PROPOSALS FOR UNIVERSAL SPIRITUAL SPACE
an architectural thesis exploring:
the perception of spiritual elements
through the synthesis of architectural tools

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Essential in the continuing development of man is a need for inner contentment. Most have chosen a form of religious spirituality to achieve this. In looking at the foundations of western architecture we cannot escape the impact of religious and spirituous structures. In these historical societies, obsession with the unknown was the thrust of life. The architecture, architectural forms, symbolisms and philosophies have greatly enhanced these spaces, as places of worship, thought, and meditation.

Our society today tends to provide only a secondary place in life for spiritual searches. This, too often, is reflected in the structures which house this activity. However, societies do presently exist on the basis of religious tradition. During the beginning period of my research, I saw and lived among a variety of religious communities. When in Israel, I was particularly intrigued by the numerous diverse religions cultures co-existing in a relatively small area. Through my travels I have been presented with the importance of the spiritual perceptions of society. As a student of architecture, I am intrigued by my role within the interaction of values of architectural space upon the spiritual man. I chose to study the architectural influence upon the perception of spiritual spaces. My thesis explores the elements of spiritual spaces and why people perceive them as such.
The project I have chosen to explore the thesis is a Universal Spiritual Space— in essence, a place for the 'communion of man'. Design of this space was aided by a set of construct elements, derived from researching four major world religions, which were then used as tools of design. These elements are architectural, psychological, symbolic in meanings. My goal became to examine the parallels that exist in spaces of various religions, and design in a universal sense by using those commonalities, thus creating spiritual space where anyone could come to perform those meditations vital to his spiritual well-being. Two unique designs evolved from the diverse combinations of spiritual elements— and the possibilities are limitless...
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... and so coming to their present maturity separately, are to become dimensions of one another, complementing each other by their varied uniqueness, and making possible an undreamed of breadth and depth of vision for man in an infinite universe.
The hills that surround Jerusalem capture that special character of a magical city. It is a city holy to three religious groups for varying reasons. Within its walls, the Old City atmosphere is heavy with religion and religious values guarded by time and tradition. Open markets with beautiful fruits and vegetables, brass and souvenirs line the narrow streets. Numbers of civilizations have occupied the tattered, worn and often war-scarred structures. Yet, the Old City is only 1/6 of the actual area of Jerusalem, and only a handful live inside the walls. Over forty sects of Christians inhabit the city. All these pilgrims combined compromise only a tiny percentage of city inhabitants. Most live within the old city and a few Christian Arab neighborhoods exist to the north, just outside the walls. Most Muslim Arabs live in the eastern villages, and south toward Hebron. Jews, the largest religious population, occupy the western areas of the city. Orthodox Jews are among a very small group which are extremists. They do not believe in the State of Israel. However, most resident Jews are in favor of modernizing the city. Most buildings are constructed of stone indigenous to the area. They follow the contour of the hills and form a dotted, sensitive collage up and down the landscape with very few high rises to mar the beautiful urban layering. Large apartment complexes form a backdrop to the city at the crest of the hills surrounding the city.
The site I have chosen is typical of the area just north of the city, and west of the Hebrew University on Mt. Scopus. The contours of these large hills rise steeply up to small crests before sharply lowering into valleys. This land is dry and covered with large rocks and scrubby brush. A few olive and cypress trees dot the barren hillside. The character of the site has proven to be a greater feature than the location specific. This site provides a tranquil, non-urban setting for the spiritual center, yet is accessible from Jerusalem for both residents and visitors.
All people, of all backgrounds have throughout history, continued to strive for some type of internal, individual peace. Traditionally, religious values and beliefs have fulfilled this spiritual need. Religiously based communities have evolved through time and are established around the world. In many cultures - Islamic nations for example - the government exists on the basis of the religion's law, even today. Through an intensive interest in the religious values of societies today in contrast to those of the past, the thesis was developed through seeing a relevant issue in the study of the affects of architectural space on these values. Suzanne Langer states in her book, Philosophy in a New Key, "Every generation hankers for truth ... There are relatively few people today born to an environment which gives them spiritual support." Yet by her statement she recognises that present-day peoples continue to strive for this inner peace. Thus the foundation for desiring further study into the ever-evolving design of spiritual space and its perception.
Education of an architectural student includes an in-depth historical base and essential knowledge of architectural periods or design. Learning from history and then applying the principles derived from it, is often a method for communicating design today. Egyptian architecture expressed an imaginative interpretation through spatial forms of the basic existential facts of their world. The Greeks designed, symbolic for truth, a harmonious unity of interacting forces. Continuing the study with the evolved styles of Roman, Early Christian basilican forms, Romanesque, and Gothic architecture up through the forms of today, has been a significant portion of the exposure. Related study of the Far Eastern architectural styles has not been a structured part of the educational sequence. However, through lectures and references, exposure was received. Notably, religious structures, temples, and tombs were generally the dominant architectural manifestations of design thought during each period. Today, however, spiritual structures are far less representational of architectural built form or philosophy because society no longer values religious ideologies as the basis of existence. However, individuals continue to look for inner contentment within our world. Diverse spiritual paths for achieving this inner feeling are currently accepted, several which vary from traditional religious practice. Therefore, incorporating an understanding of basic human spiritual needs with architectural manipulation of physical constructs into a design, resulted in a framework of ideas and qualities which were combined in various ways in order to respond to design criteria.-Design criteria which will adapt for the future, as well as for today.
The architectural approach to religion is determined by the values of the spirit in society at a particular time. Established religion has symbols and symbolic references which have developed through time as an important part of the spiritual experience. Christian Norberg-Schulz implies this importance, for all architecture, in his quote, "Architecture ought to be understood in terms of meaningful (symbolic) terms." Each symbol is designed to be perceived and in turn evoke an emotional response. The emotional value of a symbol will remain essentially constant. It is the interpretation—what people who use it say it means—that often changes. Therefore, the symbols must evolve through time with society as a whole in order to be perceived. Looking at society today we see an integration of cultures which has never before so widely existed. In turn, this indicates a co-existence of spiritual values in many parts of the world, making it impossible not to recognize the existence of faiths other than one's own. Communication, technology, travel and relocation have enabled the world to seem smaller and therefore more familiar with other cultures. Individuals are constantly confronted with learning of spiritual values in other societies—from the modern holy wars of the Middle East to the escapades of the Pope in the Christian world. From these traditional bases, the ideologies have in many instances evolved by expressing their values in other societies.
Sometimes this has been successful, but often has caused internal strife -- the middle east acts as example. So, as society diversifies it must also accept, understand, and respond to one another, including cognizance of spiritual symbols and values. Because the religious base has long been an inherent part of societies, it provides a means of studying the architecture of spiritual spaces. Well designed architecture can enhance the spiritual space for enhancement of the spiritual life, in the inner search.

Now established is the design problem of creating a place -- a place where religious peoples can co-exist and worship, meditate, and pray, which is enhanced by the integration of architectural elements. It is expected this combination will contribute to a broader understanding of the values of the other. In order to understand the idea of spiritual space, it was necessary to study the concepts behind it... those things which make a space spiritual in image, feeling and character. Studying the concepts of various major world religions was a valuable tool, as their worship spaces must contain appealing qualities to satisfy such large numbers of people. Buddhism, Christianity, Islam, and Judaism will be concentrated upon as tools for investigation and research. Each sect incorporates various characteristics which have valid religious significance and symbolic value. Elements of design such as water, light, verticality, procession/path and focus are parts of the...
celebration. Even in the secular world these are elements which evoke feeling. Charles Moore concentrated his doctoral dissertation on the effects of water in design. These elements, as often mentioned, may be diverse in both purpose and meaning from religion to religion and vary from concrete to abstract. The abstract forms are most easily used in this design for their possibilities of individual interpretations. People of various spiritual values can then begin to interact and use the same space in their own personal way. Through this interaction and observation, individual acceptance of other religious ideas will begin to develop. It is possible that eventually through the results of this example of religious relationship in an intimate context, the framework of spiritual manifestations in design could again be applied for other spatial types when interaction of differing values, etc. are necessary.

In developing a foundation for study of qualities inherent in spiritual space, a clear process of discovery had to be established. Sufficient published sources, personal contacts, etc. were available for research. However, the most valuable source became personal experience...the opportunity to visit religious places in the land of Israel, as well as Greece, Egypt, Italy, England and the United States. Gardens and landscapes have mystical qualities, and monuments have been designed for all people to enjoy. So the discovery process has been aided by many forms of design.
The primary investigative step was to compile a complete set of constructs of each of the religions used as tools, separate of the other, yet similar. These constructs are written documentation of a specific symbol, how it is perceived and the architectural element through which it is implemented, along with a conceptual diagram. The major elements were overlapped to reveal similarities in the various religions. As the designer, I integrated these similarities to make architecture - architecture characterizing a place for anyone to worship and commune within himself. These common elements identify with some aspect of each religion. Thus, they can be used to set up several frameworks by which this building could be designed. Each varying combination of constructs for each proposal allows for many architectural solutions. From this compilation of constructs, conflicting themes, essential characteristics and perceptions a direction for design thought was established enabling the designer to validate a space designed for a universal spirit within people.
The focal point has proven to be the most common, if not the most universally found object of the spiritual space. It is a universal symbol of holiness. It is a unifier of beliefs. It causes directional lines of thought. When one enters the main enclosure, he becomes immediately oriented toward the focal object. Consequently, all persons within the space are drawn to the same position, regardless of their actual location. This focus of attention aids in the cognition of symbolisms present and causes similar interpretations of events. Traditionally an altar, a mihrab, or an ark have represented this focal point. But the focus can be any symbol - concrete or abstract - perceived in various manners. It is purely an orientation point that allows the individual to react emotionally and physically to the spiritual enclosure about him. For this reason the focus has become exceedingly important in the design of universal spiritual space. The focal point is more than a generating construct, it is a necessary element for purpose. This thesis incorporates focal points which encourage individual, personal interpretations. The focus designed in a series of events leading to the ‘holy’ space, as developed in the first proposal, accomplishes this goal. Also the second proposal for design which allows people with diverse spiritual philosophies to more comfortably accept one another, and their individual inner celebrations.
Buddhism

Buddha or the Stupa

Christianity

The Altar

Focal Point

Each of the religions studied contains a central object upon which great importance is placed and worship is oriented toward:

Islam

the mihrab

Judaism

the Ark
The following design solutions are products of manipulations of the research constructs. In each prototype, emphasis is placed on one or more of the constructs, which I have chosen to explore. The major design concept is then formed around that construct. Various other constructs are also used as tools to support the main construct, just as each religion was used as a tool to form the constructs. Each prototype is a conceptual design result.
This design solution was generated from recognition of the importance of the sequential experience in the perception of spiritual space. A well-designed sequence will enhance the actual spiritual event. Rudolph Arnheim supports this philosophy saying, "intended uses are part of the image, but also that the sequence of perceptions activated in the user as he walks from room to room is as genuine an aspect of architecture as the static array of spaces." In religious applications, the sequential experience must allow the individual to perceive leaving the 'exterior' secular environment and entering the 'interior' environment. Its purpose is to prepare the mind for the experience of spirituality, through a series of influential spaces.

The constructs detailing movement, enclosure and light/dark were the major catalysts of the design concept of a sequential place. Additional constructs were worked into the design as minor issues. The greater the number of concepts working together, the greater success of the design. Traditionally this has been achieved through three transitional enclosures.

The concept of three transitional spaces was retained for easier perception, but manipulated and redesigned to create a better transitional sequence. The three elements evolved as:

- gateway
- path
- sanctuary
The gateway is strongly defined. It marks a special change from the present environment to another. It has traditionally been the entrance into a courtyard, for example, in Islam — also a symbol of unity. In most applications the gateway is marked merely as the doorway. However, in this instance the gateway is seen from the approach up the hillside. It is as if two large arms of wall are embracing the compound, protecting the beyond. The walls are high and massive, yet divulge a glimmer of life from the plants flowing over the edges. The walls lower to a small opening defining a passage through. Smaller replicas of the wall continue around the site and eventually generate the main enclosure, unifying the idea.

The pathway is a procession. It is of a length developed to allow time for personal acceptance of the destination. It must create an environment which is notably special and continue to stimulate the spiritual senses. The design uses the properties of light and dark, and texture to define pathway. The beginning is a wide stone path, shaded by a trellis with light filtering down through the plants. One side is confined by a high wall, the other is open to the courtyard. Progressing further, the pathway becomes enclosed on all sides and narrows. The ground rises and the passage becomes small and dark — yet there is light ahead to arouse. Suddenly the light is intense in the node made by the tower.

The sanctuary houses the most special images. It contains the focal element. It is the place where liturgical events are performed. It is designed for confrontation with the focal object, yet provides space.
for performance of sacred ceremonial rites. the adjacent garden
also becomes part of this enclosure. the entire space is pure and holy-
void of many material distractions - forcing the emotions of the mind
to oneness with self and spirit.

Traditionally exit has followed the reverse path of entry. However, in designing
so intensely for the path of preparation, I felt it contradictory to use the
same path for exit and entry. Therefore, as part of a sequence of events,
the path is regenerated from sanctuary to secular environment, as a
preparatory path out. It gradually opens up and emerges down the hill,
far below the complex, and faces away. It is a symbol of re-entry to the
secular world - completing the sequential experience.
Space within space was the main concept chosen from which to generate the second universal spiritual space design. Within the spiritual structures I researched as tools of design, there exists an array of smaller grottos, prayer niches, etc. which lend internal support to the composition of the whole. This construct presented a terrific design tool for developing space to accommodate the various spiritual philosophies. The diverse pods of space complement the others uniting as a whole, symbolic of the users. This theory is supported by the statement, "One way people have traditionally crystallized their sense of holiness was in their relation to space." (The Sacred and Profane, Chapter 1)

The obelisk is the major focal object, generating the entire complex. It locates the site from the city. The obelisk as a vertical symbol appropriately emphasizes and orients to that which is holy and representative of all spiritual endeavors - the desire for contentment with the mysterious beyond. From this vertical point I established four radial axis lines. Three of the lines orient the major pavilions to traditional directions. The fourth establishes a visual link past the fountain to the point of entry. The entrance is a series of trellises which gradually pick up the user walking up the hillside, and bring him/ her into the complex. The sight of the fountain is meant to refresh before worship. Each of the three major pavilions is similar, yet unique. The scales are proportioned intimately to the user - yet not limiting. Many of the spaces are exterior to take advantage of the climate. The individual worship spaces also act
as gateways announcing the holiness of the sanctuary beyond. The focal point at each pavilion is grand and aesthetically reminiscent of the traditional focal point. The plaza shape is wider rather than longer allowing a closeness around the focal object. Below each outdoor sanctuary is an enclosure to serve larger group meditations. Light from the above focus streams through the overhead plane, extending the holy focus. Three minor pavillions, near the site entrance, define a lower edge. They are designed with varying enclosures to suit diverse perspectives of thought. Simple geometric forms, indigenous to the area, allows the complex array of space to be easily understood by the user. From intimate through spacious, the spaces are each special, but unified as a whole.
The following two schemes represent an intermediate step in development of the constructs. They are not intended to be a cohesive design, but rather extensions, extrusions and adaptations of architectural elements used in traditional spiritual scenarios. Light and Water were explored for their potential as abstract elements of architecture in spiritual space - abstract because they allow for individual interpretations. Light adds emphasis highlighting the object just beyond or by filtering down through a shaft. Water is axial and defined as well as organic and natural. The sketch problem revealed to me the infinite possibilities of designing light and water into spiritual space. Yet, I realized that light and water would not be generating constructs for universal spiritual space, but would better work as qualities to reinforce, add dimension and enhance the overall design.
Light schemes
Water as main focal point:
- Tects of water to be interpreted in each person's own way
- Expression as exterior and happenings interior
- Clarity of path and expression
- Small bridge over organic water

Prep area - two separate:
- One directional
- One organic

Water cascading over natural elements
water schemes
CONSTRUCTS

Perception
Symbol
Architecture

enclosure
focus
geometry
hierarchy
light
movement
orientation
place
rhythm
space within space
transitions
verticality
water
ENCLOSURE
Buddhism

Enclosure --

Symbol -
  • empty space is holy

Architecture -
  • traditionally a 2 x 3 bay building
  • plan should be completely open
  • the room is not bounded by walls but by
    uprights and cross binding beams of equal
    thickness
  • emphasis on various holy levels by
    changes in form and elevations

Perception -
  • It is not the boundaries that matter,
    but the empty space they create i.e.,
    spatiality itself as shaped by light,
    shadow, construction

Plan

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Enclosure --

Perception -

- Connection between the building and the ground is important. The buildings appear to be supported by the earth giving them a sense of strength. Pillars and arches should be stressed to give a sense of strength and give the building the impression of having its root on the earth and not just floating in the air.

Architecture -

- Rhythm and repetition in architectural expression allows for a relationship to the interior space without being overwhelmed by size.
- Scale and proportion in elements which the worshipper can relate to.
**Islam**

**Hypostyle Hall**

- the traditional mosque space throughout the Islamic world
- the roof is essentially carried by columns or pillars set in parallel alignment with walls
- repetitive architectural expression allows the individual worshipper to relate to the interior space w/o being overwhelmed by the size of the building as a whole

**Shape**

- most mosques are wider than they are long
- wider aisle through the nave to lead one close to the mihrab
- movement of greater numbers of people close to the mihrab gives them opportunity to be "nearer" to Mecca
GEOMETRY

- **Square**: A product of 4 equal paths which represent unity. It symbolizes the **Earth**.
- **Triangle**: Human consciousness. It represents heaven.
- **Triangular relationship**: Between sun, earth, and moon.
- **Circle or hexagon**: Represent heaven.
- 3 giving rise to 6 is significant in Islam.
Geometry is the link in the architecture of Islam.

- **Square**
  - a product of 4 equal paths which represents unity.
  - It symbolizes the Earth.

- **Triangle**
  - human consciousness
  - Triangular relationship between sun, earth, moon

- **Circle**
  - One center

- **Multiplicities of all forces**
  - 3 giving rise to 6 is significant in Islam

- **Hexagon or Circle**
  - represent heaven
HIERARCHY