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I, Christopher M. Haedt, hereby submit this work as part of the requirements for the degree of:
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Designing within a Heideggerian Context

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Second Chair - Professor Jay Chatterjee
The Fourfold Realm of Natural Architecture:  
Designing within a Heideggerian context

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MASTER OF ARCHITECTURE

In the School of Architecture and Interior Design  

By

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Committee Chairs:  
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ABSTRACT:

Architecture has lost a sense of balance - it has shifted into an anthropocentric realm. Architecture must find a way in the new millennium to provide balance to sustain its presence as Art. Therefore, Architecture must reexamine what it means to dwell poetically. The emphasis must be to live, as Martin Heidegger suggests, within a fourfold world. This thesis looks at architectural works that begin to achieve a connection between man and the world. Primarily by analyzing Frank Lloyd Wright, this thesis compiles evidence that his works truly exhibit the premise of dwelling. It defines the Natural which is embodied by four foci- the outer, inner, metaphysical, and the omnipresent. By exploring these four foci, design solutions are tested on an ecological community center in Cincinnati. The result of this design is a process that yields humane, Natural architecture where man can truly dwell poetically.
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Designing within a Heideggerian Context
for Allison...
CHAPTER 1

ARCHITECTURE FOR A CAUSE?
We know that the White man does not understand our ways. He is a stranger who comes in the night and takes from the land whatever he needs. The earth is not his friend, but his enemy, and when he’s conquered it he moves on. He kidnaps the earth from his children. His appetite a great loneliness of the spirit, for whatever happens to the beasts happens to us. All things are connected. Whatever befalls the Earth, befalls the children of the Earth.¹

  -American Indian Chief Seattle.

Architecture is an art form that attempts to solve the problems of architectural questions or solve the problems of the world. Within these overlapping realms, architects abide by a given set of pretenses. To solve truly architectural problems, architects

must divorce themselves from the surroundings to focus only on architecture, much as mathematicians do when solving theorems and convoluted mathematical theories. This type of Architectural questioning which solely looks at the pragmatic world are not supposed to advance society as a whole, but rather, the theoretical understanding of architecture. On the reverse side, we see architecture that tries to solve the problems of the world. Within this realm, architecture makes political statements, becomes iconographic representations of ideas such as power, comfort, community, idealism, spirituality, and represents man and nature. Within these two realms it becomes important for architects to understand what types of choices they are making, whether they are solely architectural resolutions or resolutions that attempt to solve worldly problems. Some architects transcend one world and merge into a role were the two worlds are intertwined. This ability is not necessarily a common one. It usually is a sign of a great architect, and hence great architecture. These architects will not divorce themselves from the social/political/spiritual/natural worlds within which they reside to only answer questions that benefit themselves and their profession. Rather, these architects advance the profession while at the same time attempting to solve the world’s problems (I say attempt because architecture cannot truly solve the world’s problems within the current context). It can provide solutions to better the lives of those who are immersed within the problems and by chance give resolve an issue or provide comfort. It is within the duality of architecture that we will begin our journey; delving both into architectural questions as well as social/political/spiritual/natural ones.

Within the realm of the two worlds of architecture, we must look at how
the ideals manifest themselves physically. Since architecture is an art form
of tactility and sensorial qualities, it must produce its ideologies through
metaphorical abstraction. Throughout the ages these metaphorical ab-
stractions have come through in a variety of different languages. Though
not limited to Modernism and Post-Modernism, it becomes important to
fully understand the paradigm of architecture as it is shaped today. Thus,
this discourse will begin by briefly looking at Modernism and its predeces-
sors.

SEARCHING FOR REPOSE:

Modernism, though debated, has been defined as the styles of architecture
“which shared a concern for functionalism and new technology, a rejection
of ornament, and aspired to create new solutions for architecture and ur-
ban design appropriate to the social conditions.”2 Many Modernist works
of architecture, specifically those that were conceived from the form follows
function philosophy attempted to uplift the common man through the use
of the machine. In the end, however, the machine triumphed. More spe-
cifically, Modernist architects, especially within the European community,
used ideologies of architecture as a machine to fit their own agenda, creat-
ing the International style. Influenced by the works of Wright, Gropius,
and Corbusier, the city was reshaped. In fact, these influences, and their
remnants, are primarily what pervade much of the physical landscape
today. “They are the monoliths, the megastructures, the boxes that cur-

of Architecture and Landscape Architecture. 5th ed. London, England ; New York,
rently permeate the landscape, and they are the structures that are being built.” The International style, deemed “the one true architecture for the 20th century,” became a flagship of Modernism. Since it has been argued that Modernism, though thought to be usurped by the introduction of Post-Modernism, has never left the landscape, many architecture students still follow its monolithic and megastructure mentality, reinforcing a built environment that is devoid of architecture’s organic countenance – humanity.


Conversely, “Post-Modernism given currency by Charles Jencks in the 1970’s for the reaction of not only architecture, but the decorative arts to the Modernist rationalism and functionalist principles championed ideals of eclecticism, Pop-art, and anti-modernism.”5 It has since included a wide-variety of ideals, championing an architecture based on literature, sociology, and organicism. The primary focus of this movement was empowering the people by building an architecture for the people, as touted by the modernists but never achieved. This, however, led to factions diverging within the new movement to create architecture based on language, organic structures, and sociology/psychology. A large faction began to look at the work prior to the high modernism periods of the middle 20th century to find new ways to influence design. Many began to find Frank Lloyd Wright to be a good source of inspiration, a man whose work was not a replication of the classical and did not focus on the ideals shared with the International style modernists. From him a new sect was born – the organicists.

Only through the Organic and the new Green architecture has architecture begun to see the re-emergence of a Wrightonian ideology focusing on natural philosophies. However, these types of architecture often do not truly encompass what Wright coined as the natural. Not only should building be of nature and the earth, but of the inhabitants, society at large, and of the universe; a fourfold ideology using building as the vessel to encapsulate and release the world all in one. In essence, this is what I have come to believe that architecture should be.

The primary language of architecture in the new millennium can no longer be that of the modernist machine. Rather, architecture needs to re-fo-cus itself to find a way to live with the earth. Though this ideology is not new, it has not taken a hold in the mainstream. However, architecture has been discussing ways to become “green” while at the same time refusing to let go of the machinist style. Therefore, architecture in the current landscape is reminiscent of the ideals of the Russian constructivist movement, with its towering rectilinear forms composed of massive amounts of glass and steel. These compositions even go so far as to emphasize their steel structures by displaying the elegance of thin members against the massive forms. Within these structures we see the “greening” by applying materials such as low-E windows, shading structures, or recycled materials, rather than designing with the earth from the onset. “In addition to its negative environmental implications this 90 year old, industrially derived iconography has become the embodiment of a new academy and the equivalent of a contemporary Beaux Arts.”

The suggestion then is to look for an architecture that does not necessarily throw away what has come in the past, but looks to embrace the ideolo-gies of “green” architecture. On the same token, the new architecture cannot solely involve itself within environmentalism. To do this only solves one issue: the relationship to the earth. Because architecture that is green or, conversely, organic has manifested itself in a variety of ways, it becomes important to dissect it so that the appropriate ideals can step forward and merge with the other important ideals of our time. To do this as an architectural community, we must focus on architecture that is

fourfold, much in line with *dwelling poetically*. Thus, the primary purpose of this thesis is to reconstitute the Heideggarian sense of the four within what Wright called the *natural* building, allowing for the perpetuation of “the synthesis to civilization.”

**The Heideggerian Response:**

Architecture in the current context needs to focus on that which is inherently connected. This connection extends beyond a one-dimensional relationship of human centric design. It delves into a Heideggerian relationship; a quadratic-dimensional relationship that focuses on the preservation of each part to create a harmonious whole. This can only be done when all parts are considered equal. When a hierarchy is applied, the balance shifts and the attention becomes blurred. Preservation no longer exists. Hierarchy becomes the means by which the balance is undermined. This in turn leads to one or two-dimensional thought processes that never seem to be inherently complete. Therefore, a four focus world, as Heidegger discusses, is essential to understanding completeness.

In Heidegger’s essay *Building, Dwelling, Thinking*, we come to understand that the basic characteristic or act of humanity is to *dwell*. To *dwell* is to act within the guise of the fourfold. Heidegger specifically frames much of

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his theory of dwelling as a way to solve the question concerning technology, one that is still relevant within our current social strata. However, the idea of technology is a mere particle within the overall concept of dwelling.

Heidegger proclaims that man dwells within a fourfold world. Man is of and acts upon each part of the four – “by a primal oneness the four – earth and sky, divinities and mortals – belong together in one.” Therefore, the act of dwelling is through sparing and preserving the fourfold. And though man is a part of the four, he must take charge of preserving the balance of the rest. In so doing, he preserves the balance within himself. Heidegger goes so far as to provide a metaphor. Though he focuses on a bridge, the message applies to building. He states that an object has a presence before it even exists; it has space. Through its connection to the earth, it allows part of the fourfold, through location, to give space meaning. This is not to say that space solely is a three dimensional thing, as Wright suggested when he implied that only through the organic can the three dimensions be enhanced to include the fourth. Rather, the three have validity and are already a part of the whole or the fourth dimension. The acceptance and understanding that one exists within that realm from the onset is the true test. One must be aware that dwelling means being in harmony with the other aspects of the fourfold. The acceptance of such an understanding no longer allows hierarchy of orders and ways. It requires the understanding and the patience to allow the object/thing/idea which already exists to continue further in tandem. Thus, Heidegger brings to


10] Id.
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IMAGE: LEFT- FALLINGWATER BY FRANK LLOYD WRIGHT. IMAGE BY ZACH ZIOLA; RIGHT - TJIBAOU CULTURAL CENTER BY RENZO PIANO. IMAGE BY WERNER BLASER. BOTH ARE EXAMPLES OF THE OUTER FOCUS.

IMAGE: LEFT- THE ORPHANAGE BY ALDO VAN EYCK. IMAGE BY FRANCIS STRAUVEN; RIGHT - UNITY TEMPLE BY FRANK LLOYD WRIGHT. IMAGE BY AUTHOR. BOTH ARE EXAMPLES OF THE INNER FOCUS.

IMAGE: LEFT- UNITY TEMPLE BY FRANK LLOYD WRIGHT. IMAGE BY AUTHOR; MIDDLE- FALLINGWATER BY FRANK LLOYD WRIGHT. IMAGE BY ZACH ZIOLA; RIGHT - STORER HOUSE BY FRANK LLOYD WRIGHT. IMAGE BY TIM STREET-PORTER. ALL ARE EXAMPLES OF THE METAPHYSICAL FOCUS.

IMAGE: LEFT & RIGHT- UNITY TEMPLE BY FRANK LLOYD WRIGHT. IMAGES BY AUTHOR; BOTH ARE EXAMPLES OF THE OMNIPRESENT FOCUS.
light much of what Frank Lloyd Wright has showed in many of his works; the natural building, including all things and barring hierarchical separation, through dwelling no longer treats space, humanity, environment, and materials as resources. Rather, the natural building preserves and saves all components of the four. And since, as Wright had professed through his observation of form follows function, man and space are one and the same, it is through man/building that the natural can be held in balance.

**The Four Foci:**

As just noted, for Heidegger the four consisted of the earth and sky, divinities and mortals. Each contributes to the whole to preserve the others so a poetic balance is maintained. His discussion of the four does not translate verbatim to architecture. Karsten Harries has attempted to resolve such problems, but he too has left us confused as to a direct correlation. What is needed then is a transformation of Heidegger’s fourfold so that we may be able to dwell poetically within Architecture. To frame this thesis, Heidegger’s four translate into four foci – the outer, the inner, the metaphysical, and the omnipresent. Each has its own parameters, but relates to and shares parts of the others in order to maintain balance.

The outer focus stems from Heidegger’s earth. Earth, in the Heideggerian sense, means not only the physical earth – from which man is a derivative\(^{11}\) - but the gifts that the earth bestows upon man. Man lives on the

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\(^{11}\) Man is defined as being from the earth in numerous texts. Mans is of dust just as the earth.
earth and uses it everyday. As mortals, we use the trees, soil, water, and fruit as resources to sustain life. Our impact is significant. But part of dwelling is preserving the earth. Therefore, Heidegger calls for man to pay a “special respect for our ineliminable dependence on the earth and its gifts.”\(^{12}\) Similarly, the outer focus calls for man within architecture to pay tribute to the earth and its gifts. In this sense, man becomes aware of both his separation and connection to the physical world that predates him. Derived from the connectivity to the landscape, the earth, and the historical context of site, the outer focus allows the language of site to come through in architecture as the “noble organic expression of nature.”\(^{13}\)

The inner focus stems from Heidegger’s mortals. As can be simply understood, the term mortal includes man and his many facets.\(^{14}\) It references man’s awareness of himself – the inward contemplation that man uses to think of himself within the worldly context. It further references man within time. His life, while consequential upon the earth, may be insignificant in the grand scheme, a dilemma that man faces when questioning his existence. In this sense, the inner focus asks that man and architecture, since architecture exists only because of man, become one entity. They act simultaneously as finite entities. Beyond his lifespan and legacy,\(^{15}\) man


\(^{14}\) Harries, Pg. 160. Paraphrased from Harries understanding of the components of the mortal realm.

\(^{15}\) Architecture is the legacy of man. It is a way for man to extend his mortality through the use of the earth’s gifts.
must contemplate his space as he shapes it. He must contemplate the effects of his spatial presence through architecture, be aware of himself as a part of space, and consider the relationship between his space and the rest of the world. In essence, the inner focus is the effect of man, and by extension Architecture, on the world.

The metaphysical focus is derived from Heidegger’s *sky*. In this context sky means the literal definition of sky – the sun, stars, the moon, and so on. But more importantly, sky refers to one key word: “beyond.”16 It allows man to contemplate the rest of the world “beyond” him. The metaphysical focus, in a similar manner, takes on the definition of beyond. Simply defined, the metaphysical is the “connectedness with or having the nature of something, or being beyond the physical or material of something.”17 Within architecture, this connectedness manifests itself through detailing. It becomes the connection of the parts, specifically outer and inner, further emphasizing the relationships within the foci to each other.

Finally, the omnipresent focus stems from Heidegger’s *divinities*. In this sense, the divinities refer to the normal understanding of “godhead.”18 More specifically, divinities define the unknown. As most Western religions teach us, God is in everything- he remains unseen and is a part of

16] Harries, Pg. 160.


all things. “It is God who grants our dwelling its measure.”\(^{19}\) Similarly, within Architecture, the omnipresent is “present in all places at the same time.”\(^{20}\) It also takes on that of the unknown manifested through ephemeral qualities found experientially, shaped by the other three foci. The omnipresent becomes something we can describe, a feeling, a hunch, but we cannot and may never be able to fully comprehend its power and depth.

The last two foci cause a shift in pairings from Heidegger’s original context and, subsequently, are more difficult to pull apart. Heidegger paired the earth and sky, mortals and divinities together as opposites of each other. Each displayed what the previous could not. Earth is spatially finite and grounded, sky is infinite and endless. Mortals similarly are finite within time and knowing, whereas divinities are above time place and knowing. Here the opposites create continuity and discontinuity at the same time. Within architecture, the variation of meaning within the four shifts the pairing. Here the outer and inner are paired against the metaphysical and omnipresent. The outer and inner are easily compared. Together they display the natural concordance and contradiction between man and nature through continuity and discontinuity. The metaphysical and the omnipresent share a different connection; beyond being opposites - one deals with the small versus the larger context – they are similar in that they both blend within the natural stance. “The natural stance provides for the component in building that will give life (spirit) to creation

\(^{19}\) Harries, Pg. 161.

\(^{20}\) Id.
THE GRACE OF NATURE IS NOT ONLY PREVELENT IN FALLINGWATER, BUT EXISTS IN MANY OF THE WORKS OF FRANK LLOYD WRIGHT. IMAGE BY UNKNOWN.
and allow complexity to remain and to be accessible.”21 This spirit allows for the connection of the parts to the larger whole – the larger whole is understood as the four-fold or natural entity. Each part subsequently acts on the four, allowing preservation through man’s habitation of space or “composite whole of interdependencies.”22

Within these four foci, all parts have to be connected. It is of the utmost importance that balance is maintained in order to give Architecture validity. Balance, simply defined, is “a state in which various elements form a satisfying and harmonious whole

21] Satler., Pg. 58.
22] Satler, XII
and nothing is out of proportion or unduly emphasized at the expense of the rest.”23 Balance can be seen in the works of a variety of architects. Though there are many examples to choose from, the most prominent proponent of the balance, or what will be referred to as the natural, is Frank Lloyd Wright. His work, an embodiment of the duality of the architectural realms, sought to solve architectural problems as well as the problems of the world. His work further sought to create the fourfold, though not explained in those terms, as the inherent tie within each design. Though these ideals are not as strong in his earlier works, the beauty of connectivity begins to manifest itself during his later works, particularly during the Usonian period.

**The Wright Sense:**

“My condition is artificial. So I cannot copy nature, and I will not slavishly imitate her, but I have a mind to control the shaping of artificial things and to learn from Nature her simple truths of form, function, and grace of line.”

Though the idea of a *fourfold, natural* architecture is not a new concept, it is important to understand its relevance. Therefore, to understand the premise, a foundation must be laid that explains the premise of the ‘natural’ building. But before we look to the buildings we must understand the man.

Wright was born into a Unitarian family. Wright’s father, a minister, lawyer, and avid music lover, taught him a philosophy that included the appreciation of all things earthly. He specifically stressed a Unitarian philosophy that focused on “oneness with the world, with God, and all forms of life.” Wright’s mother similarly stressed the importance of unity. However, for her, unity was directed earthward. She was, as Wright claimed, “in league with the stones of the earth.” These concepts of unity stuck with Wright and enhanced his appreciation of ‘Nature’ further. For Wright, Nature became “synonymous with God,” the greatest teach-

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26] Lind, Carla. Pg 19.
Consequently, Nature became an all encompassing idea. If nature is synonymous with God, and all things are created in his image, Nature is a part of all things; it is of each human, it is of each object, it is of the earth, it is of the world, it is of the soul. Nature unifies all things.

“But let us go in. This man who respects nature, we see, is a lover of Flowers and growing things, because, to be a normally growing thing is to be beautiful, and while his piece of ground is small, he arranges and subdivides that too with a sympathetic eye and hand to harmonize with his plan, so that his building and his ground are not finally separable, and from the other; you scarcely know where ground leaves off and building begins. So we approach nearer the heart of this gentle developing scheme and wait for the door to open.”

When we examine what Wright was saying in the previous passage, we start to become aware of Unity within Wright, “this man who respects nature.” In this passage, Wright begins to declare that the natural gives “validity and consequence to the immediate patterns of all life whether mineral, vegetable, animal or human.” He further implies that the Natural countenance is what defines us; it is of humanity and is humanity; it is of art, and is art; it is the structure that shapes all things. In short that Wright

27] Ibid. Pg 23
suggests unifying Nature and architecture, the Big ‘A’ of Art, which defines our civilization.

Wright was successful because he was able to bring art, which all other Art seemed to stem from during its demise in the Renaissance, back into the minds, eyes, and most importantly into the understanding of the public. Wright’s work was able to be understood. In essence, it was a book (a product of the machine).

Throughout Wright’s career, he had a fondness for the machine and the organic. Many would consider this to be a contradiction, but it was really less of a contradiction and rather more of a marriage of ideals. Wright pushed the machine because, much like the printing which was able to bring literature to the common man, the machine was able to bring architecture back into the lives of everyday people. It helped the visitor relate to the technological progress that was a part of their everyday lives. The machine gave Wright’s buildings simplicity. This is not to say that Wright’s work is simple. Rather, it exhibits some of the most complex ideals of its time, hidden within a perfect harmony of detailing, beauty, and artistry, giving the appearance of simplicity.

But where does the organic come in? Many, myself included, have come to the understanding that when Wright talks about Nature or the ‘organic,’ he is discussing the earthly, physical world. However, through his writ-

ings and the analyses by other scholars about his work (especially “the Art and Craft of the Machine”), the organic or natural seems to emphasize not the physical world, but rather, the connection to the human being (or even just a living thing). The ‘organic’ simply gives the building life. It brings the printed building back into a relationship with the society, or more importantly, its inhabitants. Thus, like the book, architecture is able to be understood through its syntactic languages, its verses, its punctuation, and its overall pursuit to tell a story.

Wright was able to harness this organic nature informing the individual, that architecture was to represent. Thus, his ideals brought architecture into the forefront of ‘Art’ (Big art that stemmed from the printed word, sculpture, etc). Another reason Wright’s work was successful is that it provided many with ideals, to live by. His architectural ego, which is prevalent in so many of us, pushed a lifestyle on many. Though there was some resentment at first, his lifestyle helped people deal with the world and difficult situations.

However, as the decades since Wright have passed, Architecture has swayed back out of the view of the ‘Art’ (big A art) into its death cycle, waiting for a rebirth. Thus, the spark of an architectural typology that relates more to the human being, much like the printed word, needs a rebirth; the return of the organic. However, with the return of the organic (and it misunderstanding) two paths have been taken.

1. The path of the machine, focusing on an architecture that seems

31] Satler. Pg. XII
to be greedy, corporate, devoid of human involvement, and complex on its face, and with simple at its core (form follows function of sorts).

2. The true organic, or the natural, where the building and nature recombine to form soulful connections (Architecture that is green, but still corporate).

Obviously one seems too biased more than the other. The new organic architecture, though intended to focus on humans, has focused on the environment. Through architects such as Bart Prince, Bruce Goff, Frank Gehry, and Peter Eisenman the ‘new organic architecture’ has tried to renew our troubled world, making architecture a way to save the world rather than a way to see the world. Thus, architecture in both senses still does not relate to its inhabitants.

Therefore, this thesis argues that an architecture that is in tune with all aspects is needed; where the language can be understood by the inhabitants; one where the soul of its complex nature can be realized as a truly simple work of art. And one that is a hybrid of both the machine and the natural. The language must be understood by the inhabitants and the seemingly complex soul must be a simple work of art. Architecture must all incorporate/utilize both the machine and the natural.
CHAPTER 2

BEYOND THE BUILDING
As we have discussed previously, every building has an inside, an outside, is composed of details, and is connected to a larger context. The question then becomes whether those connections are successful. Just because a wall automatically incorporates a separation between inside and outside does not mean that the relationship expresses balance.

This chapter examines the outer focus. The emphasis is on how the site can act on architecture, transposing it from an anthropocentric realm to a worldly realm. The outer provides an inherent contradiction to man in that we build to protect ourselves from it. Yet it is the entity that allows us to sustain and survive. Therefore, the outer can and should interact with building so that they begin to blend together, erasing the glaring contradiction between the two. By analyzing Frank Lloyd Wright’s Pope Leighey House and Renzo Piano’s Tjibaou Cultural Center, guiding principles become apparent. It will lead to the development of my own initial designs. However,
it will also become evident that designing solely in a manner that expresses the outer focus negates the design.

**Reaching Outward:**

As discussed in chapter one, the outer focus deals primarily with the relationship between building and the realm beyond. This focus is derived from the connection to the landscape and the earth. However, the outer focus is not solely the physical manifestation of a vegetated place within the natural context. It expresses the historical use of the site as it relates to itself and also reflects the larger whole of place. It allows for democratic space to blend both in and out of the walls of the building. Thus, the natural beyond and the space within are no longer segregated. It allows intermingling to occur, further “deconstructing the classical box.”\(^1\) The outer focus subsequently influences the building forms/man - the inner focus – and vice versa. It harnesses a beginning derivation for the metaphysical connections. Furthermore, the outer focus reinforces the omnipresent through a spiritual connection within the natural realm, essentially defining the outer focus as the “noble organic expression of nature.”\(^2\)

**Through the Master:**

Frank Lloyd Wright’s work is a prime example of the fourfold balance that

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Heidegger discussed within an architectural context. As discussed earlier, Wright’s work stems from what he calls the organic or the natural, which he defined for himself in the latter part of his life as “fully integrated work.”

Though these concepts can be found in many of Wright’s works, they are the most prevalent in his Usonian period from the 1930’s to the 1950’s.

Wright’s forms enhance the ideology of the outer focus by using the natural landscape to not only provide order, but to define the form and principles of each building. The site in the Wright sense takes on a duality in character. The language is both geometric and meandering. In a meandering way, the site pulls and stretches the ordered geometry, placed upon site, to help create a unique composition for every site. Thus, the site molds the building massing in its image allowing the building to not slavishly imitate her (nature), but to learn from Nature her simple truths of form, function, and grace of line.


For Wright, there were always multiple ordering systems in effect. The first came through the language of a strict geometry. Geometry, defined much by the Froebel blocks of his youth, helped to derive the building’s physical forms. By pulling pieces away, elongating others, and creating a healthy composition of positive and negative spaces both inside and out, Wright was able to incorporate a strong sense of physicality and order. The geometry was never arbitrary. Though sometimes the true origin was undecipherable, the geometry came from the site. From the abstraction of forms within the natural vegetation, the language of order could be established. Wright proclaimed that all things had a fundamental order, it was how the order manifested itself that provided the beauty. “All things in nature exhibit this tendency to crystal-
lize: to form mathematically and then to conform.”

The site itself had a secondary meandering language that impacted the geometric language. The site controlled how the geometric forms adapted to place. The site, in other words, stretched and pulled the geometric forms to make the building feel as if it were an extension of place. The shapes then were interwoven into site by pulling the lines from site into building. Thus, the site was able to pull and shape the building as necessary to merge the two. This allowed the site to feel as if it were married to building rather than being in stark contrast to it. It also allowed for the strict geometry to be viewed as if it were non-direct or meandering. By allowing the site to mold the ordered spaces one could never view the building or site in one sweeping glance to understand the whole. Like nature or the human soul, unfolding occurred where one was only able to catch momentary glimpses. For Wright, it became a three turn method known as the pinwheel. This meandering movement path allowed one to feel connection to site and building as each would unfold together.

Thus, we understand that within Wright’s work, building and site are always woven together. “The [building] is woven into the site through

the varying views one is given during the spiraling sequence.”⁶ But the interconnection goes beyond a simple unfolding of views. Site is pulled into the built form through the abstraction of some natural object on site that shapes how this spiraling movement occurs. The abstracted natural objects create geometric forms that are interwoven from the site, pushing their rectilinear lines into the building, providing order. This allows the site to push and pull building form, shaping it as necessary to merge the site and form together. Conversely, this loose dialogue between nature and the geometry of the building allows the unfolding views to be established in a greater sense. As Wright wrote “Terminal masses are most important as to form. Nature will show this to you in her own fabrications. Take good care of the terminals the rest will take care of itself.”⁷

The Usonian homes are prime examples of both the geometric and meandering languages. Their shapes are primarily guided by site. For instance the Pope-Leighey house, which we will discuss further, opens diagonally to the southeast due to the flow of the site diagonally in that direction. Thus, the site anchors the house at the northern end and stretches it out in the southern end. Similarly, the progression through the interior space shares the common language of interweaving and meandering. Of greater interest is that the site’s push pull effect creates a balance of two spaces: the building form and the manmade landscape form. These two spaces

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⁷ Id. The quote is an excerpt from Wright’s article, In the Cause of Architecture, from Robert McCarter’s text.
IMAGE: ENTRY SEQUENCE AT THE POPE-LEIGHEY HOUSE BY FRANK LLOYD WRIGHT. THE ENTRY NESTLES INTO THE GENTLE SLOPE OF THE LANDSCAPE, ALLOWING THE BUILDING TO FALL AWAY WITH THE LAND. IMAGE BY AUTHOR.

IMAGE: VIEW FROM GARDEN AT THE POPE-LEIGHEY HOUSE BY FRANK LLOYD WRIGHT. THE LANDSCAPE REVEALS THE HOUSE SUBTLY. THEY BEGIN TO BLEND TOGETHER AS ONE ENTITY. IMAGE BY AUTHOR.

IMAGE: VIEW FROM BEDROOM WING TOWARD ENTRY AT THE POPE-LEIGHEY HOUSE BY FRANK LLOYD WRIGHT. THE HOUSE REVEALS ITS CONNECTION WITH THE GROUND PLANE THROUGH THE STRONG SENSE OF HORIZONTALLY. IMAGE BY AUTHOR.
interact to create a pinwheel form. This pinwheel form allows the planar shapes to be directed “toward the direction of single rooms out in nature, giving light, views, and spatial extension on all three sides.”8 This pinwheel form allows the planar shapes to be directed. At the center of the pinwheel form, where the juxtaposition of building form and landscape form come together, lies the point of perfection: - a square. For many of the Usonian homes, the square resides both within and outside, showing that the perfect space is in the in-between. Thus, building and site “progressively reveal more of their nature as they are transversed.”9 By using the square, a form that is considered static, centered, and sacred, Wright allows for the metaphysical and omnipresent foci to protrude into the realm of the inner and outer foci, creating a harmonious center.

The Usonian plans take simple geometric forms and replicate them like a pattern on a piece of fabric. The most common Usonian plan is derived from a two-foot by four-foot grid that creates the building massing side of the pinwheel. The other portion of the pinwheel is shaped by the site’s garden and the landscape. Within this context, the walls of the homes disintegrate, bringing outside in and inside out, so there is a constant back and forth between spaces. As Wright stated, “I began to see a building


primarily not as a cave but as a broad shelter in the open, related to vista; vista without the vista within.”¹⁰ This allows each part to interact in a back and forth relationship of protection; the building protects the sacred social landscape of the home, similar to Wright’s vision for Broadacre City, as well as the inverse. It provides the site with a cyclical animation where there is constant motion between the four foci.

The interweaving method has also led to the perception of depth within the elevations, shifting the focus away from a mere three-dimensional extrusion of the plan. A planting principle can be used to explain this. Using fine planting materials with a gradation toward coarse materials allows the object at the edge of the coarse material to appear closer. Conversely, using a coarse material with a gradation toward fine materials allows the object at the edge of the fine material to appear distant. Thus, the building form takes on the site’s natural elements, allowing it to express the intricate textures that occur within the site.

An interesting precedent to look at is the Pope-Leighey house. This Usonian house is unusual due mostly to its siting; it no longer resides upon its original site. In fact, it was moved twice after its initial construction. This, however, should not diminish its original qualities. To give a little historical context, which will help us progress later in the next chapter, the design was originally created for a paperman, Loren Pope, in East Falls

Church, Virginia on a 1.5 acre lot. The home was a modest 1,200 sq ft L-shaped plan that nestled into the original site with beauty and grace. It was home to Loren Pope, his wife, and two children for 18 years. Around 1946, the house was sold to its second owners, Mr. and Mrs. Leighey. It wasn’t until 1964, a year after Mr. Leighey passed away, the house was moved for the first time. At the pleading of Mrs. Leighey, who had deep admiration for the intrinsic value of the house, the house was salvaged

11] Wright believed to truly live one must be able to have an acre of land or more, allowing one to feel free from the social contexts of the neighborhood. This would allow one to have privacy amidst a hectic social suburban/urban setting. In his address, An Organic Architecture, delivered in the spring of 1939, Wright, on the second evening stated “The plot of 60 by 100 is a hideous thing, making larger life impossible… if everybody in the United States had an acre of ground at his disposal, we should not fill the state of Texas alone.” Wright, Frank Lloyd, Bruce Brooks Pfeiffer, and Frank Lloyd Wright. Frank Lloyd Wright Collected Writings Volume 3. An Organic Architecture. New York; Scottsdale, AZ: Rizzoli; Frank Lloyd Wright Foundation, 1992. Pg 312
when new hwy 66 was slated to run through the property. Between 1964 and 1965, the house was disassembled, all but its masonry components, and moved to Woodlawn, Virginia, just outside the grounds of Mt. Vernon. The house was reassembled at the edge of a sloping hill, similar to the original context, with new masonry units. The house remained there until 1995.

In 1995, it was discovered that the house was improperly sited on a bed of marine
clay that was causing cracks in the radiant heated concrete floor. The house was moved for the third and final time about thirty feet up the hill to a more level plain where it was then restored and rebuilt with the original brick called for in the specifications. The house truly has become a living organism due to the fact that it has been adapting to changes for over 65 years. The Pope-Leighey house is a legacy of a great architect who shared his ideals not only with the wealthy, but everyday people. Mr. Pope paid about half of his weekly salary to Wright for the commission of this house. In total, Pope paid about $7,500. This was a bit of money during the 1930’s, but for Pope, this was not a sacrifice. His vision was to live in a master work of architecture.

As visitors approach the building, they are directed down a gravel path where immediately they begin to feel the texture of the site. They turn and turn until finally a glimpse of the entry is displayed. Immediately, they begin to notice the geometric order of the building forms and the relationship to site. As John Sergeant discusses, we become very aware of the integral nature of house and site through the encapsulated grid which flows throughout. From the road to the carport where we are received “the grid becomes an indissoluble part of the site, and even some distance


13] The original house was made with a lesser quality of brick. Mr. Pope had used 1/3 of his weekly salary to pay for Wright’s services for the design. Thus, the specified brick had to be substituted with a tumbled, lower grade brick. Pope-Leighey Architectural Tour.
from the house itself can be encountered quite informally.”\textsuperscript{14} In this way, Sergeant further expresses that if we were to dig a hole anywhere within the site, we would come across the “bones of the gird below,” as if they were in existence before Wright even came to the site with a design. Sergeant exclaims that Wright’s “act of design grasps ‘force lines’ or vectors, which, although unrecognized, always existed in the site. He perceives them as natural features, draws them quietly together, and knots them inexorably with the grid.”\textsuperscript{15} It is this grid that helps establish the extensions of


The traditional Kanak hut was designed to sit among the trees blending shelter and nature together as one. The cultural center mimics this relationship in a modern context. Image by Werner Blaser.

Middle - The traditional Kanak village typologies. Image by Renzo Piano Building Workshop.

Bottom - Diagram of the ridge that defines the central circulation spine. The spine separates the cases and the more traditional building functions. Image recreated by author.
manmade elements within the site.

At the Pope-leighey house, the carport is an extension of the roadway, which is defined by the site’s grid. The garden, the secondary portion of the pinwheel which is at the southeastern corner of the site, is a prime example of the manifestation of grid within site. Though neatly ordered, it is able to portray its natural countenance. The garden further blends out into both the manmade object – the house – as well as the rustic natural surroundings. It becomes a point of balance between the contradiction faced by man with regard to nature.

_CULTURED THROUGH NATURE_: 

Like Wright, Renzo Piano has allowed the outer focus to come through in the creation of one distinct composition. In Piano’s Jean-Marie Tjibaou Cultural Center, Nouméa - New Caledonia, the natural elements and organic nature of the building become its predominant statement. Taking into account the site and the history of the people, the Cultural Center was created as a tribute to the Kanak culture. It was also a dedication to Jean Marie Tjibaou, a Kanak Leader who was killed while defending his culture from the French government. The Center was to become a statement for the island’s cultural past, present, and future through the expression of light, airy forms.

Sited on the outskirts of Noumea, Piano’s building occupies the Tina Peninsula, a 20 acre finger of land that protects a placid lagoon from the often torrent winds and waves of the bay beyond. The main spine of the build-
ing is approximately 1000 ft long and runs across the main ridge of the peninsula, accentuating the ridge’s natural curvature. On the slightly sloped side of the ridge, the building consists of flat roofed elements that nestle themselves into the hillside. Counter to that side are 10 soaring wood structures. These structures emulate the primitive huts of the Kanak culture. Careful not to offend through pure imitation, the hut-like structures soar upward toward the sky.

The site is cut into three villages to link the past, present, and future of the Kanak people. The center is based on tribal rules, promoting the harmony of life in the community with respect to the tribal hierarchy. What Piano calls the ‘cases,’ the pavilions or abstracted huts, are composed of three varying heights, the tallest being 28m. These cases are fundamentally circular in plan with one side open to the long spinal corridor. Thus, the inner edge of each circle is honed, allowing each ‘case’ to

lock into the primary circulation. Beyond lie the more conventional rectilinear volumes (sometimes but not always part of the spatial flow). Here, landscaped courts penetrate the building. The flat stainless steel and glass roofs are supported on laminated fletched iroko columns. These volumes are largely defined by timber and glass louvers, which form part of the passive cooling system.

The building allows for visitors to be immersed in the natural elements. To get to this point though, they must use the pathways that meander to and from the building. There are two pathways, one for direct access and one that meanders. The meandering path symbolizes the Kanak cultural village. Within Kanak culture, the tie to the physical earth is of the utmost importance. Within this context, the only person to use the direct pathway is the chief. The villagers take the meandering pathway, keeping them in contact with the symbolic five stages of life - creation, agriculture, habitat, death, and birth.

The forms of the northern side of the main pathway are designed to resemble a contemporary version of the Kanak hut. The huts were much in tune with nature because the natural vegetation was used to produce them. Thus, visitors can see the correlation between the exterior facade of the ‘cases’ and the natural vegetation. The fern like facade allows some light and wind to penetrate. The fenestrations also provide a protective surface to disseminate the harsh solar rays and fierce winds. The building forms thus become strong representations of the natural context.

The building is an extension of the natural pathway. Though covered, the
pathway is able to access the exterior at a multitude of locations. At the northern side of the path, one is able to see to the exterior. Though travelers are not able to access the exterior physically due to the glazing at the northern side, they can experience the site sensorially via the breezes coming in through the angled window of the glazed northern wall, the sight of the natural vegetation, and the sound of the air currents and wildlife. At the southern side of the corridor, visitors are able to move directly outside in many locations. If there is not direct access to the natural elements, visitors are able to experience the inner gardens, or are directed to a space where they are able to have direct access to the exterior. The inner gardens further allow site to intermingle with the built form, reflecting the strong Kanak cultural connection to nature.

Within the Cultural Center, there are a series of dualities; duality in forms - rectilinear spine versus the circular cases; duality in directedness - straight versus meandering; duality in historical context - cultural past versus cultural present; duality in shelter - open versus enclosed. Within these dualities, the natural connection is of the utmost importance. Nature ties the enclosed space and built forms together, protecting the cultural past, present, and future. The success of the project relies mostly on how the space is connected to the physical nature of the surrounding environment. The building is nestled into the ridge, focusing on using the least path of resistance. The more literal representations of the natural elements are located on the northern side. The abstract representations of the technological present and future combine to form the southern side. However, within these contexts, visitors are forced to deal with the ever present natural world, making us conscious that cultural decisions are
IMAGE: THE LOCATION OF IMAGO’S CURRENT BUILDING IS OFF OF ENRIGHT AVE. THE DESIGNS WITHIN THE OUTER FOCUS DEVELOP AN INTERIOR CORNER OF THE ORIGINAL EIGHT ACRES AT THE NORTHERN END OF THE SITE SHOWN IN YELLOW.
not to be excluded from nature. Rather, we are to be aware of our natural encounters with every step on our pathway in life.

To the northwest, there is a strip between the irregular edge of the building and the sea. This space is dense with foliage but also has cleared areas for the public extensions of the building. The public extensions serve as open-air exhibition and performance spaces. At the perimeter of the site, a pedestrian path introduces visitors to the flora and the mythical meanings that are very powerful in Kanak culture.

The Center’s main structural grid system is set up on a radial pattern that stems from the gentle curve that resides in the ridge of the peninsula. The grid works its way into the site from left to right. The entrance to the building is a culmination that is achieved through the exploration of the meandering garden paths around the outside of the building. Entering into the main spine, visitors are constantly exposed to new spatial experiences such as gardens, galleries, and the cases. The spine is also a means of expressing the ephemeral qualities of space; the spine’s language reflects the culture of the Pacific Southeast building typology with its light, airy tones. It also acts as a conductor, bringing in both natural light and the sea air, further deconstructing the spine’s boxlike massing.

Since a primary goal of the building was to provide shelter that reflected both the site and the lagoon beyond, the building has taken on natural forms. As we can see in the elevation, the houses seem to blend into the tree-scape, creating the appearance of natural elements and protecting the living spaces within. Terraces and gardens further emphasize the natu-
ral by pulling the exterior into the interior, creating the village like feel; walls do not constrict the flow of outside to inside. The central corridor then becomes an alleyway that was found in the traditional Kanak village, allowing movement between the houses and village intermingling. The alleyway stretches along all three villages and allows for complete movement from end to end.

Similar to the overall composition, the wall systems of each case provide the inhabitants with shelter as well as a means to access the site’s natural elements. As the wind moves in from the bay and hits the island, the wind flows up the ridge to the outer wall of each case, or windcatcher, where it is then eased into the lagoon beyond. The windcatchers filter the wind coming in from the ocean and help ventilate the building. The windcatchers, as mentioned before, are made up of a double wall system, allowing the space in between to act as a thermal chimney. The wind rushes through the bottom part of the catcher, where it infiltrates the building, circulates, returns out through the thermal break in the upper part of the interior facade, and leaves via
the thermal chimney. By doing this, the windcatchers not only provide the space with ventilation, but musical harmonies. In Kanak culture, the houses have a sound; they play music, and the windcatchers further exemplify the cultural tie. The wind forces applied to the windcatchers are directed along the exterior panels and through the ventilation openings. These forces cause the panels to move, hence the strong structural members inside the thermal chimney. Because of the openness of the windcatchers, wind is allowed to pass directly through to reduce turbulence.

The paneled facades of the ‘cases’ help to throw light providing protection from the site’s natural conditions. As light hits the roof of each case, it is bounced away, helping the building stay cool by transferring away much of the solar gain. The exterior panels of the cases act in a similar fashion, throwing the light off of the panels so that the solar rays do not affect the views of the occupants as they approach the building via the entry pathway. The overhangs on the flat roof structures also act as sun shading devices, allowing light in, but cutting down on the massive amounts of solar gain.

The Tjibaou Cultural Center, like the work of Wright during his Usonian period, was a combination of outward and inward focus for its overall design. The overall forms of the Cultural Center were derived from very blatant natural shapes, whereas much of Wright’s works have very rectilinear forms that express the abstraction of nature. However, each allows the building massing to become a celebration of the outer focus. In addition, each emphasizes the need to extend beyond just site. If each building was

merely an extension of the outer focus, they would definitely lack balance required for the successful integration of the fourfold.

**Design Process and Principles**

What has been learned from trying to design a building solely from the outside is that it is extremely difficult. The building is incomplete; it has a site context, but no life. Essentially, the site becomes the body and the building the heart. An incomplete heart means the body ceases to function as a whole. Though there is beauty in the individual piece, there is no depth, character, movement, or laughter. However, design concepts were created that allowed the progression of the theoretical ideologies to begin to be explored throughout my own work. To start we, need to understand the context of the site.

This project strives to create an ecological community center for an environmental
IMAGE: ABOVE - IMAGO IS SET WITHIN A HEAVILY RESIDENTIAL COMMUNITY. SITE PHOTOS ARE TAKEN FROM TERRY STREET, W. EIGHTH STREET, AND ENRIGHT AVE. IMAGES BY AUTHOR.

IMAGE: LEFT - AN EXAMPLE OF A TRAIL/PATHWAY BETWEEN NODAL POINTS WITHIN IMAGO’S SITE. IMAGE BY AUTHOR. RIGHT - EXAMPLE OF THE NATIVE FLORA WITHIN THE SITE. IMAGE BY AUTHOR.

IMAGE: THE DESIGN SKETCHES ARE PRELIMINARY IDEAS SHOWING SITE MOVEMENT, ORGANIZATION BETWEEN NODAL POINTS, POTENTIAL BUILDING LOCATIONS, AND NEW SITE ENTRY LOCATIONS. SKETCHES DRAWN BY AUTHOR.
IMAGE: DESIGN SKETCHES ONE THROUGH SIX. EACH DISPLAYS A DIFFERENT SITE ORGANIZATIONAL TECHNIQUE. HOWEVER ALL RESIDE WITHIN THE UPPER MOST PORTION OF THE EXISTING EIGHT ACRES OF IMAGO'S PROPERTY. IMAGES BY AUTHOR.
group on the west side of Cincinnati. Imago, a longstanding ecological education organization in line with Wright’s concepts of the ‘natural,’ is a non-profit organization that was founded on the principles of living in harmony with the earth. Their mission is to “foster in the residents of the Greater Cincinnati, and in particular her urban youth, awareness and appreciation of the natural world.”

To do this, they provide hands on experience with the earth and the natural environment for youth, adults, and the greater community so that they may have lasting connections with the world within which they live. Situated in Pricehill, Cincinnati on sixteen acres of reclaimed forest, Imago provides Cincinnatians with the ability to experience three different ecosystems within an urban setting: a forest, a wetland, and a tallgrass prairie. Though the site is not extremely large, it is open to Cincinnatians year round.

Imago not only focuses on the property that they have reclaimed, but the Pricehill community at large. Surrounded immediately by approximately eighty different households, Imago has been focusing on creating an eco-community where the reclaimed nature preserve is the core. Though not required to participate, about half of the households have embraced the eco-village ideology. Thus, Imago is striving to be the model for its community. However, their existing visitor center space does not live up to the model of an ecological center.

Their current building inadequately meets the need for the growing environmental concerns within the community. Comprised of approximately

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19] Id.
two-thousand square feet over two floors, its single pole barn building attempts to house seminars, Imago volunteers and staff offices, and serve as a community center. Severely inhibited by its current condition, Imago is looking to expand into a new space, whether it is through an addition to their current space or an entirely new building. Their main objective is to not only build a building that is ‘natural,’ but further emphasizes their mission.

From the initial analysis of the site, there are key components that have alluded to the initial designs. The site is made up of a series of important nodal points. These points are where the primary interactions take place. The interactions include an open space for large gatherings, three pathway nodes that define intersections of pathways or points of pause, an open area to teach Native American stewardship practices, a building node, and a series of entry nodes. These nodal points are all interlinked and, consequently, are also in a state of constant flux, as the natural landscape encompasses each one.

The nodal quality of site allows the inhabitants to feel that they have some space within the vegetation. Since the site is a new growth forest that has been building for the past fifty years, it is not as thick as a true old growth forest. However, the vegetation allows for a contrast between the natural and the manmade surrounding context. Because visitors are in constant motion between the nodal points, defined by the natural elements, they are able to recognize the transitions zones. These zones allow us to reflect about the differences and the place that man and nature share - one of balance and respect. From this we can begin to understand the design steps
taken to produce a building from the outer focus.

Design one focuses on the expression of the primary site pathway. The site contours modify the existing pathway to force intervals of compression and release, moving one throughout the site. The diagonal path progression allows for the experience of views to be happened upon rather than viewed all at once. The geometric entity expressed in a hierarchical spatial ordering allows for the progression of the necessary built components to be intertwined with the meandering pathway. An underlying geometric entity intersects the interior component massing to provide a manmade approach to the exterior world. The overlap of the two geometries with subtle shifts in radial degrees allows for the interplay of the shelter and cave effect.

Design two focuses on a double square geometry derived from the typical leaf of the site. The subsequent forms are scaled to allow for the necessary functions. The double square forms are acted upon in three directions: being pushed from the north, west, and the northwest, causing them to bow with the natural contours of the site. The radial formation allows the massing to take advantage of a natural context on four sides. Underlying rectilinear geometry expresses datum of neighborhood separation expanding through the site. The double square transects the rectilinear for a two fold reason: to bridge neighborhoods together, and to create an anchor point for the composition. The curvilinear lines express the underlying pathways that are vital to movement through the site. The pathways force visitors to move in and out of the rectilinear forms, causing the visitor to be immersed within the site as well as within the building. The curves
also allow for a more meandering approach.

Design three focuses on expressing the original pathway within the site that connected Terry St. and Enright Ave. Since the original pathway followed the contours, the resulting composition allows for a radial nature protruding perpendicular to base contours. The massing establishes the new entry to the composition from the north, creating a hierarchy of forms. The forms grow in size as they are immersed into the site farther from the entry and as they consequently extend further into the topography. Each mass is accompanied by a thin datum wall that helps to focus the site between the spaces of the constructed forms. Each wedge consequently gets wider as it moves away from the entry, pulling defined views across the site.

Design four focuses on the pathway ideology, trying to bridge the surrounding neighborhoods together to create a strong ecological community. The interplay of the bridging integrates the existing pathways, allowing for space beyond the site boundary to be pulled inward. The primary pull of the bridging happens across the existing site pathway datum from northwest to southeast and northeast to southwest. The geometric underpinning set up the language of structure inherent within the surrounding community. It also provides the massing for potential secure building functions within the program. The overall concept of the composition is the blending of outside and inside to create an educational environment that forces visitors to question what is truly outside and what is truly inside. It also allows the building and site to blend more cohesively.
Design five focuses on a double square geometry pulled from site vegetation showing how building massing can be derived from the site. The entry and exit to the composition occur along the existing pathway, allowing the massing to direct the visitors through the redefined space. The building massing is pulled apart to allow for integration of nature between buildings, forcing the travel between inside and outside to use the different building functions. The radial nature of the design stems from the nodal pathway that currently exists. Spiraling outward from the node gives the design the opportunity to extend past the site boundary in an indirect manner. The spiral will become a predominant organizer of the rest of the site flow and the massing of the other exterior spaces. It allows blurring to occur, blending the edge of what is considered to be part of the building composition with the surrounding neighborhoods. The design tries to take into account axial views in an asymmetrical manner. The primary force acting upon the composition stems from the northwest.

Design six focuses on a single square geometry that is extrapolated from half of a typical leaf form. The massing is closer together, creating a more unified composition sharing a similar language to much of the house massing of the surrounding site. The building massing is pulled apart to allow for integration of nature between buildings, forcing the travel between inside and outside to use the different building functions. The pathways of the site are abstracted into thin, rigid geometries, forcing diagonal flow from entry to exit. The diagonal movement allows for a meandering quality within the strict geometry. It also provides masking, allowing only portions of the site to be revealed at any given time. The other geometrical components extend the spaces into the site to create a
stronger relationship between site and building. The massing is hinged about the nodal pathway already in existence, opening the building to the southeast where the views are predominant.

**Philosophies:**

“What is Nature? Nature is Fate… The study of Nature in this deeper organic sense enables man not only to see a brick as a brick or a board as a board but also to see a prostitute as a prostitute, a man as a man or see a politician’s ideas of government as good or bad.”

-Frank Lloyd Wright, *Nature*, 1945

Every building has two typically recognized spaces: inside and outside. As architects, we are taught to keep things on the outside out and the inside in. Even during the “green” architectural revolution, where nature has become of more significance, we search for ways to keep it out. Though there are reasons for this, building has essentially become a medium to separate us from the natural landscape, and in most cases it may be deemed justly so. On the other hand, it has forced a detachment from the outer environment so that most people do not even begin to understand it. Thus, it has become harder for architects and inhabitants alike to accept suggestions that buildings “[go] back to the earth.” It quite frankly scares many people, and why shouldn’t it? It causes us to diverge from what we currently know and understand and embrace something we don’t, or

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rather just pretend to, understand. But we need to transcend our fears to be able to reach a plain where we begin to respect and preserve even the things that we fear and do not understand.

**MAN AND NATURE:**

Man for ages has been at odds with the natural world. From the beginning man both worshipped and feared nature. It was a source of power that man was unable to comprehend. However, man did not remain in awe for long. Rather, man, in his anthropocentric view of the world, began to understand that the natural world was a large resource that could be utilized for his own benefit. “In most of the ancient world, a general benign climate reinforced the illusion of mankind’s power over nature, and the occasional disruptions caused by natural disasters – earthquakes, hurricanes, volcanic eruptions, etc. – could be explained away as expressions by the gods.”\(^{21}\) This view eventually led to the social hierarchy placing individuals in power to please the nature gods, which in turn established much of the powers of man and perpetuated his rule rather than reverence to the natural world. It wasn’t until the Renaissance that science began to explain the natural world. Science allowed man to understand occurrences in nature, giving man the ability to further exploit it. Similarly, religion was able to perpetuate the segregation from nature. In most religious societies, man was told to view the natural world around him as a place of the demonic power. Puritan societies that moved to the United States during the 17th century viewed the natural landscape as a source

of fear, giving man right to destroy that which was evil. Luckily not all of the earth’s inhabitants carry with them this Western philosophy of control over nature.

Rather, in a variety of aboriginal cultures, the ideal of control over nature is strongly negated. In many western cultures, the soul is viewed as a way to distinguish man from other aspects of his world. In these cultures, man shows that he, and through him shall the earth be controlled. However, in many aboriginal cultures, the soul is viewed as a way that man is connected to all things. The Kanak culture acknowledges, as we were able to see through the physical manifestations of their cultural roots via Renzo Piano, the relationship between the soul and nature. Similarly, Native Americans and Japanese cultures are prime examples of connectedness to the earth.

Nevertheless, we can begin to understand by the precedents and theory that the outer focus can provide more than picturesque or scenic vantage points. As Fredrick Law Olmsted claimed, the landscape provides sanity and health. In essence, the natural landscape provides balance of the other three foci within the fourfold of the world.

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CHAPTER 3

DERIVED FROM WITHIN
Established at this point is the outer focus, and whether you have begun to notice it or not, the premise for a large part of the inner focus, though not specifically stated. In the last chapter, you learned that by designing based solely on the outer focus, we root out much of the human element because the building massing only relates to site or a vegetative structure. What should have become apparent is that by solely focusing on the outer focus, the design options feel incomplete. This is due to the lack of balance required to sustain a harmonious center. Therefore, the inner focus must be examined. The inner focus emphasized the inner building, its massing, and its humanity. However, it is not separated from the outer focus. Expounding upon the outer focus, we will look at how the inner focus begins to transition toward balance.

In this chapter, we will unravel the inner focus and the connections between man and
building. The inner focus emphasizes that man and building are one entity. Subsequently, they need to act simultaneously. In this manner, they interact with the outer focus and rely on similar criteria. The implications of the inner focus are explained through a precedent study of Frank Lloyd Wright’s Unity Temple and Robie House. Another precedent that brings validity is Aldo Van Eyck’s Orphanage. Each precedent allows specific design criteria to find their way into my own process. The design therefore confronts what was established in the first chapter and re-evaluates it within the new context.

**Self-Reflection:**

The inner focus deals primarily with the connection of architecture to itself – man and building. Since man and building are of the same form they must reflect upon each other. Architecture must also take its own necessary elements of structure and allow for those proportions to correlate to the building form and the form of man respectively. However, it does not only look at how the physical structure relates to the overall form. It explains how the parts relate to the whole, how the edifice is treated, and how space is distributed to emulate the inner proportionalities, creating the layout and disbursement of a *living space*.¹ It builds on the outer focus by bringing the site’s historical/cultural foundation into the building. The living space focuses on incorporating the inhabitants’, communities’, and clients’ personalities, ideologies, spirituality, and history into the center

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¹ This term is derived from Satler’s work. Here the Living Space defines the total book on Wright. For our context, the living space is defined as a part of the overall work of Wright within a Heideggarian context.
of the space. Moreover, living space looks at how space will come alive. Subsequently, it creates *continuity*; spaces begin to merge and flow together from the proportions created and the attention to creating a living space. It does not, however, ignore the outer focus. It causes the inner to recognize the contradictions between the two realms and shifts the focus toward a human center where the contemplative nature lies – when man is at rest or residing within space.

The inner focus begins to break down the building in a physical sense, incorporating Wright’s ideologies of deconstructing the box by shifting the focal points from the exterior of the room to the interior of the room where the life force is contained. This allows a language between man and his built context – the inhabitant begins to understand his relationship to wall, floor, and door. It is achieved through proportions where the heights and size of spaces relate to the function and people, giving space a human quality. It strictly speaks to the “motivation for creating the structure: to create something that reflects the dynamic relationship between the building and the individuals who inhabit it.”

Continuing to use Frank Lloyd Wright’s works as precedents, we can begin to look at two examples that are in line with the ideals of the inner focus. As an extension of the outer focus, the inner will deal with 3 main criteria - proportionality, the living space, and continuity. The precedent analysis will also focus on Aldo Van Eyck’s work. However, it will be noted, his results differed from Wright’s. The precedents will begin to

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delve into the need for cohesion (being an integral part of each other and relating the outer to the inner). To begin to understand the living space, we must first look at proportionality, a primary derivative of the ideal.

**LIVING SPACE:**

Proportionality is a factor in creating the inner. It shapes much of the other criteria within the inner focus. We can best see this through the Robie House, an example of Wright’s earlier work, which displays an extreme regard for the definition of space within the relationship to the human body.

The proportions of the Robie house as a whole appear low. The house has an appearance of close regard to the landscape. While this is not necessarily an aspect of the
IMAGE: TOP - SECTION OF THE ROBIE HOUSE. THE PROPORTIONAL NATURE IS DERIVED FROM A CENTER SQUARE, EXPANDING OUTWARD TOWARD THE CENTRAL AXIS. IMAGE RECREATED BY AUTHOR. MIDDLE TOP - MAIN FLOOR PLAN. DRAWN BY ROBERT MCCARTER. MIDDLE BOTTOM - THE AXIAL MOVEMENT OF THE HOUSE FURTHER ENFORCES THE PROPORTIONAL NATURE ACROSS THE CENTRAL AXIS. IMAGE BY AUTHOR. BOTTOM - THE MASSING OF THE SPACING RELAYS AN OVERLAPPING QUALITY TO ACHIEVE CONTINUITY. IMAGE BY AUTHOR.
inner focus, it can be seen as a crossover from the outer focus, helping to define the inner. Since the house carries such low proportions, the interior spaces take on a different quality, different from other spaces of its time.

When the Robie House was built, many homes were being designed with tall ceilings in each room to create unnecessary grandeur. These rooms were based on the Victorian ideals that a room should feel regal. It caused space to carry with it the socioeconomic significance of the self-proclaimed aristocracy – the upper class social elites. However, Wright caused a shift. The room became a space, not of a pompous nature, but one that melded to the structure of man so that he would feel comfortable within it. Drawing from the landscape, the low proportionality made the room feel more connected to the natural elements of the site beyond the immediate focus of the room. We can see this as we merge into the interior space of the Robie House.

The plan is created by two rectilinear massings sliding past each other. One contains the main living functions of the house such as the billiard room, play room, living room, and dining room. The other contains the private, more service oriented spaces such as the guest room, kitchen, servant’s wing, and the stairs to the bedrooms on the upper floor. The two rectilinear masses overlap, creating a square form at the center that composes the upper story bedroom massing. This overlap also allowed Wright to decompose the plan into smaller spatial compositions. Though primarily an open floor plate, the plan begins to break down into rooms composed of square, double square, or a combination of both.
As we enter the house, we find ourselves below the main living area. Proportionally, we begin to notice a compression as we move from the openness at the street to the somewhat compressed inner court to the fully compressed inner foyer. The compression causes one to feel as if he has entered into a cave. The foyer is dimly light by a small amount of artificial light as well as the natural light that seeps in from the large stained glass door. Immediately, the space begins to force one to look for a way to move; the room has low vertical dimensions matched with an enlarged rectilinear plan. Though not uncomforting, the compression leads one to want to find reprieve. Consequently, we are forced to the right where we find the main stair, which extends upward into the main living space. As soon as we enter the stairwell, we immediately become aware of another shift in proportion. The stair, while square shaped in plan, compresses on the body with walls that extend upward in a manner that dwarfs the human body. However, the walls do not terminate at a ceiling. Rather, they extend to mere waist height in the living space, leaving a perceived definition of space extending upward toward the ceiling. It also allows the light of the living space to drive into the stairwell. From the stair, we can see this change of proportion. It piques curiosity as to what lies in the spaces beyond the stairwell walls, causing one to move upward and out into the main living space.

Once one has achieved the climax of the ascension, one is thrust into the main realm of the living house. In this realm, one becomes immediately aware of the expanse of the plan in either direction. Stepping from the landing the lower ceiling overhead forces one to move again. Since there
IMAGE: LEFT - FROEBEL THIRD, FIFTH, AND SIXTH GIFT DIAGRAMS. IMAGES BY ROBERT MACCORMAC. BELOW - UNITY TEMPLE FLOOR PLAN AND CEILING PLAN. EACH SHOWS THE RELATIONSHIP TO THE FROEBEL DIAGRAMMING. IMAGE DRAWN BY ROBERT MCCARTER. BOTTOM - CENTRAL ATRIUM SPACE OF THE SANCTUARY AT UNITY TEMPLE. IMAGE BY AUTHOR.
is a perceived barrier to the right, one moves under the lower soffit height into the main living room space. There, one becomes increasingly aware of the proportions dictating flow of space, not only of the human body, but of the outside and the inside. The edge condition transitions the flow of space from outside to the center of the living space.

The proportions guide one by creating spaces that force movement or rest. “The ceiling over the edge or movement zone is seven-feet and six inches in height, while

3] In the original design for the Robie House, there was a curtain that was extended from the built in to the right of the stair to the soffit, closing off the dining room space to the visitor. It was customary in that time that visitors would not move into the private spaces of the household unless they were invited. Thus, the living room could become a place to accept the public realm.
the ceiling height over the centre space is nine feet high.”4 The edge condition creates a vertical double square. Defined by the overhead soffit, the edge space extends roughly three feet nine inches into the interior space, exactly one half of the height between floor and soffit. This height further overlaps into the living space through the lighting detail located at the soffit edge. The taller spaces at the center (living space) bring the outside and the inhabitant into the middle. These spaces are located along the main axis of the house, showing the true life force only as it is inhabited. As visitors move to the very center of space, defined by the hearth, they drop down two-steps (approximately 1 foot). Here the ceiling height is at its tallest, ten-feet. The proportions of this space cause the perceptions to vary. They are meant to be experienced in a two-fold manner: in movement, and at rest. When one is at rest, one is sitting or lying down. Through these actions, the human proportions decrease. In this manner, the activity of the space is defined.

At the Robie House, the proportions that drive movement also lead to the creation of continuity of space. Spaces become contiguous, flowing together from inside to inside and inside to outside. The separation only becomes apparent when one is standing at the edge. From the middle of the living space, one is aware of not only interior surroundings, but exterior surrounding that show the continuity from the outer to the inner.

Another work of Wright’s, Unity Temple, is defined in a similar manner. However, the proportions of that space deal not only with man but with the divine, which is though to be perfect. The floor plan is derived from

a series of overlapping rectilinear forms that create a series of squares and double squares. These further create a cruciform plan with the main consecrated space as the largest center square. The exterior corner squares defined by the cruciform’s shape, become the areas of circulation, allowing the visitor to move vertically throughout the cubic volume.

Separated by low walls and seating, each rectilinear space in the main portion of the sanctuary alludes to the unity of man and building in the celebration of religious ideals. In this manner, Unity Temple is very similar to the Robie House; man is pushed along the periphery of space, not able to access the main axis immediately, but is able to catch glimpses of it by seeing over the low walls that separate the movement space from the living space. The living space in Unity Temple is the main congregation space. There one is pushed into the center because of the low proportions and dimly lit exterior circulation zones. These zones are created by a series of cubic forms pushed together to create a rectilinear double square. Again, as in the Robie House, one looks for reprieve from the low proportions. One is then forced to travel up one of the many stairwells where, as is in the Robie House, the space explodes outward. This explosion allows man to be free, but at the same time this new found freedom is grounded by the proximity to the shelter of the circulation space. The two proportions balance each other, creating a dialogue between interrelated and flowing space. Here too, proportion plays a role in defining space. It lends itself to defining the metaphysical (this topic will be dissected in the next chapter). Looking beyond Wright, we examine the work of another architect who created proportional spaces derived from the variations in inhabitant.
In Aldo Van Eyck’s Orphanage, we see the same emphasis that Wright placed on the inner focus. Van Eyck focused much on proportionality and continuity of space, as well as the disintegration of hierarchy. However, Van Eyck approached these design criteria in a different manner. The primary focus of the design was to eliminate the social hierarchy of space. By removing the main axial criteria by which most classical buildings were defined, he was able to provide space a means to flow together in a continuous manner (Wright, however, sought to keep the axial relationships). Thus, the Orphanage project is a good example programmatically of the inner focus much as it was of the outer focus because of the attention it pays to the arrangement of spaces in a communal fashion.5 This continuous entity rejects hierarchy, an ordering function typically generated by a central axis, through the application of a series of diagonal, asymmetrical pathways. These pathways allow the continuous flow from space to space and group to group, allowing the parts to be read as a communal whole.

The programmatic definition of space overlaps the ordering principles, further diminishing the sense of hierarchy by expressing what Van Eyck refers to as twinphenomena. He defines twinphenomena as the contrast faced at the transition zones between spaces, most notably outside to

5] The Orphanage project allowed me to derive an ideal of the programmatic focus of the designs from the previous chapter. It gave me the insight to take a programmatic look at the site and how site can create the built form/spaces.
IMAGE: TOP LEFT - AERIAL PLAN OF ALDO VAN EYCK’S ORPHANAGE. IMAGE BY FRANCIS STRAUVEN.
TOP RIGHT - IMAGE SHOWING THE REMOVAL OF PLANAR HIERARCHY THROUGH DIAGONAL MOVEMENT OF SPATIAL RELATIONSHIPS. IMAGE RECREATED BY AUTHOR. MIDDLE LEFT - INTERIOR SPATIAL RELATIONSHIPS. IMAGE BY FRANCIS STRAUVEN. BOTTOM LEFT - PROJECTIONS FROM THE FLOOR PLANE HELP TO DEFINE THE PROPORTIONAL NATURE OF THE SPACE. IMAGE BY FRANCIS STRAUVEN.
Van Eyck understood this to mean that the contrast could reveal the edge. In essence, continuity is established much as Wright envisioned – the relationships between outside to inside begin to speak the same language, flowing into each other while simultaneously being aware of their differences. The balance required to maintain this phenomena begins to fade at the Orphanage. The exterior is as manmade and defined as the interior; there is no separation between the two. However, through the continuity, regardless of the strength of the outer focus, programmatically it is important for spaces to have a constant relationship with outside so that man and nature can act upon each other to define the edge.

The removal or heirarchy and subsequent continuity further allows the Orphanage proportionally to cater to a variety of different use groups. The living pods for the younger children are defined for their size as are the living spaces for the middle aged children and the older children. Each has a proportional agenda that not only defines the floor plate, but derives the sectional proportions and extends the continuity of space.

Proportion here is dealt with in the vertical dimension slightly differently. Throughout most of the Orphanage, the room heights are the same - a domed ceiling space which articulates the exterior. The primary variation is in the heights of the projections from the floor and the level of the floor.

6] Strauven discusses the realization of Van Eyck’s contrast theory through the derivative of the twinphenomena, wherein one is aware that even though the two ideals conflict they revolve around the same center expressing and further defining the contrast between the two. Strauven, Francis, Aldo van Eyck, and Herman Hertzberger. *Aldo Van Eyck’s Orphanage : A Modern Monument* [Burgerweeshuis van Aldo van Eyck.]. Rotterdam: NAI Publishers ;SaNew York : D.A.P./Distributed Art Publishers distributor, 1996. Pg. 11
plane. In each space, a series of projected objects, which help to define space in plan, extend upward to meet the needs of the activities served within. These spaces focus solely on transposing the edge condition by making one aware of the difference. This does not align with the ideal of the living space because the focus is at the edge rather than the center of the space. However, by varying floor heights, projections, as well as ceiling heights, one is able to cause a compression and release activating space like Wright, forcing one to move toward the center. In turn, the living space and the proportions will remain humanistic throughout the journey.

Since the inner focus relates to the connection of man and building as an integral entity, we understand that man and building become one being. However, building as previously learned must also be connected to the landscape and the outer focus. We therefore must dissect one final project to see the juxtaposition of the natural context onto the form and function of man and building.

At the Pope Leighey House, as we move from the exterior to the interior, we experience some of the same elements already described. The exterior compresses into the carport area, through the entry vestibule and foyer until we are released into the main living space. There, spatial relationships become continuous from exterior to interior. The detailing that defines the horizontality and connection to the site on the exterior flows inward and wraps the inner portion of the house. These elements guide the eye in a continuous manner toward the center of space. As a result, we are aware the main seating and activity functions are at the edge, integrated
into the wall systems. They focus their attention to the center of space and beyond, allowing one to take in the site’s beautiful views and the natural light that spills into the space. These spaces take on a slightly different character than the other spaces in the house due to their public nature. If upon entry we were to turn left at the foyer into the private wing of the house, a slightly different character is realized. The same rules apply there: the detailing and continuity are prevalent as guiding elements, compression in the corridor is key to push us into the rooms, and once in the rooms, space seems to explode outward. Though not changing significantly in height, spatial perceptions change due to the vast amount of light coming through. The inner courtyard, or garden, which has a private feel as well, spills into the two bedrooms through the unobstructed windows. Consequently, inside and outside seem to flow together, much as in the entry sequence.

The folded walls in this portion of the house tend to direct the eye to the large windows. From there, the eye is directed outward to the house’s inner garden terrace. It is this focus where we start to see that the eye is not only directed outward, but the outside is truly being brought into the space. This phenomenon is not limited to the private side of the house. Each space “insinuates living within the forest landscape so outside and inside are merged as one.”7 Much of the living space, as stated before, focused on looking both inward and outward. Each window, door, and opening was a gateway to see the landscape beyond when moving through the space.

The shift in design required a move of to the northern end of the site. The building was relocated on Terry Street in the red area indicated above. Image recreated by author.
This house blends the inner and outer foci together, allowing cohesion between inside and out. We begin to see this through the furniture. Many of the seating areas were placed at the outer edges so that one was focusing on the middle of space. This shows not only a progression of space, but that continuity\(^8\) reinforces the building’s overall relationship to site. More importantly, within the Usonian home, and in particular the Pope-Leighey house, the thin horizontal wall constructions allowed life to resurface in the center of the rooms. The constant squeeze and release from exterior to interior, from transition space to utility space (main room activities), and from structure to wall assembly allowed each space to shift its center of focus. The new vantage points permitted outside and inside to blur together not at the edges, but rather at the heart of the space, bringing the life force to the center of the room. Consequently, the organicism of the structure and its inhabitants is sustained.\(^9\)

**Design Process and Principles:**

Shifting from precedents into design, we begin to see the same ideals taking hold. Site design has shifted from the initial perceptions to allow for a more encompassing community plan. As you may recall from the last chapter, the designs listed focused on the site, molding to one primary nodal point within the existing path structure. With the original Imago structure at the entrance off Enright Ave., the primary function of the structure was to serve the needs of the site and Enright Ave. only. While designing within the outer focus, it became immediately apparent that

\(^8\) Satler’s discussion of continuity. Pg. 64

\(^9\) Ibid. Pg. 146.
what the site needed was a shift of the actual building structure to the northeast. However, the initial shift did not allow a good point of entry from either the existing entry or the new proposed entry from Terry Street. In actuality, the design lacked the inner components, making it devoid of validity. Through the analysis of each design, and with moving into the inner focus, it became apparent that the new building site location needed to be able to be accessible by more communities other than just Enright. By pushing the building north off Terry St. and West 8th St., it would be feasible to create less manmade disturbance of the renewed forested areas, a stronger communal tie, and a gateway for the site. Essentially, the building as gateway would allow the prominent focus of the site to be expressed – the natural elements.

The initial designs created from the emphasis on the outer focus all were of a curvilinear nature, focusing on the pathway throughout building form and site. The pathway was a way to connect interior building and exterior site massing in a linear fashion. However, linearity is not a necessity. It only helps programmatically ease flow problems, which in itself cannot be a valid reason for choosing a design. Reason being is that it lacks the meandering quality expressive within the site, and the complex cultural grid.

Each initial design was derived from the site at a nodal point in the northwestern corner. The only real advantage of siting led to the main entrance being shifted from its current location on Enright Ave. to Terry St. However, the move was not one that led to the reinforcement or blending of the inner focus. Since the primary concern of the inner focus is the connection of building to man, the design must build upon the connection of building
<table>
<thead>
<tr>
<th>Room Type</th>
<th>Description</th>
<th>Size (SF)</th>
<th>Activities</th>
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<tbody>
<tr>
<td>Interpretive Center</td>
<td>Varies</td>
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<td>informal gathering, field-trip orientation, map distribution</td>
<td>should be easily accessible by all visitors</td>
</tr>
<tr>
<td>Multi-purpose Room</td>
<td>2,000 SF (each)</td>
<td></td>
<td>school group and visitor instruction and events; 60-100 occupants</td>
<td>flexible and dividable into smaller spaces; area for audiovisual equipment and display; tables and chairs or theater setup</td>
</tr>
<tr>
<td>Classroom</td>
<td>500 SF (each)</td>
<td></td>
<td>children craft room, community classes</td>
<td>adjacent to multi-purpose rooms</td>
</tr>
<tr>
<td>Community Kitchen and Dining</td>
<td>1,200 SF</td>
<td></td>
<td>preparation and staging of community meals</td>
<td>Maintain privacy from public Interpretive Center</td>
</tr>
<tr>
<td>Staff Offices</td>
<td>100 SF (each)</td>
<td></td>
<td>accommodate files and equipment, maintain privacy from public Interpretive Center</td>
<td></td>
</tr>
<tr>
<td>Staff Conference Rooms</td>
<td>200 SF (each)</td>
<td></td>
<td>small meetings</td>
<td>Maintain privacy from public</td>
</tr>
<tr>
<td>Shop Space</td>
<td>800 SF</td>
<td></td>
<td>construct exhibits and other material</td>
<td>staff only; removed from teaching areas; accessible for deliveries</td>
</tr>
<tr>
<td>Library</td>
<td>900 SF</td>
<td></td>
<td>sharing of knowledge and resources within the Eco-Community</td>
<td>should be easily accessible by all visitors, but easily monitored</td>
</tr>
<tr>
<td>Gift Shop/Bookstore</td>
<td>1,500 SF</td>
<td></td>
<td>sharing of knowledge and resources within the Eco-Community</td>
<td>should be easily accessible by all visitors, but easily monitored</td>
</tr>
<tr>
<td>Native Plant Nursery and Greenhouse</td>
<td>Varies</td>
<td></td>
<td>community gardens, growth of native species</td>
<td>southern sun exposure, direct access outside for deliveries and outdoor nursery</td>
</tr>
</tbody>
</table>
and site so that all are equally important. However, the previous designs lacked the true community connection. By pushing the design north toward Terry Street and over the edge of the property lines, the design is given the opportunity to stretch past the constraints of site to incorporate the communities that it had previously ignored.

The first step taken toward creating the inner focus was establishing the communal context grid through site geometry. By looking at site positioning, it was apparent that assemblage could be created that was connected to site and community simultaneously, leading to a design schematic. One issue became apparent when developing the community context - there was no true regularized pattern based on the communal grid. Spacing and positioning of the housing within the communities is irregular. This is not a negative. It actually helped to create a complex web of interlocking, site derived spaces. However, to allow man to have a connection to the space, some sense of regularity was needed to be juxtaposed to the irregularity. The regularity that was applied to the irregular pattern occurring because of the intersection of extrapolated lot lines and housing plans proved to be more dynamic and truly more site specific. Unlike the dynamic nature of the vegetated site, where the abstraction of form can be derived from the plant forms, the grid lines lend themselves less to a rhythmic pattern of order. And by extrapolating grid lines, sense can be made of the overlapping communal aspects.

To marry the inner and outer focus, it became important to select the intersections that could lend themselves to a regularized application of order, creating geometric proportions of the 3:4:5 nature. Questions concern-
ing how space is achieved began to arise. Does space take on a quality as in Wright’s work, which was all encompassed under one roof? Does the inner and outer space flow interconnected like in Van Eyck’s work, where proximity is the primary concern? Or is it like Piano’s work, where the inside spaces and outside spaces are covered but to varying degrees to allow the interplay of outer and inner to occur?

The design naturally led to the interplay of the inside and outside in a manner similar to Piano’s Centre Kanak, while still carrying an air of Wright’s inner and outer components. The site pathways began to weave in and out of the grid spacing that encompassed the inner portions. There the pathway could be continued by separating out the interior program, allowing the interplay between what is interior and exterior.
Broadening beyond the dynamic of the inner and outer focus, the design has begun to progress into the metaphysical. By focusing on the proportional aspect of building and how forms are interconnected and continuous as Wright proposed, the design has been able to establish details and sections that span from inside to outside and vice versa. The metaphysical begins to establish the interconnectedness of each foci; the interplay between each detail allows the part to whole relationships to be further emphasized reaching toward sensorial moments enhancing the omnipresent. Therefore, the primary focus of the design process was to establish firm rules of proportion to direct the interplay and connection of the other foci by establishing continuity and living space.
PHILOSOPHIES:

There are several forces at work in the precedents and design. We get the sense that they stem from the same ideas. We have discussed the importance of the inner focus in terms of proportionality, continuity, living space, and finally unity. These overriding design criteria express the true definition of inner focus.

Though man is not the only interacting force, we can see an overriding proportion that is placed on the building dimensions. These proportions have been coined as the *Geometry of Life* by György Doczi. The proportions that define life are rooted in the golden section, the 3:4:5 triangles, or in music noted as harmonics. “The power of the golden section to create harmony arises from its unique capacity to unite parts of a whole so that each preserves its own identity and yet blends into the greater pattern of a single whole.” Doczi discusses these ideals while looking at the proportions displayed by Virtruvian man. There, the importance of the golden section and the 3:4:5 number ratio is evident. These ratios translate into many forms of classical Greek and Japanese architecture because it was perceived that the human body was the most harmonious proportion.

This has allowed me to produce my own set of proportion rules that align with a 3:4:5 number system. The project will be guided by number theory, which will express the proportional manmade elements both outside and inside. Within the number theory is the ability for forms to use currently

standardized construction materials such as 4’ x 8’ plywood panels and standard 5’ sheets of glass.

Similarly, the proportional sizes that Wright used were not of his own creation, but rather were based on classical architectural principles. Though Wright chose to break from the traditions of the classical world, he did not believe that all its ideals were incorrect. His background was instilled in the geometric underpinnings of the classical era. During play as a youth, he was taught about proportions and the relationships of parts to whole through Froebel blocks. The aim of the blocks “was to bring about an understanding of ‘Natural Law’ that would simultaneously develop the powers of reason and convey a sense of harmony and order of God.”

The blocks allowed man’s proportionality to become self evident; as a natural being, the ‘Natural Law’ applies to man’s own existence, ruling the way he moves, senses, touches, and experiences the world. The blocks represented the ultimate formation of the living being. As an extension of the organic crystalline structures, the blocks gave man form. The Froebel block mentality can be detected in many of the building types that Wright would eventually create. Looking specifically at the Robie house, an example of the prairie style, the massing of block-like spaces becomes extremely apparent. The creation of the block-like sequence allows a proportional pattern to come into being, similar to a piece of woven cloth. The pattern is what gives life to the *living space*, allowing spatial continuity to exist. Much as seen in the froebel diagrams, there are spaces that are

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void and spaces that are positive – each has its own significance within the overall composition and is necessary for the components to be read as a whole.

Expounding upon proportionality, Gail Satler discusses Wright’s buildings as the penultimate example of the beings that inhabit them; his buildings are part of the site within which they sit; his buildings are a part of the social dogma allowing for freedom and democracy in all things; his buildings allow for unity. Thus, Architecture, in the Wright sense, becomes that from within as well as that from its environment that carries with it a proportional nature. It brings architecture back to humanity by making it an art of humanity. Satler, focusing on Architecture and sociology, discusses the human link in Wright’s organic forms, which allow them to relate to inhabitant and society alike. She further relates Wright’s work to that of the Native Americans where the connection is made through the ideals of what nature is. “For Native Americans, the respect of the power and the spirit of nature is realized through religion, which may be understood as a unifying force, something outside (beyond) the ken of an individual yet present within the individual.”

It comes down to the reason for the creation of architecture. Based on the Countenance of Principle, Wright proclaimed that the plan and the formation of space “[were] for the experience of people,” making Architecture an art form that deals primarily with the human countenance in a “dy-

12] Satler., Pg 150.
namic, non static” way. 13 As Robert McCarter explains further in his text On and By Frank Lloyd Wright, the essence of dwelling for Wright was in man’s habitation within the space between the earth and the sky.

For Wright, dwelling took place between earth and sky – on the horizon. The house was the place of dwelling, and it was made by creating a sense of shelter. The roof established the horizon line, what Wright called “the True earth-line of human life, indicative of freedom,” and acted as a datum that allowed variation underneath: the roof protected, enclosed, freed the inhabitants. The low overhanging roof was balanced by the tall, vertical chimney, and, as Wright wrote, the shadows within set off the sparkling light of “the fire burning deep in the masonry of the house itself.” By bringing the horizon into architecture with his long, low walls and overspreading roof, anchored by the vertical piers and hearth, Wright’s houses merged with nature. As Wright wrote, “Buildings perform their highest function in relation to human life within and the natural efflorescence without; and to develop and maintain the harmony for a true chord between them, making the building in this sense a sure foil for life.” Architecture, the work of mankind, and landscape, the work of nature, were thus joined in form and fused in experience.14

In this manner, living in harmony means being in balance with the elements beyond the self, which Wright himself deeply understood by claiming that architecture must be organic or Natural. This allows us to step forward and look at how the components meld together.


CHAPTER 4

HARMONIOUSLY BLENDING
Since we established the outer and inner foci during the previous chapters, we need to continue the journey to find harmony in a fourfold world. To do this, we need to begin to understand the elements that bridge the separation between the other foci. Thus, we will look at the more difficult components of the fourfold harmony – the metaphysical and the omnipresent foci.

This chapter focuses on the transition from the fourfold’s tangible to intangible entities. It defines the metaphysical and the omnipresent and explains how each creates architecture’s ephemeral or intangible qualities. By analyzing Frank Lloyd Wright’s Unity Temple, Pope-Leighey House, and Fallingwater, as well as a series of art works, the design implication of the metaphysical and the omnipresent will become apparent. This chapter will further break down the importance of the change from the “I”
in architecture to the “we.” From this, the design process will be further enhanced, leading to the final design solutions that will be discussed in the next chapter.

**Connectivity:**

As stated in the first chapter, the metaphysical focus deals primarily with the interconnection of parts. Defined by Webster’s and other dictionaries, the metaphysical means the “connectedness with or having the nature of something, or being beyond the physical or material of something.” These sources also describe the metaphysical as having “esoteric value.” By breaking apart the word, we find that meta is the “transformation of something, or the transcendence of a thing.” Combined with the physical, which is a tangible entity, we see a juxtaposition of ideals. Thus, in the world of Architecture, the metaphysical takes on a dual role. One of these roles is as a tangible entity. In architecture, the metaphysical connects the parts, specifically outer and inner, through detailing. It further emphasizes the relationships between the foci. It can be expressed through the detail, ornamentation, materiality, and orientation. The other role of the metaphysical focus is to tap into the sensorial qualities of architecture and express them in ways that bring together the other three foci. The metaphysical pulls the form and massing of the outer and inner together with omnipresent qualities (meaning or spirit) to create a cohesive whole. These elements are a main part of all Architecture. However, their uses and effectiveness vary. The metaphysical strives to create intrinsic beauty,

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repose, and contemplation through physical manifestations. These words closely relate more to the omnipresent, which explains the inextricable link. Thus, we look to the omnipresent.

The omnipresent focus deals with the ephemeral qualities within the whole context. Omnipresent is defined by Webster’s and other dictionaries as “present in all places at the same time.” The term is a combination of two main root words - omni, meaning all or everywhere, and present, which is a measure of place and time. In the architectural sense, it is the relatedness of all things at the same time within the system as well as beyond the system. It has much to do with the ideals of the genus locus, more

commonly understood as the spirit of place. It is the omniscient as associated with the religion, whether that is god or another spiritual deity. Moreover, the omnipresent provides the soul. It is the part of architecture we often cannot describe in an analytical way. That is to say, that the omnipresent is the point within the manifested world where rational dissection and science no longer hold sway. It is the Art of Architecture. Essentially, “it is the expression in the surroundings of one’s life, of one’s spirit, one’s attitude of mind that is realized”³ as art. It may be a momentary glimpse of an object or spatial construct that causes us to rely on instinct and feelings in order to comprehend it. What is most important is that the omnipresent does not display itself in an outright manner or even through a religious manner. Rather, it is found experientially, or felt like a presence being shaped by the other three foci.

As we discussed in the first chapter these two foci are difficult to pull apart. This is due to metaphysical and omnipresent foci being blended within the natural stance. “The natural stance provides for the component in building that will give life (spirit) to creation and allow complexity to remain and to be accessible.”⁴ Through the metaphysical and omnipresent the spirit or Art of Architecture is displayed. Thus, the life-force is created, giving validity to the already established inner and outer foci. Without these two components, Architecture merely acts as building - a lifeless, soulless entity that reflects negatively on the ideal of what it means to be


⁴] Ibid., Pg 58.
an Architect. Therefore, is it imperative that we develop these ideals with any work that strives to be architecture. To begin to understand these ideals, we will look again at Wright’s work through Fallingwater, Unity temple, and Pope-Leighey House, as well as a series of paintings and photographs - Above the Clouds, Pre-dawn, and Shipwreck.

**CONTINUITY:**

The main components of each of these foci can be broken down even further so that we can find examples in the precedents. What we are looking for in the metaphysical are qualities that relate back to the proportionalities of the inner focus, integration that goes just beyond the ideal of continuity, and language. Similarly, in the omnipresent we search for criteria that lead us to ephemeral qualities such as the sublime, the ideal of light, and a sense of contemplation. Each precedent will have its own response to these criteria, but within them we will discover those qualities that are necessary for their success. Let us begin with Unity Temple.

As we discussed in Chapter 3, Unity Temple is a prime example of the inner focus. It was built to the proportions of man, it was derived from a sense of continuity among spatial relationships, and it focused on a layering pattern that led to uniformity. Within Unity Temple, the proportions are that of man; they ascribe to the rules of the hand where one can touch, taste, smell, see, and hear the qualities of space. In this manner, the spatial organization is derived from tactile and sensorial qualities. When we look to the lowered proportion corridors where we move and progress from
space to space we see the wood molding tying together the space at various heights: one datum line is created at the floor, one at torso height, and one slightly overhead at the ceiling height. These horizontal lines continuously wrap from the passage, to transition space, to living space where the orientation changes to verticality. These lines demonstrate our intended path. We are not to stay sheltered on the fringe of life. Rather, we are to explode into the living world full of light, beauty, and freedom. This language is what becomes inherent in the proportionality, layering, and continuity of the spaces. In essence, it is these details that allow for total integration of space. We look further as we progress out of the transition spaces into the living space, where the detailing and ornamentation play a similar role. The lighting is comprised of a series of square and circular forms hanging gracefully from the tall ceiling. Each has mass and depth, creating imaginary lines within space. We also begin to see the wood molding and detailing that plays from the walls to the projections in the floors to the furniture that fits so serenely within the space. These details cause the eye to constantly change what it can and should understand about the space. They further make one feel for the space. In this sense, we begin to cross over from the metaphysical to the omnipresent qualities. However, before we stray from the metaphysical qualities, we must look at the connection the metaphysical provides between the inner and outer foci.

As we backtrack, following the moulding lines that began in the low proportioned circulation zones to the living space, we see the transition from horizontal to vertical. These vertical elements begin to soar skyward where they are able to tie the outer realm above the space into the inner
realm of the living space. This is done by wrapping the moulding elements vertically at the walls of the living space to the ceiling where they project horizontally to the skylights and vertically through the skylights, which make up a large portion of the ceiling plane. These moulding elements carry over past the living space as well to the outer seating banks at the second floor. There, they transpose into the detailing at the stained glass windows, which again provide the connection between the outer and inner focus. Subsequently, each element has its place and ties the parts together to make the Architectural composition come alive, which eludes us to the omnipresent character of the space.

Due to the tie between the outer and inner foci via the metaphysical, the omnipresent comes through in a variety of subtle ways. First, we notice the luminous nature of space, which directly correlates to the intensity of the light from outside. Though the light intensity changes, it plays a pivotal role in the feeling of space. It creates a spiritual aura, one that seems to be synonymous with God. But more importantly, the quality of light changes depending on where one is within the spatial composition. For example as we transition in the low proportion circulation spaces, we find minimal if any natural lighting. It causes us to search for a space where, as the metaphor goes, we can escape the cave and come upon the open field. However, in the same transition space where we merge outward into the lobby area, we see subtle hints of natural light coming through in a very provocative manner. It is noticeable upon entry, almost as a precursor for what one should be doing in the space – reflecting upon life and the world. There is a very different character than the light that is transmitted from the clerestory and the skylights. There, the light is dynamic.
and bright, but again dependent upon the outer realm.

Another character of the space that emits the omnipresent is the repose. Though it is not immediately noticeable, there is a strong sense of what is and is not supposed to be. The walls are covered with ornamentation, but no more than is needed. The front altar, is clean, crisp, delicate, and flowing. Its banding elements transition into the clean crisp vertical wood detailing beyond, which then flow to the skylights, through which the natural beauty is intrinsic. Each piece and part plays a role in the overall composition, creating a harmony much like an orchestra. The conductor, Wright, orchestrates each of these parts to make the overall whole sing, with all parts in balance. All dissonance is subsided.

Beyond Unity Temple we begin to see other fine examples of both the metaphysical
IMAGE: THE POPE-LEIGHEY HOUSE BY FRANK LLOYD WRIGHT. THE ROOF PLANE THINS OUT AT THE OUTER EDGES, PULLING THE ROOF FURTHER INTO THE LANDSCAPE. IT EXPRESSES THE HORIZONTALITY OF THE GROUND PLANE. IMAGE BY AUTHOR.

IMAGE: THE POPE-LEIGHEY HOUSE BY FRANK LLOYD WRIGHT. THE CLERESTORY SCREEN DETAILING EXPRESSES THE CHARACTER OF THE SITE IN AN ABSTRACTED MANNER. IT ALSO ALLOWS LIGHT TO BE DIFFUSED IN A VERY PARTICULAR WAY, ENHANCING THE OMNIPRESENT FOCUS OF THE HOUSE. IMAGE BY AUTHOR.

IMAGE: THE POPE-LEIGHEY HOUSE BY FRANK LLOYD WRIGHT. THE DIFFUSION OF LIGHT BY THE CLERESTORY SCREENS AND THE SEPARATION OF THE UPPER AND LOWER VIEWS BECOMES EVIDENT. THE HORIZONTAL BANDING WRAPS BOTH EXTERIOR AND INTERIOR, ALLOWING BOTH SPACES TO SHARE A SIMILAR LANGUAGE. IMAGE BY ROBERT MCCARTER.
and the omnipresent in the Pope-Leighey house. There, the metaphysical is strongly displayed through materiality. The exterior and interior cladding is composed of wide cypress boards with battens separating them, all running in a horizontal manner. Each board, when looking at the house, seems to run continuously inside and outside around the whole composition like a wrapper that is unsegmented. This allows the accentuation of the horizontality necessary to marry building to site within the outer focus. It also allows one to understand the proportional nature as a part of the inner focus. Another important detail is the corner window. Though not new to this style of design, the corner window allowed the inner focus to break free and spill into the outer. It also allowed the opposite to happen. These breaks in the corners, though few in the Pope-Leighey house, allow for the omnipresent to become readily apparent. But before we discuss that, we must continue with the other elements that provide the metaphysical focus.

There are three other primary details that I would like to discuss. The first is the use of the low overhanging roofs. These help the structure, a component of the inner, stretch outward into the landscape, a component of the outer. This is done in a long horizontal manner by using diminishing proportions. That is to say that the roof, as demonstrated best by the carport entry, steps in increments. The offset is about one to two feet before it rises four inches, and so on until the final depth is approximately four inches tall at the outermost edge. This allows the massiveness of the structural insides to diminish, giving the appearance that the roof is merely a light assemblage lying on a folded plane. These planes also allow the eye to follow the edge back to the main body of the house itself where we find
another intriguing detail.

In many of Wright’s Usonian works, detailing and ornamentation became synonymous. At Pope-Leighey, this is demonstrated by the upper most portions of the horizontal board and batten wall systems, which become a clerestory. It is not a typical clerestory in that light is allowed to pour into space with the mere presence of a window. Rather, the detail is a carved out cypress board that holds an abstracted carving that has relationship to site and owner. These boards are allowed to be pushed upward to allow natural ventilation during the summer months. When shut, they screen the light coming in, causing a diffused, highly controlled sense of lighting very much in line with the omnipresent.

Finally, the last main detail of intrigue before we move into the discussion of the omnipresent is the integration of the furniture into the composition. At the Pope-Leighey house, the furniture was integral to the design. Each piece seems to extend from the walls into the space. It is as if each component were directly related to the various wall planes. In the main living space, the shelving infills one of the batten positions and becomes a continuous member until its termination at the screened porch. It also begins to define the zone where the seating and other furniture can be placed. Essentially, furniture lines provide the datum of how space is to be used and tells a story of the life within.

This allows us to delve into the omnipresent focus. At the Pope-Leighey house, as is the case with many of Wright’s works, the omnipresent begins to reveal itself through the other three foci. There, the primary manifestation of the omnipresent is the quality of light within the space, the tran-
quility found within site, and the beauty found in the repose of material-
ity, form, and grace of line. There are many elements that inspire the soul,
making the project come alive.

The detailing provided by the clerestory windows filters the light that is
able to enter the space. This allows the space to have a glow about it, as
if it were being illuminated by a deity. The exterior shares some of the
same qualities. The roof lines extend beyond the building in the southerly
direction. In these locations, there are rectangular openings framed out in
the roof to allow light to penetrate and wash the exterior walls. This cre-
ates a very interesting light dynamic on the façade of the building which is
constantly changing with time of day and season. The the opennings are
designed to allow light to penetrate the window fenestrations at the two
locations. The omnipresent seems to also explode out of building into site.
The garden and natural portion of site offer a strong juxtaposition to the
ideals of man, creating a dynamic language that allows one to contemplate
the world. It further establishes repose and beauty.

Beyond the Pope-Leighey house, we come upon the Fallingwater. This
project is probably the most helpful in this precedent analysis. It is one of
the most quintessential works of Wright’s career and shows how the four
focus world can manifest itself in architecture. Here, the focus is solely on
the metaphysical and omnipresent foci.

Situated in the picturesque landscape of Western Pennsylvania in a river
valley, Fallingwater was built in the mid 1930’s, prior to many of the Us-
nian homes. Situated with a thirty degree rotation westward from magnet-
IMAGE: FALLINGWATER BY FRANK LLOYD WRIGHT IS THE QUINTESSENTIAL FOURFOLD WORK. THE METAPHYSICAL DETAILING, THROUGH THE HORIZONTAL BANDING AND USE OF MATERIAL, ALLOWS THE INNER AND OUTER FOCI TO BECOME ONE. IT FURTHER EXPRESSES THE SENSORIAL QUALITIES OF SIGHT VIA SOUNDS, TEXTURE, AND LIGHT. IMAGE BY ZACH ZIOLA.
ic north, Fallingwater nestles the hillside in a manner that allows for protection at its northern end and exposure at its southern end. The positioning of the plan in the site allows for maximum sensory exposure; light pours into the rooms, views to the landscape are plentiful, natural ventilation is abundant, and the music of the falls below is always available. It displays the intelligent design that would be further developed in Wright’s later work. This work calls for the reconnection of ‘man’ and land. It further exemplifies the true fourfold connection within natural architecture.

Fallingwater was designed according to one of the many Wright tenants that a building should appear to grow easily from its site, keeping low proportions and sheltering overhangs. This not only helped to pull the natural landscape into the building, but created opportunities to open up spaces, both interior and exterior. The compaction of the horizontal elements to human proportions eliminated changes between in and out. The low ceilings of the interior spaces also continued outward, transitioning

into low eaves, guiding the attention of the eye outward to the real focus of desire – nature. Conversely, the incorporating the furniture into the wall systems at the edges of the room brought the focal points of the interior back toward the center. Thus, the life-force of the interior is balanced with what exists beyond the building walls. More important to the continuity of the main living spaces is the lack of walls. With the massive stone appendages (the verticals) that rise up from the hillside and the structural marvel of the cantilevers (the horizontals), the plan is free to be open. The continuity of the floor plan also led to the development of the window patterning. The windows beneath the sheltering cantilevers also express horizontality and continuity. The primary horizontal is offset by the occasional vertical. This allows an uninhibited view of the natural beyond.

Though we are not expounding upon the outer and inner foci further within this precedent, they constantly reveal themselves through the other two. More importantly, it is the metaphysical focus that begins to allow the other three the means to read so strongly. Let us begin with the details that pull the outside in.

The primary detail that creates this language between the outer and the inner is one which is emphasized through materiality. The stone, which was quarried from a nearby area, makes up a large portion of the wall system, or more importantly, the structure. It is the backbone of the design and creates a plethora of different meanings. On the one hand, it has a strong

connection to the earth. It seems to stem from place, though it is not of this particular
site; it sits elegantly on/in the base rock that makes up the falls themselves below the
composition. On the other hand, these elements create shelter, or better stated a fell-
ing of shelter (the inner element). As these stone walls extend vertically, their pres-
ence is minimized. They become bearing walls and form the structural tower that
holds the mechanical, flues, kitchen, and a bedroom. The stone allows one to feel as if
he is outside while being completely sheltered. The texture and stacking of the stone
walls accentuates the horizontality of the composition. It allows storage by creating
shelving and niches. It also adds to the warmth of the interior by including fireplaces
and creates visual depth by producing shadows and other variations of light against
its surface. Even further, the stone begins to wrap floor and wall, inside and outside.
Though the type, size, and texture of the stone is different from floor to wall, they

IMAGE: FALLINGWATER HEARTH IN THE MASTER BEDROOM BY FRANK LLOYD WRIGHT. THE STONE FLOORING AND WALLS AL-
LOW THE SITE TO COME TO THE VERY CENTER OF THE LIVING SPACE, ARTICULATING BOTH THE HUMAN AND NATURAL DWELLING
FOCI. IMAGE BY ZACH ZIOLA.
share a common language. The common language makes it hard to distinguish the difference between inside and outside. The only means to separate the two comes through in the glass storefront and interior furnishings used. Regardless, the stone marries the outer and inner with a consistent language. Man and nature both have equal presence within the whole.

As we move away from the stone, we begin to notice the storefront system, a major element of transparency, which allowed Wright to achieve a perception of continuity. The glazing membrane wraps the façade, allowing light and the character of site to spill into space. More importantly, the glazing membrane is free from shutters, blinds, or any other obstructions that would hinder the passage of the inner and outer elements. The glazing systems terminate directly into the stone elements or the built in furniture, allowing an unimpeded depth of viewing to take place. There, Wright does not try to cover or control how much or what is allowed to pass through the glazing due to the location of place. As Edgar Kaufman Jr. proclaims, “the glazed membrane remains almost entirely without curtains or blinds, and daylight enters unhindered.” This is due to the privacy of the site. Set away from most civilization in the heart of the forest, the house is allowed secluded. Why would one want to cover the natural beauty of the site, or the light for that matter? It is easy, one would not. The glass membrane allows one to transition from the cave-like and stone to the transparent, bringing together the shelter and freedom relationship that is typical of the outer and inner foci.

THE PROJECTED FLOOR AND ROOF PLANES ALLOW THE INTERPLAY BETWEEN THE OUTER AND INNER FOCUS. EACH IS GIVEN THE OPPORTUNITY TO SHINE AGAINST THE OTHER THROUGH THE METAPHYSICAL, CREATING BALANCE. IMAGE BY ZACH ZIOLA.

THE HORIZONTAL BANDING OF THE WINDOWS NOT ONLY TIE THE GLASS PLANES BACK TO THE STONE WALLS, BUT THEY FURTHER EMPHASIZE THE HORIZONTABILITY OF THE BUILDING. THE CORNER WINDOW ALSO ALLOWS FOR THE DECONSTRUCTION OF THE PREVIOUSLY CONTAINED INTERIOR, ALLOWING BOTH INSIDE AND OUTSIDE TO INTERMINGLE. IMAGE BY ZACH ZIOLA.

THE DETAILS ARE SO INGRAINED IN THE NATURAL ORDER OF THE HOUSE THAT THEY FLOW BETWEEN MATERIALS WITH EASE. WOOD, STEEL, GLASS, STONE, AND SITE ALL COME TOGETHER TO CREATE AN EXTRAORDINARY ATMOSPHERE OF CONNECTEDNESS AND BALANCE. IMAGE BY ZACH ZIOLA.
The glazing membrane is comprised of a series of storefront systems, comprised primarily of wood, which orient themselves in a variety of different manners depending upon location in plan. Vertical and horizontal members cross the various glazing membranes, articulating the different characteristics of the inner and outer foci. The horizontals typically extend from preexisting datum within the interior. Whether it is the continuation of a shelving line or a decorative element, they stress the connection to the plane of the earth (outer focus).

Like many other Wright houses, the interior finishes play a large role in creating the tie between the inner and outer foci. At Fallingwater, they become more important because in some instances the falls and site itself make up the furnishings and inspire the color palette. Wright does not use an extensive color scheme. Instead he did as he suggested in his essay “In the Cause of Architecture,” published in Architectural Record in 1908; he used “natural colors.” He suggested that one “go to the woods and fields for color schemes. Choose warm, soft tones of the earth and autumn. Do not select pessimistic blues, purples, or the cool colors of the ribbon counter.”

This color selection, which he steadfastly held to at Fallingwater, gives the built form a deeper connection to the natural elements. Wright focused on beige for much of the stucco work of the cantilevers. This color creates a visual break in the building from a distance. It creates contrast between the overhanging cantilevers and the offset living quarters. It also allows the light to reflect off its surface, carrying with it much of the seasonal tones of the natural environment. The grayish hue of the stone not only matches the existing color of the rocks at the falls below, but creates a

8] Lind, Carla. The Wright Style. Pg. 29-30
contrast to the lively colors interior and exterior. Its calming nature provides strength throughout many of the rooms and connects space to space, pulling a common thread throughout the house. The burnt sienna painted mullions, which mimic both the color of the forest undergrowth and the warmth of the trees during the autumn months, gives off a warming quality that both invites the visitor and comforts. The reddish glow provides luster not only to the space, but also to much of the wooden built-in furniture. Together, these combinations of colors create warm glows that help to not only soothe the visitor, but also to create a sense of focus across the continuous spaces.

The omnipresent becomes readily apparent within Fallingwater through the other three foci. There are a multitude of factors that indicate the omnipresent. However,
IMAGE: ABOVE THE CLOUDS - MAGGIE VALLEY LIVE. IMAGE DISPLAYING THE OMNIPRESENT. HTTP://WWW.MAGGIEVALLEYLIVE.COM/ABOVETHECLOUDS.JPG


the two most important factors are that (1) Fallingwater is intertwined so deeply into its setting and (2) the quality and character of light is constantly being shaped, giving it the ability to penetrate deep into the texture of the space. These elements allow Fallingwater to feel the way it does year round. Even on the dreariest days, this work has a lively soul invigorated by the human who enters its realm. It is difficult to pull out the quantitative elements that create these qualitative assessments. All elements seem to constantly be working in unison, allowing the soul to come forward – no one portion overpowers the next. Though this seems to be such a cursory look at such a complex issue, it is one that needs to be addressed.

Perhaps it would be best to not look at architectural works, which carry four dimensions. Instead, works of art are flat representations of ideas that begin to establish the omnipresent. Though they are not architecture, their significance cannot be negated – the value of the image is just as powerful because the momentary glimpse exposes the soul. Here we begin to dissect a series of paintings and photographs - *Above the Clouds, Pre-dawn, and Shipwreck*. Each has its own distinct qualities, but is grounded in the ideal that the world is more than just human.

The first image, *Above the Clouds*, displays the omnipresent in a carefree manner. We become aware of how vast and complex the world is. We feel that though we are distant from the clouds in the valley, we can almost touch them. We can sense the aroma of the clouds as they settle on the valley. The aura of place becomes intrinsically important. Though we are grounded on the earth, we begin to feel as if we have been elevated to the heavens and are getting to view the world as if we were the creator. The
image then begins to invoke feelings of awe and inspiration because of all that nature can provide for man, and the symbiotic relationship they share. Overall, it causes feeling of wonder.

The second image, *Pre-dawn*, invokes a different set of ephemeral qualities. We begin to sense calm and peace. We notice as the light fades or just before the light begins to slowly intensify, there is quiet and repose - an important quality to life. We faintly notice the details of the objects that scatter the landscape; their textures or livelihood begin to fade into the distance. The main focus becomes the sight line of color splattered upon darkness. It alludes to a world past the current that is alive despite the darkness. The overall feeling becomes one of silence, repose, and tranquility.

The third image invokes an entirely different set of emotions. *Shipwreck* begins to evoke feelings of fear, excitement, and wonder. Essentially, it is the epitome of the sublime. We feel fear because of the dark colors, the sharp contrasting objects, and the pain that is seen from the actions of the figures. But, we are also enlightened and lifted by the light that exists beyond the darkness. We begin to consider the assemblage of life beyond ourselves – the fact that the world does not cease when we are hurt, ill, or even dead. Rather, it like us, is a living entity that surpasses our predisposition for self-importance.
IMAGE: THE UNDERLAYMENT OF THE DIAGONAL SITE GRID MIXED WITH BUILDING MASSING BECOMES A KEY IN DEVELOPING THE LANGUAGE OF THE METAPHYSICAL COMPONENT OF DESIGN. IMAGE BY AUTHOR.
DESIGN PROCESS AND PRINCIPLES:

The design created during the design development phase focused on the proportionality analyses of Wright and Van Eyck’s work. These proportional relationships drove the decision to create a building composition that separated functions into different building entities. In order to read as one, these elements had to be fused together with a common language. There are interplays on Renzo Piano’s work as well. The building allows one to move from inside to outside constantly, causing one to question what is actually interior and exterior. By creating the interior/exterior spatiality, site began to merge into building, allowing moments of integration between the two to be celebrated. However, this manner of design seemed to step in the reverse direction. The problems with this design are that the separated building entities seem arbitrary and segregated. Continuity that was achieved in the first scheme was somehow lost by the separation and interplay of spaces.
Since the last design moved away from the guiding criteria a shift had to be made back to the initial design process. It was necessary to reconsider the overlapping grid framework. It also required the need to enhance the connectivity of outer and inner through the metaphysical. With this in mind, the roof plans began to become contoured in the same way that the plan was realized. Also, the continuity of the elevations began to meld with the complex nature of the plan. Layering techniques involved bringing the plan to a three dimensional level that allowed for the merging of the outer and inner foci through the metaphysical. In essence, the new scheme took a similar character to the last design done during the development phase where the idea of building was broken down within the composition as a whole. Because one is able to move in and out of built space, it becomes blurred. The primary difference between the previous design and the new is the extent to which freedom is given. In the previous design, buildings were given separate identities demarking the continuity of the elements. Within the new scheme, the creation of democratic space is defined but not limited to the visual and physical perceptions held by the inhabitant of the space.

Another important factor is that the design has shifted even further to the northeast corner of the site. Previously, the design was trying to fit within the context of the housing at the western side of McPhearson Ave. However, these houses are insignificant; four of them are left vacant and a few of the others are for sale. Therefore, the new proposal is for Imago to expand their property to the corner of West Eighth St. and McPhearson Avenue. This will allow Imago to have a stronger street presence. The
building, however, will not be a vocal element along the street front. Rather, it will stay nestled into site. The change will be a series of manmade planting elements that will step up to the corner, creating a gateway from community to building and site.

The articulation of the façade becomes extremely important at this juncture. In order to marry the interior and the exterior, a common language needs to be shared through the detailing of the façade. Therefore, within this design, we begin to see the language come forth. For the most part, the building materials consist of stacked field stones, glazing and storefront systems, heavy timber elements, wood slats/paneling, and concrete paving. These elements begin to overlap to create texture and depth, allowing for shadows to cause perceptual changes of the building surfaces. The primary goal was to wrap the separated building elements together, making the composition read as one entity. Through this, even though the typically understood enclosed building elements are separated from one another, space becomes continuous, allowing one to no longer distinguish whether or not one is in interior or exterior.

Planting elements are a key factor as well in creating texture and understanding of the spatial components of the composition. Within the plan, the elements that embrace the site, beyond the habitable spaces, are separated into a series of hardscapes and softscapes that vary in terms of planting density. The hardscapes are comprised of pavers, concrete, a granular fill such as pea gravel, or a composite of mulch and wood chips. Each allows the community to make use of the elements, making the site function almost like a park. The softscapes vary from low to very high density
IMAGE: SITE PLAN. LIGHT GREEN SHOWS LOW DENSITY PLANTING; MEDIUM GREEN SHOWS MEDIUM DENSITY PLANTINGS; DARK GREEN SHOWS HIGH DENSITY PLANTINGS; LIGHT BROWN SHOWS HARDSCAPE. IMAGE DRAWN BY AUTHOR.
The initial building massing design developed during the analysis of the inner focus brings site into building and vice versa. However, the form lacks the complexity of the underlying side grid. Image by author.

The redesign of the last site plan further separated the building entities. The separation breaks up the continuity of interior and exterior spaces. The next design needed a refocus of the previous ideas. Image by author.

The next design focused on redeveloping the original massing, incorporating the more dynamic nature of the site. Image by author.
plantings. Low density plantings are made of a variety of different grasses at varied heights ranging from two inches to six inches. The higher density plantings range from single compositions of shrubs (Red Bud and Viburnum species), wildflowers and groundcovers (Bloodroot, Mayapple, Trout Lily, and Dutchman’s Breeches), tall prairie grasses (Big bluestem, Indiangrass, and Switchgrass), trees (Maple species, Oak Species, Black Cherry, Tulip Poplar), or a combination of these elements. The focus is to use a variety of planting combinations to create texture and depth along the entry to building. This will begin to mask the manmade façade, allowing only glimpses at opportune moments. Once these elements have matured, they will blend the existing natural part of site with the manmade, allowing building and natural to have equal significance.

**Philosophies:**

The primary purpose of the metaphysical and omnipresent foci is to create or instill meaning in Architecture. The intertwined foci become the vessels through which value or beauty is injected into the whole. They provide the ephemeral feelings invoked through beauty, repose, and simplicity. More importantly, these foci provide the superstructure for the soul of Architecture. There are no written rules as to how and when they can be used. However, there are laws that require proper usage. Not actual laws, written down by lawyers or politicians, but natural laws. These laws allow us to understand when something seems amiss or at discord. Wright described this in his article the *Philosophy of Art.*

“There are laws of the Beautiful as immutable as the laws of elementary physics, and the work of art sifted by them and found wanting cannot be good for the growth of the soul; because all tendencies, either of form, line, or color, have a
distinct significance. It is inevitable that a combination of forms, line, and color should express something. That needs no demonstration. And as these tendencies are arranged and harmonized expression is gained, or modified, but never lost. A discord is an expression, in a sense, of the devil! But the sort of expression we seek is that of harmony, or the good otherwise known as the true, otherwise known as the Beautiful, and it is folly to say that if the ear can distinguish a harmonious combination of sounds that the eye cannot distinguish a harmonious combination of forms or lines.”

By trusting the eye, we begin, as architects, to place Beauty back into architecture. But the question that remains is how does one strive to create beauty and harmony, or what do these words even mean?

To create beauty within the whole, one must be add harmony to the other foci through the metaphysical. This can be done in a variety of ways. The metaphysical components must first and foremost focus on integration. As the transformative entity forms one part to the next (primarily inner and outer) the metaphysical must be able to allow the two, which have strong contradictions, find accord through a common language. This allows space to become continuous. Though we discussed this idea as an element of the inner focus, we begin to see the importance of continuity here as well. All parts act as one, bridging the inner and outer through the common line, such as the folded plane of the wall, the transition of the glass plane between spaces, or the materiality wrapping space upon itself.

The size and feel of this integral language is also important. The parts must be proportional to the scale of the outer realm as well as the inner realm. Essentially, the metaphysical is the poetry or ornamentation

IMAGE: DESIGN SKETCH. IMAGE DRAWN BY AUTHOR.

IMAGE: INITIAL DESIGN DETAIL FOR ENTRY PATHWAY. IMAGE DRAWN BY AUTHOR.

though which the other parts are expressed. “Emotional in nature, ornament is - if well conceived - not only the poetry but is the character of the structure revealed and enhanced. If not well conceived architecture is destroyed by ornament.”¹⁰ From this poetry comes the language through which all parts are expressed equally, creating true integration of the whole.

The omnipresent embodies beauty when the “I” of building is removed. When we as humans focus on the ‘I’ in architecture, it remains anthropocentric. Through the metaphysical, the anthropocentric inner focus melds into the outer. The ‘I’ becomes an ‘us’, or even a ‘we’. The total composite becomes what is important; the human element therefore loses it attention as the sole entity of importance. But to be humane is to allow that which is beyond ourselves to display itself. When this happens “our vision is freed. We allow ourselves to become absorbed in the spectacle opening up before us.”¹¹ It becomes a Sublime experience in this instance. We are aware of our mortality. Though we are capable of dying, our life force begins to thrive through the other four foci since we act upon it. We are meant to be the preservation unit to maintain the balance of the other four. In this humane manner we leave a part of ourselves on the rest.

This manner allows us to contemplate the purpose of the world, our space, 


and most importantly, the world we are apart. We as a whole look to simplicity in material, spatial cohesion, and integral order to provide the answers of life. Within these elements, the poetry of the world dwells. Then and only then will all parts be a synergistic whole.

Most important to the omnipresent is the entrance of light. It is the predominant life force that exists beyond our planet. It reveals to us the complexity of things through shadow and contrast. In this manner, light allows us to step from the cave where-which we live as an ‘I’ to the free open space where we no longer are an ‘I.’ We are washed away with light to blend into the rest. To the light, we become a part of the whole, which further reinforces the sublime nature of our world. In this sense the spirit is created. The spirit, though illuminated from above, becomes the embodiment
of that which “exists within the thing itself as its very life.”

By honing in on that spirit, the architect can enhance the light quality of the composition making that spirit transcend physicality.

CHAPTER 5

NATURAL ARCHITECTURE
“We feel and find in Nature always, an accord of form and function with Life principle, from zero to infinity, that seems to halt with our domestication of the infinite. There is some rare thing in this domesticating process of ours that society sets aside, and, striving for the freedom we love in Nature, we gain much friction and more discord of our pains. And so the wisest of savants, the deepest of the deep philosophers, and the noblest poets have gone to Nature for her secrets, hoping to find there the gist of this maddening, perplexing problem of Life, for it has become a problem for the human creature. A problem fashioning countless creeds, splitting philosophy endlessly into contending schools, dividing society into discordant, warring classes and grinding helpless humanity on the “rock of the ages,” Civilization itself. But, however much we love the oak and pine in a state of nature in pristine freedom, their freedom is not for us. It does not belong to us now, however much the relic of barbarism within us many yearn for it. Civilization means for us a conventionalizing of our original state of nature, and it is here that the work of the Arts is inevitable, unless the light of the race is to go out. For Art is the great conservator of the finer sensibilities of a people. It is their only prophecy, the only light by which this conventionalizing process we call Civilization is to make it institutions eventually harmonious with the conditions of our life. I wish I might use another word than “conventionalizing,” to convey the idea of this
magic process, for only an artist or one with some genuine artistic training, will realize precisely what that means. To know a thing, what we can call knowing, a man must first love the thing, sympathize with it. So the Egyptians “knew” the Lotus and translated it Lotus to the dignified stone forms of their Architecture: this was the Lotus “conventionalized!” The Greeks “knew: and idealized the Acanthus in stone translations. This was the Acanthus conventionalized. Of all Art, whatsoever, perhaps Architecture is the Art best fitted to teach this lesson, for in its practices this problem of “conventionalizing” Nature is worked out at its highest and best. The Art of building is the greatest representative Art of Civilization when it comes to be understood, and music perhaps is the next. A work of Architecture is a great coordination with a distinct and vital organism, but it is in no sense naturalistic – it is the highest, most subjective, conventionalization of Nature known to man, and at the same time it must be organically true to Nature when it is really a work of Art. To go back to the Lotus of the Egyptians (we may see in this mere detail of Art the whole principle), if Egypt had plucked the flower as it grew and had given us merely an imitation of it in stone, it would have dies with the original – but in turning it to stone and fitting it to grace a column capital, the Egyptian artist put it through a rare and difficult process, wherein its natural character was really revealed and intensified in terms of stone, gaining for it an imperishable significance, for the Life principle of the flower is translated to terms of building stone to satisfy the Ideal of a real “need.” This is Conventionalization, and it is Poetry. As the Egyptian took the Lotus, the Greek his Acanthus, to idealize the function of the capital, and as we may take any natural flower or thin, Civilization may take the natural man to fit him for his place in this great piece of Architecture we call the Social State, and today, as centuries ago, still it is the Artist’s prophetic eye that must reveal, idealize, and conventionalize his natural state harmoniously with his Life principle. It cannot be otherwise. All the sheer wisdom of science, the cunning of politics – and the prayers of religion – can but stand and wait for the revelation. We say that God is Love – well Art is the very Genius of Love! But this elemental conventionalizing process is both difficult and dangerous in Art, for without the inspiration of the true artist the life of the flower is sacrificed, leaving a husk in place of the living thing. So in society this element of Civilization is even more dangerous and difficult, for instead of a leaf, we have a plant with a soul, and without the inner light of the true Artist, the life of the man is sacrificed, and society has an automaton where she should

IMAGE: EXPERIMENT WITH TEXTURE TO ENHANCE THE FOURFOLD. FOUR BY FOUR POST WAS MACHINE TOOLED. THE PRODUCT CREATED WERE A LIFELESS, TOOLED ELEMENT, AND THE REMNANTS. REASSEMBLING THE REMNANTS REINVIGORATED THE LIFE OF THE ORIGINAL PIECE. IMAGE BY AUTHOR.

IMAGE: EXPERIMENT WITH TEXTURE TO ENHANCE THE FOURFOLD. A TREE LOG WAS SEPARATED INTO FIFTY-TWO RELATIVELY EQUAL SEGMENTS AND REASSEMBLED. AS TIME PASSED, THE CHANGES IN EACH PIECE CAUSED A DYNAMIC SHIFT IN THE ORIGINAL FORM. IMAGE BY AUTHOR.
An excerpt from Frank Lloyd Wright’s text, A Philosophy of Fine Art becomes a great representative of what the theory of this thesis is to embody. But since Wright’s time, things have changed. The way we look at architecture must be re-evaluated. Thus, we return to the thesis at hand.

To summarize this thesis, we need to recall what it means to create Natural architecture. To truly be Natural, architecture must subscribe to fourfold thinking as Heidegger suggested. However, since Heidegger did not tell us exactly how to live within the natural realm architecturally other than by proclaiming that man must dwell poetically within a fourfold context, we must look to the defining principles set forth by architects who seem to be applying Heidegger’s theories within practice, such as Wright, Piano, and Van Eyck. We need not slavishly imitate these precedents nor should we assume every aspect of these precedents is in line with the fourfold. Rather, we must come to an understanding of what encompasses balance in the built world. Though it may be speculative, this thesis has given a means and methods approach to achieving this. To further those ideas let us look at the main criteria to take away from each focus to begin to create fourfold, Natural architecture.


**Universal Balance:**

Though this is not the only part of the outer, the inner, the metaphysical, and the omnipresent foci, it does sum up what each is about. Each focus has a unique set of criteria. However, there are some that transfer. Though they may not be stated the same in their new context, these elements are what help us see the cross connection between the foci.

**The Outer Focus**

This focus provides a set of criteria for design through the precedent of Frank Lloyd Wright and Renzo Piano – the Pope Leighey house and the Tjibaou Cultural Center respectively. Though these are not the only examples, they help us understand the importance of site by looking through an outward lens. The main criteria that stem from this focus are as follows:

**The Criteria:**

1. Derived from Site – architectural massing takes on either a form that is emblematic of the natural context or is shaped specifically by the site context. Subsets of this criterion include weaving and geometry. Like weaving, site begins to push and pull upon building form, shaping building composition. Site also gives the basis for the geometry. Though it does not have to translate into a orthogonal realm, site dictated which geometries should be used. This, intertwined with weaving, can create building form as well, providing the architect with options for how the site can truly express itself in a predominately anthropocentric world.
2. Pathways – pathways are defined in a meandering manner. One is allowed to experience the site in bits and pieces – there is never a full acquisition of all the parts until one experiences them on the path. Therefore, it is important for pathway to be a major entity that does not only begin within site, but extends past site - the path extends past site into building, constantly transferring the traveler between inside and outside. Or, conversely, pathways expand beyond site, connecting the surrounding contexts. In this sense pathways also should become an expression of diagonal flow where the path takes hold of the predominant site movements by deteriorating hierarchy between spaces.

3. Horizontality – Though different compositions and new ideals about land conservation tell us that the vertical is more conducive to certain designs, it does not stay in harmony with site. If one considers the design plane in congruence with the ground
and sees architecture as an extension of the ground, then the forms must flow as if they were from the ground. This means that one should maintain proximity to the ground plane. However, this does not mean that everything has to maintain a horizontal line. Nor does it mean that we can only build to certain heights. Rather, it suggests the reasons we build. Do we need massive amounts of extra space within building that sit unused in many cases? Or does it make sense to build what we need and with proportion to site? The emphasis here is that the design should work hard to stay away from the desire to ascend vertically.

**The Inner focus**

Building upon the outer focus as we have done throughout this text, we move to the other foci. The inner focus provides a similar set of design criteria through the precedent of Frank Lloyd Wright and Aldo Van Eyck – the Robie house and the Orphanage respectively. Here we see the importance of built space and man being unified. This new entity converses with the outer entity, creating a dialogue that comes through in the physical manifestations. However, we also look inward at the new building/human entity. The main criteria that stem from this focus are as follows:

**The Criteria:**

1. Proportionality – the forms of architecture should not only be in harmony with nature, but also with man. Proportion derives from the connection and flow of space, the interplay of the metaphysical, and the relationships of parts to the overall whole. As a subset of proportion, geometry is extremely pivotal. The geometries of life, derived by the ancients, must be
IMAGE: RENDERED SITE DESIGN OVERLAID ON INITIAL SITE PHOTO. IMAGE BY AUTHOR.
related to the golden section or the 3:4:5 number sequence from which all harmonies are derived. This allows interior spatial relationships to have significance and further speaks to the outer context upon which many of these relationships are derived.

2. Living Space – space should redefine how space is perceived. As an interior component, living space must use the proportional and horizontal natures already derived to pull the life force of architecture and site back toward the perceived center. From this, we see the marriage of inner and outer as they are pulled into each other, exposing the edge transition. It further allows the creation of a continuous space.

3. Continuity – spaces must blend together to form cohesive wholes. Continuity is what allows space to be democratic so that we can be free without being constantly confronted by those freedoms (an essence of the omnipresent subset of sublime). This is to say that man needs both the shelter of the cave and the freedom of open space. Through continuity, this can be achieved. Through the achievement of the living space, continuity becomes prevalent. We are able to move throughout space via the pathways, flowing between the inner and the outer.

4. Unity – becomes the key phrase by which man and building are joined. This criterion speaks to the realization that architecture and man are one. Man pulls energy from the building and vice versa – they are inextricably linked. It comes through as a result of proportionality, continuity, and living space.
**The Metaphysical Focus**

This focus provides a similar set of design criteria through the precedent of Frank Lloyd Wright – the Unity Temple, the Pope Leighey house, and Fallingwater. Here the emphasis is the detail, or transition of part to whole, and the relationship that this requires.

**The Criteria:**

1. Integration – the forms of the metaphysical act as transition elements, allowing the conversation to take place between the omnipresent, inner, and outer foci. The metaphysical must be integrated into each part in order for space to blend together into a cohesive whole, achieving continuity. Integration steps beyond a detail for details sake. It must encompass the ideals brought by the other three foci.

2. Of the hand – similar to the inner focus, the metaphysical must take on a role of proportionality. However, the role must not only be that of the hand, it must also take on the proportionalities found within site and the outer focus. Therefore, the detail has to carry some sense of relationship to both interior and exterior spatial arrangements.

3. Language – the metaphysical focus acts as the story teller for each foci. It does not only integrate the foci, but also reveals to the inhabitant what the space is about. Subsets of language include ornamentation and layering. Layering is the key element that provides depth to space and allows the revelation of the omnipresent.
IMAGE: DETAIL SECTIONAL MODEL SHOWING A LIGHT STUDY OF THE SKYLIGHTS THAT ARE A PART OF THE LOWER LEVEL MULTIPURPOSE SPACE LOCATED AT THE NORTHEAST CORNER OF THE BUILDING FORM. IMAGE BY AUTHOR.

IMAGE: DETAIL SECTIONAL MODEL SHOWING THE DYNAMIC NATURE OF THE METAPHYSICAL. THE TRUSS SHOWN WOULD BE IN FILLED WITH GLAZING MEMBERS. THE IMAGE IS TAKEN FROM INSIDE THE STAFF CONFERENCE ROOM AT THE SOUTHWEST CORNER OF THE BUILDING. IMAGE BY AUTHOR.

IMAGE: DETAIL SECTIONAL MODEL SHOWING A PORTION OF THE SOUTH-WEST CORNER OF THE BUILDING. IMAGE BY AUTHOR.
THE OMNIPRESENT FOCUS

This focus provides a similar set of design criteria through the precedent of Frank Lloyd Wright and various artists–Fallingwater, Unity Temple, and Pope-Leighey House, as well as Above The Clouds, Pre-Dawn, and Shipwreck.

THE CRITERIA:
1. Sublime – the sublime, through the realization of death, allows everything to comprehend or come face to face with its ultimate pinnacle. Through this realization, one becomes aware of the life force or the presence of an ephemeral “something.”

2. Light – the use and control of light is key to developing the feeling of sublime. As we progress from space to space, the quality of light should constantly be change, reflecting the purpose of space. This is closely linked to the metaphysical due to the ability of the metaphysical to define the parameters by which light is controlled.

3. Contemplation – though architecture is not necessarily religious, contemplation of space is created through the buzz words beauty, grace, and serenity. When the harmony of the other three foci is in synergy, contemplation is inherent.

DESIGN CONCLUSIONS:

Since the criteria for design have been fully established, we must look at the implications for the design of the ecological community center. The
primary result of this thesis is a design process that looks holistically at architecture, developing its many facades in tandem to create balance. The design process requires one to constantly move back and forth across the different foci, developing each aspect not only through plan, but also through section and most importantly model. Developing the design in this manner gives one the ability to see the connections of the part to whole relationships that are necessary for balance. More importantly, one is able to understand how the proportions of building can be shaped, or how the interconnections of the inner and outer can be modified and tied together through the metaphysical to establish the dominance of the intangible foci – the omnipresent. Though we are unable to test the effectiveness of the omnipresent until the work of architecture is completed, we can begin to sense what feels right. For example, within this design, I have focused on creating spaces where one is constantly being pushed from cave-like spaces to open areas that will shift the inhabitants’ understanding of themselves as they move about. This feeling or revelation will not be an outright epiphany felt by the inhabitant. However, what I can assume is that there will be some uneasiness and unwillingness on behalf of the inhabitant to push across these types of spaces. Our human inclination is to stay within one realm, and that realm is primarily the cave-like one. But as we are forced to transition between these two realms, we feel sensations of comfort and calming. This is due to the interplay of the inner, outer, and metaphysical, on the sublime characteristic of the omnipresent. This is the power that the fourfold design has over architecture. While one characteristic could essentially cause us, as humans, to feel insignificant, out of place, or out of touch with our environment, the other three act in harmony to readjust any dissonance.
Beyond the emphasis on the sublime and the interplay of light, this design focuses strongly on the outer and the inner by exploring proportion, meandering, and continuity. The entire composition is allowed to act as a continuous entity. One is able to question whether he is in fact within an interior or exterior space due to the meandering quality of the pathways that pass through both enclosed building and open space. Further, one has to ask himself what is considered exterior? As one moves from the primary entrances, he is immersed in the manmade site forms. He is plunged into deep site walls where they are to feel as if they are immersed within a manmade natural context. Due to the proportions of the walls and the enclosure of the vegetation spaces, it will begin to feel room-like. As we progress further into the composition, we are pushed in and through enclosed building entities to open spaces that are covered by manmade components. In this sense, we are able to feel the natural elements around us, yet we feel reassured that we are not completely exposed due to the manmade coverings. It helps us feel at ease as we move about the inner and outer components of the com-
position. And as we move further to the south away from the building entrances, we realize more and more that building and other manmade elements are merely a subtle introduction to the natural vegetation of the site that lies waiting beyond.

To help unify the manmade elements and their natural counterparts, texture and materiality are extremely important. Thus, the façades begin to articulate the metaphysical by layering stone, wood, and glass in a variety of different manners to increase the depth and tactility of the surface. This only begins to help tie the composition together through the creation of a common language across the façades. As the façades blend across open and enclosed space, they blend together and become inextricably linked. More importantly, the façades become the manmade abstraction of the natural forms that already exist within site, paying homage to that which man cannot create.

As we progress through the design, it is evident that there balance between all parts - one component does not overtake the others. Like a musical score, all parts flow together with the right amount of emphasis to create an entrancing harmony that is complex but still conveys simplicity. This is the duty of the architect. He, like a musical composer, must find the proper way to express balance in order for the pure poetry of his work to be expressed. Only in this way can Natural Architecture be created.
BIBLIOGRAPHY


