material), and are 'movable' or 'changeable'. These physical substances are capable of changing, or of being changed. They may be either: 1) perishable, or 2) imperishable (i.e. eternal). The third kind of substance is non-physical, non-material, eternal, 'immovable', and 'unchangeable'. Non-material substances may include: 1) mathematical objects (such as numbers), and 2) Ideas."²⁵

Other than the notion of substances, the most drastic change from Plato to Aristotle is in regards to how they looked at the states of 'being' and 'becoming'. While Plato was concerned with both 'being' and 'becoming', "'being' the object of true knowledge and 'becoming' the object of sense-perceived opinion."²⁶ According to Richard Tarnas, in his book *The Passion of the Western Mind*, Aristotle was only

concerned with becoming, and “gave to the process of ‘becoming’ its own reality, asserting that the governing form itself is realized in that process. Change and movement are not signs of a shadowy unreality but are expressive of a teleological striving for fulfillment.”²⁷ From these beliefs, we can begin to see that Aristotle was a massive advocate for the eternal, or ideal, amongst a dynamic and flowing universe, and was perhaps the first major “process” philosopher.

Essentially, Aristotle brought Platonic philosophy “down to earth”, taking Plato’s archetypes and suggesting that they could be imminent in the processes of nature.²⁸ Aristotle, out of necessity, thought it possible there was one supreme form, perfect and absolute, that existed separate and yet through matter and that must be eternal. Whereas Plato’s recognition of the divine lies in the “Idea”, Aristotle’s notion of the divine lies in the eternal. According to Richard Tarnas:

“ Aristotle’s logic could be represented in the following way: (a) all motion is the result of the dynamism impelling potentiality to formal realization. (b) Since the universe as a whole is involved in motion, and since nothing moves without an impulse toward form, the universe must be moved by a supreme universal form. (c) Since the highest form is both entirely immaterial and without motion: hence Unmoved Mover, the supreme perfect Being that is pure form, God.”²⁹

Aristotle’s timeless position about ‘becoming’ and ‘process’ is more than two thousand years old, and yet can still resonate with us today. Upon observing the world, which is constantly amidst dynamic relationships, we can relate to what Aristotle was proposing about reality and the world. Therefore, his early theories lead us wonderfully into a process oriented view of the world. Accordingly, I would like to propose that from here on and throughout the text, we join the ancient Aristotle and eliminate all notions of

'being' and simply focus on 'becoming'. If we begin to focus purely on 'becoming' in our conceptions of the things we create perhaps we can begin to have them reflect the true nature of reality that is constantly changing and flowing, of which Aristotle was in favor of reconciling.

Descartes' Machine

In order to shift our contemporary thought process to arrive at a more process-relational worldview it is crucial that we understand the philosophies and beliefs that initiated this perpetuating dualistic nature we experience today. The modern thought process that has led to our contemporary paradigm is from the philosophy of Descartes in the seventeenth century, and was further fuelled by Newtonian mechanics, which offered a supreme way of understanding the universe. Since the scientific revolution with Copernicus' discovery that the earth revolved around the sun, humans have sought through science and technology a means of understanding the universe. Descartes and Newton did not deny the human need for metaphysics or spirituality, they were in fact religious themselves, and embraced the possibility of universal and metaphysical truths.³⁰ However, they believed that the divine had set the world in motion and was separate from the actual forces in nature making it open for scientific thought to describe.³¹ For Descartes, the existence of the divine being separate from nature and man was essential to his scientific philosophy. However, it has come to be that in the following centuries Descartes followers amongst science omitted any open reference to a divinity in practice

and developed theories according to the this division. What would spawn from Cartesian thought is a view of the world as a machine, making it possible for Newton to develop the basic laws of physics that have formulated and aided in the development of understanding the universe today through contemporary science and physics. Descartes and Newton's positions would ultimately extract any spiritual or divine qualities from physical phenomena and intensify the dualism between spirit and matter we know to be consistent within our culture.

The ideas of scientific investigation spurred the Cartesian thought process. Descartes was the great philosopher, mathematician, and physicist of the Seventeenth Century. Descartes had a great interdisciplinary capacity to combine rules of scientific investigation along with a philosophical mind to formulate the ideas that the western mind would adhere to for the next four centuries. Most importantly, it was the phrase "Cogito ergo sum", which means, "I think, therefore I am", that best represents Descartes way of thinking. This phrase suggests a hierarchy of man over the natural world and suggests all else to be material, it also suggests that the only thing one can verify is that they, or 'I', exist. Everything we experience within the technologically integrated world today stems from this simple phrase. What it established is a division between *res cognitans*, which is the subjective, spiritual, metaphysical, and conscious aspects of man that are within, and *res extensa*, the extended materials of the world, physical and objective, such as matter, plants and animals, etc.³² This belief ultimately led Descartes to conclude that our minds and souls are separate from our physical bodies. From this conclusion, Descartes is very concerned with 'being' in the sense that the human soul is

separate from the natural world and unchanging. Descartes standpoint has implications that seem to conflict with the true nature of our experience with our own psyche and bodily experiences.

A Process-Relational Critique

We can now see two major metaphysical and spiritual implications in the potent Cartesian worldview in terms of the relationship between the divine and the physical world, and the minds relationship to the body. However, at this point I would like to offer a process and relational critique of the Cartesian dualistic worldview. C. Robert Mesle points out some basic issues with the dualistic view of mind and body:

“According to Descartes, your body cannot think, so it cannot receive any thoughts or feelings from your mind. Similarly, your body cannot send any experiences to your mind because the body has no experience to send. Nor can it push on the mind because the mind is not in space. Cartesian dualism makes the most obvious events of our embodied existence impossible.”³³

Mesle acknowledges that we all feel it to be true that our bodies and our minds are in a complex interrelationship with every experience we have. The inherent fact that our bodies, feelings, senses, emotions, and psyches are in a truly dynamic relationship with each other shows that Cartesian dualism falls short in describing the reality in which we intuitively know.³⁴ If everything in the universe is truly interconnected then it must also be true of the relationship between our minds, souls, and bodies within the experience of the world.

There are occurrences when we feel the desire to separate our minds from our bodies, like in the instance of extreme pain in an attempt to minimize the psychological impact, but however great this momentary accomplishment is we eventually experience that pain, or the damage done, in moments to come.³⁵ This ability to create the illusion of separation of the mental from the physical only reflects the power of the human psyche. The nature of reality remains that we experience in and with our bodies and therefore our bodies have experience because we are in an intertwined experiential relationship with them. This is the process and relational view of the mind and body connection. As for a relationship to the divine, a process view would extend the human soul to be in a constant relationship with its body, and the divine.³⁶ Though some may choose to reject this, for people acknowledging a reality in process it is not farfetched at all to think that our souls, the divine, and the world are in a harmonious and dynamic relationship, flowing, informing, relating, and creating together. Many religious people in all cultures who believe in an omnipotent divinity cannot deny the constant and dynamic relationships that they have with their faith, and to deny a process-relation view of the divine would seem to deny being able to have any relationship with the divine at all.

From here on it would serve us best to think of our relationship to both the divine, and the rest of the world as one across a metaphysical scale. These relationships across scales as perceived from humans on down within reality offers a valuable response to the “I think therefore I am” phrase in which Descartes adhered. If we think relationally, we cannot totally isolate ourselves as being the only things that exist.³⁷ We may still be the highest form of intelligence that has a mind and body connection. If we analyze

consciousness across scales, we do not see complete separation of us from other animals rather a gradation. We either all have pets, or know someone who has one and can see that they have experience on some level similar to ours.³⁸ Some of the most consciously developed animals that we as humans interact with that first come to mind are dogs, chimps, and dolphins.³⁹ Through this observation of reality, we can realize that it is crucial to say that just because we think does not mean that we are, there is far too much evidence out there in everyday reality in opposition to Descartes.⁴⁰ There is simply a hierarchy across scales of consciousness.

While Descartes philosophy offered a framework that made it possible for the great advancements in science and technology, he failed to recognize some basic truths about reality. We must move on to looking at both a philosophical view that is both coherent with innate truths of reality as well as the things that are beginning to emerge in the scientific realm that take into account the Cartesian short comings.

THE SCIENTIFIC QUEST FOR INTERCONNECTION

Apexes in Science

There are aspects of recent scientific discovery that would have served as great advocates for Aristotle and his initial exploration of a process worldview, and the apex that science is at today supplies the potential for a paradigm shift out of the Cartesian dualism towards a process-relational view of the world. Once the current or next paradigm shift of the western culture is recognized, we could give initial credit to Albert Einstein. While Max Plank discovered the smallest level of matter we know today being the quantum, it was Einstein who single handedly initiated quantum theory and developed the theory of relativity.⁴¹ Quantum theory and quantum mechanics, though initiated by Einstein, it was a group of physicists that would lead its development and what they would discover is profound. Since ancient Greece and up through Newton, atoms were once seen as the solid building blocks of the world. However, today they're seen very different. The issue arises from trying to understand what exactly is energy, and what is matter upon observation, "subatomic particles displayed a fundamentally ambiguous nature, observable as both particle and wave."⁴² This ambiguous nature between matter and energy would lead to relativistic and philosophical correlations between Einstein's theory of relativity and the observations in quantum physics.⁴³ These philosophical correlations would become crucial for any further advancements.

The theory of relativity, eventually termed General Relativity, developed from Einstein's belief that nothing could move faster than the speed of light, and therefore gravity must travel at, or near the speed of light. As Stephen Hawking writes in *The Universe in a Nutshell*: “This idea led Einstein to a unification of space and time in the universe. The theory incorporates the effect of gravity by saying that the distribution of matter and energy in the universe warps and distorts space-time, so that it is not flat.”⁴⁴ We could think of space and time as a three-dimensional grid with malleable parts. If you were to stick a ball within the malleable parts of the grid, it would want to bend around the ball. This is how time, space and gravity curves around and holds matter. This is vastly different from time as it was known to be in traditional Newtonian physics. We must now accept that time is not only curved, but also intertwined with space and the forces acting on matter, and that space-time is relative to the size of the mass warping it. The theory of relativity also led space and time to be relative to the size and speed at which an equipped observer was moving through space. However, Einstein would be unable to tie general relativity to what was concurrently going on in quantum physics in terms of observation and mathematical laws, but the interrelationship of mass and energy within Einstein’s space-time theory of relativity, as found in Einstein's famous equation $E=mc^2$, would help formulate the relativistic mindset crucial to quantum theory. Fritjof Capra states that: “The new physics necessitated profound changes in concepts of space, time, matter, object, and cause and effect; and because these concepts are so fundamental to our way of experiencing the world, their transformation came as a great shock.”⁴⁵ The

new concepts made possible by Einstein would translate philosophically into the development of quantum theory.⁴⁶

Quantum Theory

Quantum theory has come to recognize forces that hold an atom together in the strong and weak nuclear forces between protons, neutrons, and electrons. However, when we get down to the entities themselves, we see very different things happening. For one, there are things now discovered called neutrinos, which are ghostlike particles that do not have an electrical charge causing them to be unobservable by scientists, only their effects are observed.⁴⁷ “Electrons interact with the ghostlike particles around them, and those interactions alter the properties of the electron, such as its mass and electrical charge.”⁴⁸ These ghost particles seem to make electrons energy and momentum come in and out of existence. The invisible nature of them keeps their essential make up and what information is imbedded within them a total mystery, but they have been proven to exist. Once quantum physicists came across this, things became very unsolvable, and all this while still having the particles that make up an atom in a dualistic state of either energy or matter.

Werner Heisenberg discovered the great "uncertainty principle", which discovered that only probability could explain quantum mechanics, and that the uncertainty of particle behavior shows us that we can never know the future.⁴⁹ Not only is there a degree of complexity and mystery in quantum research, but do to the sensitivity of

investigation, a lot is dependent of the intent of the scientist doing a particular quantum observation. As Fritjof Capra states: "My conscious decision about how to observe, say, an electron will determine the electron's properties to some extent. If I ask it a particle question, it will give me a particle answer; if I ask it a wave question, it will give me a wave answer."⁵⁰ This shows a fantastic connection to human consciousness intent and the nature of what observation at a quantum level. This connection of consciousness with scientific investigation has pushed some of the most insightful approaches towards science ever to come, and they are the contemporary happenings in quantum physics.⁵¹

The late David Bohm proposed an original and bold new way of looking at quantum physics based off this interconnection of human consciousness and quantum phenomenon observation. He started with looking at the world simply in terms of movement, rather than either matter or energy. He saw mind and matter as interconnected, but not effected in the traditional casual relationship, more of relationship along the lines of non-locality.⁵² "They are mutually enfolding projections of a higher reality which is neither matter nor consciousness."⁵³ Bohm started to realize the limitations of a Cartesian mindset, and if quantum physics is to advance, then others should continue to in his footsteps in the attempt to define a new paradigm.

Quantum physics at this point in our history is pushing towards an integral theory that will describe everything from the cosmos down to the quantum. There are theories on what the actual heart of an electron is like, as we can see in the recent emergence of String Theory, which even breaks up the center of a particle further into quarks moving together in a superstring relationship, perhaps being the thing that actually creates

gravity.⁵⁴ However, theories such as this are currently improvable. Ever since Clerk Maxwell was able to combine electricity and magnetism into electromagnetic laws at the end of the nineteenth century, and Einstein the behavior of gravity with space and time in the twentieth century, the goal remains to reach a unifying theory between General Relativity and quantum theory. It is beginning to become apparent that we must take the stance of Bohm; we must change our paradigm in order to gain new understanding.

Apexes in science are emerging to show the degree of interconnection as well as the immaterial mystery within the universe. The old concept of the ether that Einstein ignored in his generation of relativity is coming back into consideration as the zero-point-field, because they are beginning to discover that immeasurable information exists even in the vacuum of space, from black hole observations, as well as observing the polarization of the vacuum at the quantum level.⁵⁵ The universe is expanding horizontally, which brings in to question the big bang theory, which suggests a spherical expansion of the universe.⁵⁶ Thus, an opposition to the big bang is the principle of entropy, which suggests that the universe is always expanding and contracting each time creating a different universe. In either cosmological case, the biggest mystery of all is that of dark matter.⁵⁷ Of what is perceivable via light in the universe, things are do not seem in accordance with celestial movements suggested by understandable physical laws.⁵⁸ The only thing that could be holding galaxies and stars together to maintain understandable celestial movements is dark matter, an unknown mass that has no light emitting capabilities, and thus makes it unperceivable to so study though

instrumentation.⁵⁹ Scientists speculate that this dark matter would consist of eighty percent of the universe and be responsible for the glue of the universe.⁶⁰

Nevertheless, the extremes of science are pushing us towards a paradigm of “consciousness interconnection” with our universe, towards a paradigm of movement and flux in the continuum of time and space, and towards a paradigm embracing these mysterious immaterial, immeasurable, and unquantifiable qualities. The realization of our own consciousness affecting the outcome of scientific investigation puts great responsibility on new developments in science, and our perception of how our human consciousness affects reality. It is imperative we not miss such a great opportunity. An opportunity that is stating it is time to let science simmer for a while, and step back and decide how we as humanity are going to accept and analyze the things we are going to create in this improbable yet flowing universe. Given the recent scientific research, it is time for the reestablishment of who we are, what we believe, and how we are going to maintain, and interject all the beautiful aspects of humanity into this interconnected paradigm to come.

PROCESS AND RELATIONAL PHILOSOPHY

Reality, the Divine, Causation, and Immediate Experience

As we previously discussed David Bohm tried to initiate a new way of understanding physics. He did this not only to advance physics, but also to provide an approach for all of science and society moving towards a flowing and interconnected worldview. At the time of all the advancements in quantum physics there were some great philosophers acknowledging the implications of quantum physics on metaphysics and spirituality in response to the need for a process-relational worldview. David Bohm acknowledged the profound potential within ideas of process, but the two philosophers who dominantly developed the focus are Alfred North Whitehead and Henri Bergson, and they were able to reconcile discoveries in science with a process worldview that Aristotle was not able to introduce into his philosophical conceptions about the world. The basic notions of process-relational philosophy seek to unify macro processes with micro processes, and how we as humans experience and fit in metaphysically and spiritually with these processes. Process-relational philosophy seeks the combination of our deepest intellect, and the most obvious common sense occurrences in reality. The belief always being that we should only embrace a philosophy that is coherent with intuitive reality. We should start predominantly with the ideas of Whitehead, because of his wonderful metaphysical and spiritual reconciliation of the implications of quantum physics. The text that I found to be the most informative on Alfred North Whitehead is

C. Robert Mesle's *Process-Relational Philosophy: An Introduction to Alfred North Whitehead*. The text is beautifully written, and the ideas within in the text are both extremely informative and inspiring.

Ideas in a process-relational view of the world focus on everything in the natural world as ultimately in a continual act of change. As Mesle starts: "Life simply is change -becoming and perishing",⁶¹ and that, "Everything that is actual becomes and perishes."⁶² The major shift in process-relational philosophy comes from the notion of a reality consisting of 'things' to a reality where everything is an 'event', or an immediate occasion. According to Nicholas Rescher:

"As process philosophers see it, the supposed predominance and permanence of things in nature is at best a useful fiction and at worst a misleading delusion. Material objects are ultimately comprised of energy that is in an ongoing state of flux and motion."⁶³

Thus, we are now beginning to see the connection to quantum physics, and yet if we look at our intuitive reflection on reality, we can sense this concept to be true. I can recall as a kid going in to the old barn at my grandparent's farmhouse and going through all the old boxes of toys and clothing that had been stored and forgotten. The texture of the old suits from the middle of the twentieth century no longer had that soft feel for even having been as isolated from the elements for as long as they were. Even in having not seen daylight in a long time the paint on the old tin mechanical toys was fading and not nearly as bright as they once were. Not to mention the old barn itself, obviously in a state of perishing with the wavy and sagging old glass windows, the crumbling stone and cement foundation that always seemed to crumble off onto the stairs leading down into the workshop off to the side. I mention this experience because no matter how hard we

try to keep, store, or preserve things, it seems that we are fighting a never-ending battle because all of reality and its entities are fleeting, ‘becoming’ or ‘perishing’ with every occurring moment. The essence of what a process-relational view is trying to do is to bring philosophy closer to what we know to be obvious truths about the reality of our experiences, as any quality thought process should do.

Alfred North Whitehead and the cornerstone of his work, *Process and Reality* provide the key advancements upon an Aristotelian worldview in what constitutes the basic building blocks of reality. The building blocks of reality envisioned by Whitehead are ‘actual occasions’- processural units as opposed “things”.⁶⁴ ‘Actual occasions’ are events that become and perish in the flow of time and occur from the smallest of quantum up to entire planets and stars. What C. Robert Mesle says about each ‘actual occasion’ is that:

“Your mind, your flow of awareness, for example is a series of such events. So, perhaps, is an electron or some smaller component of which an electron is composed. Your mind, and also any of the smallest units of existence like electrons or quarks, is a series of what Whitehead called “actual entities” or “actual occasions.” An actual entity is a drop or event of space-time; it is a drop of feeling. The way that ‘actual occasions’ extend from moment to moment is through feelings. You experience the feelings of previous moments in your life, especially, but not exclusively, the most recent ones. You react to the feelings of the actual entities composing your body. An electron feels the spatio-temporal feelings of other actual occasions, and these physical feelings constitute the physical structure of the universe that physicist describe in other language.”⁶⁵

The universe and all of reality is vast web of micro-events.⁶⁶ The ‘becoming’ and ‘perishing’ of ‘actual entities’ is what constitutes change in the web of both space and time, and that there is no time or space between each moment of time or space.⁶⁷ In addition, the essential thing to note from above is that what determines this causation of

'becoming' or 'perishing' into each moment, is the feelings apprehended by each actual entity every moment. The different feelings apprehended from moment to moment constitute each new 'becoming' moment or immediate experience of an entity, upon this change in what is apprehended in its experience, or apprehensions, the previous moment perishes. Mesle says that: "Whitehead appeals to our use of the term *apprehension* as when police apprehend or "grasp" a criminal. So Whitehead says that an actual entity "prehends" previous actual entities."⁶⁸ This idea of apprehension, leads us into the basic notions of both perception and experience which are formulated from the fundamental process of the natural world. C. Robert Mesle points out that whitehead extended and created new words for understanding the metaphysical importance behind them, and "*feeling*, and *emotion* are among the words whitehead stretched."⁶⁹ Feelings and emotions are crucial to our understanding of 'prehensions'.

Prehensions Are Emotions

If we can accept that every event and everything is in a state of 'becoming' and 'perishing' is what we are referring to as the immediate occurrence of 'actual entities' each and every moment in the flow of time then we must understand how it is we both perceive and experience these events. We must also understand how each 'actual entity' manifests change into the next occasion or moment. This is by 'prehensions', and there are versions of prehensions that go into the immediacy of determining the next 'actual occasion' of an event.⁷⁰ These are simply positive and negative prehensions. A 'positive

prehensions' is the feelings maintained in the next occasion, as a 'negative prehension' would be that which is desired to be left out. ⁷¹ "It means feeling the feelings of previous moments-as when you feel the emotion you felt just a moment ago or when a photon feels the physical causal force of previous events."⁷²

Simply put, 'feelings' or 'prehensions' are the emotional responses to our prior immediate experience that determines the next. For an electron, it is as simple as a positive or negative charge, but for us humans it is emotions, for which we have names like anger or love.⁷³ It is crucial to recognize that it is not simply a sense-based perception that manifests each becoming moment, but actually emotional response triggers the next moment of becoming.⁷⁴ Senses are the input for our emotions to determine the 'prehensions' that are put into the next moment. Shielah Brennan says that according to Whitehead: "The simplest of conscious thought is emotional rather than cognitive."⁷⁵ If we are to begin to understand how the universe operates at levels at and below consciousness, we must embrace that 'prehensions' are how entities determine their next occasion. For all other entities, it may not be as perceivably intense as emotions are for us, yet however, emotions are the same part of reality across scales.⁷⁶ How entities 'prehend' the previous moment by 'feeling', or its emotional response of the immediate, is what constitutes the basic causation of each moment in reality. 'Feelings' are what tie all things together in the universe each moment. Mesle asks us to:

"Imagine that experience/feelings/emotion goes all the way down to subatomic particles. Imagine that electrons and other subatomic "particles" are drops of spatial-temporal experience. They experience their physical relationships with the world around them as vectored emotions-feelings that drive them this way and that. Think of energy as the transmission of physical feelings."⁷⁷

We assign the same attributes of feelings, like that for a quantum particle, as similar to the complexity of what we perceive to be as emotions, because we are attempting to embrace the immeasurable attributes that are operating all of the natural world. As for ‘becoming’ and ‘perishing’, the same goes for the smallest of entities up to the largest that we can perceive at our human scale, especially on our most basic levels of consciousness each moment. The objective nature of what entities we can perceive at our human scale Whitehead calls ‘enduring objects’, entities which maintain a flow of constant ‘becoming’, until they can no longer maintain that flow and perish.⁷⁸ Thus, perhaps with the introduction of this idea of ‘enduring objects’, we understand the scalar quality of the fleeting in terms of perceived objects. However, we are composed of an immeasurable amount of actual entities that are becoming and perishing within us each moment in a continuous interplay of ‘feelings’. Emotions and feelings are part of the immeasurable mystery that holds together this world. Emotions are perhaps part of the same pure energy that is operating the universe. We know that emotions are a part of the mystery involving the human condition⁷⁹, and the mystery of both our human consciousness and pure causal energy are invited to join each other in a process and relational view.

Perception

This reality across scales operates from each immediate moment to the next; we determine our ‘prehensions’ that are to be extended into the next moment by our

emotional response within. This is what constitutes 'presentational immediacy'⁸⁰. The first in two interrelated notions of Whitehead's ways in which we perceive the world. "Whitehead distinguished between two kinds of perception: perception in the mode of causal efficacy and perception in the mode of presentational immediacy. The latter, is sense experience. Sense experience is rooted in the deeper perception in the mode of causal efficacy."⁸¹ 'Presentational immediacy' is what happens within us at each moment. The second way of perception is 'causal efficacy', which is the constant output an input of the world around us, and our determining of how we present ourselves to each moment.⁸² C. Robert Mesle explains the difference between 'presentational immediacy' and 'causal efficacy' by stating that: "I push and the world pushes back. If I am struck, I feel the presentational immediacy of pain constructed by my nerves and brain, but I experience with and arising out of the physical causal energy that strikes me."⁸³ We know causation because we are presented with it every moment and we can perceive it.⁸⁴ Causation constitutes our basic intuitive knowledge about reality. Perception in the mode of 'causal efficacy' is more or less the medium in which we are constantly painting our immediate 'prehensions' and how we determine the effectiveness of our prehensions from moment to moment within the reality of causation.⁸⁵ Causation and the immediate are in a direct and never-ending simultaneous relationship, meaning you cannot have one without the other. However, by recognizing 'presentational immediacy' we can begin to understand how the entire universe is extending from moment to moment by the never tiring interrelationship of 'feelings'.

Typically, our human experiences of consciousness have focused primarily on sense perception, but Whitehead sees our perception of the world differently, our perception is the synthesis of ‘presentational immediacy’ and ‘causal efficacy.’⁸⁶ By putting emphasis on the fact that we feel reality each moment, and are not simply entertaining, our senses that represent the world as external to us, then this position can show us that we have the world in us each moment.⁸⁷ “It means that we derive from the world and are determined by it; that we conform to the world and reproduce it; that we inherit the world.”⁸⁸

Eternal Objects and Creativity

‘Prehensions’, feelings, or emotions are the fundamental attributes to causation through all of reality manifesting each moment. However, there is a potentiality never fulfilled amongst each actual occasion. Within the immediate concrete occurrence of each entity every moment, there are ‘prehensions’ beyond simply ‘positive’ or ‘negative’ felt by the entity. There are also divine ‘prehensions’ in what are called ‘conceptual prehensions’ influencing the potential of each occasion or entity in each moment of ‘becoming’. A, purely “‘conceptual prehension’ is the feeling of an eternal object-a possibility.”⁸⁹ And in reality, “we can never have a purely physical or conceptual prehension”⁹⁰, and most are what must be called ‘hybrid prehensions’. These ‘hybrid prehensions’ are the combination of physical and conceptual ‘prehensions’ amongst each immediate occasion. Mesle would continue that: “*Hybrid Prehension* means jointly feeling an actual entity and an eternal object.”⁹¹ Each ‘becoming’ moment is determined

by both the physical and the eternal potentiality of each and within each moment. This eternal potential in every moment is the divine notion for each entity as it is ‘becoming’, yet because of physical reality laying restrictions on its becoming within reality there can never be a fully eternal object manifest within reality.

Eternal objects can explain how we have divine intent within the event of each occasion’s immediate becoming every moment. However, what is crucial to realize as we move forward is the interrelationship of both the immediate and causal reality, which both constitute our flow of experience. We have continually been referring to ‘becoming, and ‘perishing’ as a fundamental way of thinking in a process-relational view. Yet, since ‘becoming’ or ‘perishing’ are pure events we have to believe that there is eternal or primordial medium from which all of what is perceivably reality, as well as the divine, are intertwined with amongst the flow of causation. The notion that ties us with the divine through causation or ‘becoming’ is Whitehead’s primordial notion of reality termed Creativity. We can see Creativity as that in which is the means of the ultimate reality, or the divine, influencing the universe.⁹² Creativity is the medium in which both human consciousness intent and the divine create within a constantly becoming reality. To some who do not believe in a divinity it may be problematic to consider that which has no form at all effecting things with form, but Whitehead insists on Creativity as essential to the nature of events becoming in a universe that is constant flux and process. David R. Griffin says:

“Whitehead distinguishes between God and Creativity and yet makes them equally primordial. God is not simply Creativity: God has

determinate characteristics: God knows the world, envisages primordial potentials with appetite and purpose, influences the world, and is in turn influenced by the world.”⁹³

It can be seen that the divine and creativity are separate to Whitehead, yet it is the medium in which the divine has influence. Perhaps the most important thing is that without Creativity we cannot have the causation in determining the ‘prehensions’ of any immediate or actual occasion in reality.

A Whiteheadian process view of the world joins the realm of the spiritual and metaphysical, within a continually flowing and becoming reality. Without Creativity within processes, things cannot be affected by any prior occurrence, nor begin to effect. Creativity is that primordial essence which ties everything together within time and process in the universe, and it is the medium through which causation flows. It is important to realize how Whitehead steps away from classical notions of the divine in his notion of creativity, and therefore blends our perception of the divine into the processes of the world. A crucial aspect not to miss here is that he still leaves open the possibility for human or any entity’s input into the creative process of things ‘becoming’ and ‘perishing’. There still exists a hierarchy in the sense that, the divine is, and that the ultimate reality is the all knowing, but what we have is a mutual interplay between the relationship of human spirituality and the divine in the process of creating and manifesting all becoming events in the universe. This mutual interplay maintains the notion of free will and self-creativity, which is crucial to both having a relationship with the divine as conscious decision-making entities, and the structure of reality.

For the Metaphysics of the Immediate Experience

A process relation-view of the world reconciles both fundamental every day experiences, and shows us how the fundamental constitutions of reality could be both feelings and creativity. Everything is in a constant state of ‘becoming’ or ‘perishing’, and this puts great emphasis on the ‘presentational immediacy’ of right now. Within a fleeting reality, the only experience we truly have of reality is in the constantly ‘becoming’ present. Each moment is new, becoming and flowing with divine intent and the intent of each actual entity.⁹⁴

At this point, hopefully we can begin to see how crucial is to acknowledge both implications of causation, or creativity, and the immediate experiences and we have with reality. Since it is the immediate feelings of each entity, which determines the ‘becoming’ of each moment, it causes us to desire the focusing of our energies on our immediate experience of reality. As James Felt points out: “Whitehead also meant to build his metaphysics on an insight into immediate human experience.”⁹⁵ Whitehead used the immediate experience as means to find grounding for his philosophy within reality.⁹⁶ T.S. Elliot would say that the nature of the immediate experience is purely sense-perception, awareness and a ‘feeling’ based reality.⁹⁷ In addition, because feelings are the most basic and timeless, Elliot would continue: “No object is exhausted by its relations, and this aspect of mere existence, in all objects as well as feelings, is what we call immediate experience.”⁹⁸ Due to the complexity of experiences in larger organisms, and the high degree of interconnection and constant flow of simply living, especially at our human scale, it can be difficult to embrace pure immediate experience. Humans are complex entities of habits, memories, emotions, and intention. The immediate experience in itself is perhaps simply pure existence, and it might be safe to say that entities exist because they feel. Elliot concludes about the immediate experience by stating:

“Although we cannot know immediate experience directly as an object, we can arrive at it by inference, and even conclude that it is the starting point of our knowing, since it is only in immediate experience that knowledge and object are one.”⁹⁹

The recognition of the immediate as being the starting point of our knowledge, and the suggestion that perhaps by simply feeling reality we can begin to understand its true nature, leads towards the desire to remain as close as to it as we can as we move forward.

In recognition of the immediate experience, being how we can understand our metaphysical grounding in a reality of process Henri Bergson, in my mind the other key process philosopher of the early 20th century, looked into our immediate consciousness for metaphysical understanding. According to James Felt: “For Bergson metaphysics is above all an immediate grasping of the self in its flowing through time,”¹⁰⁰ and that, “intuition is immediate experience itself.”¹⁰¹ And Bergson also believed “metaphysics is the most real and solid positive of all sciences, because it is the science of reality,”¹⁰² and we have seen how Whitehead was in favor the immediate ‘actual occasions’ of our experiences in understanding the true nature of reality. Yet, Henri Bergson says that it is through our intuition that we can only truly begin an understanding of our immediate experiences, which is the essence of metaphysical understanding.¹⁰³ I for one, am in support of Bergson’s outlook in regards to beginning to reconcile a way to embrace the immediate experience. Intuition is a word that we are familiar with, and it is something we can all grasp out of our basic understandings of our experiences that may not have been sympathetic of a process worldview up until this point. Thus, to reach a metaphysical understanding of a process-relational view of the world, we shall put great

emphasis on testing our intuition as the resource for embracing the immediate, immeasurable, and emotive.

FOR POETRY AND POETIC KNOWLEDGE IN THE IMMEDIATE EXPERINCE

Poetry, the Poetic Image, and the Poet

In our over view of process and relational thought we have come to see how perhaps the world operates by feeling, and the importance of recognizing this amongst our immediate experiences and intuition is how we can begin a metaphysical understanding ourselves. We must embrace our intuition because, “intuition is the spontaneous awareness of reality that something is there, outside the mind but that the mind cannot help but know.”¹⁰⁴ Whenever we are seeking to embrace new notions of reality that perhaps were not part of our prior understanding, our intuition can inform us as to the new notions validity. Earlier in the text, we mentioned how Louis Kahn had great faith in the architect’s intuition to achieve a poetic means of embracing the immeasurable, and we have come through process philosophy to see that the fundamental attributes that are holding and moving reality are truly immeasurable. Feeling’s, emotions, creativity, eternal objects, and causation are truly immeasurable entities. In light of a truly immeasurable reality we are seeking to portray through design, we should attempt to join Louis Kahn in recognition of the poet being “one who starts from the seat of the unmeasurable”.¹⁰⁵ Perhaps if we look to poetry as our means we can begin to reconcile both a method for ourselves as designers, and the appropriate provision of experiences that portray this immeasurable and dynamic reality of process with in design.

Poetry, in all traditional sense, uses words and language as a means of communication. As we attempt to remain as close to our immediate experiences as we can we must recognize that words themselves, once spoken about an experience, are in a

reflective nature and bring that experience out of the immediate and into to a common level of understanding. Henri Bergson says:

“The word with well-defined outlines, the rough and ready word, which stores up the stable, common, and consequently impersonal element in the impressions of mankind, overwhelms or at least covers over the delicate and fugitive impressions of our individual consciousness.”¹⁰⁶

In the complex entities that we are, feelings and emotions become an instantaneous array of thousands of prehensions that blend often into a fully enveloped emotion within ourselves, and sometimes we try to communicate this and words fall short. However, in the writing of poetry, a poem by its means of composition, structure, and flow can evoke feelings and images within us that transcend ordinary language. As Bergson says, “The poet is he with whom feelings develop into images, and the images themselves into words which translate them while obeying the laws of rhythm.”¹⁰⁷ Rhythm has always been essential to evoking a sense of harmony and flow, as we can see in other arts like music, and dancing as well as in architecture.¹⁰⁸ Upon experiencing this rhythm in poetry, the reverse of Bergson’s quote can be said to be true, perhaps the experience of the poem is not ever as powerful for the reader of the poem as was the poets initial experience, however, it is only through poetry that we can we truly begin to understand the emotions which evoked the words. Bergson continues:

“In seeing these images pass before our eyes we in turn experience the feeling which was, so to speak, their emotional equivalent: but we should never realize these images so strongly without the regular movements of the rhythm by which our soul is lulled into self-forgetfulness, and as in a dream, thinks and sees with the poet.”¹⁰⁹

Thus, poetry's ability through its various forms of composition and achievable rhythms combine ordinary language into the provision of feeling those emotions with the poet.¹¹⁰ Poetry is extremely powerful in accomplishing its transcendent provision out of the ordinary. In poetry it is not just the words or the structure, it is the emotive ability of the poet combined with the composition. As Ralph Waldo Emerson says in his essay *The Poet*: "It is not metres, but a metre-making argument, that makes a poem, -a thought so passionate and alive, that, like the spirit of a plant or an animal, it has an architecture of its own, and adorns nature with a new thing."¹¹¹ Poetry reaches out to the rhythm and flow of the natural world through words, and invites the poet into a means of communication that speaks through words to that initial imaginative and emotive quality to which the poet was in tune. Poetry has rhythm, words, structure, but is always an image.¹¹² Poetry is an image in the purest sense of its presentation, it represents/embraces that particular moment chosen to be evoked,¹¹³ and this image is poetry's provision and expression of the human spirits involvement with that emotive moment.

Poetry is perhaps the most potent means of communicating emotions. Poetry asks a great deal of imagination not only in terms of how to communicate, but also to abstract the flow of the poets experience into the structure of the words.¹¹⁴ Imagination and emotion are the immeasurable means of the poet; but also the poet is with whom rides the natural order in the world. The flow of experience within poetry must correspond to the flow within nature and reality so that it is not a false hood in its portrayal.¹¹⁵

The poet owes to nature, and the divine, the resources for his imagination and true emotive inspiration.¹¹⁶ Yet, who among us are poets? Emerson would say that:

“Everyman is so far a poet as to be susceptible of these enchantments of nature: for all men have the thoughts whereof the universe is in celebration.”¹¹⁷ When any among us at any moment in the constant flow of reality, embraces a moment of awe, a moment where we allow our emotions and inspirations to fill us in a deep conscious state, we are in touch with the poetic mode. Emerson reconciles with the fact that we all have the poetic mode to embrace when he writes: “If the imagination intoxicates the poet, it is not inactive in other men.”¹¹⁸ So perhaps simply to be a poet is an attempt to communicate, through imagination, these emotive moments amongst our flow of experiences.

Although, like anything else in life taking rigor of repetition and practice, the true poet has refined his perception to these moments, and the poet, in his ability to communicate these moments, has the provision and awareness of living amongst the flow of the natural world.¹¹⁹ “For, through that better perception, he stands one step closer to things, and sees the flowing ... and so his speech flows with the flowing of nature.”¹²⁰ Perhaps we cannot all be true poets, but in an attempt to understand, or begin to know, the true reality of the natural world on a deeper level, coherent with the raw emotive forces governing the flow of nature, we should embrace the poetic mode as much as we are able. We should especially try to embrace the poetic mode if we are trying to embrace a reality, of which the governing principles are the flow of ‘feelings’, or emotions.

Poetry and Creativity

Poetry with its embracing and expression of the continual flow and experience of reality requires all means of imagination and creativity, as we typically now these terms, within our immediate and emotive experiences. With Whitehead's notion of Creativity, we saw how perhaps the divine and we as humans are involved in the emotive creativity of each becoming moment in reality. It is my belief that the poet enters into the creative commune with the divine upon that pure emotional and immediate experience that the poet initiates their work from out of the pure flow of their experience with the natural world. This notion of creative involvement with the divine by the act of poetry is how we can begin to see not only the metaphysical, but also the pure spiritual level, which by attempting to be poetic initiates. To make an attempt at poetic action amongst creativity is to make an attempt at spirituality in action.

Poetic Knowledge, Intuition, and the Immediate Experience

We spoke of focusing on intuition as the reconciliation of a means to embrace the deep consciousness of the immediate experience as best we can, and in our constantly 'becoming' and 'perishing' reality, and perhaps we all have the poetic mode within us. At this point we must ask, is our intuition poetic, and can our pure intuitions inform us of poetry's spiritual provisions? In James S. Taylor text on *Poetic Knowledge* he makes the case that intuition "is included in the poetic mode because of its dependency on the sensory life of the soul and the effortless, spiritual nature of awareness at this level."¹²¹ In our attempts to remain as close to our immediate and

emotive experiences as possible we are beginning to see poetry is the most honest mode, we can attempt to take on. For, if the immediate, intuitive, and poetic experiences we have are perhaps the beginnings of our knowledge, and if intuition is how we can embrace the immediate experience, then it must be said that by attempting to be poetic is relying on our intuition. Our intuition is our metaphysical and spiritual means of beginning to understand the immediate and spiritual experiences amongst this constantly flowing reality. As Taylor states:

“Metaphysics of cognition recognizes that the most basic, involuntary processes of knowing have an analogy to poetry in the sense that to know.....to have knowledge...involves getting inside the object and possessing it spiritually”.¹²²

Thus, by acknowledging our honest poetic and intuitive experience as the starting points of beginning to know and understand reality on a metaphysical and spiritual level, perhaps this concept of poetic knowledge then sends us on the right direction towards embracing a new process and relational world-view. The beauty also lies in the fact that, as Emerson was pointing out, this poetic mode is all of us. Poetic knowledge is our emotion-based experience that all of have that is our poetic experience of ‘real’ life. A quote from Ken Meyers captures the essence of poetic knowledge when he writes:

“Poetic knowledge invites the engagement of the knower with the known. Poetic knowledge calls us away from detachment and dominion toward love and communion. Where the ideal of Enlightenment knowledge is to get above reality in order to know it, the ideal of poetic knowledge refuses to deny our participation in the world.”¹²³

Process-relational philosophy brings us down to earth, yet persuades us to believe in a divine involvement in reality. A process-relational metaphysics by focusing on the immediate experiences we have insists that we embrace that first poetic experience of a world that is constantly flowing that we as humans participate in. The beauty of the harmony between the worldview and the mode is because in the words of Taylor: “Poetic knowledge is a kind of natural, everyman’s metaphysics of common experience. It is a way of restoring the definition of

reality to mean knowledge of the seen and unseen.”¹²⁴ From out of this harmony of worldview and mode, we can embrace the emotion-based experience that allows us to begin to experience ‘real’ life to inform our understanding of it. As we have seen, both a Process-Relational view and the poetic mode are formulated from and embracing of the intuitive aspects about reality that presents itself immediately every moment. Our intuition and basic inherent knowledge of the world have been continuous points in our exploration up to this point, perhaps now we can see the need to embrace this way of process and relational way of thinking poetically. Not only for embracing a new way of looking at the world, but also for how to have a knowledge within ourselves of an honest and spiritual way of creating in this flowing reality. We cannot forget this as we carry on towards the creation of designs within architecture. We need to analyze our desired conceptions in architecture to make sure that they evoke those primary emotions inherent in the immediate experience of reality so we can envisage a metaphysical, spiritual, and poetic quality in our designs. Working with, and intending for the provision for the poetic experience of the natural world is how we can begin to offer a transcendental quality that dissolves a dualism between the man made and the processes of nature. Poetry allows for quality of our experiences to transcend our everyday existence, and get in tune with the divine spirit within reality.

POETIC REALITY AND THE IMMEDIATE EXPERIENCE IN ARCHITECTURE

Intensive Elements as Informers of Design

The heart of poetic knowledge and our poetic experiences of the world lie in the emotions evoked within the immediate and intuitive reality of each passing moment, this understanding is critical as we begin the creative process in architecture. If we are conscious of an architecture always evoking the esthetic 'feelings' in each aperture of our immediate experiences, and through the causation and flow of nature, we can begin to frame and respond to a process-relational reality that transcends all typical and technological methods we must go through to create things in this contemporary world. To discover a means in architecture that get us in touch with the poetics of the immediate experience which bring us into the realm of the metaphysical, and spiritual we must focus on the evocation of emotions and reciprocate them within the process and relational architectural portrayals of, time, perception, body, and space.

In Bergson's exploration of the immediate consciousness he makes the distinction between extensity and intensity: "The first extensive and measurable, the second intensive and not admitting of measure, but of which it can nevertheless be said that it is greater or less than another intensity."¹²⁵ Here he is acknowledging the difference between the magnitude of quantifiable experience, or an extensity, in the nature of our immediate consciousness, and the magnitude of direct phenomenon, which are only qualifiable, or an intensity. Extensity has perhaps to do with the beginnings of rational

thought, mathematic and scientific, while intensity corresponds more to the emotional and deep psychic states that evoke physical response. These two ways lead to a means of discerning what enters our immediate perception of reality at any given moment. I don't wish to delve too deep into psychology at this point, but here we should point out that through intensity, or changes in quality, perhaps we can tap into the poetic experience of the immediate. In the opening pages of *Bergson's Time and Free Will*, he acknowledges that emotions, "successive stages correspond to qualitative changes in the whole of our psychic states."¹²⁶ Bergson would maintain that extensity and intensity both have magnitude, but that pure emotion is crucial to a deep consciousness understanding of intensity.¹²⁷

This concept of intensity leads us on our path to using human successive changes along with correlative emotions as indicators in our exploration of poetically embracing architectural conceptions. Thus, we must maintain this succession of change amongst elements to maintain an expression of intensity. Jesse Riser recognizes that difference in intensities, "also known as gradients, are properties of matter with indivisible difference, such as weight, elasticity, pressure, heat, density, color and duration."¹²⁸ Intensities are indivisible, they have degrees of magnitude but one cannot simply cut an intensity in half.¹²⁹ Only intensities are those that evoke deep seeded feelings and correspond in a way to an emotional alteration through change.

Duration and Grace

If we look to the act of measuring of time, Bergson breaks down reality by looking at a hand moving around a clock. When we perceive the hand we perceive it at a certain position in space, and we are seeing only the immediate occurrence of the hand at that certain position.¹³⁰ For what constitutes 'pure duration' is the connections going on in our immediate consciousness at that moment that puts together the last position of the hand with the present one. As Bergson says: "In a word, pure duration might well be nothing but a succession of qualitative changes, which melt into and permeate one another.... pure heterogeneity."¹³¹ Duration is simply the procession of our perceptions of immediate occasions. Bergson goes on to suggest that the moment we try to establish duration as something outside ourselves we begin to make it homogeneous, or a uniform entity, which is contradictory to our intuitive processural experience of it because it of the events blending into one another.¹³² Duration is heterogeneous as it moves through reality because of the prehensions maintained from moment to moment change.

What makes duration unique as opposed to traditional notions of time is the fact that it is an intensity amongst our immediate perceptions, and the changes in the magnitudes of intensity we can experience at any particular moment. Alan Lightman points out that what makes time/duration heterogeneous is that time does not trigger events, and that "events are triggered by other events, not time."¹³³ Also that duration, "is a quality, events are recorded by the color of the sky...the feeling of happiness or fear when a person comes into a room,"¹³⁴ events, or these immediacies are what flows

through the duration of our experiences, and “the time between two events is long or short, depending on the background of contrasting events, the intensity of illumination, the degree of light and shadow, the view of the participants.”¹³⁵ The perception of duration can be relative to the magnitude of intensities presented to us. As when we are stuck in a room with no window, we have no feeling of change around us we have no intensities to feel change or duration. The real causal flow of time as duration is intensity.

In regards to establishing a connection to duration and emotion, we should focus on the emotion of grace because it seems to be an emotion embedded in the perception of the flowing nature of time. The essence of the perception of grace within time lies in its effortlessness in movements. Grace in the becoming of each intuitive moment is represented best by the curve.

Bergson says,

“If curves are more graceful than broken lines, the reason is that, while a curved line changes its direction at every moment, every new direction is indicated by the preceding one. Thus the perception of ease in motion passes over into the pleasure of mastering the flow of time and of holding the future in the present.”¹³⁶

The beauty that lies in curves is their ability to maintain a great balance of human emotion and the experience of the becoming and perishing of each moment in the flow of time. Grace and the curve are the mediation between hope and joy in action; this is because the nature of joy is something that has risen out of proceeding moments leading up to an immediate experience and current conscious state, while hope is a projection on things to come.¹³⁷ Therefore, it is in the grace of the curve that both of these emotions is embraced formally in the immediate experience.

Potentiality of Space and Site in Design

If we embrace the fact that reality, of what can be experienced in our everyday lives, has limits but also has divine potential each moment that is never achieved, we must come to terms with how to reconcile this in a poetic experience of architecture. Life and death, becoming and perishing, are the fundamental to all seasons, all processes, all entities, and every becoming moment. Alberto Perez-Gomez says that we should embrace, and recognize “lack and fulfillment”¹³⁸ as an emotional attribute to the experiences within architecture. “Such recognition enables one to grasp the sense of reality as woven from pleasure and pain, limited by love and death.”¹³⁹ Architecture has the possibility in its provision amongst the flow of experience to embrace conditions that over time express an order that is inherent in the life and death amongst the actual occasions of the site, and also able “of disclosing an order that is also our mortality, the poetic image in architecture generates a spark in the difference between the actual and the possible”¹⁴⁰ Perez-Gomez would go to say that, “the challenge is to make both present while accounting for the temporality of the lived experience.”¹⁴¹

Micheal Benedikt, in *An Architecture For Reality*, poses that we perceive space as *Emptiness*, not in the traditional sense of the word, but as acceptance that it is perhaps showing us the possibility of something more. For an architecture and space with *Emptiness* Benedikt says: “Architecture with emptiness is thus always unfinished: if not literally, then by the space it makes and the potential it shows.”¹⁴² If pure or eternal potentiality is that which is not achievable, and if we can perceive space as the pure

potential of 'becoming' that is never fulfilled, then perhaps the space as composed in our architecture can begin to truly express this fact of reality. Duration is the medium of potentiality within in space, and duration is also our perception of causation in the experienced intensive magnitudes of the site's processes. The spaces in architecture should correspond to the potentiality of the enduring objects amongst site, and architectural elements defining space within the design should be in poetic response to these enduring objects. Space is filled with potentiality, the potential becoming and perishing processes flowing amongst the field of the site within space and through duration.

Architecture has weight, it establishes itself as an enduring object, like all things in the world and is part of the event of nature and the site, architectures weight should be a poetic reaction and interpretation on the flow of the sites processes. The magnitude of architecture's weight on the site should be determined by its effort of response to the different temporal intensities of the site. These intensities of 'becoming' and 'perishing' which the weight of architecture is to respond, are the intensities of attributes consisting of the four elements typically referred to as, terrain, weather, fire and water. The subjective geological and climatic conditions of the site offer a potential poetic response that speaks to the nature of the processes inherent in these elements. Architecture should be in dynamic response to the geologic and climatic conditions inherent to the site, as architecture is an enduring object that feels the site and vice versa, the potential for poetry lies amongst the flow and change of the becoming and perishing conditions amongst the site.

An Approach to Architecture

We have now come through some of the most dynamic and emotive ideas in both philosophy and architecture, and seen how we can perhaps begin some notion of how to achieve a metaphysical and spiritual quality in a process view towards architecture. If we think and believe process-rationally, and bend our conception of poetry to not just be in accordance with classical notions of poetry, which I believe only keep us in the platonic realm, but merge them with the experiences of the processes of the site then I do not think we can ask for anything more out of the experience of architecture. For poetry in architecture, as in language, is not only concerned with the governing rules of a poems composition, but also those evocative elements which in a mysterious way motivate an image out of the immediate experience being embraced within that act of poetry. As Steven Holl would say: “The question of how language, poetic and philosophical, relates to architectural practice is crucial, as it seems to hold a key for our understanding of architecture’s potential relevance,”¹⁴³ at the turn of a millennium, and at the turning point in a world view. A process-relational and spiritual architecture thus, “aspires to be architecture as an action, rather than a state of being, a discovery of order in the making, which is also self making, invoking a wholeness (and a holiness)”¹⁴⁴, through not only the design process, but the allowance for the processes of the site to be part of the ‘holiness’. “Architectural meaning and cultural relevance depend on participation”¹⁴⁵, not only of the human element, but all emotive elements found in the natural, wild, and interconnected world/universe.

ART TOWARDS THE POETICS OF THE IMMEDIATE -
PRECEDENCE IN ART

Henri-Cartier Bresson and the Immediate within Photography

I would like to step aside and take a look at the art of photography and examine how it relates to our human intuition, and desire to embrace the immediate experience. The work of Henri Cartier-Bresson has been extremely influential on photojournalism as a practice, also, in what our perception of what the true nature of photography is. As Cartier-Bresson says that:

“To take photographs is to hold one’s breathe when all the faculties converge in the face of fleeting reality. It is at that moment that mastering an image becomes a great physical and intellectual joy.”¹⁴⁶

Cartier-Bresson was insistent in what he referred to as “the decisive moment”.¹⁴⁷ He recognized that life was constantly in flux and that there were always those beautiful yet inexplicable moments that emerge out of the ordinary that are worth capturing.¹⁴⁸ He would say that you do not have to be a photographer to capture these moments, rather just be open to experiencing them.¹⁴⁹ We can all feel what he refers to in his quote above about fleeting reality, in that we all have that desire to reflect upon those fleeting moments of which are our favorite past experiences. We always, at key moments in our lives have the desire to want to stop the continuous flow of time. Photography as an art form expresses this attempt to stop time and simultaneously capture the consistent essence of becoming and perishing within reality.

Cartier-Bresson was concerned mostly with the human element in his searching for fleeting moments. Most of his work accomplished this through the observation of the dynamic behavior of humans within their environments. This is why he had such an influence on photojournalism. Ansel Adams, on the other hand recognized the importance of photography's acknowledgement of fleeting moments, through landscape photography. I would say in one of his interviews "the fleeting moment is extended into hours and days, but there is still that moment we try to extract". Here Adams points out a scalar quality of the fleeting. While the extension of the fleeting does exist in the observation of a landscape as whole, or also in observing more solid objects interactions with their environment in general. An eagle swooping down on a trout is more fleeting than the seasonal erosion of sand dunes, which suggests there is a scalar quality of the fleeting within the world, but the essence of a fleeting reality remains.

The search within photography as an art form is truly coherent with that of the essential nature of life, and experience, in the dynamic and flowing relationship we have with the world. Photography recognizes that there are key instantaneous moments worth capturing. The poetry within a photo lies in the capturing of the certain qualities of light, form, and texture that evoke emotions. I would say that a truly great photo expresses these things, as well as expresses the immediate and fleeting experiences that we as humans have with reality itself. The mystery that a photograph can capture lies in the things we have been discussing, in those metaphysical and spiritual aspects that lay within these moments of ultimate becoming that get us in touch with our relationship to a higher order of existence.

CASE STUDIES IN POETRY AND ARCHITECTURE

Terragni's Danteum

By: Giuseppe Terragni

Project not built, presented at the 1942 Exhibition in Rome

The Danteum was built as a celebration of Dante Alighieri's works in poetry and literature. At the time of the late 1930's, Mussolini was in charge of the Fascist regime in Italy and the Danteum was to be a monument to the regime's political embracing of Dante's work. Dante's writings about aspirations for the return of the Roman Empire within Italy were the primary source of the Fascist regime in Italy at the time. However, Terragni's attempt in the design of the Danteum was to transcend a political relationship that established buildings in Italy as political symbols, and reveal the true nature of Catholicism and Dante's work in the design.

Architecturally, the Danteum is a search for an abstract language of form directly related to the poetry of Dante. One of the fundamental attributes to the overall outcome of the Danteum is this notion of non-place. This portrayal of non-place comes from the fact that the Danteum is structured from the *Divine Comedy*, which suggests a metaphysical dimension beyond the physical. Thomas Schumacher best describes the Danteum by writing: "Once we enter the Danteum and find ourselves within the internal logic that governs the shapes and sizes, we are immersed in the Dantesque condition: Hell, Purgatory, and Paradise are not clearly defined spaces, they are non-spaces."¹⁵⁰ The three

major programmatic spaces of the Danteum correlate respectively with these three phases of the medieval Catholic afterlife in Dante's *Divine Comedy*.

The buildings organization in plan is derived geometrically from golden section rectangles. This organization was to fulfill a means of honoring the ancients. Honoring the ancients and the Medieval was important to Terragni because of the nature of the site being amongst so many classical works in Rome, and because Dante's poetry and understanding of the divine was medieval. The plan of the Danteum is derived from two overlapping organizational squares into four major spaces, while only three of the four have to do with the *Comedy*. The first space is an open court and was meant as a statement about Dante himself, as an expression of being lost between sin and morality. "Traversing this court the visitor discovers a "forest" of 100 marble columns, similar to the forest Dante entered at the beginning of the *Comedy*."¹⁵¹ The first programmatic space in the procession is the Inferno, in this space as well as the second, Purgatory, the golden section really prevails in plan. The Inferno space was meant to be perceived as the gates of hell and the rigorous, yet fragmented geometry to be the means of expressing complete isolation from the external natural world. The second space of Purgatory is organized by a reversal of the golden section in plan, and seven areas in the floor, which correspond to the geometry, raising a step height each towards the center of the spiral. This rise in the areas of the floor could be perceived as the theoretical mountain in Purgatory. The overlapping squares of the whole organizational scheme allocate the long stairway that leads up to the Paradise space. This long and narrow stairway is perhaps meant to be the rise out of purgatory and into Paradise, or heaven. Once up in the

Paradise space one experiences a series of transparent columns. This transparency is meant to symbolize heaven.

Terragni tried to avoid being over attached to Dante's rhetoric and pressed himself to be abstract and not literal. "Terragni cautioned against making the monument a too-exact copy of the ambience of the poem."¹⁵² Thus, Terragni strove for an architecture as an abstract notion of the overall structure of the *Comedy*. "The act of abstraction is, for Terragni an active process which presupposes not only an original form but to a certain degree an original form-meaning connection."¹⁵³ Thomas L. Schumacher gets Terragni's method of this form to meaning convergence with Dante's poetry when he writes:

"The shape of an element in the Divine Comedy may be a three-line tercet; the shape of an element in a building may be a cylinder, but also possesses a tradition of use. The column is a series of "portico" (Terragni's term), further elaborating the grammar of elements."¹⁵⁴

The columns in the Danteum are the truly classical reference other than the golden section, and accomplish perhaps the most metaphorical elements in the building.

The Danteum represents the possibility to achieve a relationship between poetry and architecture on an intent-organizational level that has not since been taken as sincerely anywhere in the realm of professional architecture. The rigorous relationship to Dante's poetry has allowed the Danteum to achieve those potential emotive aspects within the experience of the *Divine Comedy* to translate into the immediate experience of Terragni's design of the architecture. Perhaps, the direct knowledge of Dante would not be perceived by the average uninformed visitor to the Danteum, but for us to the buildings measure success would lie in whether or not those emotive aspects are felt by

the participant. The fall of fascism was probably a good thing for the country of Italy after World War II, but it is a shame, Terragni's greatest work was not ever built.

Cemetery Brion-Vega

By: Carlo Scarpa

Treviso, Italy 1970-1972

The Brion-Vega cemetery is an amazing architectural accomplishment that embraces both sides of the 'becoming' and 'perishing' reality of life, and programmatically that one which we sometimes hide from in thought. The cemetery was to be a burial place for, at the time, the recently passed Giuseppe Brion, also in anticipation for the passing of the other family members. Located in Treviso, Italy the Brion-Vega cemetery is framed around the smaller pre-existing cemetery in an L-shaped plan. Scarpa had the desire to bring death into the public realm, by showing that there was the "ephemeral in life"¹⁵⁵, and that there is crucial relationship between life and death. By making the cemetery a possible civic event, and providing picnic spaces and gardens, the cemetery becomes about the interrelationship of 'becoming' and 'perishing', living and dying. By bringing in the opposing aspects of life and death into the content of the design, Scarpa provides both an emotive spiritual nature to the experience of the cemetery, and an inward contemplative experience to the participants.

Change is embraced at the Brion-Vega cemetery, the cemetery is "changing all the time by the effects of light and shadow, surface and material...Water and plants are

used as architectural material.”¹⁵⁶ Scarpa said that the work would “get better over time”.¹⁵⁷ By this I believe he meant by the weathering and aging of the materials, predominantly the concrete, and also the natural growth of the garden and ponds becoming part of the work, more and more each year.

A selection of a Scarpa quote on the cemetery shows us his intent as a designer when he says: “I have tried to put some poetic intent into it, though not in order to create poetic architecture but to make a certain kind of architecture that could in a sense emulate formal poetry.”¹⁵⁸ This formal poetry that is original to the cemetery, can be seen in the additive rhythm he accomplishes in the concrete throughout the design. On Scarpa’s additive rhythm amongst the cemetery, Paolo Portoghesi writes:

“by choosing an obviously additive system instead of one based, like order, or proportion: the stepped structure with uniform risers and treads, opposing families of lines that carve out the surface to the harshness of volumes, indicate sections and penetrations in the interior of the crystalline masses with the effects of echoes...in concrete waves.”¹⁵⁹

This crystalline stepping if the ziggurat detail within the concrete of Brion-Vega seems to be a poetic portrayal of growth from a materiality typically perceived as truly solid. This method also accomplishes a truly mineral and erosive feeling to the concrete, and suggests that perhaps it is not as permanent as one would like it to be. Overall, the beauty of Brion-Vega lies in its embracing of the temporality of life and its provision of this experience. Scarpa was enveloped in his masterpiece in life during its long construction, and in death as it is his resting place along with the Brions.

Chapel of St. Ignatius

By: Steven Holl

Seattle, WA 1994-1997

Steven Holl's Chapel of St. Ignatius is perhaps his most accomplished work in terms of the potential use of light in architecture. Not only is it accomplished in the quality of light he accomplished in each of his volumes of light, but the correspondence that those separate qualities have with the programmatic elements is simple and beautiful. The original concept for the gathering of different volumes of light in the chapel comes from a fundamental principle amongst Jesuit faith that establishes no single method of practice, and the volumes extend out, "like beacons shining in all directions".¹⁶⁰ By establishing a different color theory to each volume along with the formal treatment of the spaces with offset or peeled away sections of the walls, Holl accomplishes an array of indirect lighting that subtly creates each volume different from the other. The volumes of light correspond to the different aspect in the ritual of Catholic worship. In Holl's text *Intertwining* he breaks down how the different volumes of light have a poetic concept for each:

"procession, natural sunlight; narthex, natural sunlight diffused; nave, yellow field with blue lens(east) and blue field with yellow lens(west); Chapel of the Blessed Sacrament, orange field with purple lens; choir, green field with red lens; Reconciliation Chapel, purple field with orange lens; bell tower and pond, projecting and reflecting night light."¹⁶¹

The small details in the chapel are also very accomplished. The plaster treatment of trowelling each square foot section in a different direction really adds a texture to the capturing of light on its surface. The project overall reinforces the necessity of ritual in determining a content to concept relationship in poetic architecture.

Ronchamp

Le Corbusier

Ronchamp, France 1954

The Ronchamp Chapel is located on a hilltop in the Vosges foothills the site offered to Le Corbusier a chance to embrace a contextual approach to his conception of form. The major formal moves and curves of the chapel are intended to, “echo the folds and silhouettes of the surrounding ridges”.¹⁶² The exterior is of, “concave and convex pieces of similar shape are juxtaposed, fused or separated to create a building”, unique to 20th century architecture. According to William Curtis: “The basic elements of walls, hooded towers, curved roof and different-sized apertures are enmeshed in a play of complexities and contradictions”.¹⁶³ The south wall of the chapel has apertures that appear to be random but are in accordance to Le Corbusier’s own Modular method of proportioning, and is thicker at the base than at the top¹⁶⁴, perhaps creating an angle to the wall more appropriate for the admittance of light into the apertures. Along the east side of the building where the roof cantilevers the furthest, there is space allocated for an exterior altar and gathering space for smaller outside services. The north wall also

consists of apertures for light, and a stairwell to access the pulpit and elevated altar inside the chapel. The west wall is void of any openings, and only consists of a declining curve to the top of the wall, responding to the pitch of the roof, and rain spout which drains on to some primary sculptural forms. Just inside of the west wall are the two towers of the chapel which provide the interior with diffused light from above, the largest being the tower at the southwest corner. The whole of the chapel is covered with spray on concrete to hide the structure and rubble infill from the old chapel.¹⁶⁵

The interior of the chapel at Ronchamp is of the same sprayed on concrete texture as the exterior of the building. The light coming through the apertures on the south façade and the colorful painted glass within these openings creates a crypt of color and light. The ceiling sags down into the main space of the chapel, “like a heavy tent.”¹⁶⁶ The chapel can seat about 200 people for a given mass, and the layout of the nave, pews, altars and pulpits is much throughout. The priest is able to access the altar or pulpits from stairs hidden from view, either because they are on the exterior of the building or cleanly off to the side. Programmatically, Ronchamp is “a totally free architecture,”¹⁶⁷ lacking any program other than the celebration of the mass.¹⁶⁸

Overall the chapel is very cold, which is something inherent in Le Corbusier’s architecture at the time around World War II. Perhaps the only warm elements of the chapel, other than the colored light coming through the south apertures, are the wooden pews and the candles. Inside, near the two main entry ways on the north and south are paintings of Le Corbusier. His art work seems to fall somewhere in between surrealism and cubism¹⁶⁹, and the overall architecture of the chapel at Ronchamp is reminiscent of

his art work, more so than perhaps many other of Corbusier's buildings. According to Stanislaus von Moos: "In Ronchamp, Le Corbusier finally realized the dream of a 'sanctuary dedicated to nature' that half a century previously had inspired,"¹⁷⁰ yet one could say the chapel can be seen as more of a testament to Le Corbusier's art and a half a century of modern art, than to nature and the site.

A PLACE FOR THE POETICS OF THE IMMEDIATE - SITE RESEARCH

Mt. Baldy, Michigan City, IN

The site chosen for this thesis was because of the dynamic relationship that the site represents about the dualistic nature amongst our western culture that we have been seeking to reconcile through our poetic approach. The site is on the Lake Michigan lakeshore on the far northern end of the Indiana Dunes National Lakeshore, and is right on the boundary between the nationally protected lakeshore and the Northern Indiana Public Service Company's (NIPSCO) coal-fired power plant in Michigan City, Indiana. The site represents two very different ethical approaches towards one of the most pristine and dynamic environments in North America. The state and nationally protected lakeshore starts just outside of Michigan City, Indiana, and runs interstitially 25 miles south along Lake Michigan. The state of Indiana has a very small length of the overall shore on the great lake, having merely 45 of the 1,638 miles of Lake Michigan shoreline. It is great to see that more than half Indiana's lakeshore is protected, yet these 1 protected miles are not continuous and it is amazing to see the dichotomy in types of land use that scatter throughout these 41 miles. One of the largest cold rolled steel producing mills in the world, along with the enormous Port of Indiana and another of NIPSCO's plants is at the heart of the Indiana Lakeshore outside Burns Harbor. However, ever since 1966 the Park Service has allocated as much land as it could between the massive infrastructures along the lakeshore.

The Hoosier Slide

Ever since the founding of Michigan City along Trail Creek, around 1830, the dunes and the lakeshore have been both a sign of destruction and enjoyment. For right where Trail Creek feeds into Lake Michigan (the NIPSCO plant site), there used to be a massive dune called the 'Hoosier Slide', that was both a wonderful and enjoyable symbol for Michigan City. The 'Hoosier Slide' was about 200 ft. tall, and was a favorite place to get a view of town and the lake, and also a favorite wedding spot for the people of the town up until the late 1800's. At one time it was one of the most famous landmarks in Indiana. Then between 1890 and 1920 the 'Hoosier Slide' would be mined for its sand for glass making and become totally flattened. The once great dune provided our society with 13.5 million tons of sand to be made into glass. NIPSCO obtained the site in the late 1920's and has since been upgrading its power plant into what it is today.

“The dunes are a symbol of the crisis that faces Americans. It is as though we were standing on the last acre and were faced with a decision of how it should be used. In essence, it foreshadows the time not far removed when we shall in all truth be standing on that last, unused, unprotected acre and be wondering which way to go” - Senator Paul Douglas 1958

A Looming Symbol

The construction of NIPSCO's now 520,000 kilowatt coal-fired generating station adjacent the site began in 1970 and ended in 1973. The cooling tower for the power plant that some mistake, for a nuclear cooling tower rises 356 feet in the air. The shape of the tower is typical amongst cooling towers for creating updraft and dispensing of the heat

that is in the water, which comes from Lake Michigan for the cooling of the coal turbines. The water, after it's cooled in the tower, runs back out to Lake Michigan. Some of the water as it cools turns into vapor as one can see steam rising from the tower. I was pleased to discover the plant was not nuclear. I can recall traveling to the site for my first time when I was seventeen years old. I was driving through, coming from Wisconsin on my way home to Michigan, and thought I would stop at the National Park. I took the nice and short hike through the woods out to the lake, and as I came through the shelter of the trees out to the shore I could not help but be struck by the sight of that looming object to the north. The cooling tower has an eerie and demanding presence. No matter where you go around the site it always there, beckoning, and reminding your vision of its solidity amongst one of the softer and flowing environments one can experience. The cooling tower is a symbol of the violation towards nature from out of the "world as machine" paradigm.

Mt. Baldy

The natural opposition to the cooling tower and power plant that is only 3,000 feet southwest down the lake shore, is the enormous and dynamic dune called Mt. Baldy. This dune termed the 'living dune', because of its recent increase in the rate of erosion, stands 126 feet above Lake Michigan. Only half as tall as the cooling tower, still by itself it is almost as large as the whole of NIPSCO site itself. The blowout of the western face of the dune is completely natural. However, what is not completely natural is the rate at which the dune is receding inland. Ever since the park was founded in the 1960's, Mt.

Baldy has become the new local favorite spot. Perhaps the contemporary version of the 'Hoosier Slide', and this has opened the way for massive amounts of foot traffic upon the summit of Mt. Baldy. The dunes are a very sensitive geological formation, and rely on root systems of the native fauna to hold them in place. The high volume of foot traffic causes seeds to disperse and never take hold; this is why the dune is receding so rapidly. Despite the erosion inherent in the dune, it is absolute thrill to summit, and enjoy the view of Lake Michigan, and to stand above the flat landscape of the Midwest amongst the precious ecosystem that only occurs along the lake shore.

As one travels (by foot) along the shoreline from Mt. Baldy towards the power plant, a long crescent shaped plateau runs along the lakeshore about 150 feet from the shoreline, and curls out towards the water at its, built up ending. This plateau is about 30 feet above the lakeshore and is fairly flat until you reach a series of smaller dunes right in front of the power plant next to Mt. Baldy. At one point in time, as the power plant was building its newer facilities in the 1970's, NIPSCO proposed the development of a small residential neighborhood on the plateau, but the park service bought up the land from them before they could proceed. For the sake of this thesis, and the feeling that if one was to build anywhere on this site that it should perhaps be on this plateau, I am allocating this as the site for my project. Besides possibly being a place of minimal footprint in terms erosion control, the potential for the project to act as a polemic on the relationship between the two opposing energies of Mt. Baldy and the NIPSCO power plant is profound.

FOR THE POETIC INTEGRATION OF CONTENT, CONTEXT AND CONCEPT

Poem as Program and Site Strategy**Autonomy...** *By Wislawa Szymborska*

In danger, the holothurian cuts itself in two:
It abandons one's self to a hungry world
and with the other self it flees.

It violently divides into doom and salvation,
Retribution and reward, what has been and what will be.

An abyss appears in the middle of its body
Between what instantly become two foreign shores.

Life on one shore, death on the other.
Here hope and there despair.

If there are scales, the pans don't move.
If there is justice, this is it.

To die just as required, without excess.
To grow back just what's needed from what's left.

We, too, can divide ourselves, it's true.
But only into flesh and a broken whisper.
Into flesh and poetry.

The throat on one side, laughter on the other,
Quiet, quickly dying out.

Here the heavy heart, there non omnis moriar -
Just three little words, like a flight's three feathers.

The abyss doesn't divide us.
The abyss surrounds us

Site and Program in the Spirit of "Autonomy..."

As we seek to remain as close to the Poetics of the Immediate Experience as we can, we must experiment with poetry by all means possible. This is why I have chosen to use a poem as the catalyst for the program and site strategy for the project. I chose the poem *Autonomy...* by Wislawa Szymborska, the Nobel Prize winning poet, as the inspirational catalyst for site and program because it has that same emotional and dipolar nature of the opposing elements around the site. 'Life and Death', the major theme of the poem, not only speak to the nature of the site; Life, amongst the dynamic ecosystem of the wild dunes; and Death, the destructive force of the Cartesian symbol found in the power plant. 'Life and Death' also have some serious programmatic implications. The Poem *Autonomy...* also has the necessary implications invested in the emotive qualities that speak to the human condition amongst a becoming, perishing, and process view of reality that we have acknowledged as a potentially cohesive worldview.

The, "...the holothurian cuts itself in two...Life on one shore, Death on the other," implying opposing yet necessary aspects of the program and the site. Therefore, I would like to propose a transition between spaces for celebrating Life and Death amongst the project for this thesis, and offer those who are in mourning or celebration a place to be

amongst the comfort and beauty of the lakeshore. Perhaps by embracing this 'Life and Death' aspect of the poem within the essence of the program it can also help us lead to a truly poetic conception. As Alberto Perez-Gomez says in *Built upon Love*: "Ultimately, the poetic image is the key to the human condition: it enables us to grasp the sense of our mortality and experience the coincidence of life and death in a single, incandescent moment out of time."¹⁷¹ Not only, can the program and site, by embracing Life and Death instill these emotional and incandescent moments amongst the architecture, but it also allows us to achieve a cohesion amongst the context of the site. This cohesion being obtained as a programmatic relationship to the context in which the dynamic Mt. Baldy lay on one side, and the NIPSCO Power plant on the other.

Within the line, "An abyss appears...between what instantly become two foreign shores," the essence of the consequence in the decision of the holothurian to cut itself is truly captured. Within life, and especially within spiritual life, we are constantly making decisions or experiencing events and facing the consequences, or the unknown, after those given drastic moments of change. Thus from these events, as in the poem, "...the abyss surrounds us....", and in these crucial points in life we often feel the need to celebrate or ritualize these moments as an expression of the abyss surrounding us. Therefore, in a ritualistic sense it can be said one of the main qualities of being spiritual is embracing these decisions that must be made in life and their consequences. Yet, equally as important is the acceptance of the mysteries or unknowns, and the level of faith that is required to embrace those decisive moment in one's life. There is a profound essence of

spirituality found in confronting the abyss, of which there are mysteries of the divine's involvement in reality and one's life.

There are the mysterious foreign shores of life to the new-born at birth, and as the child grows into adulthood there are always the foreign shores of its decisions in life. The acknowledgment of these mysteries that are so essential to the human condition and spirituality and lead to the desire for the allocation of three major spaces (or chapels) for the most profound commitments one can make in life. The three most valuable commitments, to me are: 1) Baptism, or the commitment of one's self to a spiritual way of life, 2) Marriage, or the commitment of one' self to another human being, and 3) Knowledge, the commitment to the pursuit of knowledge. The chapel for baptism will be a space for the ritual of immersion in water, being related to birth and initiation rites, but also as a ritual involving the personal decisions one makes in spiritual life. The chapel for marriage, is to be a space provided for the commitment of one's life to another's life. Finally, the chapel of knowledge, a space for the pursuit of knowledge. While the ultimate goal is for providing spaces for confronting the abysses of our human experiences that embrace the rituals revolving around these three major commitments, the spaces must also embrace the continual flowing processes amongst this natural world.

Throughout this thesis we have spoken of the philosophical short comings of a divided, or dualistic, worldview of nature and reality, and starting to look at reality as more interconnected and flowing. In *Autonomy...*, Szymborska writes: "We too can divide ourselves, it's true. But only into flesh and a broken whisper. Into flesh and poetry." This phrase of the poem can be said to capture the essence of this thesis in a

simple and poetic line. This 'flesh and poetry' division can be seen from what has previously been stated: that an action in poetry is one of an attempt at surrounding and thus communicating those purely emotive and mysterious moments experienced in nature and life. So, perhaps it can be said that we can also divide architecture, into flesh and into poetry. The flesh is those elements of the program that are to become ritual, and the aspects of the use and functional provisions. The other, poetry, is the attempt to create or communicate the more mysterious attributes of existence of which are spiritual, mysterious, or those somewhat indiscernible aspects of life which over time become so complex that poetry becomes our only means of communicating that which can be evoked from the flowing processes of nature. The phrase "...Into Flesh and Poetry..." lays ultimate guidelines for the Chapels at Mount Baldy, by reconciling the contextual, natural, and sensual aspects of the site with the spiritual, emotive, and mysterious elements of the program.

Like "...flight's three feathers..." the three chapels take place within the abyss between the two foreign shores of 'life and death', but the three flights, or chapels, lie a bit closer to the other aspects of life found on the site. I love this line of the poem, because if in life we were to only have three feathers to lift us higher, one could say that they would be these commitments, or the most major commitments one makes in life. Here at the chapels of Mount Baldy hearts should not be heavy, but in celebration.

THE POETICS OF THE CHAPELS AT MT. BALDY

Overall Site Scheme

As described in the goal of the site strategy above the three chapels are located at the edge of the grassy opening on the plateau located just north east of Mt. Baldy. The only feasible means of access to this spot of the site is located along the property boundary behind the large sand dune. The path to and from each of the chapels is intended to celebrate the difference in the levels of an individual's commitment; therefore the path has a committal and non-committal attribute in its conception. I chose to locate the Chapel of Water (baptism) on one shore, the shore of water and earth, and the other two chapels on the other shore of dune clearing and forest, to naturally relate the major elements to be used in the poetics of each. While water will be the dominant element in the space for baptism, and the other two chapels play poetically with the flora of the site.

The Chapels at Mt. Baldy

As previously mentioned, each of the chapels at Mt. Baldy can be described by the programmatic elements and the processes with which the designs embrace found in the immediate site. As in the poem, the chapels can be described by the flesh, and the poetry within their final manifestations. The chapels at Mt. Baldy each have their own individual language which is derived from the dominating immediate experience at each

of the chapel's location. All chapels are intended to be non-denominational, and as pluralistic as possible amongst western religions.

The Chapel of Water

The flesh, or the programmatic provisions of the Chapel of Water are for the provision of a long pool extending the length of the chapel which has three spots to bend down and wash one's self along the pool in the entry space, and on the opposite side, the entry space has the provision of rest rooms. The only other major space of the chapel has the provision of the baptismal font, altar, changing room off to the side, and seating for a small group to celebrate an individual's baptism.

The poetry of the chapel is found in the use of the element of water. Not only is the pool meant to be the organizing principle in the overall design of the interior, but also the whole chapel is elevated above a large pool. What this elevation achieves is a level of reflected lighting that will change and respond to the changing qualities of the water through the seasons, thus revealing a poetry of process within the space. Also, the rhythm of lattice work along the south wall of the space is also meant to add a natural level of lighting that plays poetically with the seasonal qualities of the beach grass just outside the window and lattice assembly.

The Chapel of Light

The Chapel of Light has the programmatic provisions idealized for the event of a wedding. There are three major divisions within the design that allow for the ceremony,

the reception, and preparation. The flesh of this chapel is first, and foremost, for the provision of a wedding, but the spaces can also function appropriately for any given church functions. The entry is designed on a north/south axis and one enters the footprint of the chapel between the two spaces (reception and preparation) that are intended for use outside the main ceremony. The main chapel occurs along the dominant processional axis to emphasize the chapel's main use.

The poetry of the chapel comes from the way the roof is structured in order to play with light like the canopy of the forest it inhabits. The overhead lattice-work creates a quality of light similar to that of the way the leaves filter light. Glazing in the roof structure helps reveal the seasonal change found in the foliage one can experience through the structure. There are also pushes and pulls in the overall volume that allow experiential access to the foliage along the horizontal plane of vision, but dominantly the experience is determined by the qualities of color and light coming from overhead.

The Chapel of Knowledge [Life (pursuit of knowledge)]

The Chapel of Knowledge, because of its programmatic requirements, is designed as a small library. The flesh of this chapel provides a small auditorium style classroom, research stations, reading areas, and a single office and reception desk. The provisions are intended to provide small religious study groups with meeting spaces, but the chapel dominantly celebrates the singular research stations. This dominant celebration is intended to amplify the commitment to the pursuit of knowledge by an individual.

The poetic elements of the Chapel of Knowledge come from the desire to reveal the changes found in the floor of the forest. The building is designed to embrace the tight and darker light qualities one finds if they sit down next to a bush or shrub in the forest. Hence the two major spots of light only enter the building, and the lattices glazed openings on the walls. The intent was to provide enough light and color quality to enter the space and reveal the seasonal change, yet also provide an ideal reading environment.

CODE ANALYSIS

Code Analysis- From IBC 2009303.1 - Assembly Group A-3

From section 303.1: Assembly group A occupancy includes, among others, the use of a building or structure, or a portion thereof, for the gathering of persons for purposes such as civic, social or religious functions; recreation, food or drink consumption; or awaiting transportation.

The exception A-3 applies to a space intended for worship, recreation or amusement and other assemblies not classified in Group A including: Places of religious worship, Dance Halls, Lecture Halls, and Libraries.

Table 503 - Allowable Height and Building Areas

Type II A Construction- Assembly type A3 can have 3 story maximum heights, 15,000 square feet of buildable area.

Type II B Construction- Assembly type A3 can have 2 story maximum heights, 9,500 square feet of buildable area.

Table 601- Fire Resistance Rating

Fire Resistive Rating for Type II A:

Structural Frame:1

Bearing (Exterior & Interior): 1

Non-Bearing: 0

Floor Construction: 1

Roof Construction: 1

Fire Resistive Rating for Type II B:

Structural Frame: 0

Bearing (Exterior & Interior): 0

Non-Bearing: 0

Floor Construction: 0

Roof Construction: 0d (heavy timber shall be allowed where rating is 1 hour or less)

Table 602 - Fire Separation Distances

All wall separations of less than 30 feet shall have a 1 hour fire rating, in both building types A3.

Section 1004.1- Maximum Floor Area Per Occupant

Assembly with fixed seats: see section 1004.7. Assembly without fixed seats: 7 net. square feet per occupant.

Section 1004.1 - Fixed Seating

For areas having fixed seating without dividing arms the occupant load shall not be less than the number of seats based on one person for each 18 in. of seating length.

The occupancy load of seating booths shall be based on one person for each 24 in. of booth length measured at the backrest of the seating booth.

Accessibility

The building shall apply with ADA specifications and all architectural graphic and dimensional standards.

CONCLUSION

In conclusion, I would like to state that it is imperative that we not only embrace the fact that all of reality is in a constant state of becoming and perishing, continually in flow, but that the divine is inherent within all of the dynamic processes found in the universe. Also, that the key thing to remember is that our emotions are the same feelings that are not only holding everything in reality together, but also creating each new and becoming moment. Thus, it is through the vehicles of intuition and poetry that we are able to get in touch with the true nature of reality. We must trust our intuition in order to embrace poetic conceptions in the things we design.

At this point it can be safe to say that these are extremely relative actions to judge architecture, or perhaps anything, emotions and feelings are relative to the individual. However, we all experience, we all feel, and any of us can reflect on a work and ask if the feelings evoked by that work reflect those feelings attempting to be communicated by the designer. If they do successfully communicate those emotive aspects than perhaps we can call it a success for now, and if not, try again. For, it is my belief that there is a poet in each and every one of us, and that poetry can be achieved outside the written form in anything we attempt to create. We just need to trust our intuition in both critiquing, and creating.

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