The Spiritual Community:
Affecting Life Quality Issues through Architecture

an Architectural Thesis prepared by Peter D. Winters
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This project attempts to address as completely as possible those aspects of life associated with qualitative experience. It is founded on the position that today's man-made environment often protects us from too many experiences which could otherwise enhance our lives. The direction taken involves the wonder, awe, or numinous associated with spirituality, the social and familial dynamics inherent in community, and the connection to environment and devotion to detail that hard work and craft allow. The result is the design for the Mississinewa Brewing Community which would be located along the Mississinewa River north of Muncie and east of Albany on State Road 67.
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It has been my contention that high architecture since the advent of the Modern Movement has become largely the playground for egoists. The architects who receive the most praise in today's world are those who design wonderfully and playfully articulated structures, as if that encapsulated entity we call building has no relationship with its surroundings, and as if those surroundings were insignificant. For half a century Modernism and its offspring have been in the driver's seat, claiming to have vastly improved our world, but isn't that all really design propaganda? We as architects have followed happily along as our profession has become decreasingly interested in spacial relationships, and in the quality of those relationships, and has instead focused on the artistry of connecting and combining materials in an attempt to be as individually novel and innovative as possible. The result has been a multitude of buildings only a mother (or other architects) could love.

Whatever happened to architecture that demonstrated civic responsibility, or that embraced a client and their needs as more important than ego? Shouldn't the evolution of our profession move towards the betterment of our living conditions and towards a healthier definition of comfort rather than towards brutalism or deconstructivism?

Modernism developed in Germany in response to the need for compact, inexpensive, and easily reproducible buildings to aid in the post war rebuilding of their country. It proved to be a unique expression of the most current technologies of the time, so the ideology spread to other parts of the world. While the ability to manufacture large quantities of any component was
and remains quite useful to construction, we need to ask ourselves why we insist on generating buildings that are quick and cheap when we live in one of the wealthiest societies in history. Modernism and its subsequent followers have little to do with America as we near the next millennia, so I argue that it is time to search for form making decisions that will respond to who we really are and who we believe we will be as we approach the year 2000.

This thesis has been my attempt to explore architecture as it relates to the three classic literary categories of man versus man, or our relationships amongst ourselves, of man versus nature, or the way we interact with our environment, and of man versus machine, or the way we incorporate technology in our lives. With this understanding, and with my own beliefs about where we ought to go from here, I have attempted to develop healthier patterns in the design of the Mississinewa Brewing Community. My interest at this point is to search for means of using architecture to affect a user's relationship with the world today in hopes of developing harmonious and qualitative experience.
The Spiritual Community: Affecting Life Quality Issues through Architecture

A design for
The Mississinewa Brewing Community
Albany, Indiana
My original intent for this project centered on spirituality and on ways of creating architectural form that enhances one's sense of spiritual well being. The purpose was to design a space that exemplified a universal sense of wonder or awe, a space for anyone of any faith. Research went in two directions. It was first imperative to try to establish what universal spirituality might be, then it was necessary to find architectural form for it.

In "The Power of Myth," Joseph Campbell suggests that our God is beyond definition, and most faiths have in their doctrine very similar statements about their deity or deities have also heard the world religions described as different views of the same mountain. Each faith wants to believe that the facet visible to them is the ultimate truth. While their interpretation is not wrong, it is merely a part of the whole.

The ultimate word in our English language for that which is transcendent is God. But then you have a concept, don't you see? You think of God as the father. Now, in religions where the god or creator is the mother, the whole world is her body. There is nowhere else. The male god is usually somewhere else. But male and female are two aspects of the same principle. The divine power is antecedent to sexual separation.

(Campbell, 49)

If all faiths strive for a better understanding of an incomprehensible, divine entity, then wouldn't a society that embraces different notions of spirituality actually benefit everyone involved? I am of the opinion that the most fanatic of religious zealots tend to be the most insecure about what they believe. They cannot even find it in themselves to tolerate others, but tolerance is no
longer enough. We need to learn to accept and appreciate different points of view, and even allow such interaction to improve and empower our lives. John Stuart Mill and the Unitarianists would even suggest that it is against societies highest utility to do otherwise, even if some of the opposing viewpoints prove not to be 'the ultimate truth.'

Religions have become vehicles through which to explain our existence, or to define proper ethical behavior, but there are several modern scholars who seem to believe that a sense of the supernatural through wonder and awe preceded the others as a basis to religion. Karen Armstrong calls this 'numinous' (Armstrong, 5), and Robert Pirsig refers to the sophist notion of 'arete,' which "implies a respect for the wholeness or oneness of life" (Pirsig, 341).
With numinous at the core of all faiths, it seemed to make sense that this wonder and awe should become the cornerstone of the architectural expression I was seeking. This may have been an astounding revelation, but I still had no clue what this architecture wanted to become.

The search for form led me to discover six patterns that seem to imbue spirituality in architecture found in many cultures, and in many different ages. The first centers on mathematical relationships inherent in pure geometry, in aesthetic proportioning, and in numerology.

A primary characteristic of sacred architecture is the importance of the measurements, proportion and geometry of a site and building. It is a symbolic language which communicates information beyond cultural or stylistic habits.

(Mann, 16)

A circle embodies references to unity, to the spiritual, to time and infinity, to protection, to enlightenment, and to the psyche or the self (Becker, 61). A square is often seen as in contrast with the circle, and symbolizes the four cardinal directions, the four elements of antiquity, the material and man-made world, and the flesh and earthly reality (Becker, 278). An equilateral triangle is often used as a sign for God, harmony, strength, beauty, and wisdom. It also has the connotation of the mineral, plant, and animal kingdoms, of the three stages of spiritual development (Separatio, Fermentatio, and Putrefactio), of virility and fertility, and of birth, maturity, and death (Becker, 309).
Background...
but of the grave to which life returns. It also implies materiality (Becker, 92). Wind is a sign of the intangible and of the divine spirit (Becker, 330). Fire contains destructive power, but also the ability to renew. Historically fire has been associated with the incarnation of the divine, with the torment of Hell, and with blood, sun, and lightning (Becker, 112). Water is the physical manifestation of the union of opposites, the abundance of all possibilities, and the primordial soup from which all things found their beginnings (Becker, 322).

The fourth pattern involves the experiences associated with Gate (desire), Path (search), and Lotus Seat (discovery). This can be seen as a life’s journey, or as the series of goals and realizations that fill our lives (Lawlor, 15-49). The gate consists of twin pillars, representing life’s polarities (like yin yang), a crossbar
which unites the polarities, and a threshold. In architecture the pattern can, and has been, expressed in the form of the gate, the door, the ascending staircase, and the bridge. As people pass from one side to the other, they are revealing to themselves the mystery of something new, which can be further enhanced by creating anticipation.

The fifth pattern attempts to mimic forms found in nature to endow architecture with the magic and energy so prevalent in the great outdoors. Nature invariably looks to accomplish the most with the least energy, the shortest path, the tightest fit (Murphy, 15). The sphere or explosion, spiral or helix, branch, meander or ripple, packing or cracking, and fractal are those six natural patterns which confirm such a hypothesis.
From the way that cells align themselves with one another, to the ordering principles behind the arrangement of the celestial bodies, the basic patterns repeat. The beauty in nature comes from the simple and repeated ordering principles, and from the fact that everything appears to be unique and changing. This poses the largest obstacle for architects, who want to build structures that will endure unchanging for eons.

The sixth and last pattern I found involves establishing a uniqueness of time and place. Joseph Campbell refers to the need for a modern mythology, one that is relevant to our society, and to our conditions. Scott Russell Sanders, author of "Staying Put" and professor at Indiana University, stresses the importance of paying attention to that place where you are, to the history and to the present. A complete inventory would include far more than human needs and life-styles. A more holistic approach would be concerned with the indigenous flora and fauna, and with a healthier connection to our planet. This should not be seen as a flaky new way of life, but as an ancient, seemingly forgotten path that could offer a more meaningful view of reality.

So... Now with a solid definition of spirituality and six patterns for expressing it, I was in a position to begin the design of a place of spiritual value for anyone to use. But as I started working on design ideas, I kept returning to the idea of acceptance. If the basis for such a project is the appreciation of other points of view, it only made sense to create a community where such diversity could be shared. And the project grew. Simultaneously I began thinking about the way that I had defined spirituality, and I noticed that I was also defining the divine undefinable. This encouraged me to think less about any specific spiritual structure, and more about how attitudes regarding community could enhance the spiritual lives of its inhabitants. Or maybe I was just temporarily avoiding any design work.

At this point I needed to establish an approach to generating this community. Referring "A Wellness Way of Life" by Gwen Robbins, I was fortunate to see the possibility to utilize her six dimensions of wellness (emotional, spiritual, intellectual, social, occupational, and physical) as a guideline for design. I began with the assumption that the social, occupational, and physical dimensions would be realized in a more direct and material way than the others. This allowed me to develop the community in terms of physical arrangement of spaces and activities, and in terms of the attitude of acceptance and appreciation simultaneously. The resulting explorations involved a reevaluation of
craft, of our sense of public and private, of densification, and of what a healthy life-style means.

When I started to consider craft, I again expanded the project to include a business, turning the simple community into a new version of historic company towns. I chose the production of beer as the economic means, because it allowed for variety of task, for a connection to the soil, and most importantly for the possibility to make something new out of material in its natural state.

In the field, tended by man, the seed grows to maturity, enduring darkness and light, moisture and heat. These natural forces shape and transform the embryonic plant, nurturing it and bringing it to its culmination before the harvest. After the harvest, a new life begins, the grain or grape is crushed, mixed with other substances, allowed to ferment under the watchful eye of vintner or baker (or brew master), and brought to another culmination as bread or wine (or beer). The craftsman takes material in its natural state and gives it the possibility of becoming something of a different level - a vehicle for the expression of laws of a higher order of nature, a doorway between the sacred and profane, a channel of power for the reciprocal flow of human and divine energies. This is what the craftsman gives his materials, but it is also this which the material gives the craftsman: his own possibility of becoming such a vehicle, such a doorway, such a channel.

(Dooling, 37)

The benefits of craft on the community would be considerable,
as it could have a certain meditative aspect to it. Robert Pirsig describes the focus and open-mindedness that he uses to solve problems as he makes repairs on his motorcycle. It is the thoroughness and attention to detail that he suggests can change a mundane task into a Zen experience.

Next, I attempted to understand society's fascination with privacy, and began to realize that it was clearly a product of the expansive lands available in the United States. But does that make the endless sprawl of suburbia a good solution? I looked at European cities, and at the American Indian pueblo villages to better understand density, and to get a sense of different approaches to public and private relationships. The result has been the decision to try to challenge our modern notion of privacy, and to make an effort to focus on defining a strong sense of the community.

One of the benefits of a more public approach is the potential to densify. More activities would be held in community buildings, and the residences can become more minimal and more compact. The smaller houses in turn enhance the community by becoming a strong impetus for participation because of the reduced individual facilities. The densification also provides the possibility to conserve more of the site, or to allocate more of the site for the farming of barley. The farm land could then become something more of a public picnic site, according to Christopher Alexander's Pattern Language (pattern 7 - the countryside).

Finally, as our society continues to search for answers to questions regarding heathy living, I too want to find means of living a healthy life, and of designing architecture that might prompt such
a life-style for others. Part of this must come from a real sense of how we relate to the technology surrounding us. Whether we are thinking about the impact the car has on our lives, or about how the computer age has taken the world by storm, we need to see that we have allowed these advances to control our thinking, rather than utilize them to better our life quality. Does anyone really want to live in a concrete jungle? Is it healthy for humans to rely on the internet for social interaction? The answer to both should seemingly be a resounding yes, yet we continue in the same direction like children following the Pied Piper.

I am not advocating removing the removal of these advances from our lives. I am merely suggesting that there might be a way to integrate them in a healthier and more productive way. Instead of replacing the front door with the garage and social
places with computer screens, thereby turning our backs on our neighbors, we could look concentrate our efforts on establishing more interaction.

I also content that health needs to be enhanced by a sense of connectivity. There aren't many people who would deny the power inherent in the scent of a pine tree or in the sounds of a river rapid. Why have we done so much to isolate ourselves from such sensations? We have tried so hard to control our environment that we have removed ourselves from it, and therefore from life.

_i think of that pygmy legend of the little boy who finds the bird with the beautiful song in the forest and brings it home. He asks his father to bring food for the bird, and the father doesn't want to feed a mere bird, so he kills it. And the legend says that the man killed the bird, and with the bird he killed the song, and with the song, himself. He dropped dead, completely dead, and was dead forever._

(Campbell, 21)

Throughout the process, this project has evolved, changed and grown, allowing me to explore a broad range of issues and allowing me to pursue a design that incorporated many of the concerns that have become important pieces in my design philosophy. The way was not always what I had anticipated, but remained interesting and enjoyable. I hope the design parleys what I think it does, and hope that others might find value in the search.
The search for a site began with the study of the web of cities and transportation connections in Indiana in order to place this project effectively. This site was chosen for its relationships with the surrounding small communities of Albany, Eaton, and Royerton, with its mid-sized neighbors Muncie and Anderson, and on a larger scale with Indianapolis, Chicago, and Cincinnati. The accessibility of these towns and cities ought to help this project in maintaining an appropriate balance between an independence that is not separatist and a connectivity that doesn't rely too heavily on outside help.

Because of the spiritual and agricultural aspects of this project, it was necessary to find a location with adequate acreage for the farming of barley, and for the possibility of seclusion. This site provides over 350 acres, and brings together the merits of the
Mississinewa River and of immediate access to State Road 67. The property is presently used for farming grains, and should adapt nicely to the growth of barley. Its size would allow the community members to become shepherds of the land, while providing ample privacy to residents and a strong visual draw to tourists of the brewery.

On closer inspection, there are several ways that this site encourages public interaction. First there is the bend in S.R. 67, which provides sweeping views of the property to passing drivers. Then there is the 700 North Road that bisects the property, enabling first hand experience. Finally there is the drag strip just south of the site which draws considerable crowds. Noise from the races is not a concern toward the north and west, because the terrain successfully dampens it.
Several site visits revealed patterns inherent to the property that were to be considered in the design process. Perhaps of most importance were those patterns related to the river, to the animal life, and to the trees. These patterns were then compared to Christopher Alexander's "A Pattern Language" to see where a site specific language could be formed for the design of the brewery and community buildings. While providing some intriguing results, the translation proved to be too laborious and time consuming to continue, so it had only minimal direct impact on the project. I was, however, able to see the site differently by attempting the undertaking, so I am convinced that the project has developed in stronger directions than would have occurred otherwise.
In this thesis I have been trying to search for ways in which architectural professionals can participate in establishing stronger value systems, in evoking better patterns of community, and in balancing new technology with healthier and more spiritual lives. I have attempted to explore how I can affect the quality of life experience through my design work. I hypothesize that through architecture, the potential exists to create a holistic and integral environment that enables participants to live in a meaningful and spiritual way. The result is the following project for the design of the Mississinewa Brewing Community.
As I began the design for the Mississinewa Brewing Community, I realized that there were three building types involved in this project. These are the brewery, the residence, and the community activity center.

**The Brewery**

Although not thoroughly considered for this project, the building and its spacial requirements need to be programmed to arrive at an estimated square footage.

Space for equipment and brewing processes..........................6500 sq. ft.

Offices.................................................................250 sq. ft.

Space for bottling and packaging..................................850 sq. ft.

Space for cold storage.............................................600 sq. ft.

Space for dry storage..............................................600 sq. ft.

These square footage estimates totalling 8800 square feet are based on the annual production of 30,000 cases of beer per year, and the full-time employment of ten community residents. The equipment alone would cost at least three million dollars in 1996, and the building without the equipment would need to be little more than a well ventilated warehouse, at about 50 dollars a square foot. Some of the concerns might involve the disposal of by-products, which can be given to local farmers as an excellent feed. The building also needs to be properly ventilated, and the strong odors must be kept from affecting the community. Although this was not considered for this project, I have visited several micro-breweries, and few had any odors outside the building.
The Residence

I have planned to include 20 individual units, focusing on condensing the homes as much as possible. The attempt to limit the homes to 1000 square feet apiece, with a master bedroom and two additional small bedrooms in each.

Social space .............................................. 260 sq. ft.
Small kitchenette ........................................ 120 sq. ft.
Master bedroom ........................................... 130 sq. ft.
Bedroom #2 ................................................. 100 sq. ft.
Bedroom #3 ................................................ 90 sq. ft.
Bathroom .................................................... 80 sq. ft.
Circulation ................................................... 140 sq. ft.
Storage ...................................................... 100 sq. ft.

With a total of 1020 square feet I ought to be able to provide comfortable living quarters for the residents of the community while creating an architectural suggestion that more time should be spent in community activities. The houses should be buildable for 85 dollars a square foot, allowing considerable attention to be given to the quality of the construction.
The Activity Center

This community activity center marks the collision of the private needs of the residents, and the more public needs of the potential tourists and other visitors. In many ways, the building itself becomes a gateway to the experience of this way of life.

Entry..........................................................400 sq. ft.

Social hall.....................................................1800 sq. ft.

Guest bedrooms...........................................500 sq. ft.

Guest bathrooms..........................................240 sq. ft.

Restrooms.....................................................360 sq. ft.

Auditorium....................................................2200 sq. ft.

Dining hall....................................................1800 sq. ft.

Kitchen.........................................................800 sq. ft.

Fitness room...................................................600 sq. ft.

Reading Room...............................................250 sq. ft.

Offices.........................................................400 sq. ft.

Conference room..........................................250 sq. ft.

Postal facilities..........................................200 sq. ft.

Laundering facilities.....................................750 sq. ft.

Storage.........................................................1000 sq. ft.
The community activity center is the social hub, and the building that would give a first impression to visitors. Therefore the approximately 11,550 square foot center ought to be constructed at a higher quality than the rest of the village. At around 110 dollars per square foot the building should be quite respectable, and present a desireable image.

So... The totals are in, and the estimated results are as follows:

Brewery = 8800 sq. ft. at $50/sq. ft. = $440,000

Brewing Equipment = $3,000,000

Residences = 1020 sq. ft. at $85/sq. ft. = $95,200 times 20 homes = $1,904,000

Activity Center = 11,550 sq. ft. at $110/sq. ft. = $1,270,500

Landscape and Civic Design = $650,000

Total Estimated Construction Cost = $7,201,500
community plan

Schematic Option #1

Schematic Option #2

Schematic Option #3

Radial Plan... Community Edges as Focus

Grid/Cluster Plan... Community Edges as Gateway

Axial/Cluster Plan... Community Edges as Anchor

Design...
Design...
By placing the community building at either end of the development, I have almost forced daily interaction between residents.

I had also struggled for a long time with the layout of all the buildings and was miserably trying to show the smaller clusters by rotating individual units to form curved sides. By giving all the buildings the same orientation, I think the community has become much more cohesive.

Design...
This is the view upon entering the community. Through the trees to the left is the back of the residence, and to the right is the Activity Center. The ring of trees is the final residue left over from the original idea of gateway. I moved considerably from the literal expression of gate to the idea that I was after the ritualistic notions involved in entry.
Initially conceived as a series of sculptural spaces of contemplation, these forums evolved into a simpler notion of gathering space, with the shade from the trees, the sound of water in the little pool, and the surrounding buildings enhancing the sense of place. This particular space was intended as one of three centers to cluster of houses, to reinforce the interaction that was already established by the anchor buildings.
I had originally spent considerable time designing the community center, but realized that the real character of the place would come from the network of residences that line the pedestrian streetscape. When I finally did return to the center, the need for it to fit in with the rest of the character became more important than the uniqueness of the design.
Pedestrian Street Scape and Residences.

Design...
The plan was deliberately left as open as possible so as to make each space feel larger because there is a visual connection throughout. It was also useful in making the living room more comfortable. Because it is so tall compared to its dimensions in plan, the extension visually into other rooms makes the relationship more acceptable.
community center plan

Design...
Now that thesis year is drawing to a close, I have the opportunity to look back at what I accomplished with this project, at what might have been done differently, at what might have been better avoided, and at where I might have fallen short of my own expectations. Such evaluation will help me to see what I can do with the experiences I had.

During the past year I learned much more than I ever expected about spirituality and about the patterns of community. I had the frequent opportunity to discuss my ideas with students and faculty members of a wide variety of backgrounds. Travelling afforded me the chance to see similar projects first hand, and to talk with people involved with them. With this background, I feel comfortable with the ideas about spirituality expressed in my design. It has been suggested that I may have gone too far in establishing a new privacy/community relationship, and I need to consider this carefully, but I needed to find an extreme from which to find my way back. On the other hand, I feel that the subtle spirituality of the place measures up to my expectations.

The overall goal of finding expression for the direction I want to travel in the architectural field has managed to remain very steady for quite some time, but the actual thesis project has changed many times, and in many ways. I would not consider the changes in direction arbitrary in any way, and would in fact argue that they enhanced the overall view. I was quite successful at presenting a design which demonstrates my interests and philosophy. However, I may have distanced myself from finding answers to issues such as integration with nature or environmentally friendly building techniques. My response to these issues remained intuitive during the design process, and were never explored further.

In retrospect, at the beginning of the year, it seemed as if I was afraid of not having enough meat to my project to last a full year, and to maintain my interest. Now I'd have to say that I was unable to be as thorough as I would have liked, but I am definitely pleased with the choices I made, and with the resultant outcomes.
Spirituality...

Since the year began with a study of spirituality, I feel I should make an attempt to summarize the results I found from this one pursuit separate from the others. Despite the frequent changes of direction, my thesis remained connected to a desire to create sacred architecture.

I would argue that I have managed to find a strong expression for spirituality. The aspects of community and craft have succeeded in enhancing and reinforcing my desire to find a quality, holistic way of living, and their expression in the design for the Mississinewa Brewing Community seem to suggest a way to realize that life. I have not been a regular attendee at any church, but I feel a need to live a spiritual life, and to experience a sense of numinous more often even than every Sunday. Although the community would not be overtly religious, I think that its subtle sacredness would lend well to spiritual health.

Of course, I do realize that I succeeded in sidestepping the considerable problems associated with trying to design a specific space for a universal spirituality, as I had originally intended. While there was a good deal to be gained from such a pursuit, I decided to move away from the chapel idea for several reasons. I particularly had problems finding symbols and myths that would have universal meaning in our society. By creating a sense of place, where the sacred resides in everyday objects, the symbols are those things the community values, and the myths grow from interaction.
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