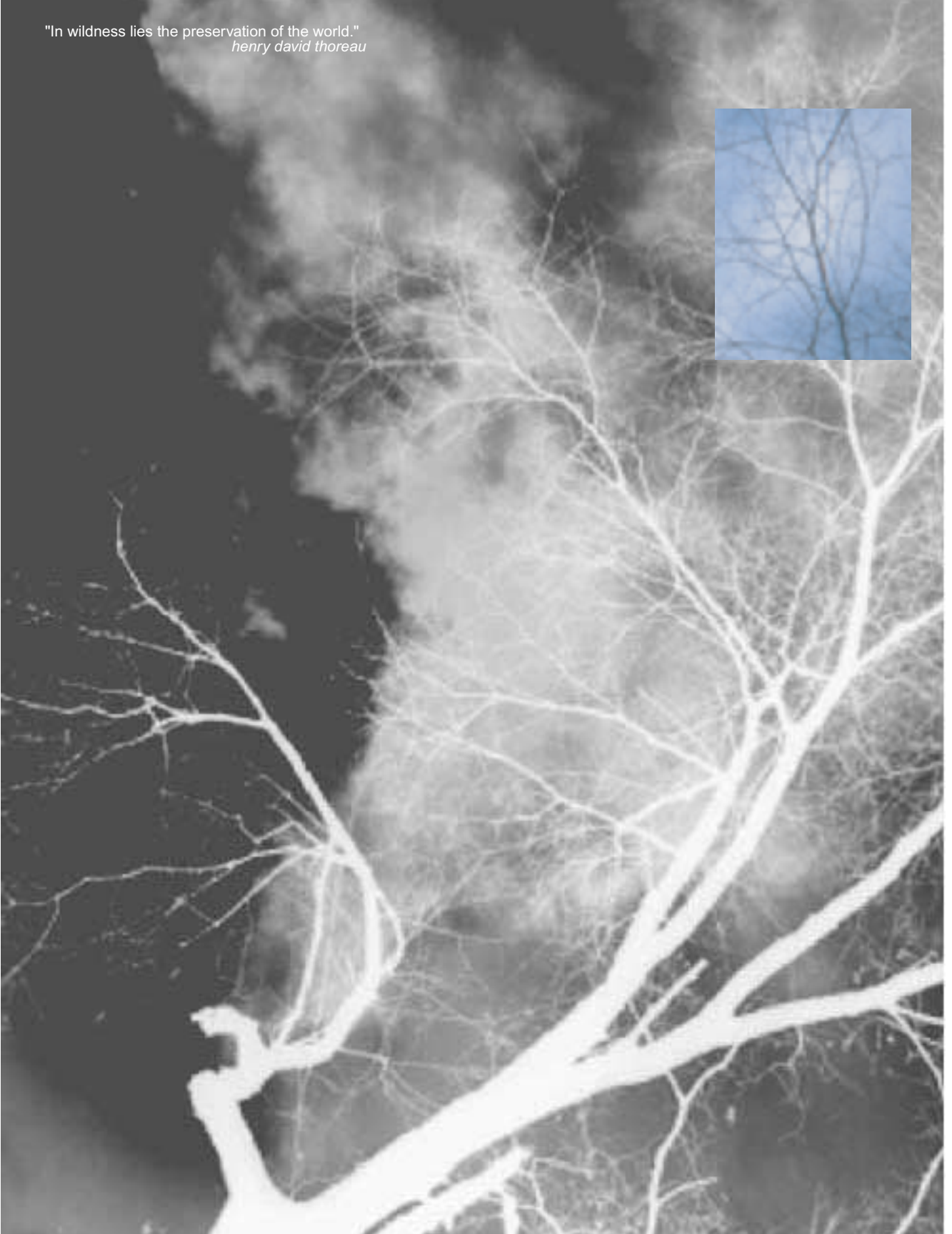
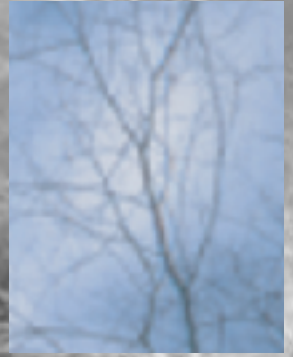
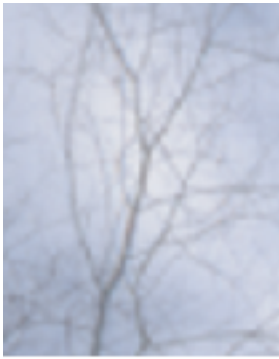


"In wildness lies the preservation of the world."
henry david thoreau



iN

intensified Nature



This thesis is submitted to the faculty of Virginia Polytechnic Institute and State University in partial fulfillment of the requirements for the degree of Master of Architecture. The thesis defense occurred July 25, 2002 on the campus of Virginia Polytechnic Institute and State University, in Blacksburg, Virginia.

.....
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intensified Nature

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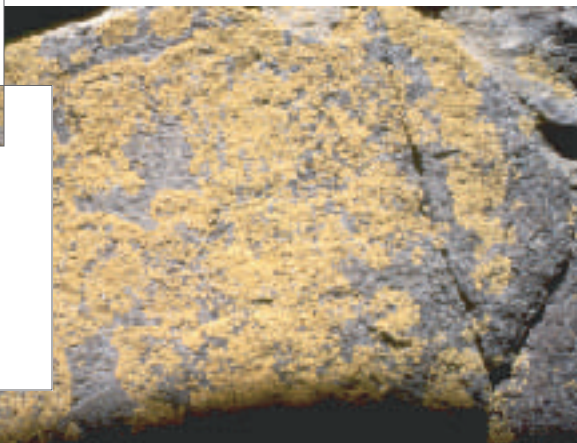
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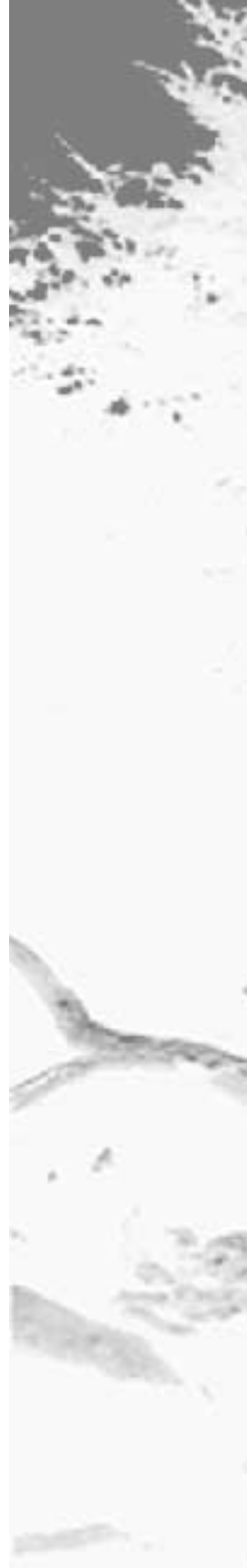
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From trees grows the land, out of trees the skies expand. Vessels placed in the middle are infused in growth and decay for new births arise. Receptions of change are vessels bound. Permutations coalesce intensifying meaning.





a



b

abstract

While art can be an intensification of perception, this Nature Center recognizes the presence of Nature through symbiotic connotations of its primordial elements as architectural form. Deepened experiences of both Nature and architecture are to be achieved through a clarified ordering of architectonic elements and their relationship to each other, Nature, and humanity.



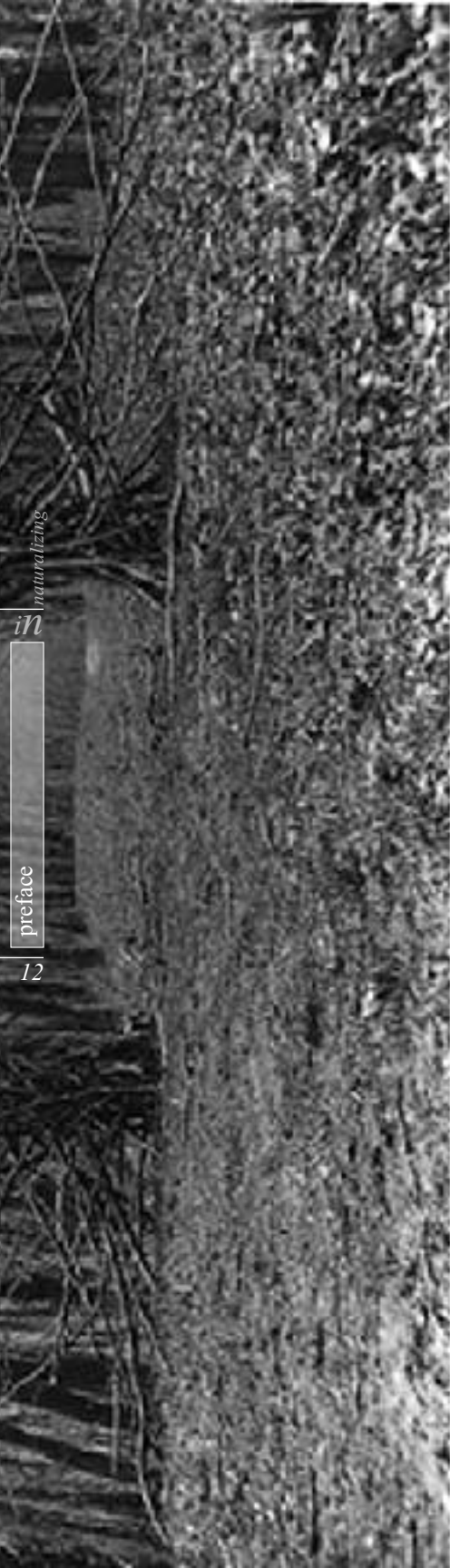
a

abstract

11

in

a, and y goldsworthy, hooke entrance, dorset, april 1986



in
naturalizing

preface

12

"Built into us is a reverence for the elements, for water, for light, for air--a deep reverence for the animal world and the green world. But, like everything, which is deeply rooted in feeling and a part of our psychic existence, it does not come forward easily. There are times when we feel strongly, but the simple matter of doing daily chores and solving daily problems keeps us away from feeling about such simple, wonderful, motivating things."¹

Louis Kahn, *The Nature of Nature*





As a child growing up in the undulating terrain of West Virginia and upstate New York, I lived on the edge of forested areas. Being near the forest's edge, I developed a close bond toward sylvan landscapes and the abandoned artifacts placed there. The forest was always a place to play, hide, and in some ways, though unnoticed at the time, find meaning in the world. This sylvan world was much simpler then, since I experienced it without thinking about it, making it more free and in some ways more instinctual. "Our intuition is always ready to spring into action, to grasp information because it bears the imprint of millions of years of experience."² Still to this day, I continue to return to the natural world for enlightenment and reflection, and it is through these sensory experiences that I search for a footing to launch my creativity.

The topic of this thesis extends from these cumulative experiences. The title of this thesis contains one of the most encompassing words in our language. To attempt to define nature, after all, is to talk about the whole history of the universe. The intention of this thesis is not to embark on a definition of nature, but to emphasize the non-human realm's presence through an architectural investigation that mutually respects man's and nature's symbiotic relation.

Nature, by its common usage, is the collection of things which are not the work of man. This places nature in opposition to culture and manmade artifacts, thus alienating human endeavors from the world they inhabit. The interactions of humanity and nature have grown into two dissimilar spheres, but it is still nature that gives humanity its will to exist. Nature provides humanity life by filtering the air we breathe, the water we drink, the food we eat, while still being the source for all of civilization's synthesized products. Man has created a realm of existence separate from the biosphere with a technical makeup. It is not my intentions to debate that civilization, along with man's separate realm, is natural and not artificial. However, it is my intent to question this divide between humanity and nature so that we might strive for a mutual relationship.

Construing Reality

"While contemplating what should be done next, she asked herself briefly what her experiences were really like as opposed to how they appeared to her."³

---Anne Tardos, *The Dil-Dik's Solitude*

Objects whether animate or inanimate interconnect with their immediate environment creating biodiversity. Nature is tangible through its qualities of structure, but as a whole, nature is intangible. The difficulties with the term reflect this. It is in nature's incessantly fluid relationships that give us our physical world. Poets have assembled these relationships into creative vessels and labeled them the essence of life. The creative act of making is essentially one of ordering, where the creative vessels become explicit order in themselves. It is not in the creative act to be mimetic, for that would die with what was copied. Yet the mimetic process seeks its own truth. Aspirations, therefore, can transcend the made while the well made transcends aspirations.

Some man-made environments respond to nature's biological processes in productive biological and technological ways, while other manmade environments avoid and compete with the natural environment, thus creating unhealthy biological outcomes.⁴ Through the process of birth and death, all objects are cyclically animated. An extension into past and future timelines allows one to envision the natural cycles that all things experience. Viewing beyond the fashionable surfaces of manmade objects, one may penetrate to the true nature of an object's "logos".

"The Greek word logos is usually translated as "language," but more originally it means "relation." Logos is that which binds, gathers, or relates. It binds humans to nature in the mode of openness and difference. In short, logos is that which opens the human abode on the earth. The word "ecology" names this abode. In Greek, oikos means "house" or "abode"---the Latin domus. In this sense oikos and logos belong together inseparably, for logos is the oikos of humanity. Thus the word "ecology" names far more than the science that studies ecosystems; it names the universal human manner of being in the world."⁵

Andy Goldsworthy's sculptures reside in the natural environment. Goldsworthy enters the environment by ordering it with the site's objects, thus placing the work in between the complex biological ordering of nature and man's understanding of this order. Goldsworthy's ephemeral additions render nature's visible laws to the naked eye. The artist enhances the symbiotic relation of man and nature by penetrating this veil of complexity by revealing some of nature's tangible qualities. The visceral impacts of these objects are mitigated by nature's ephemeral qualities of time and place. Recognizing the interweaving of biological and technological diversities, manmade objects can join in an ecology of place and time.

"Only when we are lost, Thoreau reminds, can we begin to find ourselves. Once we abandon the signposts, the directions that define the conventional world, we see wild nature, and there, in wildness, lies the preservation of the world. In the wilderness the phenomenological epoch is no longer conscious strategy, but reality: nature becomes an immediate and palpable presence no longer obscured by the cake of custom."⁶

In 1846, Thoreau left Walden Pond to take a walking excursion into the deep Maine woods to ascend Mount Ktaadn (An Indian word meaning highest land). Thoreau's journey to Walden Pond was taken to release his culture-bound identity by returning him to the earth. However, being on the borders of civilization and sheltered by its closeness, Thoreau did not get to experience the brute force of life and death provided by nature until his journey to Mount Ktaadn. Here in the Maine woods, Thoreau renewed the primitive mind born into and consumed by nature. "And yet we have not seen pure Nature, unless we have her thus vast and drear and inhuman....Nature was here something savage and awful, though beautiful."⁷ Thoreau abandoned civilization to view nature in her savageness, but he still held onto her beauty, which liberated him. Though to him nature remained obscured, it brought him to an exposed relationship with his being.

Nature reduced to mere atoms and patterns of invariant repetition, does not represent the understanding of human interaction within the natural world. Nature as external to humanity's participation is conceivable, but as a present or temporal act, humanity's presence unfolds everywhere that culture imposes. It is a matter of looking beyond culture to see the roots of nature's providing, but in doing so, we must turn away from the ways of our present conditioning.

To Thoreau, mankind is wild nature that became self-conscious and whose genius is a response to matter and life intertwined in the ever-changing circumstances of a present reality.⁸ Thoreau's cabin was to him, "so slightly clad," as to be, "a sort of crystallization" around him. "I was not so much within doors as behind a door where I sat, even in the rainiest weather."⁹ Though his cabin was mere shelter, it was more of an unfolding that allowed him to live "deliberately" and to find a reality of life whether "mean" or "sublime". However, to find this reality his actions had to go through nature and the simplest of economies. Thoreau's adventure in the woods was to lose civilized routines so that he could experience life in an enhanced natural state, so that the self, rooted in life, might find itself natural.

genesis
"shaping nature"



"The architect must think of his responsibility-his responsibility to create something which is always true to the nature in man and to the laws of nature, and which is conscious of water, of air, of light, of the animal world, and the green world."¹⁰

---Louis Kahn, *The Nature of Nature*

Vernacular buildings, whether it is a tool shed, silo, barn, house, or religious structure, impart a quality recognized in the details and writings of architects. Why is there an affinity for these old structures? Michael Benedikt responds eloquently, "The dumb and inexplicable features of old and/or vernacular buildings, otherwise so straightforwardly organized, are often those that attract us to inhabit them. Offering opportunity rather than giving direction, they are indifferent to our designs on them. They were there before us, they were "wrong" in a way that challenges us to possess them creatively: they seem realer if not "better" than anything we could design from scratch, and that is why, increasingly, we like them."¹¹

Studying vernacular architecture is a brief pulling back to reflect and understand a time when cities developed over centuries, not decades. This does not mean to be traditional in making, but to evaluate a past set of standards and processes to see how they might inform the present. This can be done by reflective inquiry that maintains old relationships while establishing new ones so thought is free and autonomous to continue a future from what we have achieved up to today. To have reflective inquiry we need to slow down, to repose and see where we are going and where we have come from. Juhani Pallasmaa provides a theme in slowness; "We need an architecture that rejects momentariness, speed and fashion; instead of accelerating change and a sense of uncertainty architecture must slow down our experience of reality in order to create an experiential background for grasping and understanding change."¹² To alter our current conditions of building we need abandonment, to be lost in Thoreau's woods. Vernacular as precedence is to learn from an older time of slowness.

The lessons of old and vernacular buildings evoke four characteristics: time, materials, craft, and place. Time exposes vernacular buildings to decay. Growth is becoming through making, while decay is the temporal quality of things. A binding unit of life is that all things are bound to the forces of time. "Life is a principle of union. Life is dependent on its dialectical movements,

its "creation of ever new forms" and the "destruction" of them,"¹³ thus making them unified through time. Manmade objects begin decaying at birth. Vernacular qualities seen through decay recognize the forces of a building's ephemeral status. Architecture is static in its placement but dynamic in its growth and decay. Nature is a dynamic eternal force, making all tangible things temporarily bound. This tangible factor of nature allows many potentials of change to occur in a building's aging process.

Weathering is intrinsic to the decay of tangible things. Buildings are not timeless artifacts that remain untouched by the natural forces of weathering. We tend to clean up weathering by power washing or making the building resistant to weathering by using "synthetic materials which do not allow the gaze to penetrate their surfaces of technical perfection...But even vision implies we stroke the edges, surfaces and details of buildings with our eyes."¹⁴ Weathering exists through the second characteristic of vernacular buildings, materials, which give buildings their visual and tactile surface qualities.

Materials low in embodied energy and closer to their natural state age gracefully, while complex synthetic materials made to resist this aging process impart a different type of quality. What is this quality? Is it to evoke an ever presence of looking new? What happens once the newness wears away? Another fashionable trend pops up to replace the older trend. Commercial buildings constructed of synthetic materials are abandoned for newer buildings constructed of the same materials. "Unless we can come to terms with the global image economy and the way it permeates the things we make and see, we are doomed to a life of decorating and redecorating."¹⁵

The third characteristic of vernacular buildings is craft. Artisan of old connected their buildings to locale by using traditional trades that handled available materials from the site. Today's typical building exhibits more assembly and less craft, while just a century ago assembly through craft was typical in construction. Buildings today are built on fast-track schedules by using synthetic materials that quicken the assembly process. The building trades have bred a society of quantified assemblers made ready for typical tasks only. Automated machined labor devours craft. "Men were not intended to work with the accuracy of tools, to be precise and perfect in all there

actions. If you will have that precision out of them you must inhumanise them."¹⁶ Juhani Pallasmaa further discusses this condition in today's building process.

"Flatness, the lack of three-dimensionality, is partly also due to techno-economic requirements for thinness, lightness and temporality; buildings are constructed merely as visual images, and their surfaces become ever thinner and more weightless... The sense of flatness is reinforced by the diminishing role of craft in construction, and extensive use of synthetic materials, which do not allow the gaze to penetrate their surfaces of technical perfection... Architecture must again learn to speak of materiality, gravity and the tectonic logic of its own making. We live in an era with a frustrating discrepancy and distance between the sensory experience of the world and the consciousness created by it, on the one hand, and the biocultural responses accumulated in our unconscious reactions through millennia, on the other."¹⁷

As materials become more automated and machined, parallel growth also occurs in the machine assembly of these materials. Economy driven by short term quantitative gains override long-term qualitative gains, compelling architects today to make the quantitative parts as the artistic artifacts of the day. "One can see how buildings constructed rapidly by indifferent plans, using remotely made and general parts, are bound to create indifference-at best-in the population at large, let alone in those actually involved. These buildings lack significance to anyone, and are the less real for it."¹⁸

The fourth characteristic is vernacular creating a sense of place. So many vernacular buildings have withstood the test of time and have become aesthetically delightful in the process. To impart such a quality can enrich a culture buried in rapid disposals. Vernacular buildings reflect locale and tradition. They rise from the ground they bear upon, unifying the wood and stone into a natural stance. They transform locale into place by the artisan's recipe of utility brought into delight through available resources and craft.

On the next page are two traditional Catawba Valley barns juxtaposed by a Catawba Valley trailer. The trailer of this home markets a homogenized economy of business. As the lust of the new wears away a new object comes into place, if it can be so afforded. The vernacular affinity is not a difference in the building's function, but it is in the building's growth/decay in time and its connection to place. The vernacular is a product of craft and economy with

the use of low embodied energy materials that create a relationship with locale, thus establishing an integrated fabric of place.

So much is being left behind by our modern industrial kitsch that we need to evaluate our current designing of commodities and be aware of their life cycles. Samuel Mockbee was a sewer of industrial culture. He stitched one man's junk into an aesthetic delight. He transcended the magnitude of uselessness into an art form of the functional and beautiful.

Bruce Mau discusses the role of technology in shelter; "Perhaps this increase in technological knowledge has not substantially increased our understanding of the basic problems of shelter. If we examine the roots of dwelling and our relationships to the sun, the wind, the rain, and the land, we may uncover many practical ways of saving energy that have been neglected or forgotten in the recent wave of building, population growth, and urbanization."¹⁹

Reflection to a past craft is not to rid away technological progress, for no one is going to rid mankind of technology; for it is ingrained into our being since the first man used a piece of stone as a weapon. What humanity is capable of is a revised way to think about the way we make technology, thus to make architecture. Ruskin idealized an ancient



a



b



a

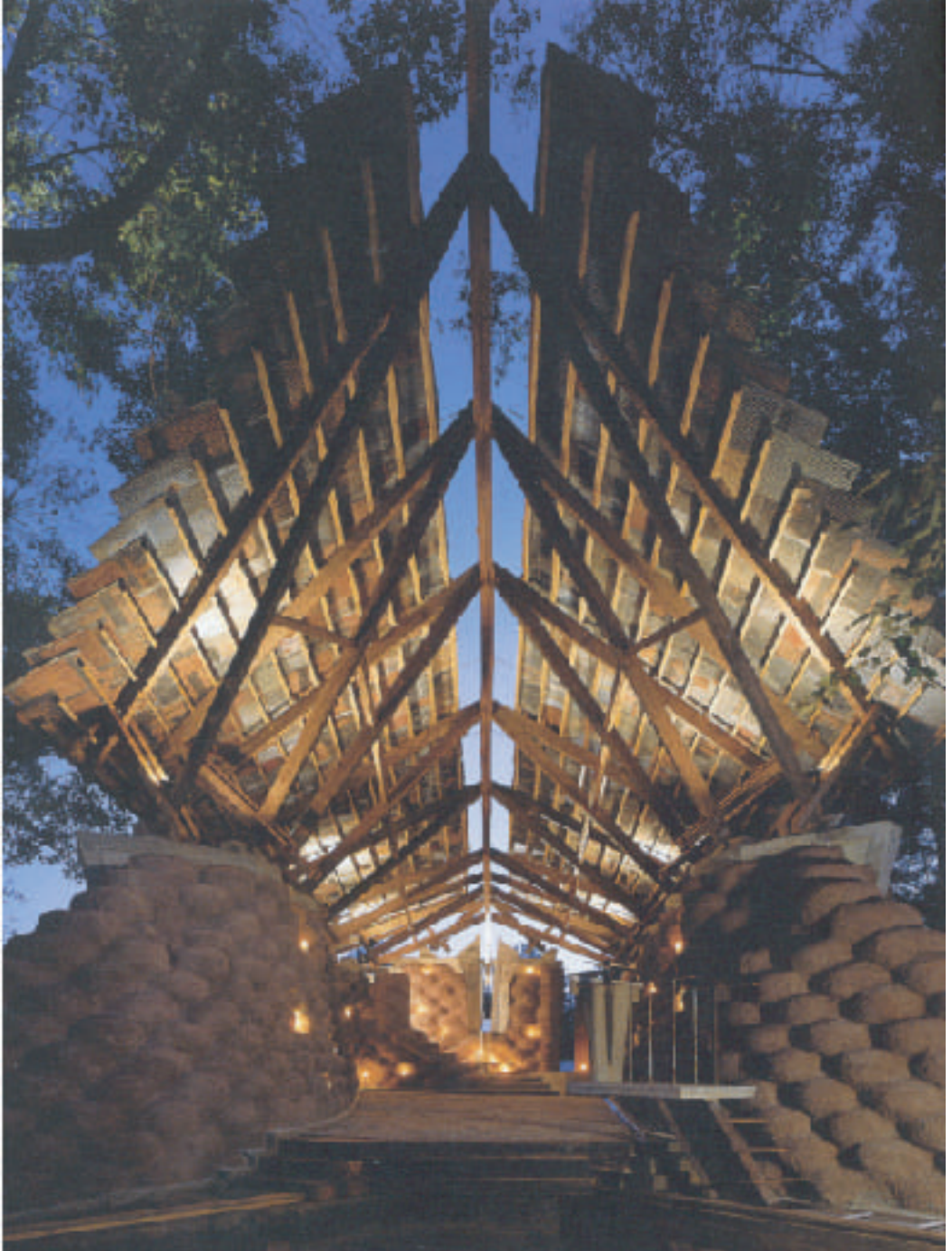
a catawba valley vernacular
b catawba valley postmodern

'techne', making his words fall prey to the newer machined construction techniques. However, the newer machined construction techniques are not the answer in themselves.

William McDonough and Michael Braungart suggest how to weave technology and nature into a new industrial revolution. "Let's use our ingenuity to stay here; to become, once again, native to this planet. This affirmation does not mean that we advocate returning to a pre-technological state. We believe that human beings can incorporate the best of technology and culture so that our civilized places reflect a new view. Buildings, neighborhoods, and even whole cities can be entwined with surrounding ecosystems in ways that are mutually enriching."²⁰

One may ask this in the condition we have created in the affordable housing market. A market controlled by government and the present idea that modern conveniences of electricity, heating and cooling, will give the people of a nation a good place to dwell. Why hasn't Frank Lloyd Wright's Usonian home been held up as a model for the homeless? "No amount of running water or safe wiring can of itself turn a house into a home, for when a nation ignores its poets it becomes a nation of the homeless."²¹

Today, we live in a global market that dissolves national boundaries by removing old values of regional practice, ideology, and understanding of locale. Recognizing the words of the poets' sensibility in the qualities of life and architecture may overcome the sterile comparison of humanity's conditioned desires for an ever-new homogenization of space.



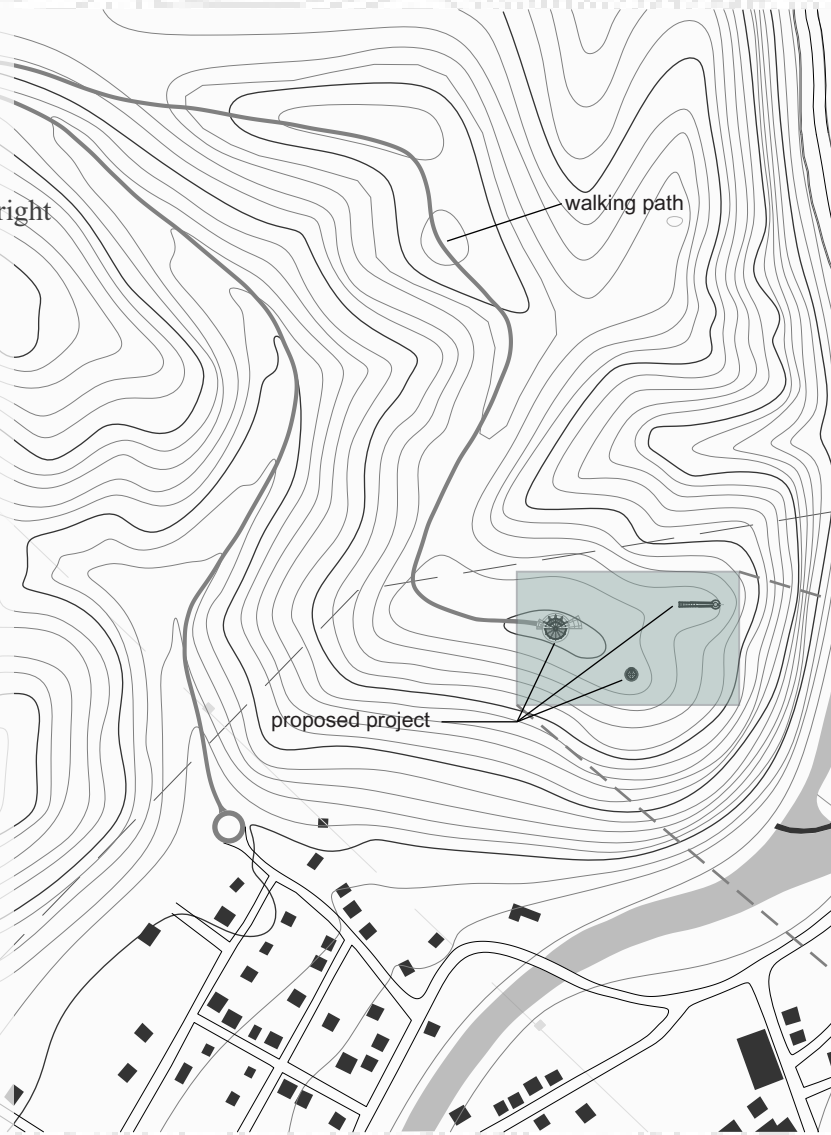
"It is in the nature of any organic building to grow from its site, to come out of the ground into the light, the ground itself always held as a basic component part of the building. The land is the simplest form of architecture. Buildings, too, are creatures of the earth and sun." 22

---Frank Lloyd Wright

Piney Ridge, in Narrows, Virginia, was chosen as the setting for constructing the thesis investigation. Experiencing the site articulated the values and ultimately gave form to the open-air structures needed to express these values. From the reference point of the site, architectural gestures redefine the natural setting by maintaining its integrity through a cohesive fabric of setting and building.

The site reveals a history, a trace of a past through natural and human activities. Life embodies these constants of activity creating veiled and explicit conditions. Bringing together these natural and manmade conditions for potential activities can be an initiator of architecture. To make a place requires the act of gathering and unifying the surroundings into intensified perceptions of time and place.

The site, a dense sylvan hillside, is to be weaved with manmade objects receding to the presence of nature's biodiversity. Sheltered in this sylvan landscape, removed of the distractions of daily culture, are objects that focus not on civilization but on the natural setting that allows the exponential growth of civilization to continue. The architecture demarcates a place to gaze ephemerally outward while always being able to reflect back to the interconnectedness of the world.





narrows, va



1561

new river

route 460

61

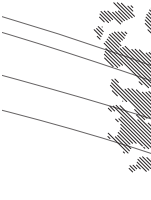
demarcating place

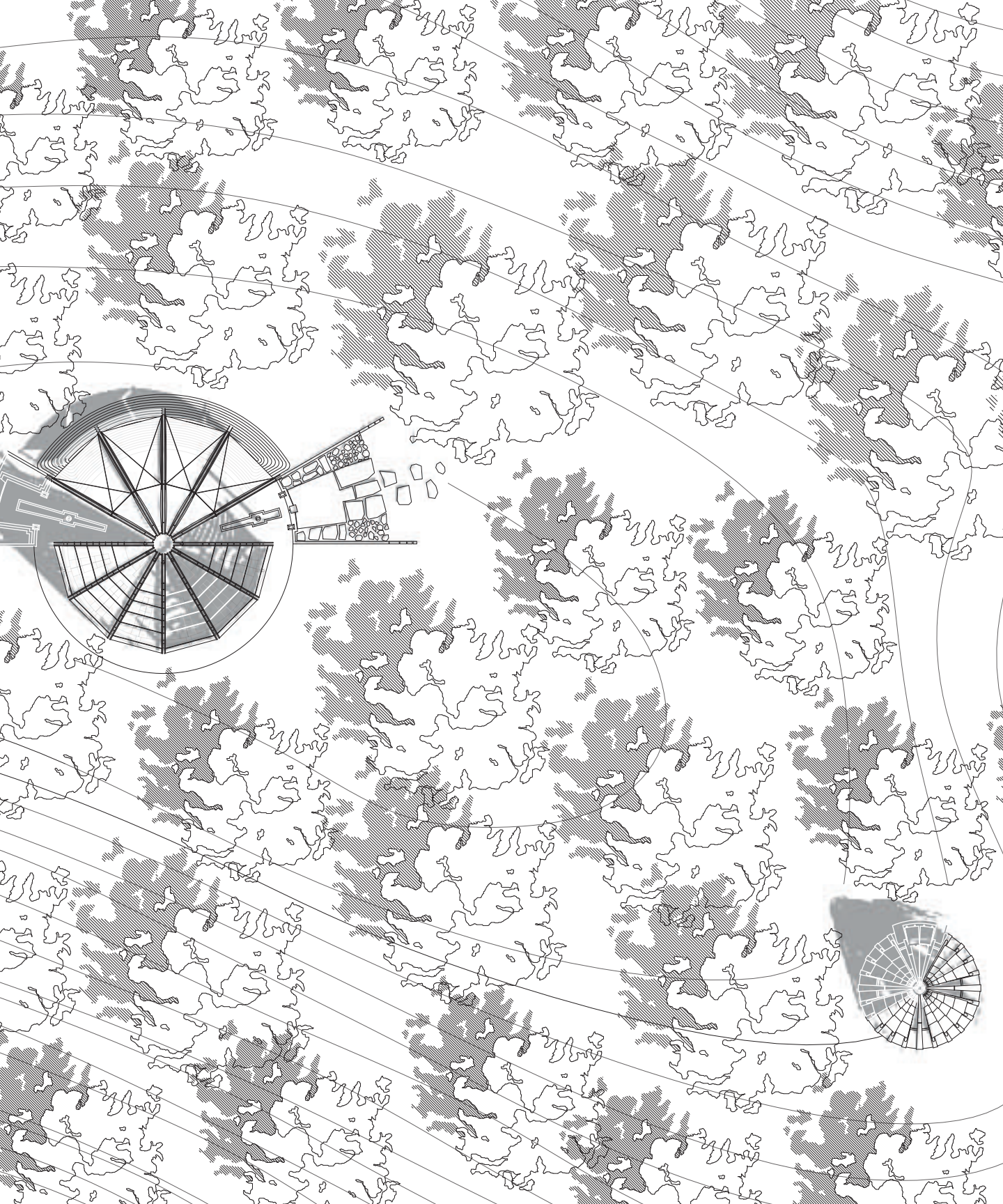
in

gathering

The Appalachian Mountains contain communities separated by counties, where small farmsteads spread throughout. These places of dwelling are linked by the county seat in which you will find a small town, usually a grid in layout containing a courthouse at the center. The center of town is secular, while the churches spread throughout the town and county's terrain sometimes resting on a promontory. The farmhouses and churches are usually aligned axially adjacent to a nearby road. Sheds, barns, and other out buildings are placed behind the house in the sheltered terrain of the foothills. The composition of Appalachia is a scant clustering of life throughout the hills and mountainous terrain, which forces larger cities to occupy large open waterways and valleys. Here, topography defines place making.

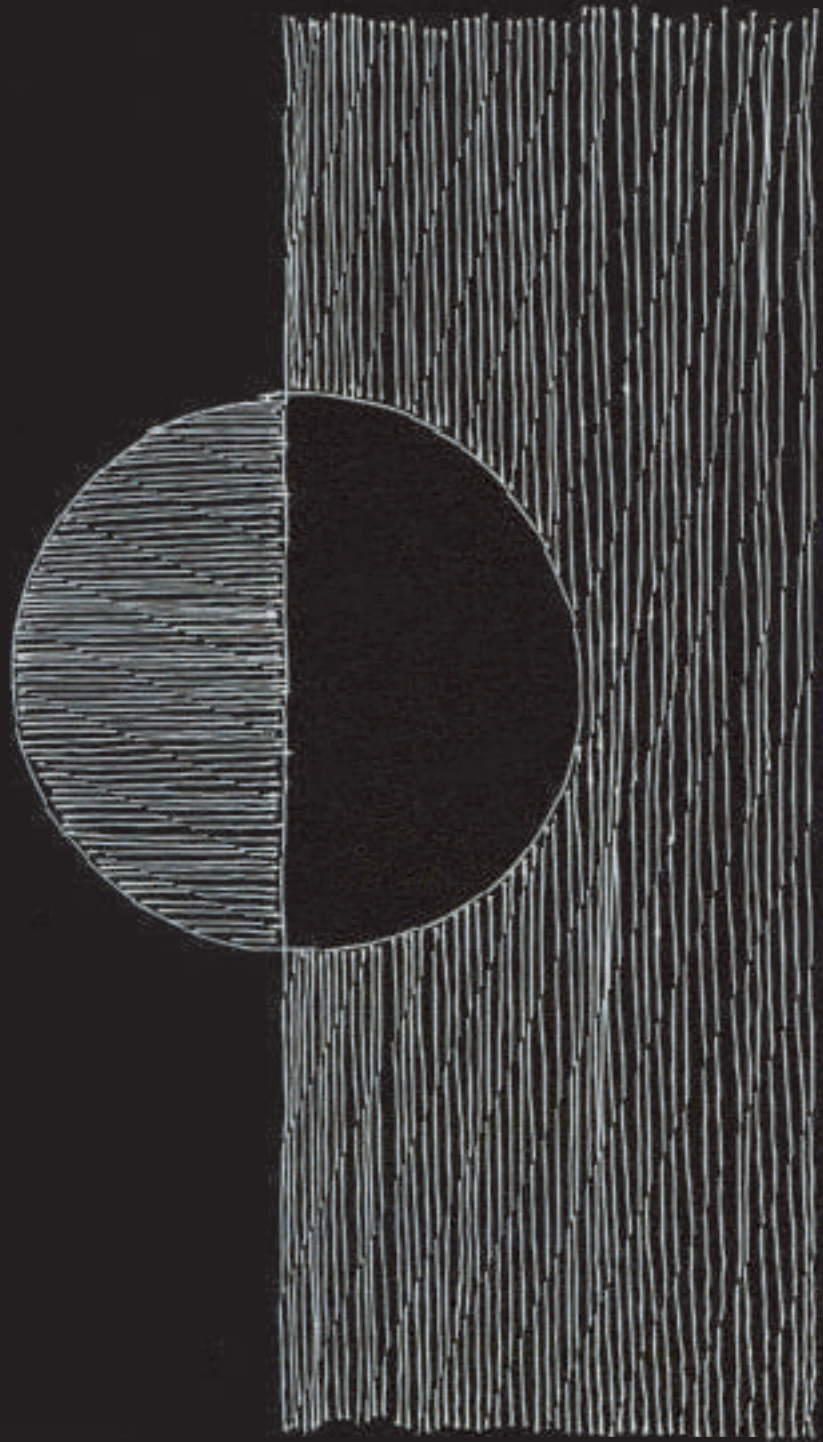


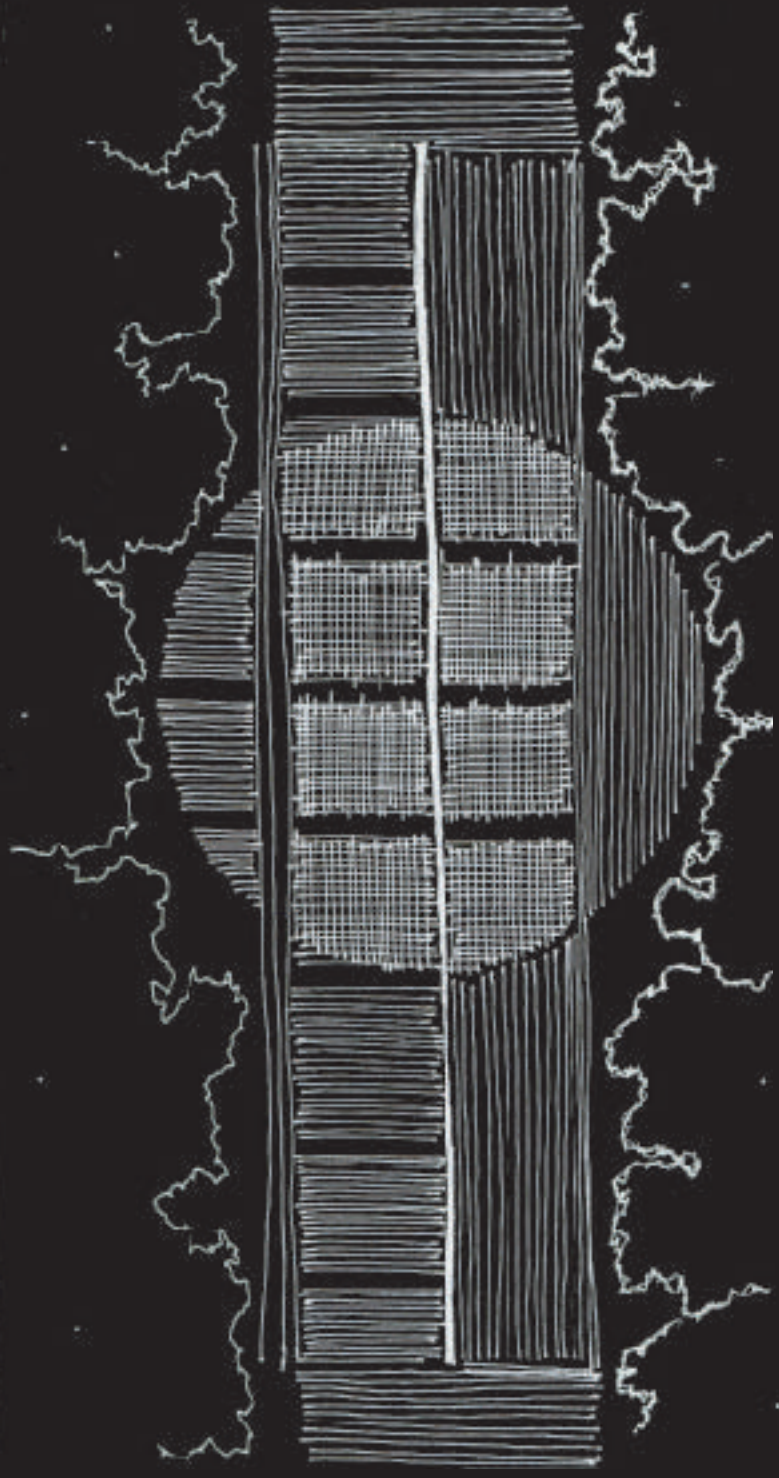






North





Demarcating the land with architectonic elements and forms may render a landscape to a legible reading of place. "It should be made clear that this idea of the environment is not a system in which architecture is dissolved, but is on the contrary a load-bearing material for the architectural project enabling new planning principles and methods to accommodate the spirit of the specific terrain."²³ Gregotti continues that modification of a place occurs through measuring. Geometry a product of measuring reveals meaning. "It is modification, which transforms place into architecture and establishes the original symbolic act of making contact with the earth, with the physical environment, with the idea of nature as a totality."²⁴ The cardinal directions are an overriding geometrical measurer for all three structures by demarcating the sun's paths with fixed elemental gnomons. The primordial elements of earth, air, water, and fire are contained within the architectonic forms to enhance the symbiotic relationship between man and nature. This act of denoting diurnal and annual cycles and the primordial elements, establishes a place that connects to a larger cosmic totality, nature.

The circle represents the symbiotic relations of the project's constituent parts. The circle is life through the reciprocity of birth and death. Both are needed for perpetuating future generations. Death without birth or regeneration is the unhealthy condition man has imposed upon the landscape. Humanity as a part of nature needs to be aware of not only births and the living but also of the inevitable change that everything animate and inanimate experiences upon this earth. Accepting death and decay will feed the circle of life and respect the rebirth of future generations.

