

**A PHENOMENOLOGICAL INTERPRETATION OF ISLAMIC RELIGIOUS
ARCHITECTURE BASED ON THIIIS-EVENSEN'S
*ARCHETYPES IN ARCHITECTURE***

by

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ABSTRACT

This study uses Norwegian architect Thomas Thiis-Evensen's *Archetypes in Architecture* (1987) to explore the nature of Islamic architecture, specifically focusing on the interpretive value of his architectural archetypes to understand the sacred architectural form of two mosques--the Badshahi Mosque in Lahore, Pakistan (1673); and the Faisal Mosque, in Islamabad, Pakistan (1988). While the examination of each of the three elements--floor, wall and roof--assures a rigor to the mosques' interpretation, the common focus on how these elements sustain a specific inside/outside relationship binds the interpretations into a cohesive whole. The interpretations are grounded in commonly shared bodily experiences through which the expressive potentials of the architectural forms are recognized. Through this experiential orientation, the potential dangers of succumbing to either one's personal preferences or to a deterministic historical or theoretical explanation are averted.

This thesis concludes that the expression of a religious architectural character is essential in imparting a collective sense of sacred place and is inseparably woven into the making of a physical place. Symbolic spiritual values of a sacred place hold meanings that are intersubjectively experienced across culture and history. A comparison and contrast of the two mosques point toward considerable common meaning. This consistency supports Thiis-Evensen's claim that his theory is universal and essentialist. In addition, the two interpretations lead to a more precise architectural understanding of the two mosque as examples of Islamic religious architecture.

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CHAPTER I

INTRODUCTION :

A THIIIS-EVENSEN INTERPRETATION OF TWO ISLAMIC MOSQUES

This thesis attempts to understand Islamic religious architecture, using Norwegian architect Thomas Thiis-Evensen's phenomenological approach to architectural meaning. In his *Archetypes in Architecture*, Thiis-Evensen seeks to discover a universal language of architecture (Thiis-Evensen, 1987). He asks "whether or not it is possible to establish a theory.....based on the entire phenomena of architecture itself" (ibid., p. 8). Conventionally, the understanding of architectural forms and beauty has often been said to be purely subjective, depending on the tastes of individuals, groups and historical periods. In contrast, Thiis-Evensen believes that one can discover "a more reliable basis for the emotional content of architecture" that can "replace the generally subjective 'feelings' about the qualities of buildings" (ibid., p. 9).

One major intent of this thesis is to demonstrate the value of Thiis-Evensen's theory of architectural archetypes for better understanding two examples of Islamic religious architecture: the Badshahi Mosque, in Lahore Pakistan; and the Faisal Mosque, in Islamabad, Pakistan (figures 1.1 and 1.2). The Badshahi Mosque (1673-74) is one of the finest and largest examples of the traditional Mughal style of architecture and was commissioned by one of the greatest emperors of the Mughal Dynasty, Shah Jahan, who also built the Taj Mahal.

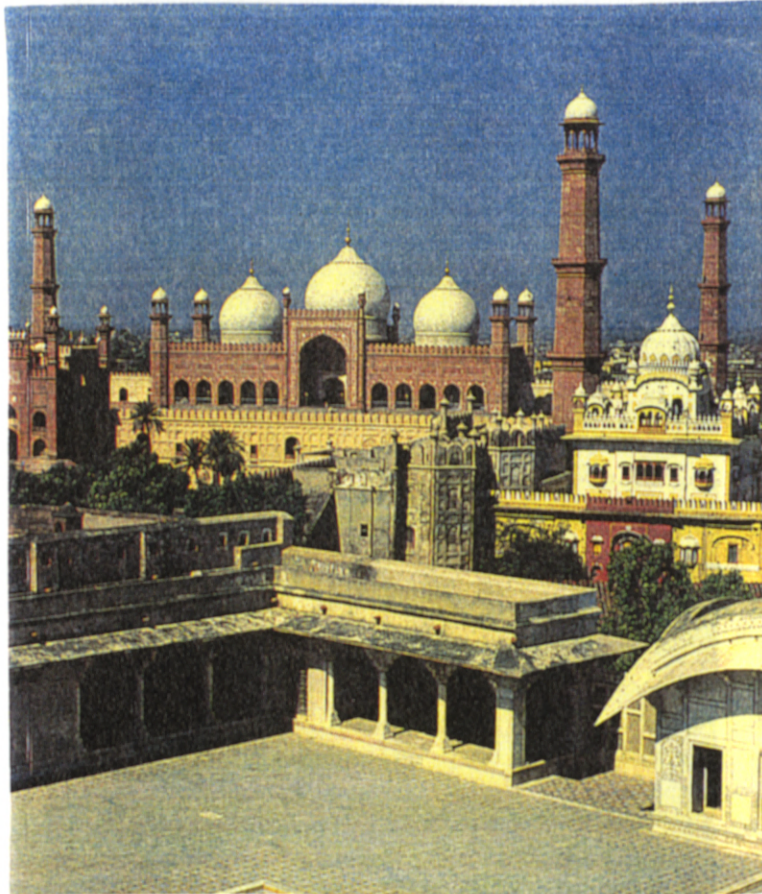


FIGURE 1.1: The Badshahi Mosque, Lahore, Pakistan.

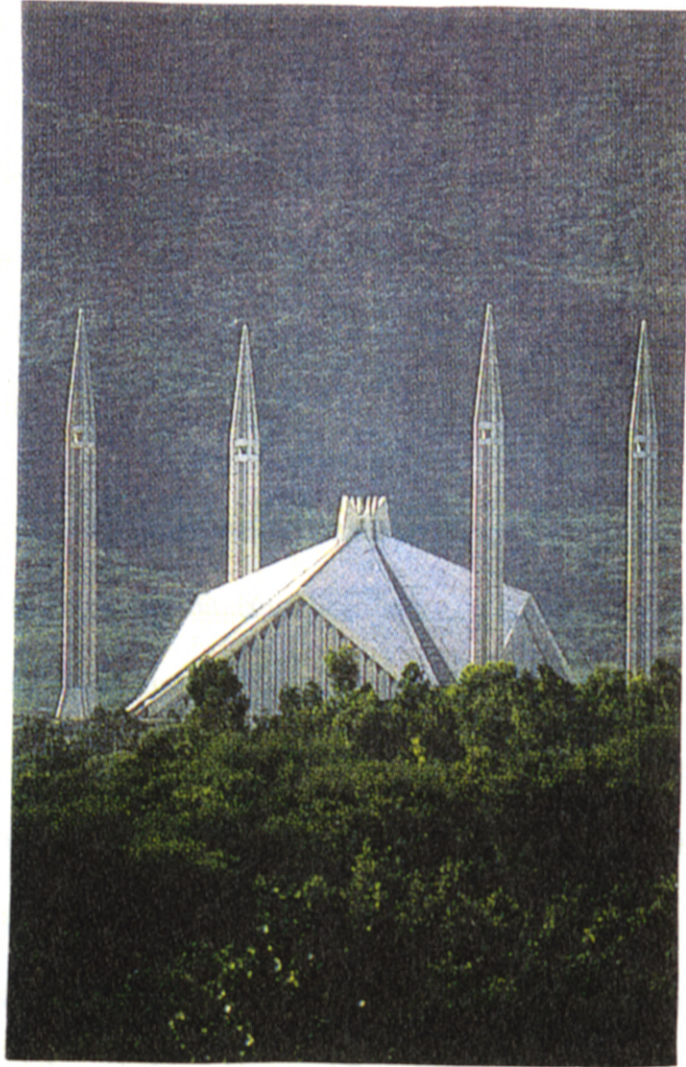


FIGURE 1.2 : The Faisal Mosque, Islamabad, Pakistan.

The Badshahi Mosque can easily accommodate as many as 100,000 worshippers, a fact which makes it one of the largest houses of prayer in the Islamic world. In contrast, the Faisal Mosque (1988-90), the second mosque chosen for study, is an example of a Late-Modernist style of architecture. Situated in the city of Islamabad, the capital of Pakistan, the Faisal Mosque was designed by Turkish architect Vedat Dalokay, whose unique design was chosen through an international architectural competition. The design of the Faisal Mosque is unique in the way the architect has harmonized the classical approach to formal mosque architecture with Late-Modernist form and technology.

In regard to these two mosques, this thesis attempts to answer three key questions:

- Can non-Western architecture like these two mosques be interpreted on the basis of Thiis-Evensen's theory of architectural archetypes?
- Can Thiis-Evensen's approach help one understand the contrast between traditional vs. modern religious architecture as represented by the Badshahi Mosque and the Faisal Mosque, respectively?
- How does Thiis-Evensen's theory help one understand how sacredness is expressed through the architectural form and symbolism of the two mosques?

UNDERSTANDING ARCHITECTURAL MEANING

In broadest terms, this thesis studies architectural symbolism and the meaning it generates. Practically, this study is undertaken through a phenomenological approach which, in part, can be said to involve a qualitative description and interpretation of people's experiences within a physical setting (Seamon, 1987, p. 23). Phenomenological research examines the everyday

immersion of people in their environment, a state of occurrence that the phenomenologist terms *life-world*. Specifically, the life-world is the unself-conscious, taken-for-granted pattern of a person's existence in a particular place. In terms of architecture, the life-world is significant because it includes the relationship between people and the built environment, including buildings and their architectural meaning.

In this thesis, the focus is on the *worship life-world*, by which I mean the unself-conscious taken-for-granted immersion of people in a place of worship--for example, the worship life-worlds of the two mosques. This study, therefore, focuses on the relationship of people and the built environment as that built environment is a worship space--that is, a mosque and house of prayer. The purpose of this research is to analyze one form of Islamic religious architecture--the mosque. Particularly, the emphasis is on an examination of the relationship between the mosque's various architectural elements and its sacred built form as a whole as reflected in the two specific mosques chosen for study.

METHOD

In interpreting the two mosques from the thematical viewpoint of Thiis-Evensen, this thesis involves careful explication of photographs and drawings of the two mosques as well as the recollections of the author, who has visited and worshipped in both mosques. This interpretive approach calls for "imaginative transposal"--the act of projecting oneself into the experience of the place or building (Hill, 1985, p. 100). In the course of this effort, the author's direct experience of the two mosques has worked as an important referential source. In general form, the thesis takes on the following outline :

- Chapter II, the first part of a literature review, examines various approaches to architectural meaning and aesthetics, giving major attention to a review of Thiis-Evensen's major arguments.
- Chapter III, the second part of the literature review, considers the phenomenological concepts of sacred space and architecture for worship. In addition, this chapter examines Islamic religious architecture, especially the mosque.
- Chapter IV, introduces the two mosques to be studied and also includes the author's personal interpretation of these two buildings.
- Chapters V-IX, the main body of the thesis, interpret the archetypal floors, walls and roofs of the two mosques, using Thiis-Evensen's theory of architectural archetypes as the interpretive base.
- Chapter X, the thesis' conclusion, compares and contrasts the two mosques from Thiis-Evensen's point of view and evaluates the effectiveness of this approach for better understanding architecture, both Western and non-Western.

CHAPTER II

LITERATURE REVIEW 1:

APPROACHES TO ARCHITECTURAL MEANING AND THISEVENSEN'S ARCHITECTURAL ARCHETYPES

Architectural meaning has been interpreted in many different scholarly ways, mainly due to the fact that architecture is a complicated enterprise involving, among other factors, art, technology, culture, and history. Although this thesis involves a phenomenological approach, it is important to review other significant conceptual approaches to architectural meaning, which here are identified as four:

- semiotics ;
- Marxist-structuralism ;
- empirical environment-behavior studies ;
- phenomenology.

SEMIOTICS

One conceptual approach to architectural meaning is semiotics--a theory of signs and symbols. The semiotic approach argues that meaning in the environment is inescapable, and everything which can be seen or thought about takes on meaning (Jenks, 1980, p. 7). As Eco (1976, p.3) points out, semiotics is concerned with "a large range of phenomena such as the common use of languages, the evolution of codes, aesthetic communication.....communicative behavior." However, Jenks (1980, p.3) also points out,

that architecture is often experienced inattentively, the way one listens to background music. Here Jenks asks a very important question: "why should the architect care about this most general and malleable level of meaning?" He proceeds to explain that this level of meaning has often been quite coherent and influential in the way people use buildings (ibid., p. 233). Jenks believe that architectural form can involve socially shared subcodes, which have a fair amount of stability in any one time or place. These subcodes guide a deeper reading of architecture: its actual use, denotation, and overall signification (ibid., p. 233).

In *The Language of Post Modern Architecture*, Jenks (1984, p. 7) says that "art, ornament and symbolism have been essential to architecture because they heighten its meaning, make it clearer and give it greater resonance." He especially emphasizes the symbolic meaning of architecture, which, he says, can be expressed by a shared public language understood by both the lay person and the professional. In other words, Jenks speaks of a traditional code of which the public is aware and a professional code with which architects are familiar. In this way, Jenks concludes, architecture can communicate to both professionals and the public. Architecture is, therefore, a sign system generating meaning (ibid., p. 7-10).

MARXIST-STRUCTURALISM

The Marxist-structuralism perspective is a second approach to architectural meaning which emphasizes the influence of social structure and political ideology on architecture (Knox, 1982/84, p.4). Marxism looks at society as a totality containing different economic, social and political structures, in which some structures are more basic than others with the economic structure considered to be the most foundational of a society (Harvey, 1973, pp. 292-293).

Thus, this approach holds that architecture is the product of a particular social, economic and political context. Architecture plays a symbolic role in the environment in that it reflects political power systems and social economic life styles (Knox, 1982/84, p. 5).

The Marxist perspective argues that the social meaning of the environment plays an influential role in relation to its other functions (Appleyard, 1979, p. 144). In the context of the built environment, this social meaning can be encoded in both verbal signs (e.g., 'keep right', 'wrong way') and non-verbal signs (e.g., walls, fences, and other physical elements indicating certain territories). These signs and codes help achieve basic human needs of identity, recognition and sense of power (ibid., pp. 147-152).

Knox (1984) concludes that social ideas and beliefs are transformed by architects and other producers into particular symbols and styles expressed both tangibly and intangibly. In turn, through cognitive processes, these symbols and styles becomes people's perceived messages, including architectural meaning (Knox, 1982/84, p. 119).

EMPIRICAL ENVIRONMENT-BEHAVIOR STUDIES

The empirical research in environment-behavior studies is a third approach to environment meaning and is largely based on psychological assumptions and methods. Empirical tests, involving statistical and other measurement techniques, are a useful vehicle for studying group differences and the patterns of meaning categorization. This approach is related to what Lang calls 'positive theory', which aims to enable people to explain and predict future behaviors and events (Lang, 1985, p. 14).

Lynch's *The Image of the City* (Lynch, 1961) is one of the earliest and most important works in this particular research area. In this book, Lynch studies the forms and meanings of the city as a whole through an examination of people's mental representations of the urban environment and elements in it. Interviewing and asking people to draw sketch maps of their cities is one of the major tools of this imageability research. In his work, Lynch's key focus is *legibility*--the ease with which the parts of a city can be recognized by its residents and users. Overall, Lynch discovers that the physical elements identified in the maps and interviews of residents can be classified in terms of five types of elements: paths, edges, districts, nodes and landmarks.

Groat's research on the visual and aesthetic meaning of architecture (Groat, 1982, 1983, 1984) is another important example of empirical work on architectural meaning. Using primarily semantic differentials and factor-analysis techniques, Groat tests the extent to which architects and non-architects interpret buildings differently. Based on Jenk's arguments relating to post-modern architecture, she generates two hypotheses: first, that there is an identifiable code for architects in interpreting buildings, which is different from the popular code of non-architects: second, that both architects and non-architects can distinguish between post-modern and modernist buildings. Using multiple sorting methods, Groat classifies respondent's categorization of buildings. This procedure allows her to obtain a pattern of respondent's understandings indicating whether, in fact, the architects and non-architects draw on different meaning codes. Finally, she uses a semantic differential to test whether both groups can identify the differences between the two building styles--modern and

post-modern.

PHENOMENOLOGY

Different from the above three conceptual perspective is the *phenomenological approach*, which attempts to explicate meaning as it is lived in people's everyday lives (Mann, 1990, p. 11). Phenomenology attempts to meet the things of the world as those things are in themselves and so describe them (Seamon, 1980). Phenomenology seeks the essential structures of human experience (Wilde, 1963). One result of a phenomenological approach to meaning is "a general descriptive picture of meaning and the meaning experience" (Seamon, 1988, p. 68).

One way to approach phenomenological research is to explore and describe the experiences that take place in the built environment (Seamon and Nordin, 1980). Tuan (1986) states that to describe any environment completely we must combine aspects of both the physical and the psychological worlds. To understand places, we need to study not only qualities of architecture and space but also the human experiences associated with that space (Harries, 1983). Each of these elements--the built architectural environment and human experience--are intertwined. Not looking at one would diminish the validity of any response derived from the other.

Thiis-Evensen's approach to architectural meaning is largely based on a phenomenological perspective. He seeks to identify and describe the basic qualities of architecture that are "proverbial and therefore hard to describe" (Mann, 1990, p. 18). He attempts to establish a universal language of architecture by focusing on the experienced qualities of floor, wall and

roof, which he says are "the most basic elements in architecture" (p. 8). He explains that these three archetypes work existentially through the ways in which they physically and psychologically differentiate *inside* and *outside* (Seamon, 1990, p. 9).

Since Thiiis-Evensen's theory of Archetypes is closely related to phenomenology, a summary of his work here is essential in understanding the main body of his research and its present application for understanding and interpreting the sacred form of the two mosques studied in this thesis.

ARCHETYPES IN ARCHITECTURE

As was explained above, one recent work that attempts a phenomenology of architectural form is Thiiis-Evensen's *Archetypes in Architecture*. His aim is to develop a theory of architecture based on commonalities in human-environment relationships. He states that post-war architectural experience has been characterized by a contrast between two extreme positions: one is exclusively subjective and produces 'expressive' works, while the other dogmatically adheres to technology and produces 'schematic' architecture (Thiiis-Evensen, 1987, p. 7).

Thiiis-Evensen's aim in seeking a remedy for this 'confusion' in the world of architecture is a theory based on the "entire phenomenon of architecture." His focal interest is to classify and describe a set of 'archetypes' relating to architectural form in order to arrive at an understanding of the "universality of architectural expression." Such knowledge preceding design, he argues, will provide "a more reliable basis for the emotional content of

architecture" (Thiis-Evensen, 1987, p. 9).

The Archetypes

Asserting at the very beginning that the immediate response to a building is primarily 'qualitative', Thiis-Evensen concerns himself with exploring the emotional content of architectural forms with a deep belief that such understanding is essential for architectural design. He argues that archetypes of architecture, refer to certain basic forms that have been varied and combined throughout history. His focus here is on the persisting phenomena of architecture--the dialectics of *inside* and *outside* of a building.

As illustrated in figure 2.1, for Thiis-Evensen, there are three basic elements of architecture--floor, wall and roof--that are linked by a fundamental commonality that relates to the fact that "they balance the forces of *inside* and *outside*," which is the essence of shelter. As shown in figure 2.2, he argues that these three elements, or 'archetypes', can be understood experientially in terms of three qualities that he terms 'existential expressions'--*motion*, *weight* and *substance*. "*Motion* describes the dynamic nature of elements, whether they expand, contract or are in balance. *Weight* describes the heaviness of elements and is related with gravity. It describes whether they stand, fall, weigh down or lighten up. *Substance* is related to the materiality of the elements, whether they are soft, hard, coarse, fine, warm or cold" (ibid., p. 19-21).

Having reviewed Thiis-Evensen's argument in general terms, we next must review the three basic archetypes of floor, wall and roof as they generate a sense of insiderness and outsiderness

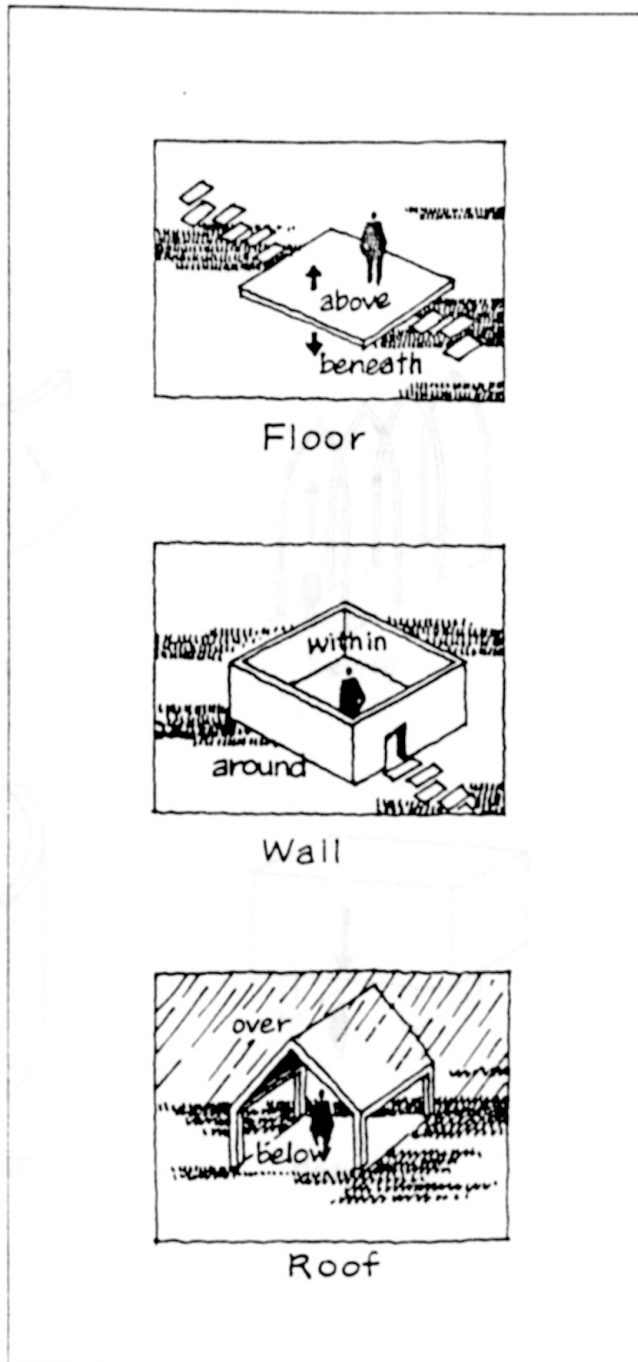
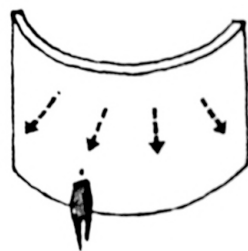
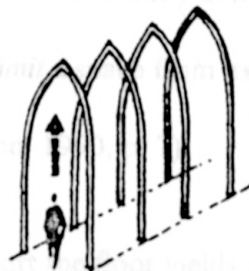


FIGURE 2.1: Insiderness and outsiderness as expressed by Thiis-Evensen's three architectural archetypes (redrawn from Lin, 1991, p. 15).



Expansion



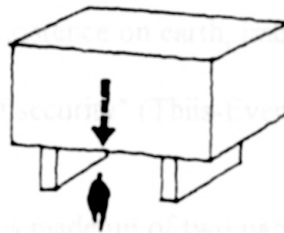
Levity



Softness



Contraction



Heaviness



Hardness

FIGURE 2.2 : Motion, weight and substance expressed architecturally
(redrawn from Lin, 1991, p. 16).

through motion, weight and substance.

The Archetypal Floor

The essential qualities of floor forms the first section of *Archetypes in Architecture*. Thiiis-Evensen's major purpose is to identify the nature of inside/outside relationship that the floor generates. He argues that the floor serves existentially in three ways: first, it can *direct* people from place to place; second, it can *delimit* a space from its surroundings; third, it can *support* by providing a firm footing " (Seamon, 1990, p. 7).

Thiiis-Evensen believes that the support the floor yields is the most significant of its three experienced functions. While the other two existential functions of delimiting and directing can also happen through the wall and the roof, it is the floor alone that can support us.

"Firmness is a precondition for our existence on earth, imbedded within us as a fundamental background for our entire feeling of security" (Thiiis-Evensen, 1987, p. 37).

The ground, Thiiis-Evensen explains, is made up of two parts: a surface and a mass. Through the interplay of surface and mass, the expressive qualities in nature's floor is derived (ibid., p. 37). The relationship of surface and mass is complex and dynamic. For example, as figure 2.3 illustrates, the depression of the floor below the ground faces us with the more 'primordial forces' and the unknown, and we are "in the clutch of the ground" (ibid., p.39). In contrast, a feeling of independence results if the floor surface rises above the ground. The manner in which the floor surface descends or ascends is also crucial, as it will affect the meaning significantly: "If the surface cracks and breaks open we 'fall'.....if the earth sinks as in a

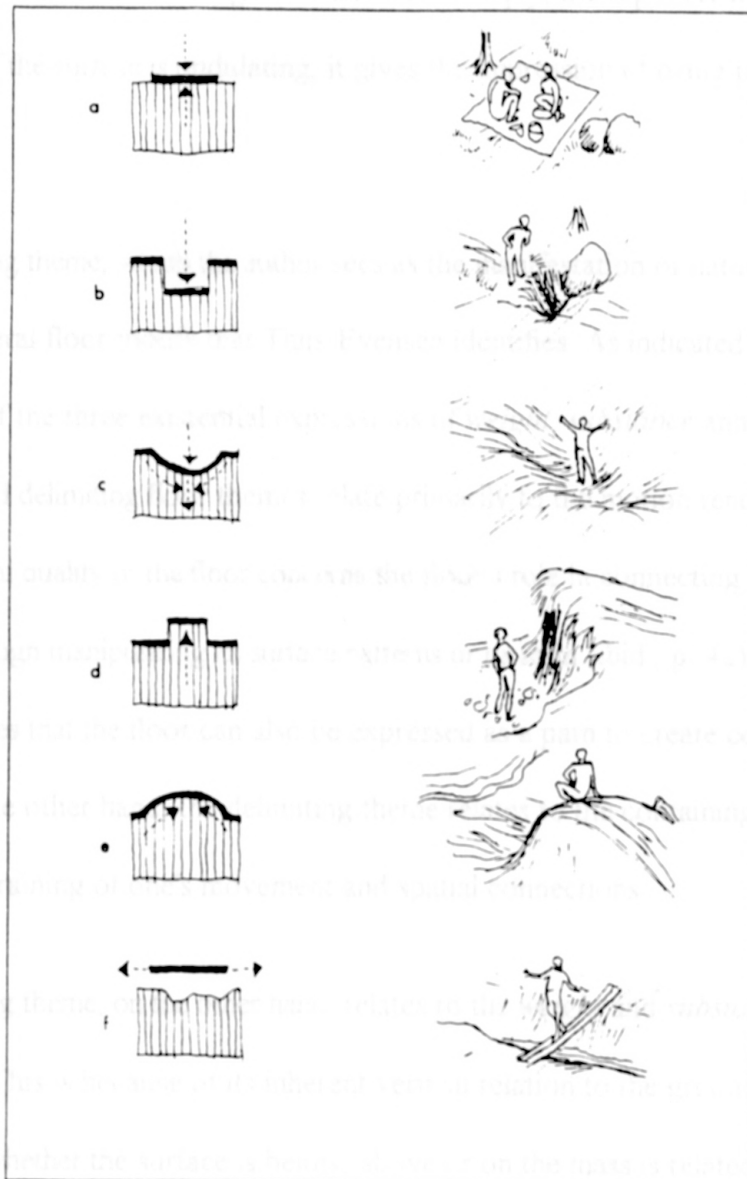


FIGURE 2.3 : The expression of nature's floor: the relationship between the surface and the mass: (a) the surface 'upon' the mass, (b,c) 'below' the mass, (d,e) 'up out of' the mass, and (f) 'above' the mass (from Thiis-Evensen, 1987, p. 40).

trough... we feel we are being guided down" (ibid., p. 39). In the case of a floor that rises, "if the surface breaks from the ground and rises sharply, the top level will be isolated and limited. But if the surface is undulating, it gives the impression of being pushed upwards....." (ibid., p. 39).

The supporting theme, which the author sees as the manifestation of nature's floor, forms the basis for several floor motifs that Thiis-Evensen identifies. As indicated in figure 2.4, he argues that of the three existential expressions of *weight*, *substance* and *motion*, the directional and delimiting floor themes relate primarily to the motion tendencies of the floor. The directional quality of the floor concerns the floor's role in connecting spaces. This can be achieved through manipulating its surface patterns or its form (ibid., p. 42). In addition, Thiis-Evensen argues that the floor can also be expressed as a path to create connections between spaces. On the other hand, the delimiting theme relates to the containing of space, which implies a restraining of one's movement and spatial connections.

The supporting theme, on the other hand, relates to the *weight* and *substance* characteristics of the floor. This is because of its inherent vertical relation to the ground below. The questions of whether the surface is below, above or on the mass is related to its experienced weight, which in turn is connected to the material of the floor: "the 'speed' of motion on a wooden bridge arching above the ground, is completely different from that of the same bridge built of stone and lodged heavily to the ground" (ibid., p. 49). Similarly, the same floor lying on the ground will seem attached and heavy if it is of stone but detached and light, if it is grass or a carpet. This experiential difference results from the apparent weight of the floor and

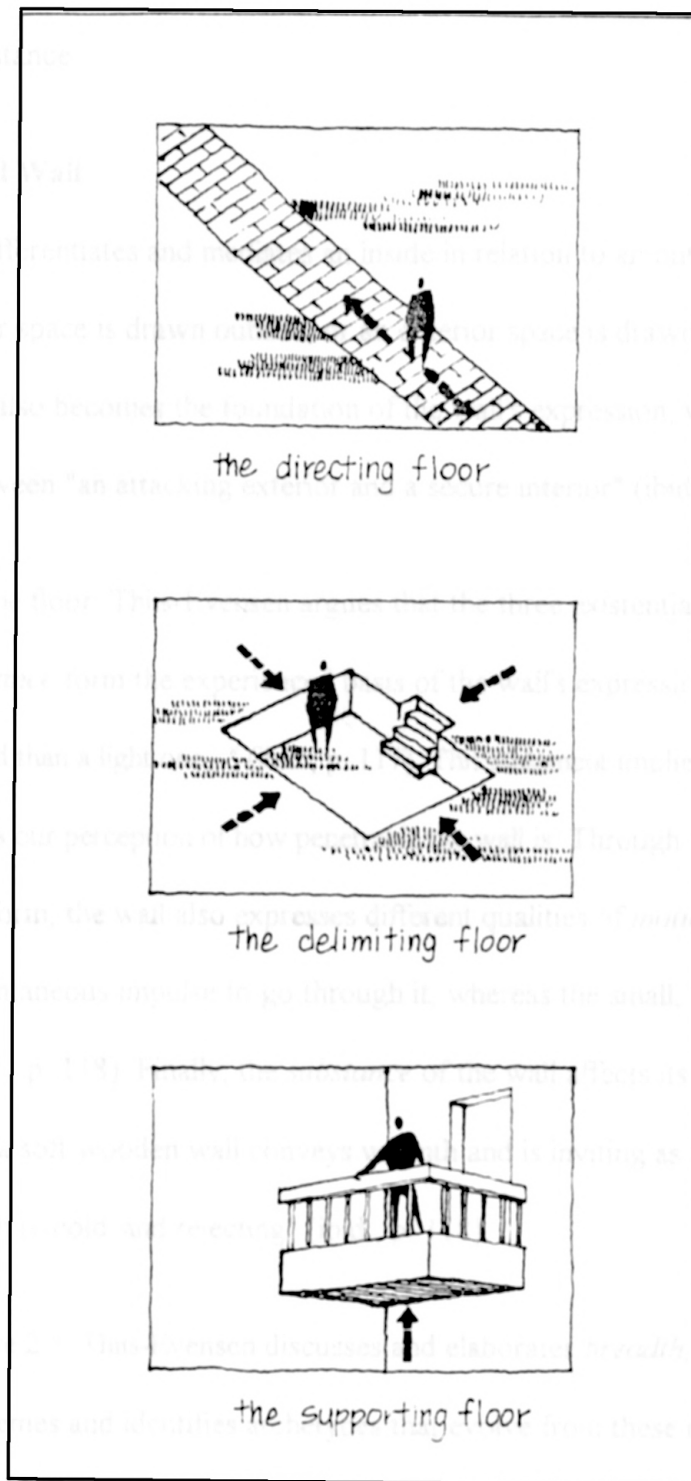


FIGURE 2.4 : The three expressions of the floor (redrawn from Lin, 1991, p.25).

the specific substance.

The Archetypal Wall

The wall also differentiates and mediates an inside in relation to an outside. The degree to which an interior space is drawn outside, or an exterior space is drawn inside is determined by the wall and also becomes the foundation of the wall's expression, which involves the relationship between "an attacking exterior and a secure interior" (ibid., p. 116).

Again, as with the floor, Thiis-Evensen argues that the three existential qualities of *motion*, *weight* and *substance* form the experienced basis of the wall's expression: "a heavy wall will seem more closed than a light one..." (ibid., p. 117). This statement implies that the felt *weight* of the wall affects our perception of how penetrable the wall is. Through varying the openings and the overall form, the wall also expresses different qualities of *motion*: "a large door stimulates a spontaneous impulse to go through it, whereas the small, low door arrests our movement" (ibid., p. 118). Finally, the *substance* of the wall affects its expression of penetration: "...a soft wooden wall conveys warmth and is inviting as opposed to a rough stone wall, which is 'cold' and rejecting" (ibid., p. 118).

As shown in figure 2.5, Thiis-Evensen discusses and elaborates *breadth*, *height* and *depth* as the major wall themes and identifies archetypes that evolve from these major expressions of the wall. The breath theme relates to the wall's expression that derives from the horizontal expression of the wall. As figure 2.6 illustrates, he further elaborates the breadth theme into four motifs: *breadth*, *split*, *right* and *left* (ibid., p. 133). In the breadth motif, the middle

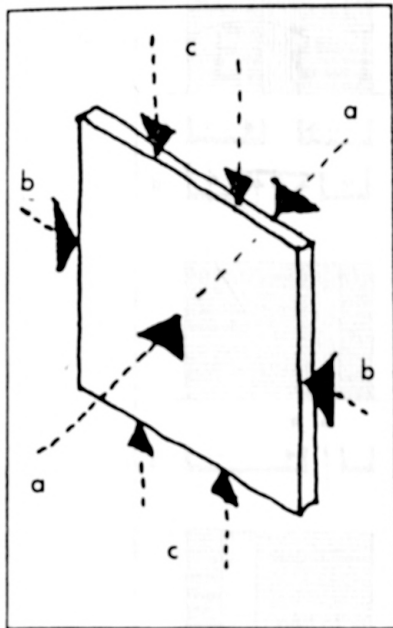


FIGURE 2.5 : External forces which affect the wall: (a) in depth, (b) in breadth, and (c) in height (from Thiis-Evensen, 1987, p. 117).

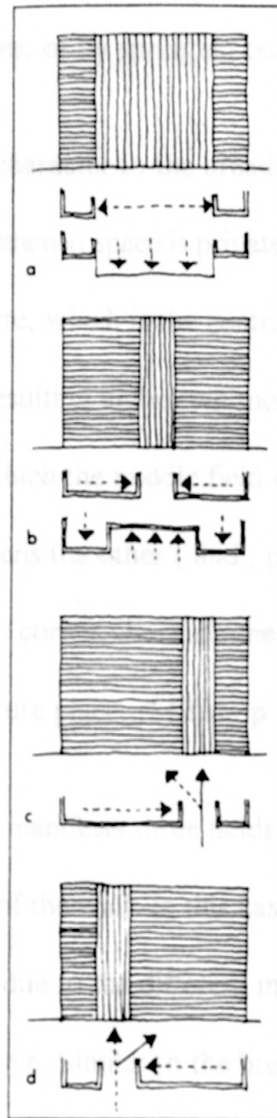


FIGURE 2.6 : The breadth theme and its four motifs: (a) the breadth motif, (b) the split motif, (c) the right motif, and (d) the left motif (from Thiis-Evensen, 1987, p. 123).

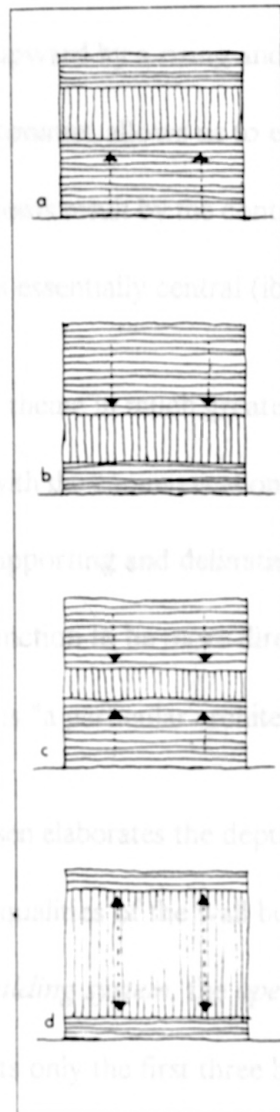
section dominates and corners are held back, resulting in an open, public character and a strong form: "the motif is generous and receptive, the entire building expands outward either by 'pushing' the corners to the sides, or by springing out in order to meet us" (ibid., p. 125).

The split motif is the opposite in character to the breadth motif in that the corners dominate over the middle section and the contained space is private and protected. The breadth and the split motifs have a common feature, which is the centrality of the middle field which either dominates or is suppressed, thus resulting in the two motifs. The right and the left motifs are variations of the side motifs, in which the middle field of energy moves to one side and strengthens one corner and weakens the other (ibid., p. 125). Upon entering the space we "...gravitate towards the strongest corner...because the strongest most clearly characterizes the interior as a delimited and secure place..." (ibid., p. 125).

The wall in the height theme again manifests three fields of energy (ibid., p. 128). Related to the perceived motion tendencies of the wall--in this case the vertical movement--the three fields attain different expressions due to the different meanings of the sky and the earth toward which the wall seems to move. Similar to the breadth theme, where the right and left sides differed qualitatively, the top and bottom fields of the vertical tripartition also differ in directional tendencies and meanings. The top field, which rises to meet the sky , appears lighter and seems to rise and the bottom field, meeting the earth, tends to be heavier and appears to sink (ibid., p. 129).

As figure 2.7 indicates, the variations of the three fields of the horizontal tripartition of the

wall yields four wall motifs. The first two—rising and sinking—arise from a middle field which is constant in size but is moved in the vertical direction (ibid., p. 133). In the rising motif, the middle field is pushed down, compressing the lower field, which is unable to penetrate. The sinking motif, in contrast, allows the lower field to enter easily into the space above. The split motif is a variation on the rising motif, and the opening motif is a variation on the sinking motif, which in its location remains essentially central (ibid., p. 133).



This-Evensen examines the depth theme by drawing four categories that determine not only the depth of the wall but also the wall's breadth and height expressions: the main form, the building's openings and the articulation (ibid., p. 117). Of the two functions of supporting and delimiting that describe what the wall does, the author regards the delimiting function as directly related to the wall's expressive potential, since supporting a roof is a technical problem (ibid., p. 116).

As shown in figure 2.9, This-Evensen elaborates the depth theme by deriving four categories that determine not only the depth of the wall but also the wall's breadth and height expressions: the main form, the building's openings and the articulation (ibid., p. 141). Of these, This-Evensen treats only the first three because articulation refers to the

"dimension, the way in which individual parts are joined together, the division of the wall, as well as the texture and colors" (ibid., p. 141). Articulation underlines the three other categories and, This-Evensen does not discuss this topic separately, since each wall will be

FIGURE 2.7 : The height theme and its four motifs: (a) the rising motif, (b) the sinking motif, (c) the split motif and (d) the opening motif (from Thiis-Evensen, 1987, p.133).

As figure 2.9 indicates, *Main form*, as a sub-theme of depth, explores how convexity,

wall yields four wall motifs. The first two--*rising* and *sinking*--arise from a middle field which is constant in size but is moved in the vertical direction (ibid., p.133). In the rising motif, the middle field is 'pushed' upward by a rising and rejecting lower field, which is hard to penetrate. The sinking motif, in contrast, allows us to enter easily while the space is closed above. The *split* and the *opening* motifs result by the contraction and expansion of the middle field, which in its location remains essentially central (ibid., p. 133).

Thiis-Evensen examines the depth theme in much greater length than the other two themes, since depth is "directly concerned with the communication between inside and outside" (ibid., p. 117). Of the two functions of supporting and delimiting that describe what the wall does, the author regards the delimiting function to be more directly related to the wall's expressive potential, since supporting a roof is "a particular architectonic problem" (ibid., p. 116).

As shown in figure 2.8, Thiis-Evensen elaborates the depth theme by deriving four categories that determine not only the depth qualities of the wall but also the wall's breadth and height expressions: the *main form*, the *building system*, the *openings* and the *articulation* (ibid., p. 141). Of these Thiis-Evensen treats only the first three because articulation refers to the "dimensions, the way in which various parts are joined together, the division of the wall, as well as the texture and colors" (ibid., p. 140). Articulation underlines the three other categories and Thiis-Evensen does not discuss this topic separately, since each wall will be unique in its specific articulation.

As figure 2.9 indicates, *Main form*, as a sub-theme of depth, explores how convexity,

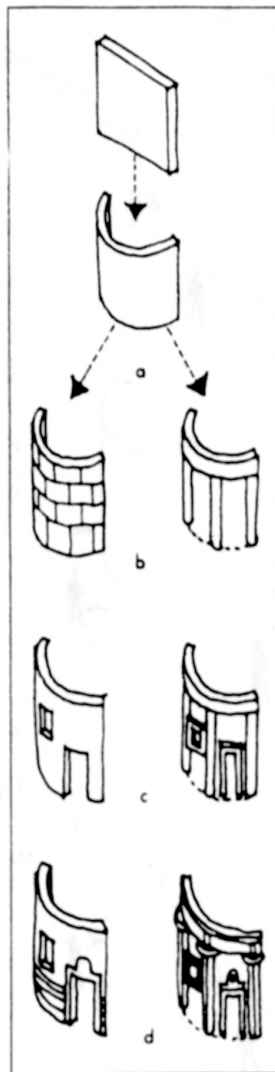


FIGURE 2.8 : The major theme of the wall: (a) main form, (b) construction system (massive-skeleton), (c) openings (doors-windows), (d) articulation (dimensions-connections-divisions-textures) (from Thiis-Evensen, 1987, p. 142).

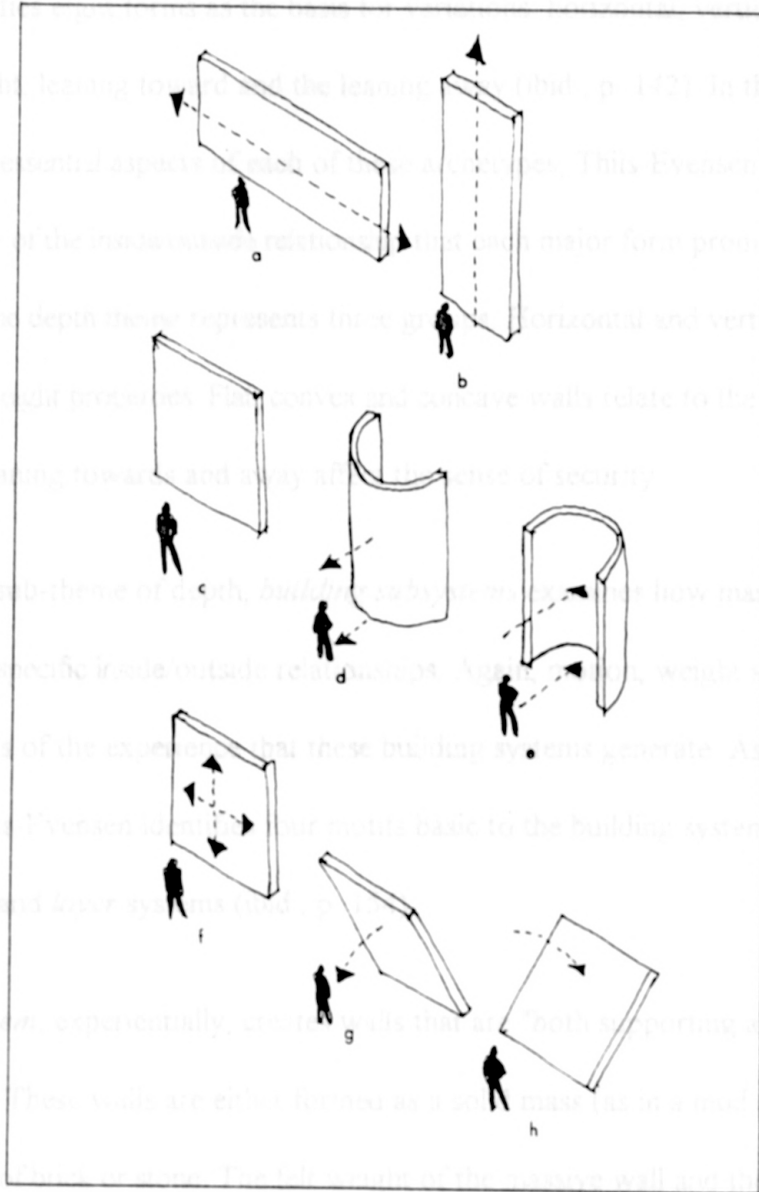


FIGURE 2.9 : The main form of the wall: (a) horizontal, (b) vertical, (c) flat, (d) convex, (e) concave, (f) straight, (g) leaning toward, and (h) leaning away from
 (from Thiis-Evensen, 1987, p. 142).

concavity, slanting width and height of the wall affect the inside/outside dialectics. Thiis-Evensen identifies eight forms as the basis for variations: horizontal, vertical, flat, convex, concave straight, leaning toward and the leaning away (ibid., p. 142). In the effort to understand the essential aspects of each of these archetypes, Thiis-Evensen's focal interest is the particularity of the inside/outside relationship that each major form promotes. These eight archetypes of the depth theme represents three groups. Horizontal and vertical walls involve the width and height properties. Flat, convex and concave walls relate to the depth and finally the straight, leaning towards and away affect the sense of security.

As the second sub-theme of depth, *building subsystems* examines how massive and skeletal systems create specific inside/outside relationships. Again, motion, weight and substance are the shared basis of the experience that these building systems generate. As figure 2.10 illustrates, Thiis-Evensen identifies four motifs basic to the building systems: *massive*, *skeletal*, *infill* and *layer* systems (ibid., p. 154).

A *massive system*, experientially, creates walls that are "both supporting and delimiting" (ibid., p. 163). These walls are either formed as a solid mass (as in a mud or concrete wall) or from blocks of brick or stone. The felt weight of the massive wall and the particular sense of closure that is created is effected by its *thickness* as well as by *surface properties* such as texture, pattern, relief and color, which in turn are inherent to the specific *building method*. Thickness of the wall affects our experience of the wall's sense of enclosure since "a thick wall corresponds to something inert and close in that thickness indicates compactness and inner resistance. A thin wall, on the other hand, has more the character of a light film and as

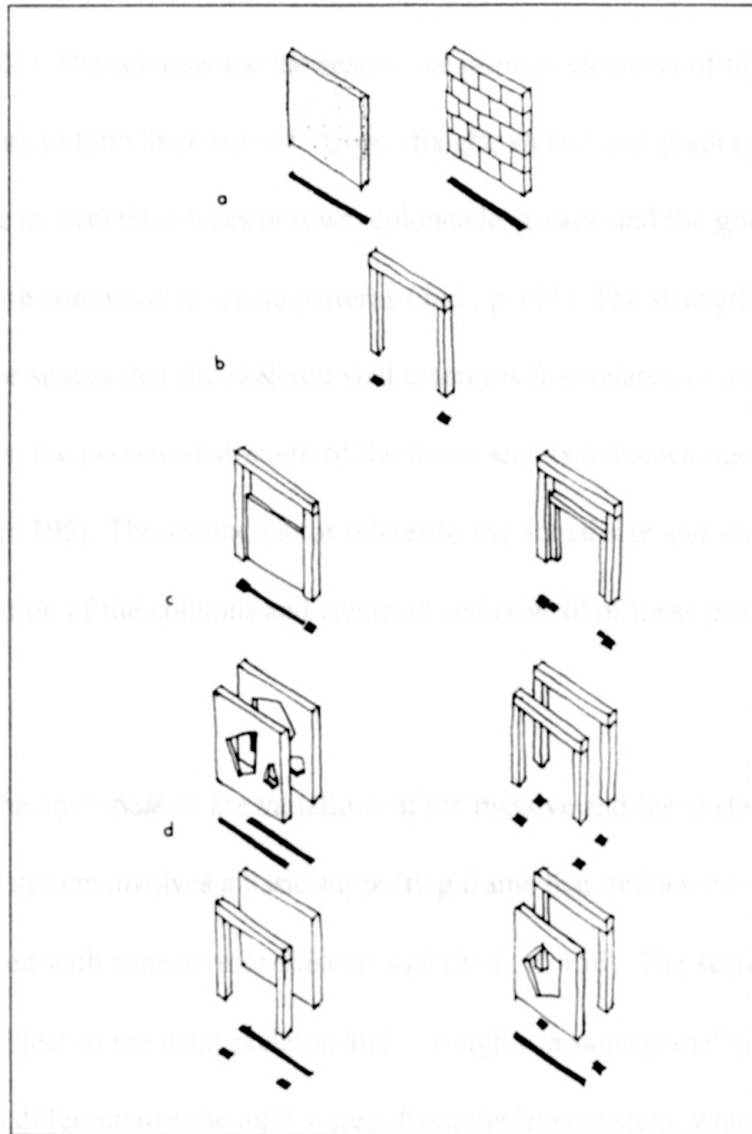


FIGURE 2.10 : The wall's construction system: (a) planer-wall system, (b) skeletal system, (c) infill system, and (d) layer system (from Thiis-Evensen, 1987, p. 154).

a result seems more vulnerable" (ibid., p.167).

In contrast to the massive system, the *skeleton system* is inherently open and symbolic of the tree (ibid., p. 163). The columns and the beams, the primary elements of the skeleton system, combine and vary to form three type of frames: straight, arched and quadrangle. In turn, these frames combine to form three types of rows: colonnade, arcade and the grid. Finally, rows of varied motifs are combined to create patterns (ibid., p.193). The strength relation of interior/exterior spaces that the skeleton wall creates is first related to its expression of support--that is, the perceived strength of the frame and its influence upon one who wishes to enter (ibid., p. 195). The second factor relates to the actual size and shape of the opening and the articulation of the columns and elements and how all of these propel our movement and passage.

The *infill* and the *layer systems* are variations of the massive and the skeleton systems of the wall. The infill system involves a basic supporting frame that defines the wall's boundary as the space is filled with a massive or skeletal wall (ibid., p. 156). The secondary wall is necessarily "subject to the main skeleton and.... roughly in same plane" (ibid., p. 153). This presupposition differentiates the infill system from the layer system, which is "composed of wall sections, juxtaposed in depth," whereas the "infill wall indicates a balance between outside and inside...in the layer wall this balance is substituted by a stage by stage motion inwards" (ibid., p. 157). A plane on a plane, a skeleton on a plane, a skeleton on a skeleton, or a skeleton on a plane are all motifs of the layer systems.

As the third and the last subtheme of depth, Thiis-Evensen presents an experiential description of *openings*, which he defines as either an aperture in a planer wall or a change in the rhythm of a skeletal wall. The precondition is that the opening is perceived as a figure on the background of a wall. Openings include both windows and doors, which allow movement between inside and outside, both visually and physically.

First, Thiis-Evensen reviews the window and its effect as an intermediary element in the struggle between the two forces of inside and outside. He suggests four elements that constitute the window and affect its inside/outside expression: the *opening* in the wall, the *face* in the opening, the *frame* around the opening, and the *space in front* of the opening (ibid., p. 252). As shown in figure 2.11, he considers each of the four major window elements--the *hole*, *face*, *frame* and *bay*--by individually examining their role in the inside/outside dialectics.

The *hole* involves the *form* and *profile* of the window. The hole, when it is deprived of the protective enclosure of the frame and further if it has a straight profile, reflects the triumph of the outside (ibid., p. 258). The profile of the wall and the frame are thus crucial in expressing the interior's expansion towards outside.

Two conditions affect the *form* of the window in its expression of the motion from within the space (ibid., p. 261). First, is the expression of motion innate to the particular form of the window itself. As figure 2.12 indicates, a *vertical window* accentuates the "motion coming from the inside and thus strengthen contact with exterior space" (ibid). The *horizontal*

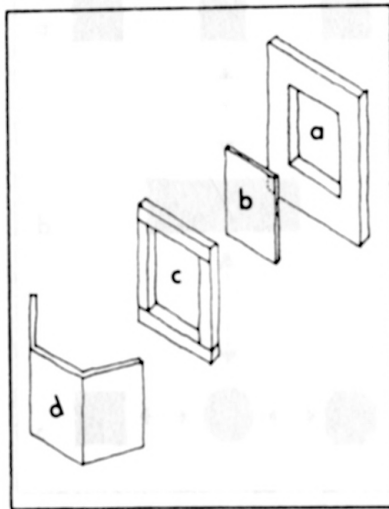


FIGURE 2.11: Window motifs: (a) hole, (b) face, (c) frame, and (d) bay
(from Thiis-Evensen, 1987, p. 252).

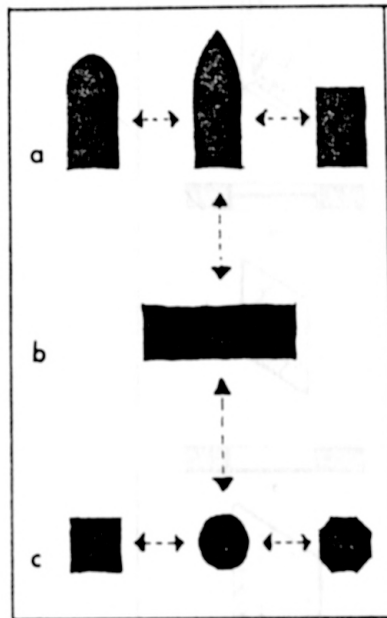
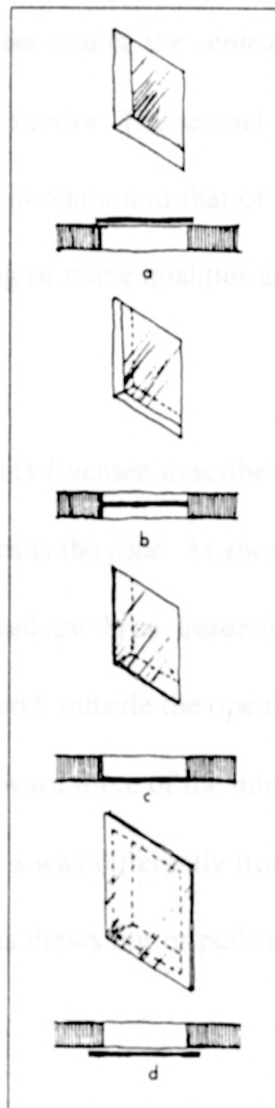


FIGURE 2.11 Location of window face: (a) inside the opening, (b) in the middle of the opening, and (c) outside the opening.

FIGURE 2.12 : Window opening: (a) vertical opening, (b) horizontal opening, and (c) centralized opening (from Thiis-Evensen, 1987, p. 253).

windows, similar to the basic wall, "inserts a lateral member - that is, against the inside or outside surface" (ibid., p. 252). In contrast to the flat wall of which neither the width nor the height dominates, and a neutral vertical angle is used, the window emphasizes its powerful penetrating force. The depth of the window is not the result of the window's expression of mass, "seen or hidden, is that of the wall" (which is a part). This condition yields the wall mass, making of mass qualities and thereby affect our spatial impulses (ibid., p. 261).



The second window is set at first. This window is similar with reference to the wall as an expression of mass outside in terms of the face. As shown in figure 2.14, the location of the face relative to the depth of the wall creates a sense of the middle of the opening on the outer-most face of the opening and outside the opening (ibid., p. 261). Each of these affect the experience of the surface in different ways because of this, the face of the opening can be active toward walls or from one that is created by the external face of the wall. The face that draws attention is the interior space as it is defined in relation to the wall's depth.

The frame has the same edge-detailing and binding qualities that the wall itself and the wall create in mass. The frame separates and protects the window from the surrounding wall and thus, has a separating and defining effect similar to a door. The frame increases the importance of the interior space. (ibid., p. 271) As figure 2.14 illustrates, This-Evensen

FIGURE 2.13 : Location of window face: (a) inside the opening, (b) in the middle of the opening, (c) outer-most in the opening, and (d) outside the opening (from This-Evensen, 1987, p. 255).

opening, it can be attached to the wall around and outside the opening or become a part of

window, similar to the horizontal wall, "encourages lateral motion....that cut across the inside outside contact" (ibid). In contrast to the flat wall in which neither the width nor the height dominate and a neutral motion impulse results, the *centralized window* emphasizes the powerful penetrating force from the interior. The second condition is the result of the window's expression of motion seen in relation to that of the wall of which it is a part. This condition yields the wall itself sinking or rising qualities and thereby affect our motion impulses (ibid., p. 263).

The second window element that Thiis-Evensen describes with reference to a window's expression of inside/outside dialectics is the *face*. As shown in figure 2.13, the locations of the face relative to the depth of the wall are three: inside or in the middle of the opening, on the outer most face of the opening, and, outside the opening (ibid., p. 267, 269). Each of these affect our experience of the outward force of the interior and, because of this, the face of the opening can be seen to bound a wall differently from one that is contained by the external face of the wall. The face thus draws out or pulls in the interior space as it is shifted in relation to the wall's depth.

The *frame* has the same edge-defining and binding qualities that the wall, floor and the roof create in unison. The frame separates and protects the window from the surrounding wall and, thus, has a separating and accenting effect simultaneously. The frame "increases the importance of the interior space..." (ibid., p. 271). As figure 2.14 illustrates, Thiis-Evensen points out three motifs that are essential variations of the frame. The frame can "lie within the opening, it can be attached to the wall around and outside the opening or become a part of

a large skidoo system different of the wall" (ibid., p. 255-256).

Thiis-Evensen concludes his analysis of the window's expression with the expression of the bay window, which he describes as the "window at a point" (ibid., p. 257). The bay window frame, which defines the window's location to "add to the external space both optically and in terms of light" (ibid., p. 257).

The Archetypal Roof

The final major section of Thiis-Evensen's book examines the experiential quality of the roof in order to understand the basic form of the roof and their expressions. As with the other architectural elements, Thiis-Evensen begins his exploration by asking what, in experiential terms, the roof does and how it. Whereas the roof is "for supporting, sheltering and directing" (ibid., p. 260), constantly surfaced in the explanation of the roof and the floor, with the roof, however, the experiential experience of protection is of primary importance. "The roof protects the interior space against the external space, which both around and over it" (ibid., p. 301).

Through specific forms and details, Thiis-Evensen argues that the roof's relationship to the sky may be expressed as one of resistance, acceptance or balance. Thiis-Evensen interprets the roof's expression in relation to the sky by asking whether it "resists, yields or seeks to balance and, therefore, neutral. The roof's form can also create motion expressions that are either inward or outward" (ibid., p. 260).

FIGURE 2.14 : Location of the frame: (a) within the opening, (b) around the opening, (c) in front of the wall(depth), (d) in front of the wall(height), and (e) in front of the wall (breadth) (from Thiis-Evensen, 1987, p. 256).

With this understanding of the essential structure of roof's relationship to the sky, he then is

a large skeletal system in front of the wall" (ibid., p. 255, 256).

This-Evensen concludes his description of the window's expression with the explication of the *bay window*, which he regards as the "window as a space" (ibid., p. 257). The bay window he says, embodies the interior's desire to "appropriate external space both optically and in terms of light" (ibid., p. 277).

The Archetypal Roof

The final major section of This-Evensen's book examines the experiential quality of the roof in order to understand the basic roof forms and their expressions. As with the other two elements, This-Evensen begins his interpretive study by inquiring what, in experiential terms, the roof does and how so. Whereas the themes of supporting, delimiting and directing constantly surfaced in the explication of the wall and the floor, with the roof, however, the existential experience of 'protection' assumes the primary importance: "the roof protects the interior space against the exterior space, a space which is both around and over it" (ibid., p. 301).

Through specific form variations, This-Evensen argues that the roof's relation to the sky can be expressed as one of resistance, acceptance or balance. This-Evensen interprets the roof's expression in relation to the sky by asking whether it *rises*, *sinks* or is in balance and, therefore, *neutral*. The roof's form can also create motion expressions that are either inward or outward, which in turn affects the sense of enclosure of the space.

With this understanding of the essential structure of roof's relationship to the outside that is

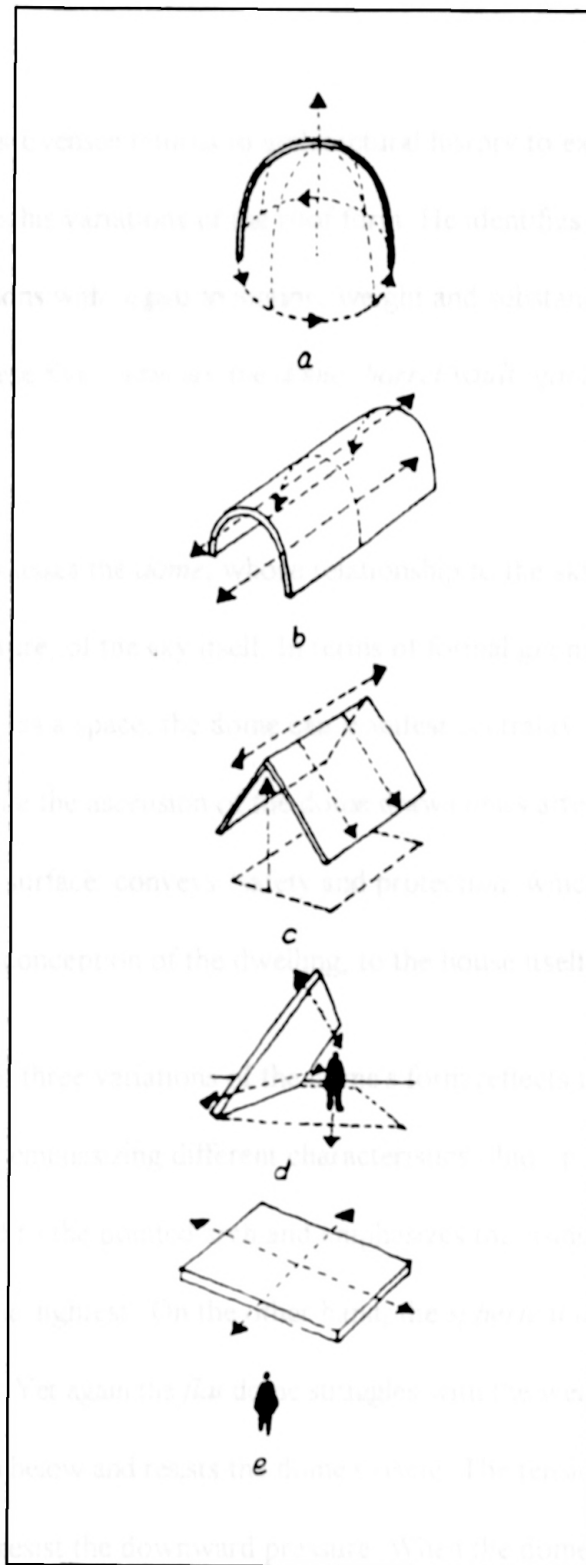


FIGURE 2.15 : The five roof themes: (a) dome, (b) barrel vault, (c) gable, (d) shed, and flat (redrawn from Lin, 1991, p. 45).

'around' and 'above', Thiis-Evensen returns to architectural history to explore primary-shelter forms on which he bases his variations of the roof form. He identifies five basic forms that convey "specific expressions with regard to motion, weight and substance" (ibid., p. 303). As figure 2.15 indicates, these five forms are the *dome*, *barrel vault*, *gable roof*, *shed roof* and *flat roof* (ibid., p. 302).

First, Thiis-Evensen discusses the *dome*, whose relationship to the sky is characterized by representation, in miniature, of the sky itself. In terms of formal geometric qualities, Thiis-Evensen points out that, as a space, the dome can manifest centrality, continuity and uplift (ibid., 446, p. 305). While the ascension of the dome draws one's attention to the sky, its curving and continuous surface conveys "safety and protection, which again by its very nature, is related to the conception of the dwelling, to the house itself" (ibid.).

As shown in figure 2.16, three variations of the dome's form reflects the form's expressive potentials by varying and emphasizing different characteristics (ibid., p. 307). The *conical* or elliptical dome is related to the pointed arch and emphasizes the rising effect which in turn makes this dome type the 'lightest'. On the other hand, the *spherical dome*, like the semi-circular arch, is balanced. Yet again the *flat* dome struggles with the weight that either pushes from above or pulls from below and resists the dome's rising. The tension is expressed by the dome and the walls that resist the downward pressure. When the dome's rising is challenged by gravity, the dome's expression is one of springing upwards. As with the dome, the *vault* too is related to the arch. In geometric terms, whereas the dome is generated by the arch that

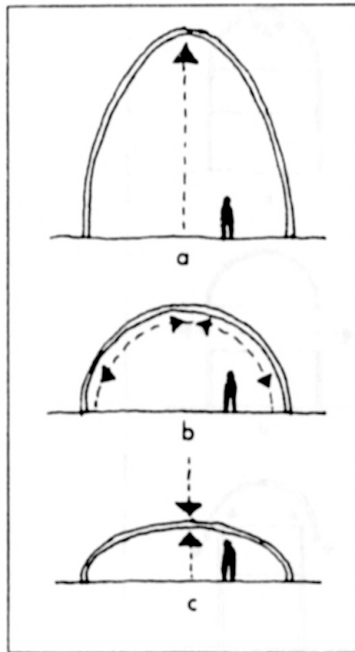


FIGURE 2.16 : The dome's motifs: (a) conical, (b) spherical, and (c) flat. (from Thiis-Evensen, 1991, p. 305).

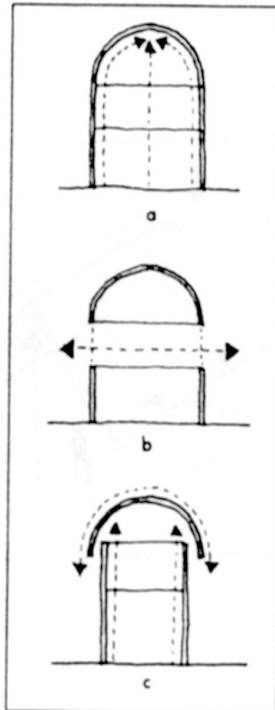
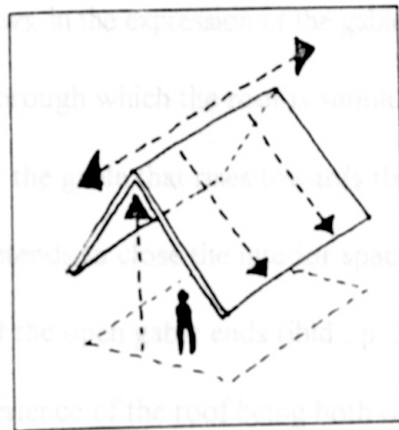


FIGURE 2.17 : The drum and the relationship between the dome and the walls:
(a) accentuated rising, (b) neutralized rising, and (c) resisted rising
(from Thiis-Evensen, 1987, p. 309).

327) As figure 2.18 illustrates, draw the dome up to the center of the space and the vault, its downward. The diagonal expression of the vault relates to the qualities of the cylinder which the vault is a part. The cylinder opens up on its two ends and closes the sides. The vaults that are generally not analyzed, except for its role, creates the enclosure of the cylinder.

If the dome signifies the Cosmos, the *gable roof* represents human dwelling (earth-ter-

restrial essence. As figure 2.18 depicts, the *gable roof* expresses three directional tendencies: are found acting together through which the space is simultaneously open and closed. This is a rising motion conveyed by the ascending ridge; second, a linking motion along the eaves, which corresponds to the enclosure of space; and third, a directional motion expressed by the ridge and the eaves (Evans and p. 333). The three directional expressions create an experience of the roof being both open and closed. The ascending quality opens the space upwards, the directional quality generates a motion horizontally outward, while the linking quality closes the interior space on the sides.



The *shed roof* is characterized and differentiated by the asymmetric space that it creates and creates, while the *other level roof* forms convincingly manifest the impression of balance. The dome enclosed on all four sides and the flat roof opened on all sides, whereas the barrel vault and the gable roof closed the sides actually, while at the same time opening both sides (Evans

FIGURE 2.18 : Directionalities of a gable roof: vertical, horizontal and diagonal (from Thiis-Evensen, 1987, p. 333).

roof, the shed roof embodies rising/sinking and open/closed simultaneously through the

327). As figure 2.17 illustrates, thus, the dome expresses the center of the space and the vault, its direction. The directional expression of the vault relates to the qualities of the cylinder of which the vault is a part. The cylinder readily opens at two ends and closes the sides. The walls that are statically and visually connected to the vault creates this enclosure of the cylinder.

If the dome signifies the cosmos, the *gable roof* represents human dwelling in its very essence. As figure 2.18 shows, in the expression of the gable roof, three directional tendencies are found acting together through which the roof is simultaneously open and closed: First, a rising motion conveyed by the gable that rises towards the ridge; second, a sinking motion along the eaves, which pretends to close the interior space; and third, a directional motion expressed by the ridge and the open gable ends (ibid., p. 333). The three directional expressions create an experience of the roof being both open and closed. The ascending quality opens the space upwards, the directional quality generates a motion horizontally outward, while the sinking quality closes the interior space on the sides.

The *shed roof* is characterized and differentiated by the asymmetric space that it creates and protects, while the other four roof forms commonly manifest the impression of balance: "The dome enclosed on all four sides and the flat roof opened on all sides, whereas the barrel vault and the gable roof closed the sides equally, while at the same time opening both ends" (ibid., p. 363). As indicated in figure 2.19, as an incomplete form that appears to be a part of a gable roof, the shed roof embodies rising/sinking and open/closed simultaneously through the

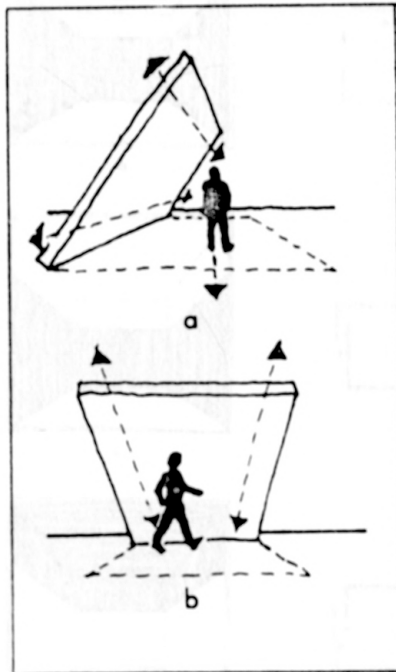


FIGURE 2.20 : Flat roof and the relationship between ceiling and wall: (a) opening, (b) splitting, (c) expanding, and (d) sealing.

FIGURE 2.19 : Spatial directionalities of shed roof : (a) longitudinal, and (b) transverse (from Thiis-Evensen, 1987, p. 363).

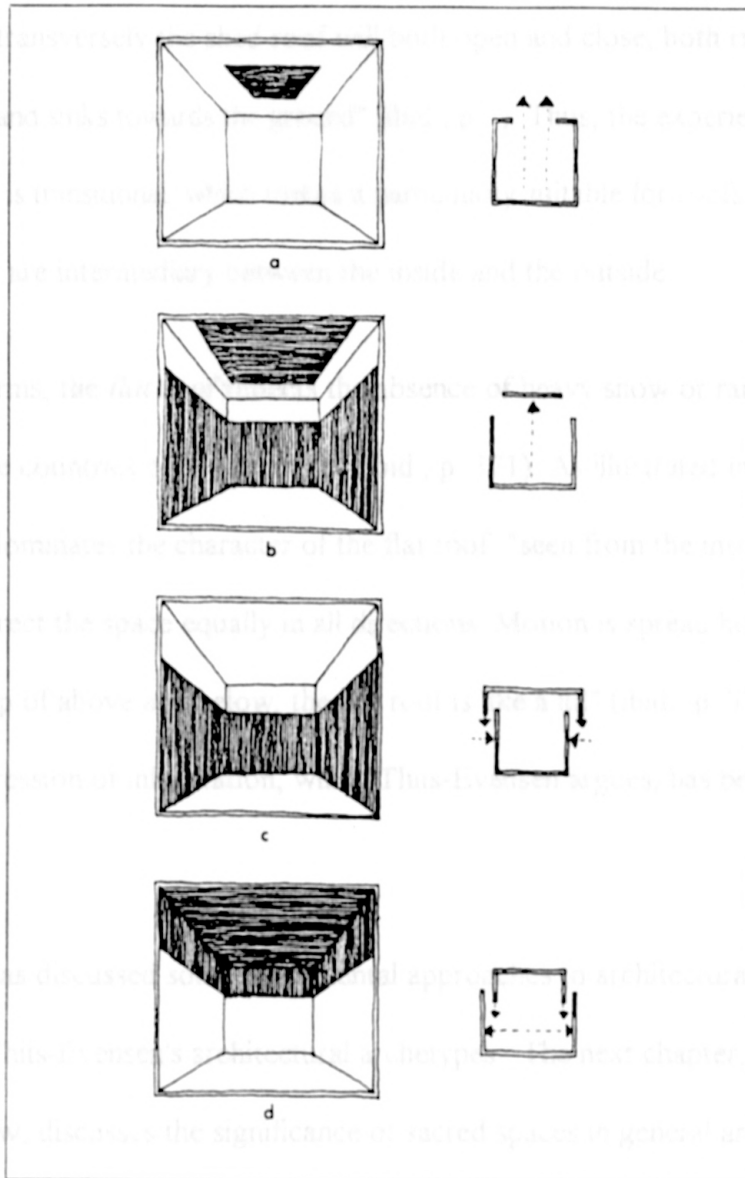


FIGURE 2.20 : Flat roof and the articulated transition between ceiling and wall: (a) opening, (b) uplifting, (c) expanding, and (d) sinking (from This-Evensen, 1987, p. 374).

asymmetric space: "lengthwise the diagonality will accent the roof's tension between rising and sinking....transversely the shed roof will both open and close, both rise towards the exterior space and sinks towards the ground" (ibid., p.). Thus, the experience evoked by the shed roof form is transitional, which makes it particularly suitable for roofs for entrances, and vestibules that are intermediary between the inside and the outside.

In practical terms, the *flat roof* reflects the absence of heavy snow or rain fall and typically "belongs to the countries of sunny south" (ibid., p. 371). As illustrated in figure 2.20, horizontality dominates the character of the flat roof: "seen from the inside the flat roof or ceiling will direct the space equally in all directions. Motion is spread horizontally and in the relationship of above and below, the flat roof is like a lid" (ibid., p. 372). The flat roof invites an expression of inhabitation, which Thiis-Evensen argues, has been historically recognized.

This chapter has discussed some fundamental approaches to architectural meaning with an emphasis on Thiis-Evensen's architectural archetypes. The next chapter, in continuing the literature review, discusses the significance of sacred spaces in general and the architectural form of the Islamic mosque in particular.

CHAPTER III

LITERATURE REVIEW 2 :

SACRED SPACES AND ISLAMIC RELIGIOUS ARCHITECTURE

Another set of phenomenological studies important to my thesis is the research on sacred space and architecture for worship. To explore sacred architectural expression through a phenomenological perspective is, first, to examine the difference between the sacred and the profane as experienced by human beings; second, to uncover the existential meaning of sacred spaces organized by architecture for worship; and, third, to identify specific architectural expression revealing sacredness.

A focus for phenomenological research is to study *lifeworld*, which can be defined as the unselfconscious, taken-for-granted pattern of a person's existence in a particular place (Seamon, 1980, p. 149). A lifeworld of worship for example, would consist of studying the unselfconscious immersion of people in their worship space. To describe a lifeworld is to examine the space that surrounds people as well as their movements, gestures and behavioral experiences.

In *The Sacred and the Profane*, Eliade says that "man becomes aware of the sacred because it manifest itself, shows itself, as something wholly different from the profane" (Eliade, 1961, p. 11). He establishes two different spatial patterns for the religious person: *sacred* space which is "strong significant space," and *profane* space which is without "structure or

consistency" (ibid., p. 20). He further suggests that sacred space is positive space while profane space is negative space. Realistically, however, this difference is too great a distinction. A place is neither completely positive nor negative, but varies according to specific experiences of that space. This does not mean that sacred or profane spaces do not exist, only that the difference between sacred and profane space exists in our ways of viewing and interacting with "space and time" (Hellwig, 1972, p. 48).

Another approach to sacred space says that a person has a ritual orientation of being in the center of the world (Turner, 1979). Sacred space in this sense is being centered in regard to that place. For Eliade (1961), this centeredness is generally delineated as a vertical dimension, or *axis mundi*, connecting heaven to earth. This axis mundi is the symbolic center of the world wherever sacredness manifests itself in a place.

In this sense, sacred space is said to offer people a place to communicate with the gods, so there must be a link with the world above through which the gods are able to descend to the physical elements of walls, roofs and floors that create a worship space but also on the earth and human beings can symbolically ascend to heaven. Thus, sacred spaces, including temples, churches and mosques, often involve openings in an upward direction, which ensure the communication between human beings and a spiritual level. These openings form the passage from one mode of being to another (Dickie., p. 26). This centeredness and vertical linkage, states Dickie, between earth and sky is delineated as an axis mundi (ibid., p. 26).

The fact that so many of the most enduring architectural monuments are religious has been pointed out by Turner (1979, p. 3) in his *From Temple to Meeting House*. He argues that

there are five typical structures of sacred places and, among them, three are important to my research: first, that all space is organized and oriented by the sacred place, which itself is regarded as the "ultimate center of human life"; second, that a sacred place may serve as a microcosm on earth that reflects the cosmic realm, providing the disordered and imperfect human life an ordered strength of the heavenly realm; and, third, a sacred place is the meeting point between heaven and earth, which in its later developed form is often expressed as houses of gods (ibid., p. 9-10). Turner concludes by stating that the sacred place is "one of the most complex developments in human history, rich with meaning and of many functions" (ibid., p. 33).

In regard to research on sacred space and architecture, a key question is how to develop a meaningful interpretation of people's experiences in a particular worship setting. For example, Engel (1985) says that sacred space should be studied by describing human experiences and their relationships to the spatial environment. He says that the focus is not upon just the physical elements of walls, roofs and floors that create a worship space but also on the person and how do they experience this space.

One conceptual approach for understanding one's experience of a worship environment is Thiis-Evensen's phenomenological theory of architectural archetypes, which he claims are essential, universal and grounded in human environmental experience. Through phenomenological explications of the two mosques, by studying their inside/outside relationship and the extent to which motion, weight, and substance is expressed by their respective architectural elements, I strive to understand their respective sacred architectural

expressions.

Before I begin this explication, however, it is important to review research on the historical development of the Islamic mosque and how its various major architectural components speak with respect to sacredness.

ISLAM AND THE ARCHITECTURAL FORM OF THE MOSQUE

One of the major concerns of my thesis is to examine Thiis-Evensen's theory in detail and consider how it helps to interpret sacred architecture in general and Islamic architecture in particular. Thiis-Evensen's theory of archetypes relies heavily on the examples of churches, cathedrals and temples, with special emphasis on Gothic churches (Lin, 1991, p. 17).

Surprisingly, there is almost total absence of any examples of Islamic religious buildings. A key question this thesis asks is, how Thiis-Evensen's theory helps us to better understand the architectural meaning of the mosque.

The word 'mosque' is derived from the Arabic *masjid*, meaning literally 'place of prostrations', and the building the word describes serves both as a house of worship and as a symbol of Islam. The mosque is the Islamic building *par excellence*, and as such is the key to Islamic architecture. In this section, my major concern is to concentrate on the mosque--that is, its forms, its development and the existential expression of its various architectural elements.

Since a key portion of my thesis deals with a Thiis-Evensen's interpretation of the two mosques, an in-depth exploration and study of the form and its various components is crucial.

In this connection I use, as a benchmark, Robert Hillenbrand's book *Islamic Architecture -*

Form, Function and Meaning (1994), one of the most exhaustive and comprehensive works on Islamic architecture. As and when required, comments and views of other scholars on Islamic architecture are also incorporated in my description of the essence of Islamic religious architecture.

Hillenbrand, makes a very important and interesting observation, when he writes that in its most simplest form, a mosque comprises a wall, which is correctly oriented towards the *qibla*, which is the Black Stone within the *Ka'ba* in Mecca (ibid., p. 31). In fact, as figure 3.1 illustrates, in its most simplest form, a mosque does not require the wall even. Here Hillenbrand incorporates the Prophet's dictum that says "Wherever you pray, that place is a mosque." Hillenbrand explains that when the hour for prayer arrives, pious Muslims stop whatever they are doing, 'orientate' themselves towards the *qibla*, and then and there undertake the formal ritual of prayer (ibid., p. 31).

A description of the Prophet's house in Mecca, which eventually became the first mosque of Islam, shows the simplicity of the mosque's form. Hillenbrand says, "it is revealing to note that the roots of the mosque are in domestic rather than in public architecture. After all, it was Mohammed's house in Mecca, which served as the first mosque for Muslims" (ibid., p. 39). As shown in figure 3.2, it was essentially an almost empty enclosed space. The enclosing walls were plain. Nine small rooms were built side by side, on the outer side of the east wall. Along the inner wall, facing the *zulla* or shaded place were built a double row of palm trunks carrying a roof of palm leaves plastered with mud. The *zulla* was large enough to accommodate at least a hundred people. A stone was placed on the floor to point the

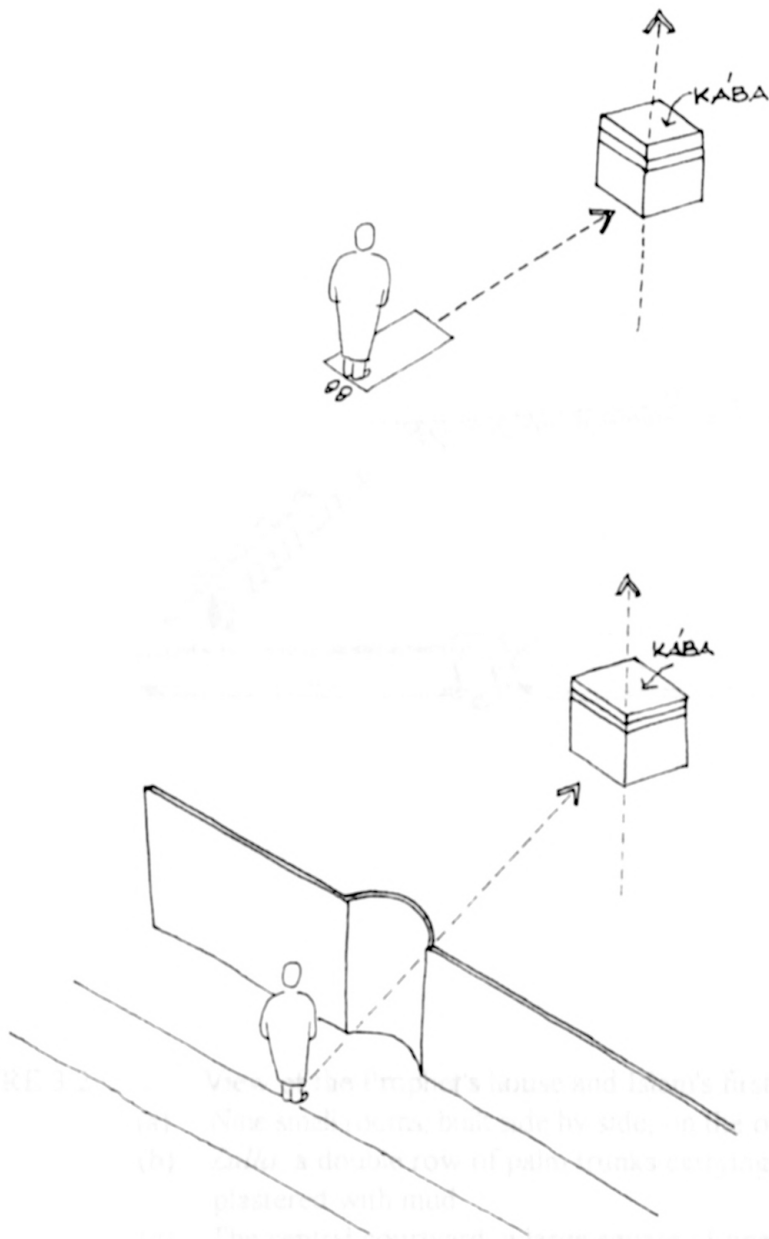


FIGURE 3.1: It is through 'directionality' that an individual, while praying, makes a spiritual connection with the source symbolically of all his concentration the *Kaba*. (Drawing derived from a description provided by Hillenbrand, 1994, p. 31).

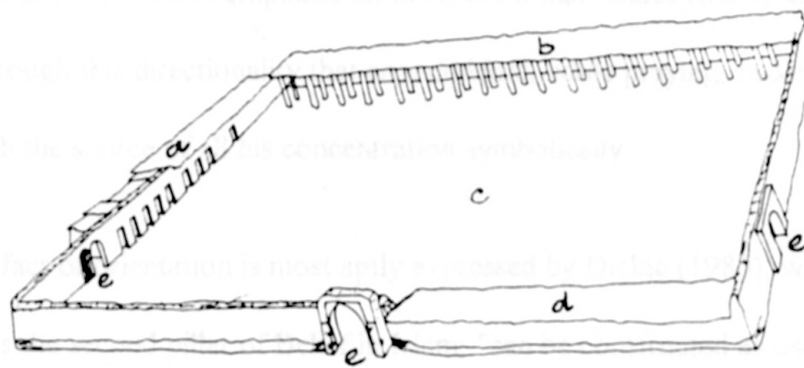


FIGURE 3.2 : View of the Prophet's house and Islam's first mosque, showing:

- (a) Nine small rooms, built side by side, on the other side of the east wall.
- (b) *Zulla*, a double row of palm trunks carrying a roof of palm leaves, plastered with mud.
- (c) The central courtyard, a large square of one hundred and sixty-eight feet on each side.
- (d) Another covered area, used by the most poverty-stricken followers of the Prophet, as a temporary shelter.
- (e) The three gates, which give access to the courtyard (from Hillenbrand, 1994, p. 39).

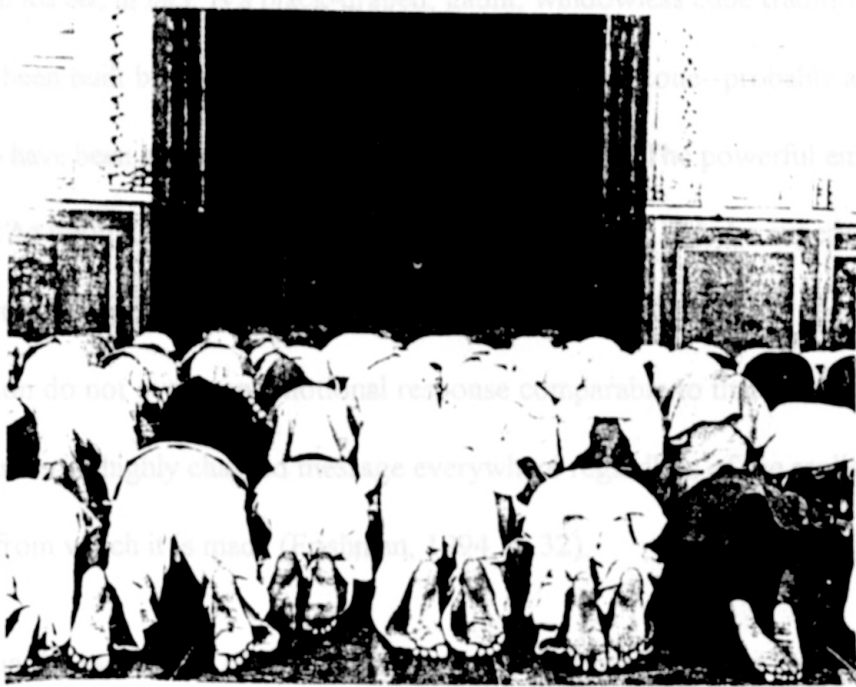
direction of the *qibla*. Opposite the *zulla* was another covered area, half as deep and less than half as long. It was used by the most poverty stricken followers of the Prophet. The courtyard contained no other structure. The three gates that gave access to it were little more than openings in the wall (ibid., p. 40).

In order to understand Islamic philosophy and subsequently Islamic architecture, of which mosque is of paramount importance, the key word to focus on is 'orientation' or 'directionality'. It is this exclusive emphasis on orientation that makes Islamic architecture so unique. It is through this directionality that an individual, while praying, makes a spiritual connection with the source of all his concentration symbolically.

This significant fact of orientation is most aptly expressed by Dickie (1980), who states that prayer, which is the second pillar of Belief in Islam, "can be constructed as use of the horizontal axis by which one relates oneself to the vertical axis, as represented by the *Ka'ba*" (ibid., p. 33). He goes on to explain that "formal prayer in Islam consists of repeated sequences of standing, bowing, prostration and genuflection ; prayer is thus not only mental and verbal but also physical, thereby involving the whole being" (ibid., p. 35). He argues that behind this practice lies the central Islamic concept of God's overlordship: "the physical postures represents progressive degrees of acknowledgement of this fact, culminating in total abasement of prostration" (ibid., p. 35). As shown in figure 3.3, the act of prostration, when an individual touches the floor with his forehead, symbolizes complete submission to *Allah*. It also symbolizes the individual's horizontal link, through the floor, to the vertical axis of the *Ka'ba*.

The Ka'ba, commonly called the House of God, is not only the spiritual center of Islam but also the point of spiritual origin (Moussa, 1995, p. 21). Mecca, Ka'ba's laborator. But it is the point towards which all Muslims turn while performing their daily prayers and towards which the great majority of all mosques are oriented. The Ka'ba, which the Qur'an (the Holy Book) states was built by Abraham, is not a work of art but a simple masonry cube

(ibid., p. 21). The Ka'ba is a black domed, almost windowless cube that normally is supposed to have been built by Abraham. It is a powerful emotional center for Muslims. The picture shows a group of worshippers in a mosque, seen from behind, performing the ritual of prostration (sujood) towards the Ka'ba. The worshippers are seen from behind, kneeling on the floor with their foreheads touching the ground, symbolizing complete submission to Allah.



or small decorative elements. It is covered with a black cloth called Kiswah, which is made of the finest silk and is replaced every year. The Ka'ba is the place for annual Muslim pilgrimage—the Hajj—a ritual every Muslim is supposed to perform at least once in his or her life time if possible. An other important fact is the rite of circumambulation performed around the Ka'ba during the pilgrimage. Hans Moussa (1995) states that this particular rite symbolizes the reproduction of the rotation of heaven around the polar axis, as indicated in figure 3.4.

FIGURE 3.3 : In this ritual position of prostration of prayer, the worshippers turn towards *Ka'ba*, touch the floor with their foreheads, symbolizing complete submission to *Allah* (from Webb, 1978, p. 123).

The *Ka'ba*, commonly called the House of God, is in effect not only the spiritual center of Islam but also the point of spiritual origin (Moosa, 1995, p. 21). Moosa further elaborates that it is the point towards which all Muslims turn while performing their daily prayers and towards which the *qibla* walls of all mosques are oriented. The *Ka'ba*, which the *Qur'an* (the Holy Book) states was built by Abraham, is not a work of art but a simple masonry cube (ibid., p. 21). The *Ka'ba*, in fact, is a black-draped, gaunt, windowless cube traditionally believed to have been built by Abraham and containing the Black Stone--probably a meteorite--said to have been given to Abraham by the Angel Gabriel. The powerful emotional impact of the *Ka'ba* upon devout Muslims is indisputable, but it can only be experienced in Mecca. The pictorial representations of the *Ka'ba* commonly found elsewhere in tiles, textile or small decoration do not evoke an emotional response comparable to that produced by a crucifix, which carries its highly charged message everywhere regardless of the replica's size or the materials from which it is made (Frishman, 1994, p. 32).

In Islamic tradition the sacredness of the *Ka'ba*, however, mainly stems from the fact that it is the place for annual Muslim pilgrimage--the *Hajj*--a ritual every Muslim is supposed to perform at least once in his or her life time if possible. Another important fact is the rite of circumambulation performed around the *Ka'ba* during the pilgrimage. Here Moosa (1995) states that this particular rite symbolizes the reproduction of the rotation of heaven around the polar axis, as indicated in figure 3.4.

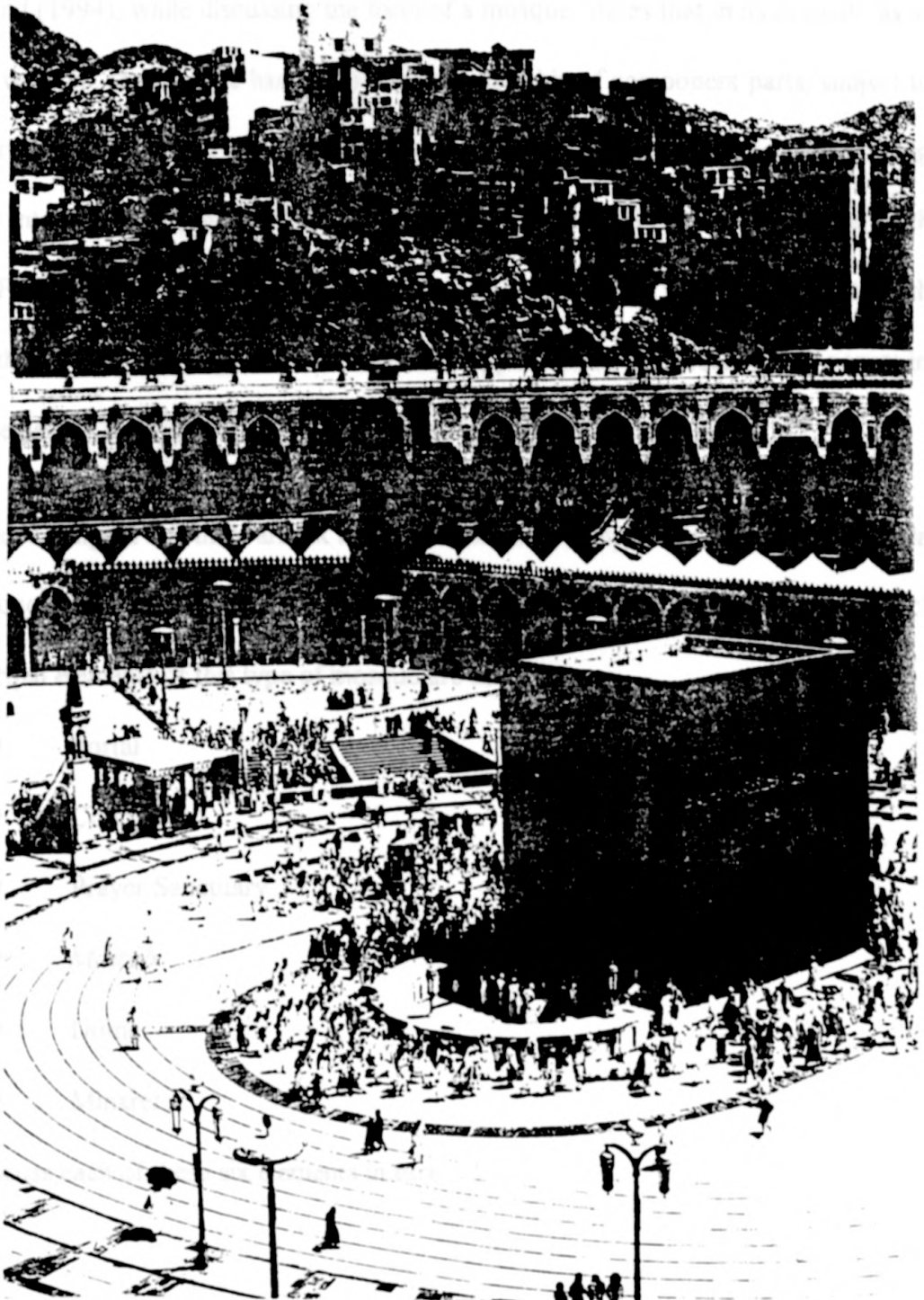


FIGURE 3.4 : The rite of circumambulation performed around *Ka'ba* symbolizes the rotation of heaven around its polar axis (from Frishman, 1994, p. 16).

THE COMPONENT PARTS OF THE MOSQUE

Hillenbrand (1994), while discussing the form of a mosque, states that in its capacity as a house of worship, the mosque has a standardized assembly of component parts, subject to minor variations depending, for example, on whether a particular building is a small village sanctuary intended largely for individual prayer, a congregational or district mosque, or the principal Friday *jami* mosque in any city or community (ibid., p. 23). When women attend the mosque, they remained segregated from male worshippers, either by screens or by occupying a separate part of the building, such as a gallery.

As illustrated in figure 3.5, there are six major architectural components of a principal Friday *jami* mosque, which I emphasize here, since both mosques that I will interpret later are such.

The principal elements of this type of mosque are as follows :

- Portal
- Courtyard
- Prayer Sanctuary
- *Mihrab*
- Dome
- Minaret

I now discuss each of these six elements in turn.

Portal

Hillenbrand (1994, p. 44), explains that the *jami* congregational mosque was an altogether more 'ambitious' kind of building than a small village mosque, and this was entirely in keeping

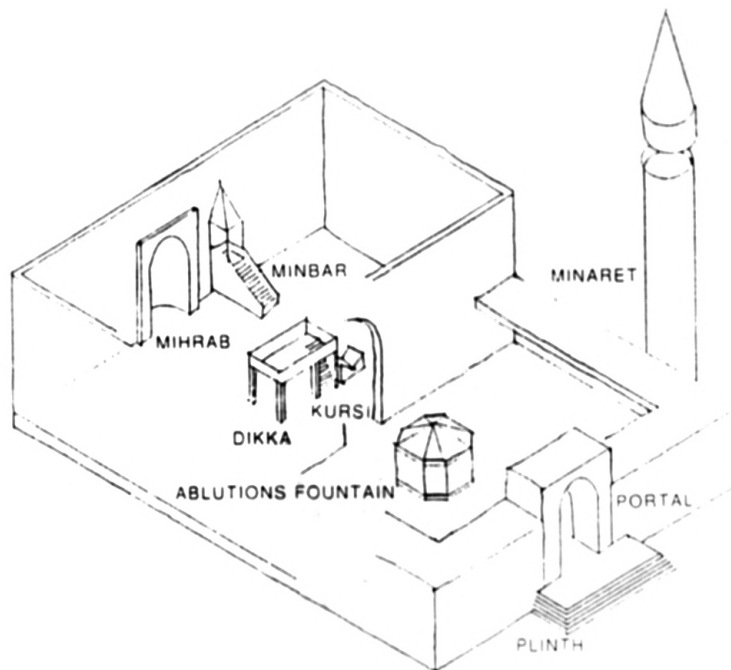


FIGURE 3.5 : The major architectural elements of a mosque (from Frishman, 1994, p.33).

with its much grander function. The main reason for the prominent monumental scale was the need to accommodate thousands of worshippers. This huge complex, in order to be reached through a large, wide flight of steps

From the junction of the two streets, one's first broad and monumental stairway leads. The crowd is, to the main gateway or portal of the mosque, as shown in figure 3.6. It is no

surprise that for a conventional mosque, the main gateway is a highly decorated element. In fact when he traces the entrance to the mosque, Frishman writes that the main gateway is an architectural element that has a special significance. He writes that the main gateway is a

fringe of our symbolic context. Frishman writes that the main gateway is a form of a portal he describes it as a "portal" that is "decorated" and "ornamented". When describing the

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Frishman writes that a general characteristic of the main gateway is that it is a "portal" that is "decorated" and "ornamented". Frishman writes that a general characteristic of the main gateway is that it is a "portal" that is "decorated" and "ornamented".

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Courtyard

After passing through the portal, we encounter the outside open world of the courtyard.

FIGURE 3.6 : A typical ornamental portal of a mosque (from Frishman, 1994, p.23).

with its much grander function. The main reason for the *jami* mosque's monumental scale was the need to accommodate thousands of worshippers. This huge complex, in most cases, had to be reached through a large, wide flight of steps.

Now the question arises, to where does this broad and monumental stairway lead? The answer is, to the main gateway or portal of the mosque, as shown in figure 3.6. It is no surprise that for a monumental mosque its portal is monumental too. Hillenbrand confirms this fact when he states that the entrance portal of such important mosques was another architectural element that customarily attracted more complex treatment (ibid., p. 17). He finds certain symbolic connotations in the rich decoration of portals. When describing the form of a portal he describes it as "a gateway set well back and flanked by splayed projecting wings, as it were 'welcoming' worshippers inside."

Jones writes that a general characteristic of the architecture of the Islamic world is the concealment of the interior building from outside view (ibid., p. 163). Thus a mosque is invariably surrounded by high walls. The single impressive main portal, which towers well above the flanking walls, constitutes the threshold between the urban bustle and the tranquil atmosphere within. He writes that, in this sense, "the gate to the mosque takes on a psychological importance" (ibid., p. 163).

Courtyard

After passing through the portal, we encounter the outside open world of the courtyard through an inside area of the arcades. However, not a sign of the profane world is visible

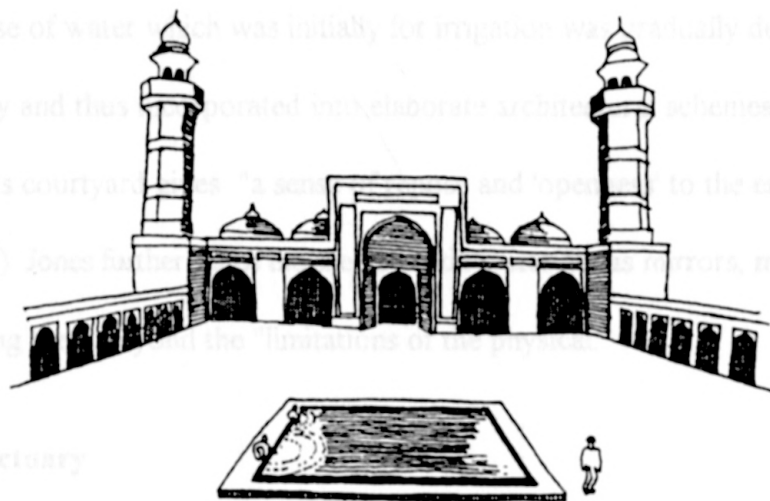
when viewed from the center of the open-to-sky courtyard, as it is invariably surrounded by high arcaded veranda. In a physical sense, one is 'outside', when compared with the enclosed inside space of the veranda, but in a spiritual sense one is still 'within' the protective environment of the sacred.

Hillenbrand claims that the open courtyard is in some ways the most striking aspect of mosque design (ibid., p. 55). He argues that one of the reasons for its impact lies in its size: "the huge empty space gives the visitor pause and serves notice that he has left the workday world behind him." He goes on to claim that, like the *atrium* of an early Christian church, the courtyard defines an area that is holy, even if it was not used for worship. Hillenbrand further states that arcades or a flat roofed portico customarily articulate its inner facade, while the open space itself may be punctuated by a pool of water (ibid., p. 55).

Dickie writes that an intermediate element between external and internal features of the courtyard is an ablution pool or fountain, which is generally located in the center of the courtyard to emphasize the "initiative function of water in Islam" (ibid., p. 35). He explains further that fountains often display inventive designs, especially in the form of a small domed, pavilion like roofs. He writes: "The effect of a simple square or rectangle of open water with a fountain can often be impressive in its own right" (ibid., p. 36). The use of water in Islamic architecture has always been significant. Water is most basically associated with purity. The first act after entering a mosque is to purify oneself through the ritual of ablution. The act of prayer must be preceded by self-purification through ritual ablutions and must be performed facing in the direction of the *Ka'ba* (Frishman, 1994, p.23). In Islam, water is the vehicle of

purification and elevation through sacramental status. Ablutions may be either partial or total depending on the state of ritual impurity in which the worshipper finds himself. Normally, partial ablution suffices, but *Janabi* (worshiper) risks as a major defilement, and in such cases both is mandatory (D.J.A., 1978, p. 34). As indicated in figure 3.7, the location of the central pool or fountain in the center of the sunlit courtyard after prayer provides a 'visual coolness' to the eyes.

Besides purity, wealth, fertility, and coolness are also associated with water (Jones, 1938, p. 156). The use of water in Islam was initially for irrigation but gradually developed for its visual beauty and thus generated more elaborate architectural schemes. The use of water in a mosque's courtyard is "a sense of openness and openness to the enclosed courtyard" (ibid., p. 156). Jones has noted that "the use of water in the courtyard is a sense of openness and extending beyond the limitations of the physical world."



Prayer Sanctuary

As illustrated in figure 3.8, the prayer sanctuary marks the most sacred of places inside a mosque. It is usually constructed on a higher plinth to mark its prominence in the level of sacredness. The spiritual journey which has begun with the portal of the mosque, terminates at the prayer sanctuary. Frishman writes that the directionality of prayer is fundamental to liturgical principles around which a mosque is constructed (ibid., p. 33). Comparing this aspect of directionality with a temple and a church, Frishman states that a temple is a building

FIGURE 3.7 : The central ablation fountain inside the courtyard provides a visual 'coolness' to the eyes (from Frishman, 1994, p. 172).

purification and enjoys an almost sacramental status. Ablutions may be either total or partial depending on the state of ritual impurity in which the worshipper finds himself. Normally, partial ablution suffices, but carnal intercourse ranks as a major defilement, and in this case a bath is mandatory (Dickie, 1978, p. 34). As indicated in figure 3.7, the location of the water pool or fountain in the center of the sunlit courtyard often provides a 'visual coolness' to the eyes.

Besides purity, wealth, fertility, and coolness are also associated with water (Jones, 1978, p. 156). The use of water which was initially for irrigation was gradually developed for its visual beauty and thus incorporated into elaborate architectural schemes. The use of water in a mosque's courtyard gives "a sense of repose and 'openness' to the enclosed courtyard" (ibid., p. 156). Jones further states the sheets of still water act as mirrors, multiplying patterns and extending them beyond the "limitations of the physical."

Prayer Sanctuary

As illustrated in figure 3.8, the prayer sanctuary marks the most sacred of places inside a mosque. It is usually constructed on a higher plinth to mark its prominence in the level of sacredness. The spiritual journey which has begun with the portal of the mosque, terminates at the prayer sanctuary. Frishman writes that the directionality of prayer is fundamental to liturgical principles around which a mosque is constructed (ibid., p. 33). Comparing this aspect of directionality with a temple and a church, Frishman states that a temple is a building designed to house a liturgical function, whereas churches developed as long, narrow buildings

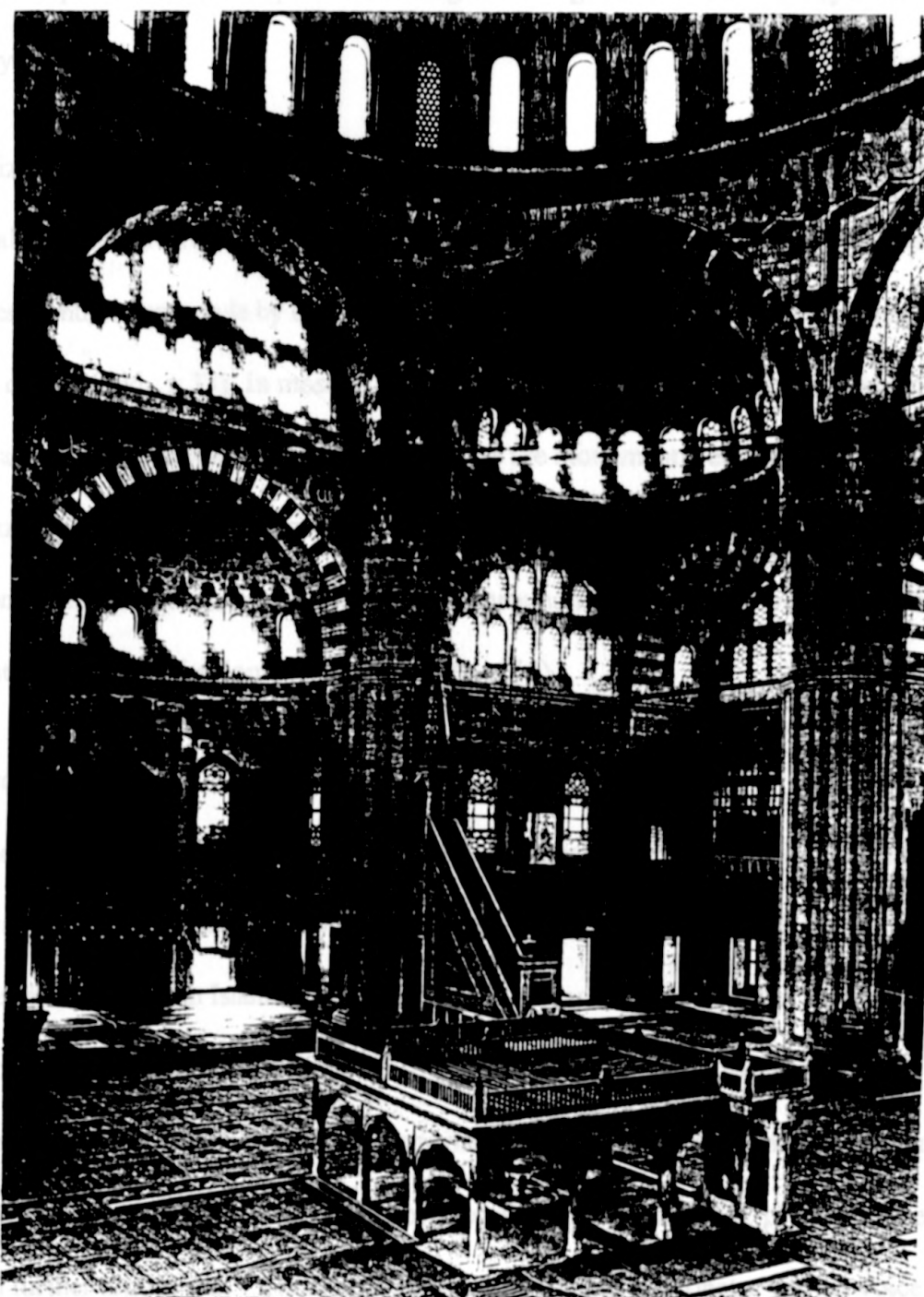


FIGURE 3.8 : A typical interior of a prayer sanctuary (from Frishman, 1994, p.20).

equipped with aisles as a result of the need to cope with a processional liturgy. On the other hand, mosque evolved as a square or rectangle building because it had to cope with a radial liturgy.

The size of the prayer sanctuary varies in relation to the area of the courtyard. Alternatively, the hall may be covered by a single large dome on pendentives the--*muqarnas*, "one of the greatest contributions made by Islam to architecture," or by a roof punctuated by one or more small domes (ibid., p.33). In mosque architecture, the use of the *muqarnas* is sometimes general, whereas the *muqarna* half-dome covers the monumental entrance portal, as shown in figure 3.9. In most cases, however, the *muqarnas*' composition articulates the minaret balconies and provides a cornice which wraps around the building, as well as, defining the transitional zone of the dome (Al-Asad, 1994, p.56).

Mihrab

As shown in figure 3.10, once inside the prayer sanctuary, the most significant element with reference to directionality is the *mihrab*, usually at the center of the *qibla* wall. The *mihrab* is an early innovation in Islamic architecture. Coptic masons were brought to Medina for the purpose of rebuilding the Prophet's Mosque. These masons fashioned a niche in the *qibla* wall, similar to those of Coptic churches on which they had worked. The major difference was that what had been a 'devotional' niche now became 'directional' (ibid., p. 33). Dickie (1980, p. 34) further argues that "a *mihrab* is an acoustic device, a resonator for the voice shaped to bounce the sound back and magnify it at the same time. " The *mihrab* promptly became the central feature of all mosques and, indeed, of all sacred art and architecture in Islam.

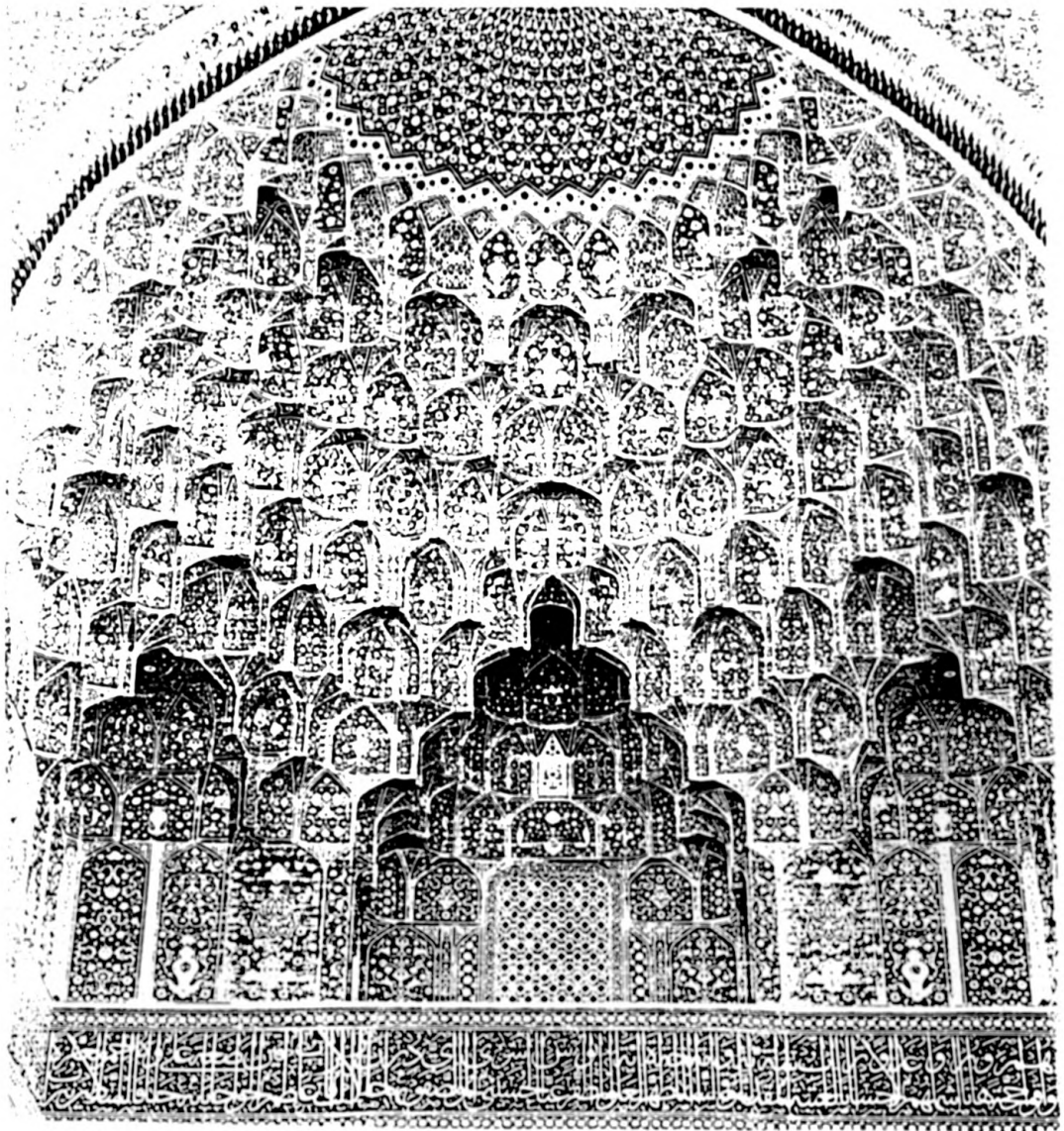


FIGURE 3.9 : The *muqarna* covering of the interior of a mosque
(from Frishman, 1994, p. 41).

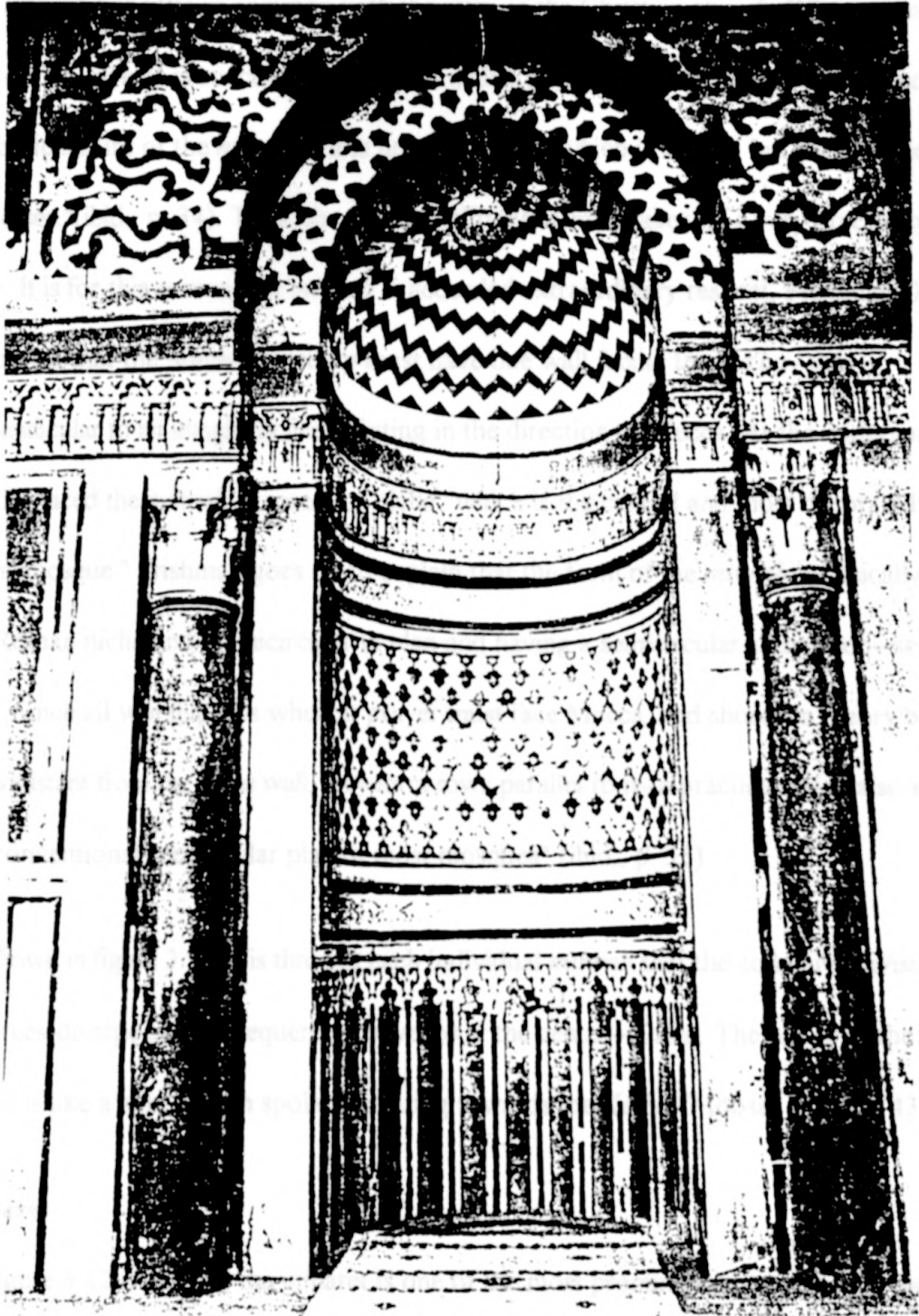


FIGURE 3.10 : *Mihrab*, the most significant element inside a prayer sanctuary
(from Frishman, 1994, p.22).

The *mihrab* has little in common with the altar of the Christian church. Whereas an altar is convex, the *mihrab* is concave. Here, Dickie makes a very important point with respect to the symbolic nature of the *mihrab*: "it is not the *mihrab* which is sacred, but the direction it expresses." (ibid., p. 34). Thus, the directionality of *mihrab* takes on a very precise symbolic form. It is for this reason, the *mihrab* is accorded extraordinary respect. Frishman (1994, p. 35) states that the prayer sanctuary must have one wall facing the *Ka'ba*--that is, perpendicular to an imaginary line pointing in the direction of Mecca. At the midpoint of this wall is placed the *mihrab*--a recess or niche "which is the central and most decorated feature of any mosque." Frishman goes on to explain that the form of the *mihrab* is basically that of the Roman niche and "semicircular in plan and having a semicircular arched top--set in the wall. Since all worshippers when at prayer must face Mecca, and should in theory be equidistant from the *qibla* wall, they form rows parallel to it--a practice which also explains the conventional rectangular plan of most mosques" (ibid., p. 35).

As shown in figure 3.11, it is through each individual *mihrab* that the collective invisible 'line of forces' diverge and subsequently converge at the center--*Ka'ba*. The whole of the Islamic world is like a sphere with spokes radiating towards the *Ka'ba* (Moosa, 1991, p. 43).

Minaret

As figure 3.12 indicates, the minaret is one of the most prominent features of the mosque, visible from a long distance. The '*muezzin's*' office is to chant the *adhan*, or summons, to prayer. This chanting of the *adhan*, before the days of the loudspeakers, used to flow over

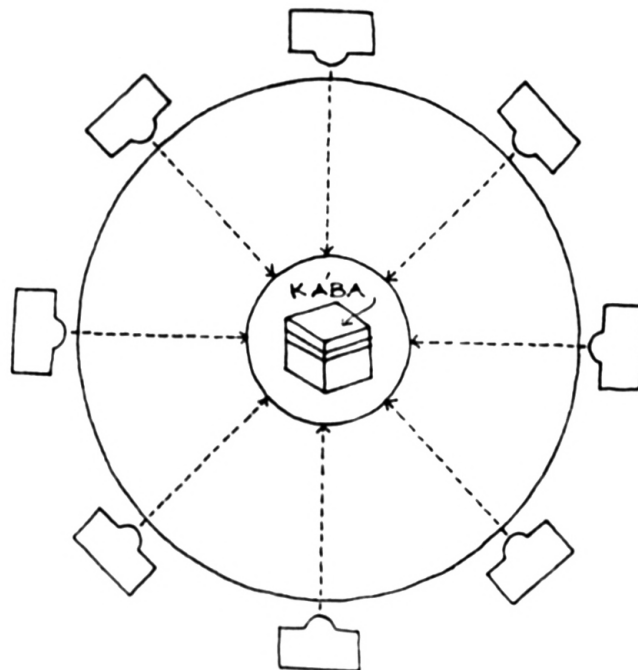


FIGURE 3.11 : Through each individual mihrab the collective line of forces diverge and converge at the spiritual center of the *Ka'ba* (drawing derived from the description provided by Moosa).

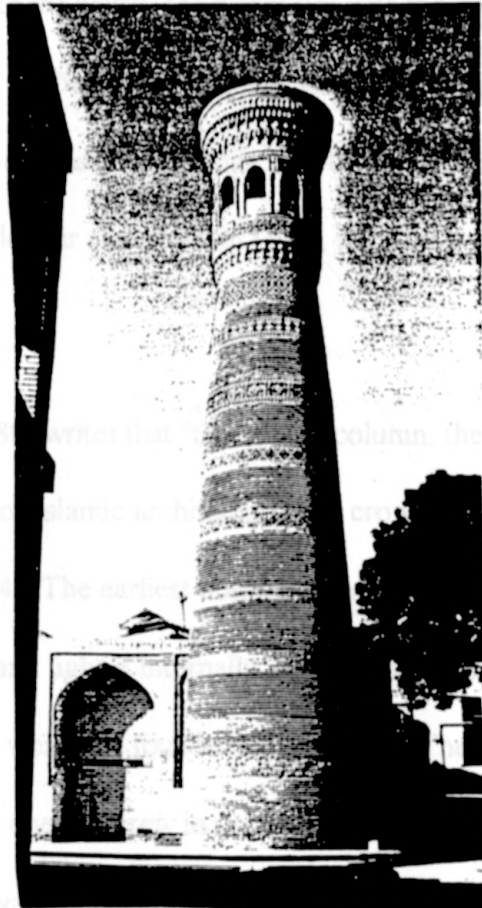


FIGURE 3.12 : The minaret is the most prominent architectural element of a mosque, as it is visible from a long distance (from Frishman, 1994, p.).

the rooftops and impressed travellers with its "soulful and fragile beauty" (Dickie, 1980, p. 34). Dickie believes that the summons to prayer was not the origin of the minaret but only the motivation for its invention: "It was the need for height from which to broadcast the call, that led to the development of the minaret." Dickie further explains that the *muezzin's* balcony is analogous to the belfry--the higher one gets the greater the area over which the sound can be distributed. He believes, however, here the resemblance to Christian architecture ends, since church towers had to be sturdily built to take the immense weight of bells, whereas minarets are more slender and graceful (ibid., p. 34).

Dome

Dickie (1980) writes that "though the column, the arch and the dome have been described as the trinity of Islamic architecture, the crowning glory of Islamic art is undoubtedly the dome" (ibid., p. 34). The earliest domes were small and erected over the *mihrab* to define it externally and light it internally. At a later stage, the dome was used to cover the mortuary chamber in which the founder's body rested. Then the dome moved from this lateral position to a central one and grew in volume until it covered the entire prayer sanctuary area around the *qibla* wall, as illustrated in figure 3.13 (ibid., p. 34).

Al-Asad (1994, p. 57) states that "the dome is, of course, a cosmic symbol in almost every religious tradition, and symbolically in Islam the dome represents the vault of Heaven in the same way as the garden symbolizes the Paradise." Domes rest on circular, square and octagonal bases, and considerable experimentation has taken place in the design of the dome. Al-Asad further argues that in Islamic cosmology the heavens is considered as round, while

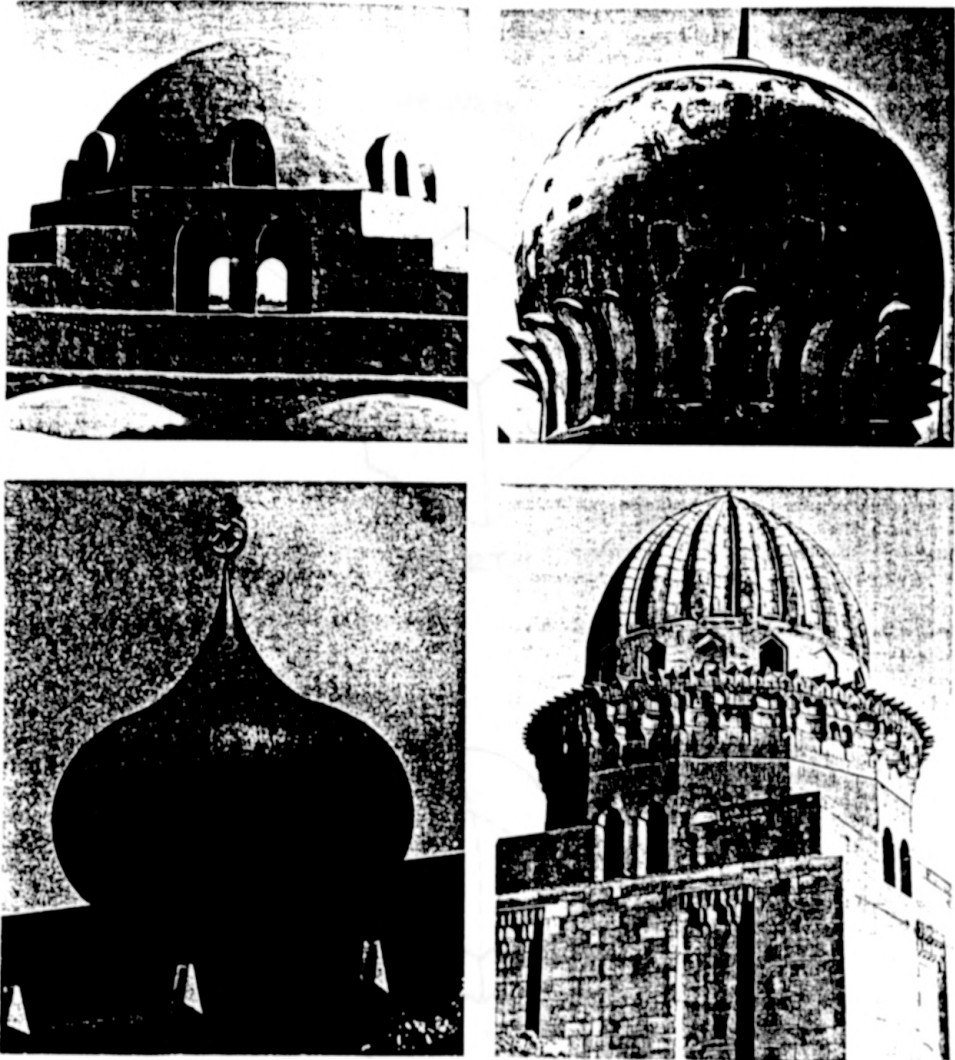
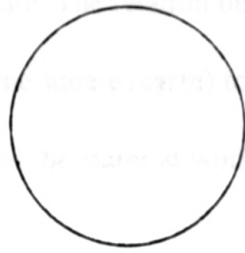
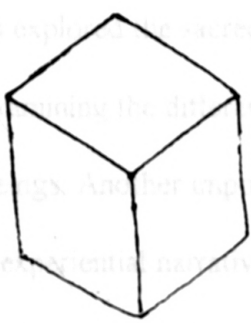


FIGURE 3.14 The spiritual connection between the round dome and its square base
FIGURE 3.13 : The development of the dome form (from Frishman, 1994, p.).



HEAVEN



EARTH

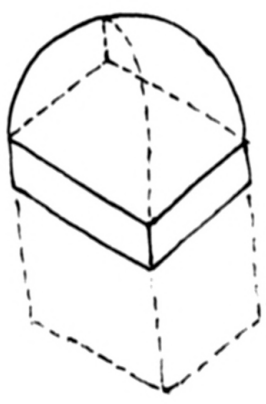


FIGURE 3.14 : The spiritual connection between the round dome and its square base (drawing derived from the description provided by Al-Asad).

CHAPTER IV
THE TWO MOSQUES AND THEIR EXPERIENTIAL NARRATIVES

the world of matter, the earth, is square. The relation between the round dome and its square base is grounded in the elevating of the square (earth) to the form of the sphere (the heavenly world) in a symbolic movement from the material world to the world of the spirit, as shown in figure 3.14.

This discussion on sacred space and the expression of sacredness expressed by various architectural forms of a mosque, has explored the sacred architectural expression through a phenomenological perspective by examining the difference between the sacred and the profane as experienced by human beings. Another important way of phenomenological exploration of sacred space, is one's experiential narrative of a *lifeworld* of a worship space. In this sense, the next chapter looks at the personal impressions and experiences of the author, of the two lifeworld places of the Islamic mosques, selected for a Thiis-Evensen's interpretive study of their architectural and sacred expressions.

BADSHAHI MOSQUE

While driving through the old section of the city of Lahore, Pakistan, one never fails to notice a huge, monumental structure perched on a hill through its lofty and grandly simple minarets and a roof of white marble inlaid with translucent by reflecting the bright sunlight (figure 4.1). Among the most notable mosques in the country as well as the finest and largest example of the Mughal architecture, this building is the Badshahi Mosque (1673-74). Commissioned by Shah Jahan, builder of the Taj Mahal (Frisvold, 1994, p. 166), this mosque has been rated as one of the biggest houses of prayer in the Islamic world, serving as a model for mosque architecture in Pakistan till today. The building can accommodate as many as 100,000

CHAPTER IV

THE TWO MOSQUES AND THEIR EXPERIENTIAL NARRATIVES

I have divided this chapter into two sections. The first section introduces the two mosques that will be interpreted in Chapters V-VIII, using Thiis-Evensen's architectural archetypes. In the second section of the chapter, I take the reader through an experiential journey of the two mosques. I believe that an experiential narrative of the two mosques at this stage, can help to establish a preliminary formality with the two mosques. The intent is to create an 'impression of the spirit' of the two buildings, based on my own personal experience with visiting and worshipping in the two mosques. As stated earlier different buildings generate different responses. In this context, a religious building should elicit a response which have very strong sacred and spiritual connotations.

BADSHAHI MOSQUE

While driving through the old section of the city of Lahore, Pakistan, one never fails to notice a huge, monumental structure made prominent through its lofty and gently rising minarets and a trio of white marble domes, made translucent by reflecting the bright sunlight (figure 4.1). Among the most notable mosques in the country as well as the finest and largest example of the Mughal architecture, this building is the Badshahi Mosque (1673-74). Commissioned by Shah Jahan, builder of the Taj Mahal (Frishman, 1994, p. 169), this mosque has been rated as one of the biggest houses of prayer in the Islamic world, serving as a model for mosque architecture in Pakistan till today. The building can accommodate as many as 100,000

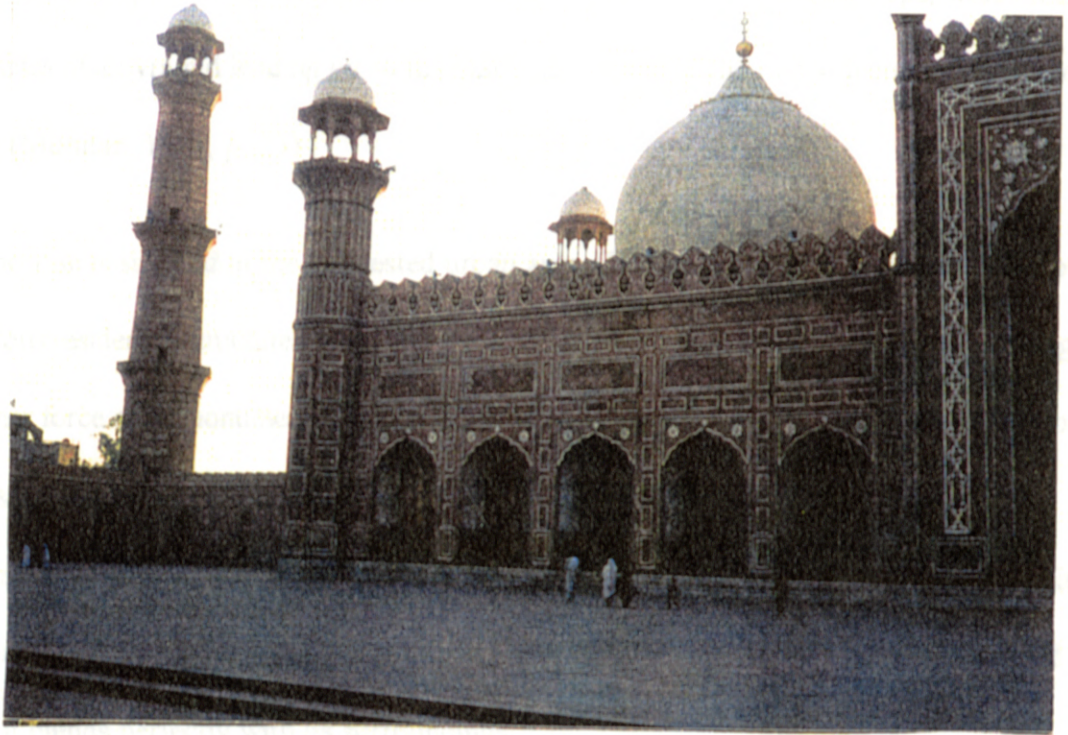


FIGURE 4.1 : The monumental scale of the Badshahi Mosque (from the photograph of the mosque).

worshippers (Khan, 1991, p. 105). This grand mosque is situated on an eminence, a hundred feet above the surrounding area. It has a single main entrance and its four minarets on the four edges of the central courtyard are tall and prominent. The mosque is elevated on a high platform and is approached from the east by a flight of twenty-two broad steps, which form three sides of a pyramid leading up to the platform in front of the richly decorated entrance portal (Mumtaz, 1985, p. 73).

The mosque is situated in the congested urban area of Lahore. In spite of the proximity of numerous residential structures, however, the building retains its majesty and dignity through the sheer force of its monumentality. The tall and majestic minarets and the huge white marble domes, which seems to float effortlessly well above the surrounding skyline, make the building prominent from far and away. The fact that the mosque is built in the heart of the city results in giving the structure a more humane and public appearance. In spite of its grand scale, it blends perfectly with its surroundings.

FAISAL MOSQUE

Tucked comfortably among the pine trees of the Margalla Hills in the city of Islamabad, Pakistan, is a gigantic white structure, which shimmers in the noon-day sun (figure 4.2). Its perfect location (it is visible from each and every corner of the city) and its non-traditional design has made the Faisal Mosque a household name. Like a sheltering tent in an oasis, it invites passersby to come inside to contemplate and meditate, leaving worldly worries behind. Against the background of raw nature, the building signifies something solid and concrete--perhaps the Islamic religion itself, which has stood firm and solid against the ravages of time.

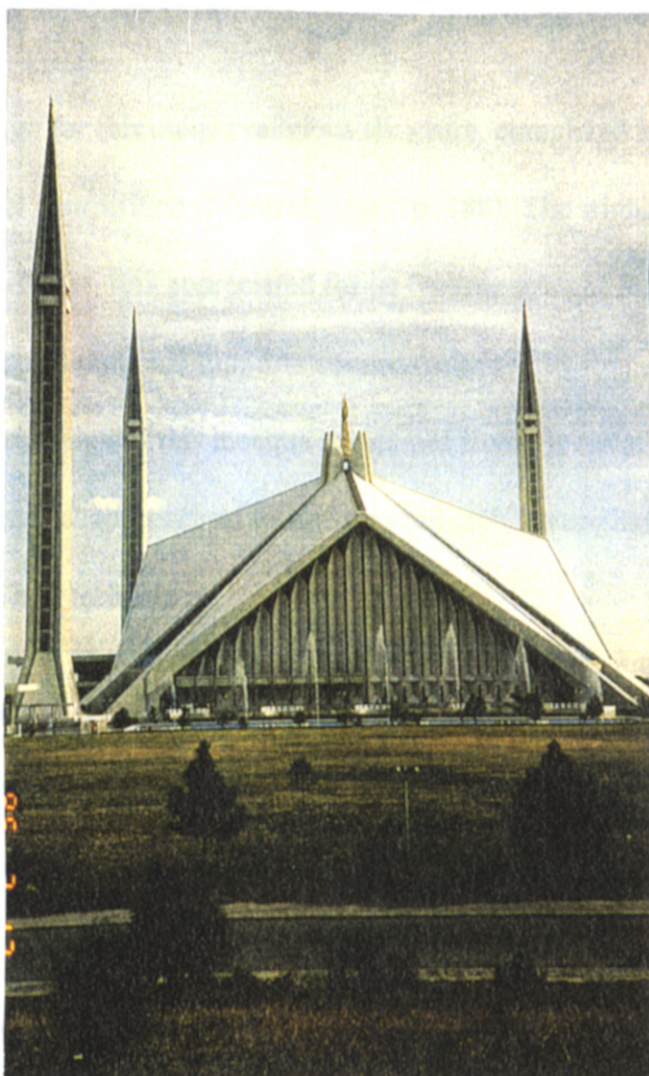


FIGURE 4.2 : The majesty of the Faisal Mosque (from the photograph of the mosque).

The mosque is not an isolated structure in the true sense of the word. At times it merge and blend perfectly with its surrounding through the sheer force of its overall form.

The architectural design for this unique religious structure, completed in 1990, was chosen through an international competition (Mumtaz, 1985, p. 188). The winning design by Vedat Dalokay, a Turkish architect, was appreciated for its "simple straight forward covering of a large space by four double diagonal supports counter-balanced by four minarets" (ibid., p. 188). The architectural design of this mosque stands out from the usual traditional form through the way the classical approach of formal mosque architecture has been blended with a late-modernist form and technology.

THE EXPERIENCE OF THE BADSHAHI MOSQUE

When I first saw the Badshahi Mosque, I was immediately taken by its appearance--its subtle, unobtrusive monumentality, dignity and serenity. Like a proud, silent observer, it seemed to rise well above the surrounding structures, making one feel small and humble. It encompassed what seemed to me to be all the qualities of historic Mughal architecture in harmony with its contemporary setting.

The Portal

As illustrated in figure 4.3, one of the most striking features of the mosque is its entrance, a three-sided monumental flight of twenty-two steps, which form three sides of a pyramid, leading up to a platform in front of the striking and tall main portal. The goal at the end of these large stairs is a gateway. These stairs are in keeping with the overall monumentality of

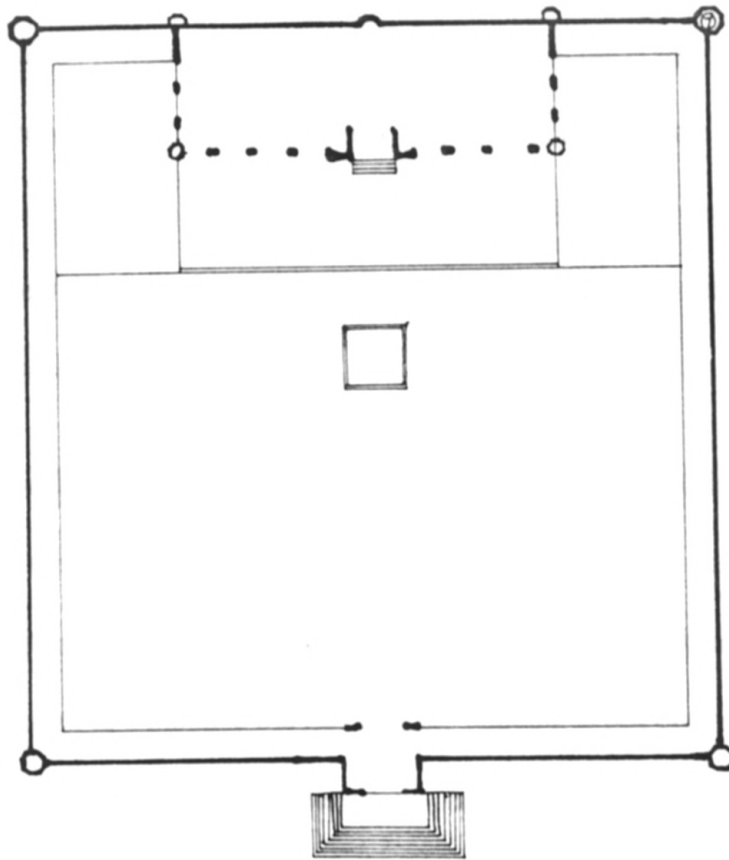
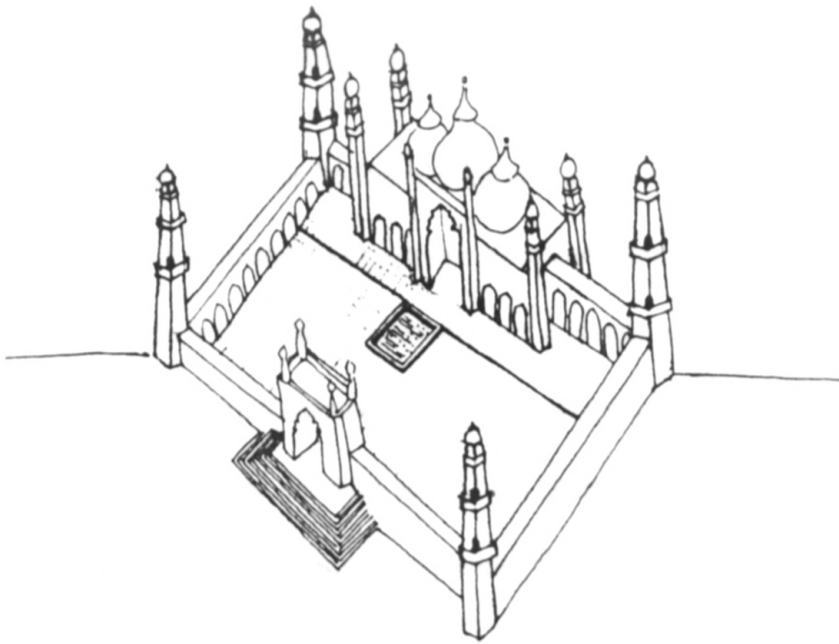


FIGURE 4.3 : Plan and view of the Badshahi Mosque (from Khan, 1991, p.).

the structure. They enhance the public nature of the building.

As one climbs these steps, one becomes gradually aware of the striking beauty of the portal, as shown in figure 4.4. Each step makes one more and more aware that he is being hypnotised by the elegant portal and its elaborate decoration. It is only when one has climbed the last step that he is truly struck with the sheer power of the portal's monumentality and the effect of its beauty. It is a two-storeyed structure with a high central arch. The material throughout is red sandstone with white marble veins. Two slender shafts, like a pair of silent, alert sentries, are attached to the sides of the slightly projecting central bay. They terminate above the roof with white marble orbs placed in full blown lotuses. Between these shafts and above the central arch is an elaborate array of twelve merlons, which carry above them an open arcade, topped by eleven white marble miniature solid domes. This elaborate arrangement of decorative elements appears as a perfect balance of symmetry and harmony and helps in creating an image of pure magic.

In contrast, the flanking walls on either side of the portal are quite plain and simple (see figure 4.5). Each of the walls has a pair of smaller arched niches placed vertically one above the other. These plain walls, on either side of the portal, enhance its beauty and overpowering effect. They seem to announce the fact that the building is not ordinary but, instead symbolizes something powerful and majestic. After all, it is the house of *Allah*, Who is the most Powerful Being in the universe. These arched niches create an element of contrast with the surrounding walls. The walls are bright and shiny in the noonday sun, while these small niches are in the comfortable darkness of the shade. These niches add depth to the walls as

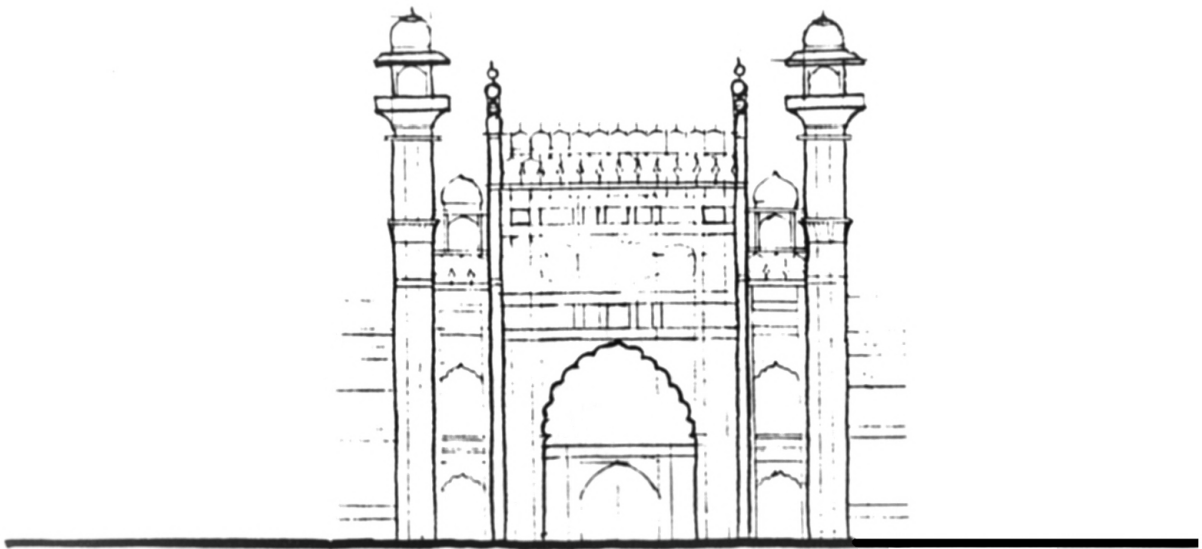


FIGURE 4.4 : The richly ornamented portal of the Badshahi Mosque's entrance (from photograph of the mosque).

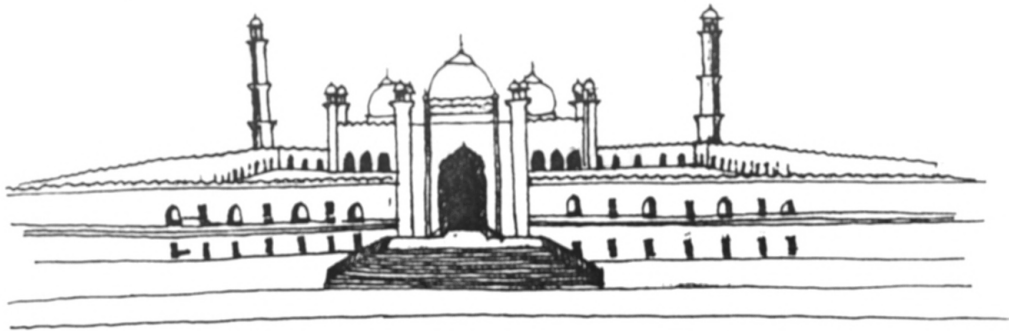


FIGURE 4.5 : The simple and plain side walls of the exterior portal wall (from the photograph of the mosque).

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well as help to create an element of mystery to the building. One feels a compulsive urge to go inside and explore the area behind the walls.

Through the slightly projecting central bay and the high central arch of the portal, one is invariably drawn gently inside the gateway. There is a spontaneous magnetism in this feeling of invitation. It enhances the public nature of the building, too. As soon as one enters the gateway, the first act he performs is of taking off his shoes. In this sense, the portal acts as the threshold between the profane world outside and the world of the sacred inside. The moment of magic and the hour of transition has arrived. Through the simple ritual of taking one's shoes off before entering the mosque and the touch of the cool floor on one's bare feet, one realizes he has entered a realm which is pure and sacred. This space has no place for the profane. Even the dust of the outside world that adheres to the soles of one's shoes should not touch this floor. Thus the floor of the mosque takes on a spiritual significance.

The Courtyard and Domes

From the harsh, bright, sunlit exterior, one enters the calm, cool interior of the arcades. As illustrated in figures 4.6 and 4.7, this arcade runs all around the experiencer. The sudden quietness of this interior is gently broken by the soothing sound of the water fountain, which forms part of a square water pool situated in the center of the huge, open courtyard. No sight of the world outside is possible from within the courtyard--the connection is with the other world--the world of the sacred. The sight and sound of the gently falling water, in the midst of the bright sunlit courtyard is soothing. Like an oasis in a desert, the sight and the sound of water is quieting. One feels gently transported back in time. The present appears irrelevant.

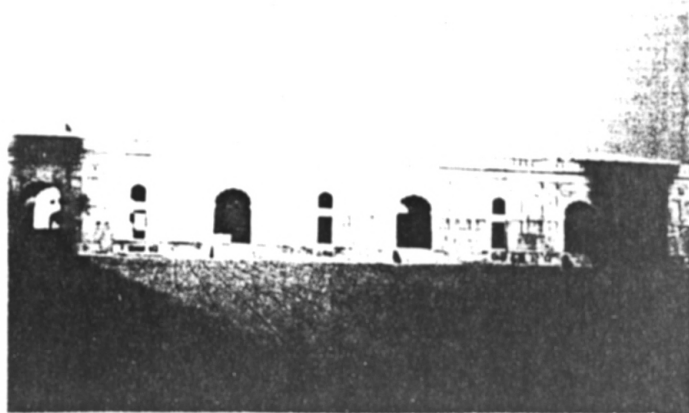


FIGURE 4.6: The sense of closeness expressed by the courtyard arcades (from the photograph of the mosque).

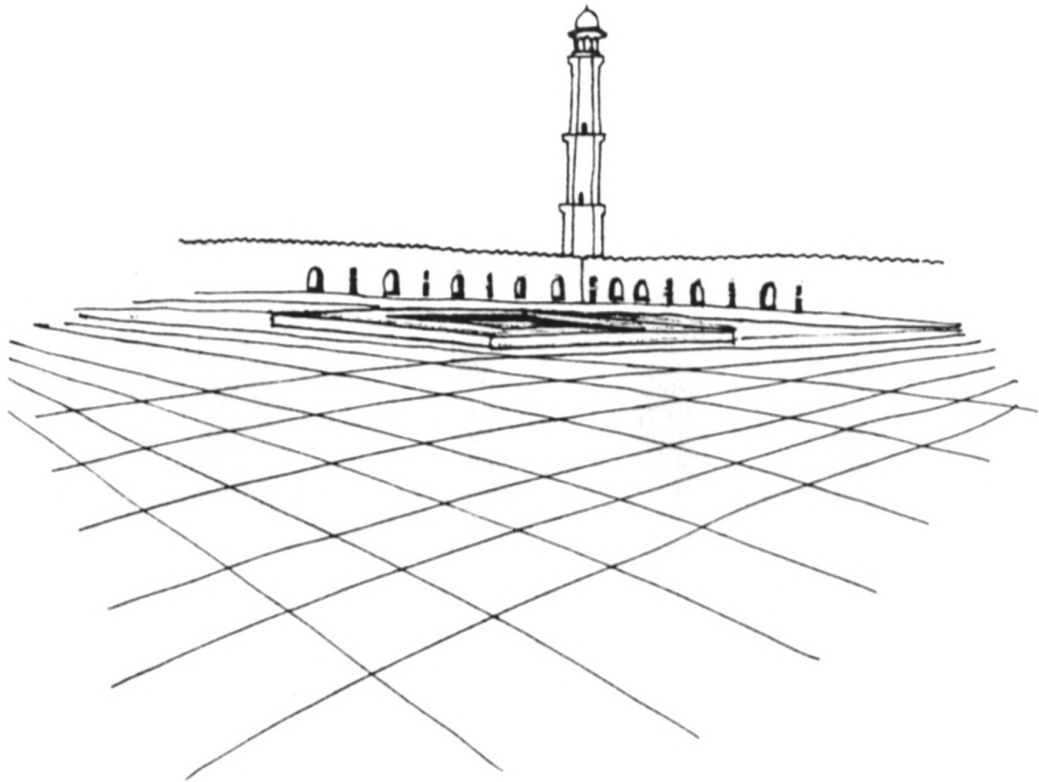


FIGURE 4.7 : The central ablution fountain of the courtyard (from the photograph of the mosque).

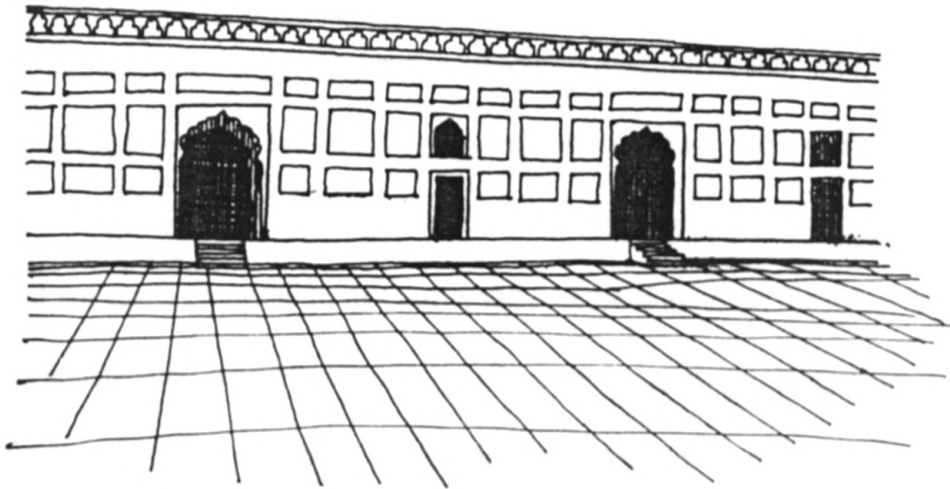


FIGURE 4.8 : The contrast of light and shade of the arcades (from the photograph of the mosque).

As shown in figure 4.8, another interesting feature in the courtyard is the simple treatment of the surrounding walls punctuated with arcades at regular intervals. In contrast to the elaborate decoration of the exterior of the prayer sanctuary, these walls seem understated. The only form of decoration is the breaking up of the wall surface into variously-sized panels.

However, these plain panels erupt into a life of their own when they, along with the arcaded openings, create an elaborate arrangement of light and shade. The worshipper becomes a central figure in this dance of nature, the interplay of darkness and light. One feels a synchronized movement between the rippling water surface and the dancing movement of light and shade around us. This results in an enchanting visual symphony, which one can only feel and not easily describe. In this sense, the courtyard assumes the form of a stage. The various architectural elements become performers. By applying the principles of repetition, symmetry and change of scale, a bewildering variety of effects is created.

As one steps down into the shaded arcade to the sunlit open courtyard, one once again experiences the transition from an inside to an outside space. This time, however, the transition is not sudden but gradual. As one gently crosses the courtyard, towards the impressive gate of the prayer sanctuary, one becomes aware of a subtle change in the level of the courtyard floor on the east is the lower level, through which we have entered. This level is six inches lower and is called the *fina*, where funeral prayers may be offered. The raised western part, halfway in front of the prayer sanctuary, has a height of six inches, and is in the shape of a terrace.

From the center of this courtyard, one becomes aware of three striking architectural elements of the mosque, which seem to compete amongst themselves to arrest one's attention. As figure 4.9 shows, in front and raised above the courtyard in the center of the west side is the main prayer sanctuary, which is placed on a five-foot high podium. The prayer sanctuary is crowned by three prominent domes - of which the central dome is much larger and wider than the other two. These domes tower well above the roof of the prayer chamber and seem to lift it further up. They appear to float effortlessly above the roof of the prayer hall. As heavenly vaults, they have a very powerful impact on the beholder.

As indicated in figure 4.10 and 4.11, each of the three domes is a double dome, with the outer dome raised on cylindrical drums, constricted at the necks, crowned by an inverted finial and capped with a gilded pinnacle. This finial especially gives the dome a pointed arch appearance, which seems to lift the domes further up towards the sky and, subsequently, lightens the overall rising effect. The fact that a drum has been inserted between the dome and the pendentive appears to 'push' the domes from below. The reflection of sunlight on the dome's white marble gives it a mystical, translucent appearance. The domes seem to shimmer with delight and dance with joy in the bright sunlight.

The Prayer Sanctuary's Exterior and Minarets

The surface of the prayer sanctuary's facade is treated with red sandstone, in a similar fashion to the entrance portal, but with a more liberal use of white marble. The wall surface is divided into a number of panels, each with its own distinctive pattern. As figure 4.12 indicates, the tall central arch rises past the general roof line and is framed in a border with a chain-like

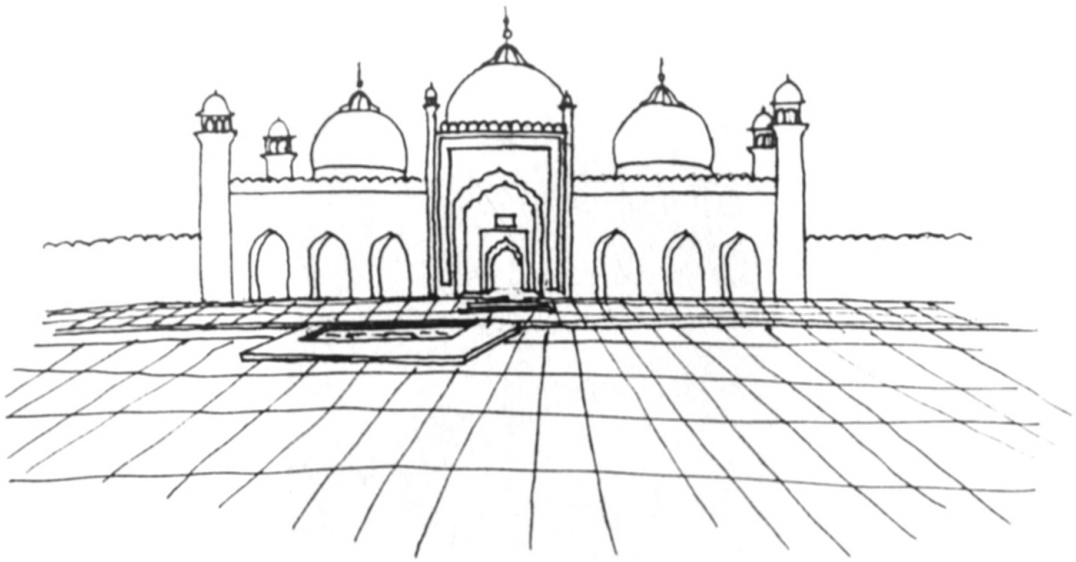


FIGURE 4.9 : The elevated prayer sanctuary (from the photograph of the mosque).

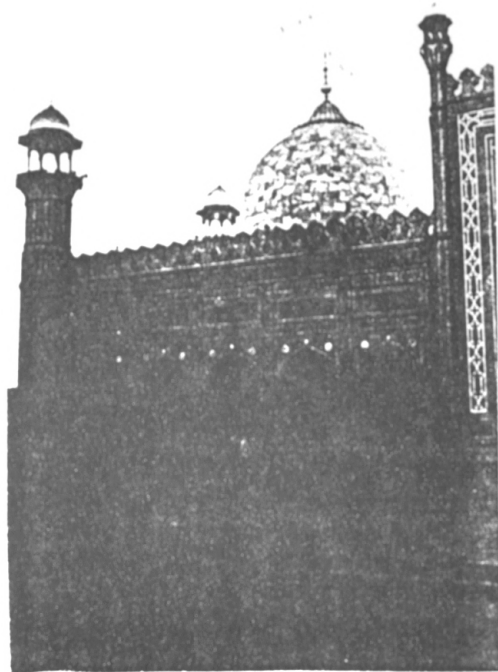


FIGURE 4.10 : The rising quality of the domes (from the photograph of the mosque).



FIGURE 4.11 : The particular rising form of the domes (from the photograph of the mosque).



FIGURE 4.12 : The prayer sanctuary's entrance portal (from the photograph of the mosque).

geometric design in white marble, whereas, the spandrels of the arch are filled with a flowing white marble floral design in relief. This effect of richness and complexity is further heightened by the use of various designs in white marble on red sandstone surfaces. The reflecting quality of the white marble permits the play of light on the red sandstone surface of the building, resulting in a glossy effect which changes subtly as the sun moves. Despite the fact that this surface is flat, not sculptured, its decoration, through contrast of colors and complexity of design has a three-dimensional expression. The shimmering, dancing domes, the overall three-dimensional effect of the surface decoration and the prayer sanctuary's placement on the elevated platform announces the fact that this part of the building is the most sacred.

As indicated in figure 4.13, another striking element of the mosque's architecture is the four tall, tapering minarets crowned by white marble cupolas. The minarets seem to appear suddenly from each of the four corners of the courtyard and soar gently towards the sky. The vertical shaft of each minaret is broken into three balconies, a division which helps in creating a feeling of gentle rising motion. The sheer verticality and height of the minaret overwhelms us and one almost feels a gradual lifting of one's spirit. The minarets appear to be in silent, humble conversation with the heavens above. The form of the balcony and the curve of the cupola contribute a subtle feminine quality to the masculine vertical form of the minarets. In addition, the dome-like cupolas create a certain gentleness and vulnerability to them. The fact that the top of the minaret can be approached by a flight of steps, makes it more accessible. The initial slight feeling of aloofness is now totally replaced by a sense of welcome.

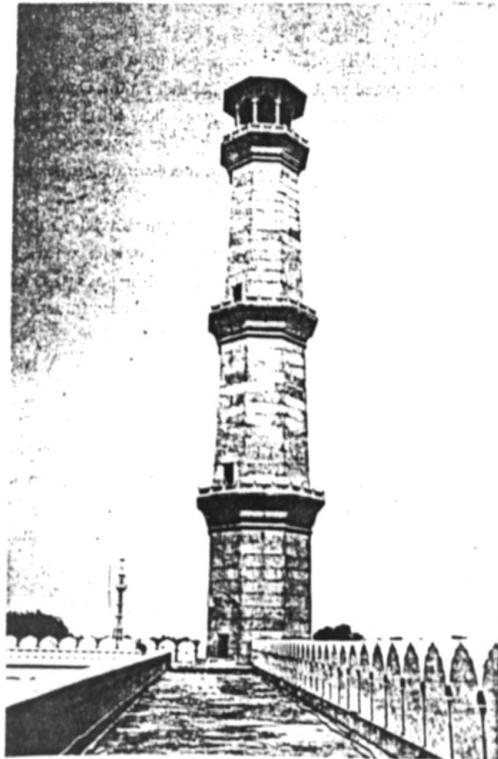


FIGURE 4.13 : The Badshahi Mosque's minarets (from the photograph of the mosque).

The Prayer Sanctuary's Interior

As one approaches the entrance of the prayer sanctuary, one again encounters another transition from 'outside to 'inside'. One becomes instinctly aware of the fact that he is now entering the most sacred of spaces from a lesser sacred space. Here three features stand out which enhance the perception that the prayer sanctuary is the most sacred space. The first feature is the change in the floor surface, whereby the red sandstone surface of the courtyard's floor is replaced by the cool white marble floor. One becomes aware of this difference through a sudden change in temperature from a slightly warm, coarse surface to the cooler, smoother form of the prayer sanctuary's floor.

As figure 4.14 illustrates, a second feature of the prayer sanctuary is the location of the main door, which is set deep inside the double-storeyed arched arcade. This results in communicating a more welcoming and direct invitation. Most striking is a third feature of the prayer sanctuary--the framing of the entrance door with a thick band of white marble panelling. Even the spandrils of the arch are of white marble. This striking contrast against the dark interior enhances the sense of the spiritual significance of the space inside.

Once inside the prayer sanctuary, one feels relieved, secure and sheltered. The journey which had begun from the steps of the portal, 'outside' (the secular) has finally terminated in the 'inside' (the sacred). Once again, one becomes aware of this transition through tactile feeling, since our feet now feel the warmth and coziness of the carpeted floor.

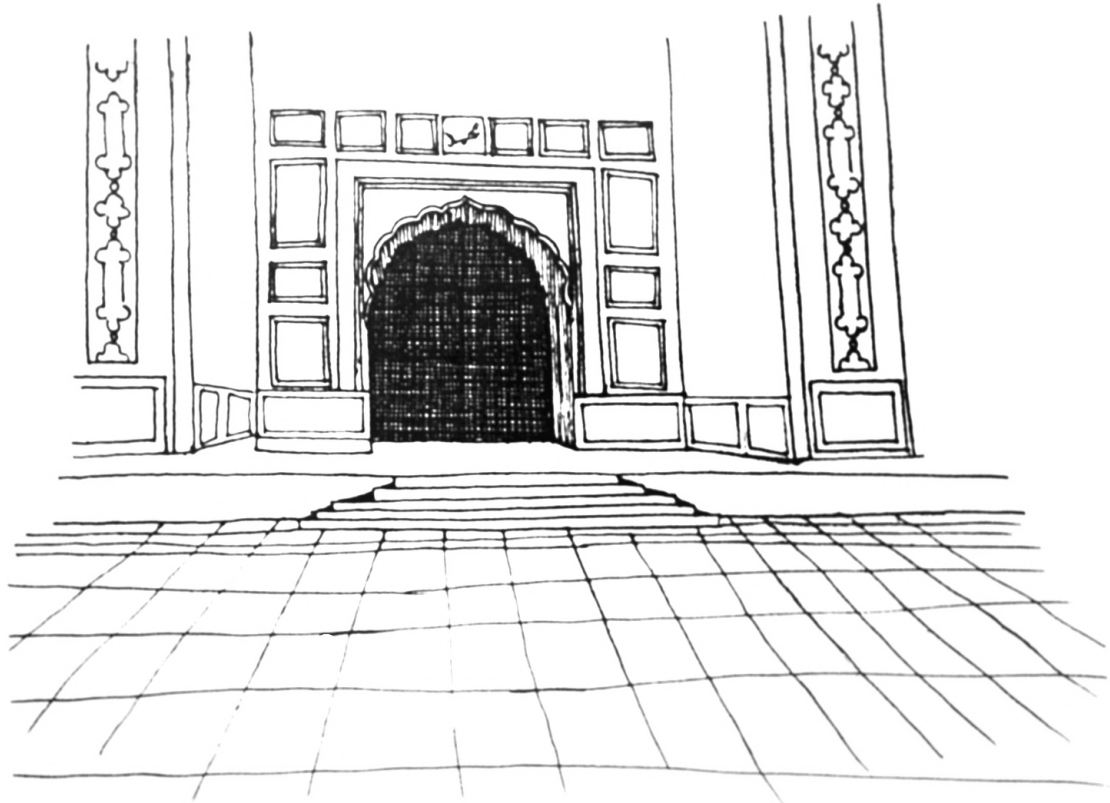


FIGURE 4.14 : The recessed door entry of the prayer sanctuary (from the photograph of the mosque).

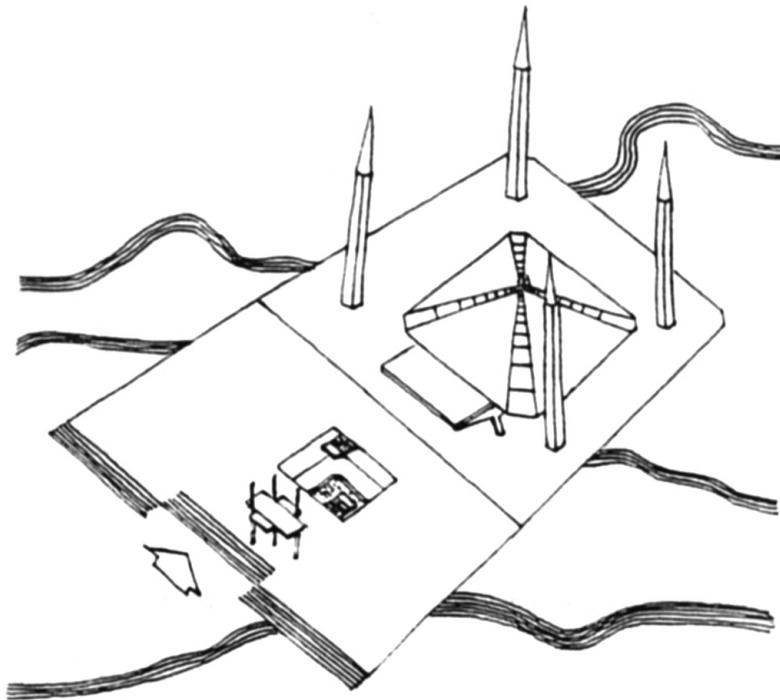
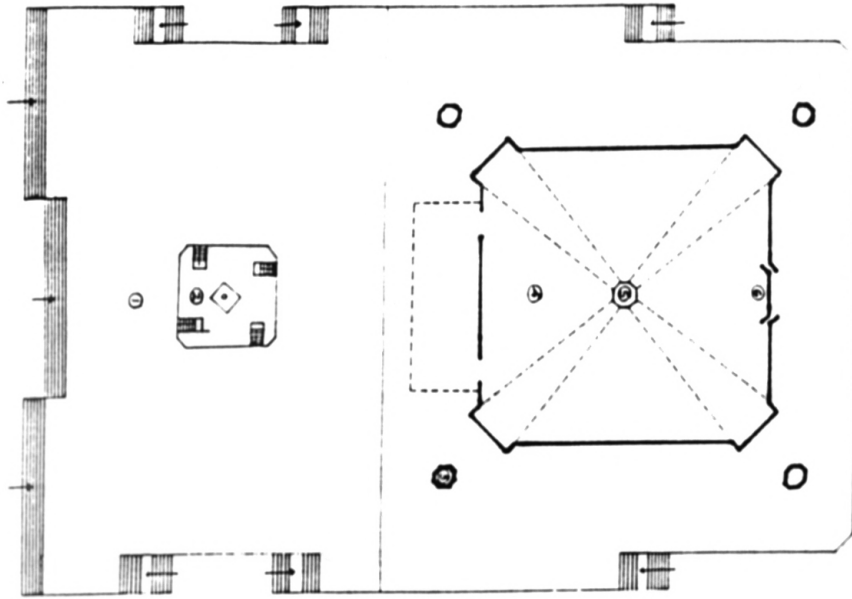


FIGURE 4.14a: Plan and view of the Faisal Mosque.

The atmosphere inside the prayer sanctuary is highly charged with semi-darkness and people praying, meditating or reciting the Holy *Qur'an*. The walls around are adorned with mostly *Qur'anic* verses, that make visible the word of God. Space is defined by surface and, since surface is articulated by decoration, there is an intimate connection between space and decoration. Here, inside the prayer sanctuary, decoration is thus not limited to the covering of surfaces, but also helps to transform space. The transition of the domes into drums and eventually to walls below is skillfully concealed in a bewildering array of calligraphic, floral and geometric patterns, which generate a rich and sumptuous effect that enhances the aura of spirituality and sacredness which emanates from the interior of the prayer sanctuary.

THE EXPERIENCE OF THE FAISAL MOSQUE

I now present a personal account of the Faisal Mosque, which is comfortably perched among the tall, majestic and picturesque Margalla Hills. What makes this building so striking? Is it its location? Or is it just its form? I personally believe that both factors are important. Built on elevated land, with its bright and shiny marble surface shimmering in the sunlight against the dark green background of the hills, the mosque expresses a fairy-tale aura. The fact that this mosque is the largest space for religious prayers in Pakistan as well as the fact that the mosque is a part of the largest seat of theological learning (Islamic University), makes it unique in the Islamic world.

As illustrated in figure 4.15, like an oasis in a desert, the structure emanates a coolness, which is equally soothing to the eyes as well as the soul. A self-centered and self-settled tranquility

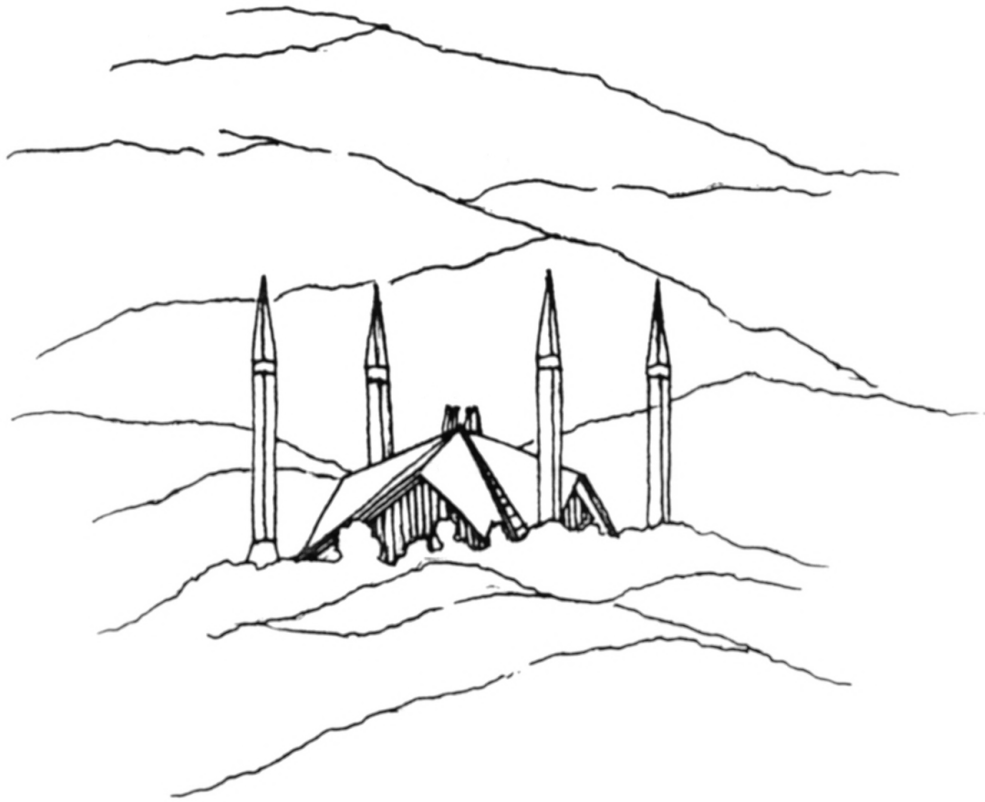


FIGURE 4.15 : The tent-like form of the Faisal Mosque (from the photograph of the mosque).

emanates from the mosque. Its striking pyramidal form, like a tent, has just the right tension between a sheltering protection and an eloquent welcome. The pencil-like minarets in the Ottoman style have a distinctive verticality. The mosque is an oriental building and a modern building at the same time.

As we enter the mosque's compound, we are overcome with hesitation and confusion. Where is the main gateway of the mosque? Interestingly there is no formal portal. Rather, a slight skeletal structure with no boundary walls, no gates, and no formality provides entry.

Unfortunately, the element of mystery and perhaps a clear visible demarcation between sacred and the profane spaces is missing. But does it matter? The sheer magnetism of the mosque's form, the importance of its function and the spell of the surroundings are factors powerful enough to make this building stand out. Instead of using different architectural elements to enhance the sacred nature of the building, the architect has relied on the use of topography with relation to the structure to evoke a sense of spirituality. And he has been very successful in his attempt. The lush green hills, the soaring minarets and the tent-like structure, all blend harmoniously in generating an experience which is lasting as well as unique. One can't help noticing a certain *genius loci*, a spirit of place, in the mosque and its surroundings.

The Courtyard

As shown in figure 4.16, in the absence of any boundary walls and gates, the prayer sanctuary becomes the most obvious goal. It is surrounded by an open courtyard on all four sides, which

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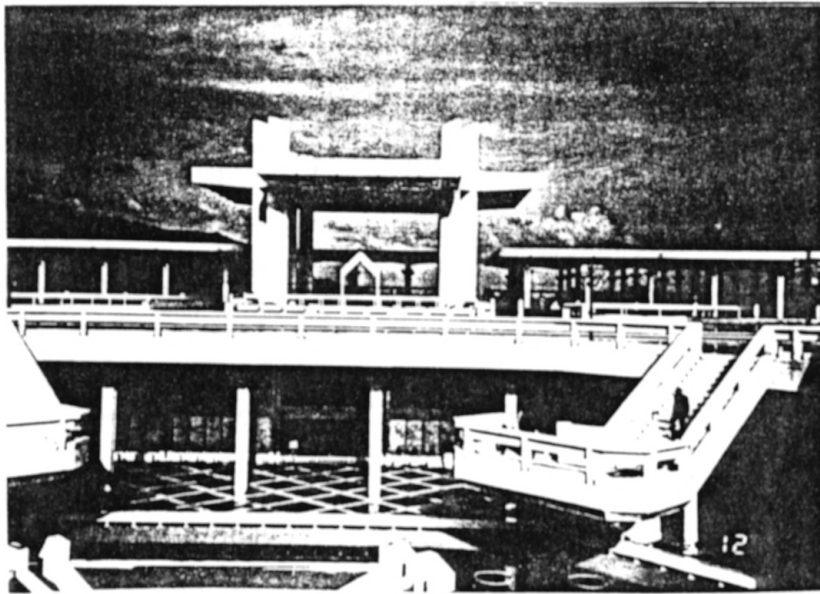


FIGURE 4.17 : The ablution fountain at the lower level of the courtyard (from the photograph of the mosque).

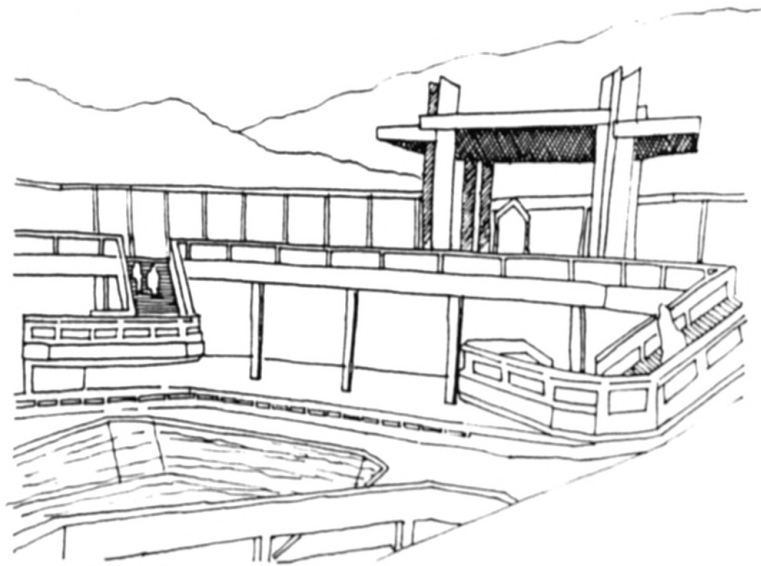


FIGURE 4.18 : The approach leading down to the abluion fountain (from the photograph of the mosque).

are all alike, except for the east side where the prayer sanctuary entry lies. Here the courtyard is also much larger and wider than on the other three sides and approach to the main sanctuary is achieved through a gradual rise in elevation.

One of the major elements of this mosque's architecture is the ablution fountain. As indicated in figure 4.17, the ablution fountain courtyard is situated at a lower level. As shown in figure 4.18, one descends to this level through four gently curving cantilevered staircases. The ablution pool fountain is simply marvelous. The mirror-like surface of water reflects various shades of blue and green. One feels a tinge of guilt disturbing the tranquil surface of water during the ablution ritual, which becomes a deeper experience because of the beauty of the fountain. The reflecting surface of the pool, the various shades of marble floor, the almost theatrical projection of the staircase landings, the lush green hills all around, the songs of the birds, the whispering of breeze, the smell of nature--all become part of the mosque experience, and one feels a part of nature, in peace and harmony with the surroundings.

As one walks toward the prayer sanctuary, one can't help noticing a certain wetness of the courtyard floor. The immediate thought is that the unpredictable weather of Islamabad has again played tricks. No, it is not rain. Rather, the feeling of wetness is only visual. You don't feel it. It is in fact a particular reflective quality of the marble used on the floor. An optical illusion. A mirage. But still, a visual coolness to the eyes.

The Prayer Sanctuary's Exterior and the Minarets

As illustrated in figure 4.19, the tall minarets takes on a rigid, masculine character. The



FIGURE 4.19 : The minarets of the Faisal Mosque (from the photograph of the mosque).

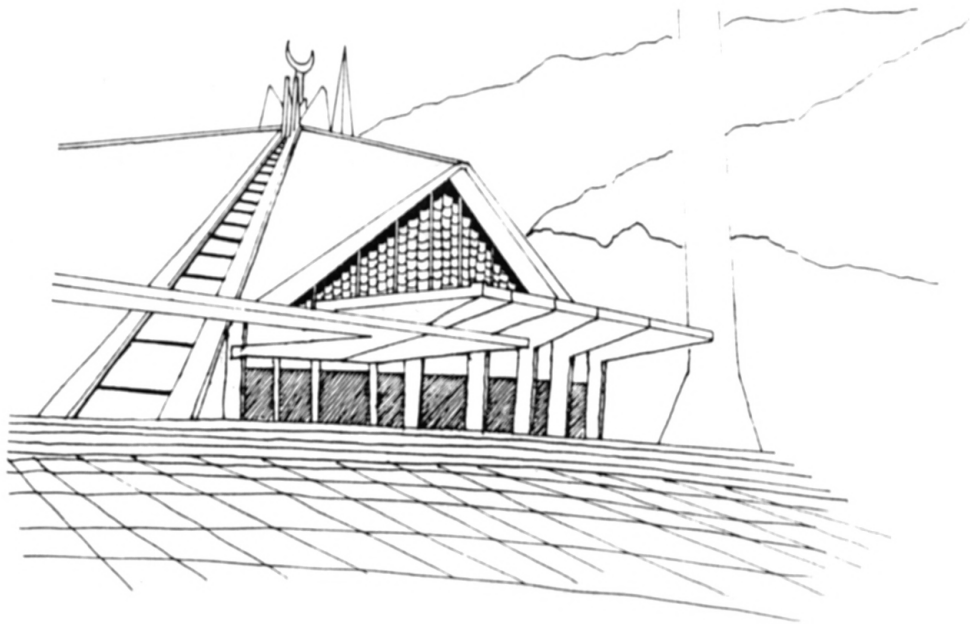


FIGURE 4.20 : The cantilevered overhang of the Faisal Mosque's prayer sanctuary entrance (from the photograph of the mosque).

sharpness of their top most point seems to probe the heavens above. The feeling of intimacy so profound with the minarets of the Badshahi Mosque is now replaced with a slight feeling of alienation. At times it appears that these sharp minarets want to keep their distance. Even the fact that elevators takes you to the top of the minaret, does not help in deterring the sense of aloofness.

As one gets near the prayer sanctuary, he notes a number of features. As figure 4.20 indicates, first, one notices the large cantilevered roof above the main entrance which juts out sharply and extends a long way to meet us. An immediate sense of friendliness, welcome and closeness is achieved. The roof steps out horizontally from the shadows of the larger triangular form of the east wall as if to greet us. One invariably feel drawn inside the prayer sanctuary.

As shown in figure 4.21, another important feature is the crown of the prayer hall, where the four edges of the roof meet, highlighted by four triangular outcrops. Like a cap or a crown, they adorn the top of the building and are crowned by a gold crescent, a symbol that heralds the arrival of the new Islamic month. Another striking feature one immediately notices is the closed, concealed nature of the prayer sanctuary. As illustrated in figure 4.22, the structure becomes conspicuous with the absence of formal windows and openings. The whole sanctuary gives an impression of a well draped tent, all covered up and impenetrable.

The Prayer Sanctuary's Interior

Once inside the prayer sanctuary, one feels a sense of bewilderment, fascination, and awe at

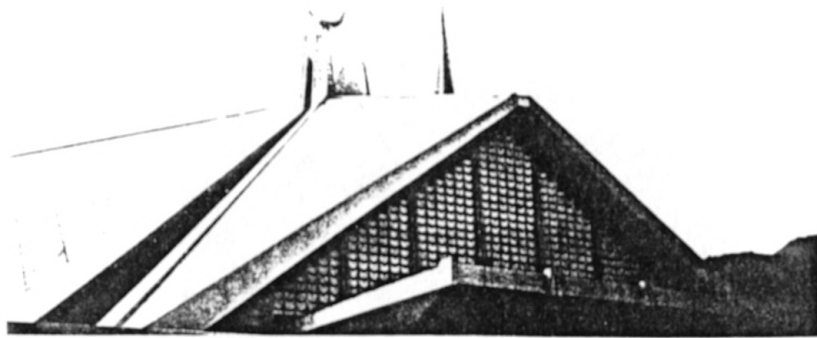


FIGURE 4.21 : The crown of the Faisal Mosque's prayer sanctuary's roof (from the photograph of the mosque).

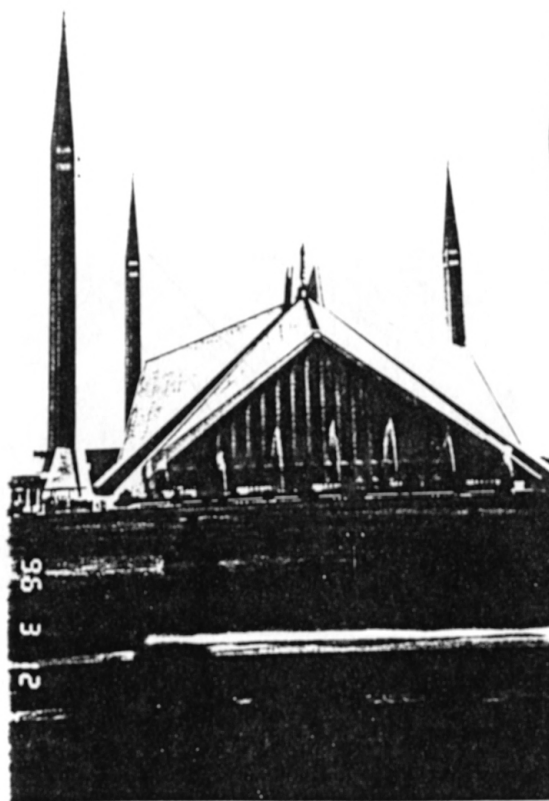


FIGURE 4.22 : The closed nature of the prayer sanctuary's facade (from the photograph of the mosque).

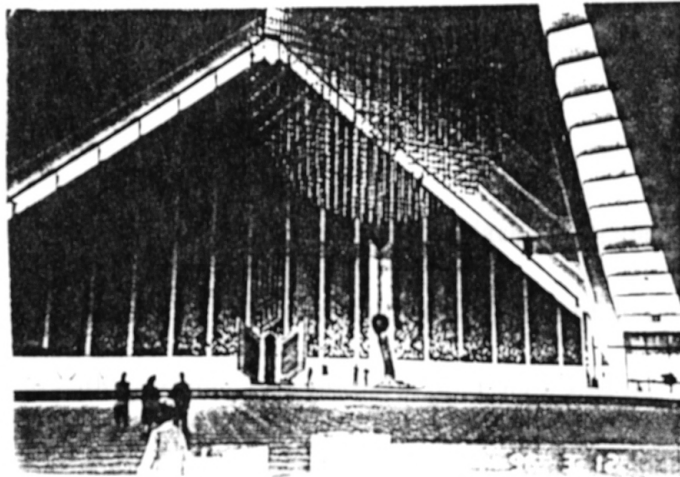


FIGURE 4.23 : The interior of the prayer sanctuary (from the photograph of the mosque).

human power versus an invitation to participate in the mystery of *Allah*. As shown in figure 4.23, the interior erupts into a multitude of colors, hues and textures that contrast with the plain, closed exterior. The sunlight diffused and reflected on the decorated surfaces generates an uplifting sense of spirit. The meaning of the doctrine that *Allah* is the light of Heaven and Earth becomes manifest in such a setting.

The *qibla* wall has been divided into vertical panels that contains *Qur'anic* inscriptions in gold over a turquoise green wall. In addition, the walls incorporate Turkish ceramic tiles, stained glass, and colored crystal glass, all of which sustaining an atmosphere which is spiritually exhilarating.

The usual semi-circular niche of the *mihrab* has been replaced with angular walls, that indicate the direction of the *Ka'ba*. A three dimensional depiction of an open Holy *Qur'an* in white marble, complete with *Qur'anic* inscriptions in gold, indicates the location of the *mihrab*. The section of the floor directly parallel to the *qibla* wall six inches higher than the rest of the floor further from the *qibla* wall and signifies the importance of the first row of worshippers. The center of the sanctuary is occupied by a small water fountain directly beneath the crown of the roof. The sight and sound of this water helps focus this worship space.

The main intent of this chapter has been to create for the reader a 'sense of place' in regard to the two mosques. The next chapter interprets the mosques in greater depth by drawing on Thiis-Evensen's theory of architectural archetypes. We begin with each mosque's *floor*, which is the first of Thiis-Evensen's three archetypes.

CHAPTER V

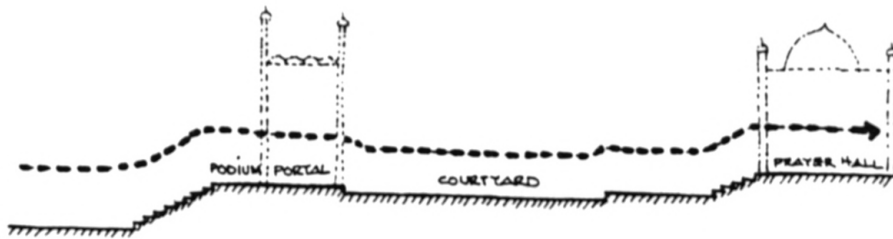
THIIS-EVENSEN'S ARCHETYPAL FLOOR AND THE TWO MOSQUES

How does Thiiis-Evensen's approach helps to better understand the floors of the two mosques? As discussed, Thiiis-Evensen argues that a floor provide three fundamental functions. First, the floor *directs*. It makes a path that leads from one place to another. Second, the floor *delimits*. It separates one space from another. Third, the floor *supports*. It provides a firm, easily taken-for-granted footing. Support is the most important of these three themes, according to Thiiis-Evensen, because it relates to the primary character of any natural floor, which provides a sense of security because it is always solid and stable (ibid., p. 37).

Here, I intend to explore the existential qualities of the various floors of the two mosques, based on Thiiis-Evensen's discussion on the three themes of floor: supporting, directing and delimiting. A comparative analysis of the motion, weight and substance qualities of the floor of the two mosques will be a part of this exploration.

THE SUPPORTING THEME AND THE FLOORS OF THE TWO MOSQUES

Figures 5.1a and 5.1b, summarizes the floors of the Badshahi and Faisal Mosques. As this drawing illustrates, in moving from the outside to the inside of the Badshahi Mosque, one experiences a gradual shift from openness to closure. The floor of the mosque plays a direct role in affecting the varying degrees of outside/inside experience--both through its vertical relation with the ground below and through its horizontal relation to the surrounding exterior.



Badshahi Mosque



Faisal Mosque

FIGURE 5.1: Sections showing the character of the floors of the two mosques (from Khan, 1991, p.).

Figure 5.1a, also illustrates that the Badshahi Mosque's floor has four plateaus. The form of the floor has a subtle undulating quality and rises towards the portal. Thus, it is at its highest level when viewed from the ground below. Further on, it sinks lightly as it reaches the open courtyard. As it reaches the foot of the prayer sanctuary it again rises gradually where it rises to about five feet to reach the floor level of the prayer sanctuary, the elevated floor of which enhances its eminence of being the most sacred part of the mosque.

In contrast, the floor of the Faisal Mosque creates a different existential feeling. As figure 5.1b shows, the building sits on a high plateau among the rolling, gently rising Margalla Hills of Islamabad. This natural panoramic surroundings and the climb up the ceremonial staircase are the spatial experiences we carry as we enter the mosque. Once inside, one realizes that the inside floor also rises and falls. The floor ascends towards the outer entrance or portal, sinks abruptly as it approaches the ablution courtyard pool, and rises again towards the entrance of the prayer sanctuary. This undulating pattern reflects the same wavelike characteristic of the surrounding landscape. This undulation makes one feel, "dependent on the ground and contributes to a feeling of humility towards the earth" (Lin, 1991, p. 24).

We now need to examine the two floors more thoroughly, drawing on Thiis-Evensen's theory as an interpretive guide. The first thing one notices about the floor of the Badshahi Mosque is the fact that it is, vertically, some hundred feet above the ground. In Thiis-Evensen's terms, the floor is a rising element. A monumental staircase with a series of twenty-two steps leads to the first level of the mosque's floor. Apart from a strong undercurrent of a directional

quality of this rising floor, these steps also enhance our sense of support, as we ascend to the top. The steps support us as, in turn, we support and balance ourselves, while climbing. Here, Thiis-Evensen also points to our initial reaction to the floor's expression of strength and support, when he writes that, "the rising floor is the flexed muscle of the earth" (ibid., p. 83). As we balance our way across to the top, we sense the power that wells up from below.

We now turn to the Faisal Mosque and examine its floor in terms of Thiis-Evensen's supporting theme. The element of slight urgency to reach the top, which results due to the pyramidal form of the stairs in the Badshahi Mosque, is missing in the Faisal Mosque. The broad ceremonial staircase has a more relaxed air, and one climbs the stairs with a slow, measured pace. There is no hurry. This rhythm, in turn, provides one with the opportunity to absorb the breathtaking vista which is all around. The spiritual significance of the structure, in conjunction with the surrounding green hills, generates a strong sense of the panoramic view as one slowly rises to the top. In the ascending movement one feels an atmosphere of reserve, control and solemnity.

In both mosques, the steps of the entry stairs have broad breadth, a gentle slope, firm attachment both to the ground below and the floor above, and a form which arouses an impulsive feeling to ascend. These elements enhance the public expression of the stairs both of which have the capacity to, "convey a *stream* of people" (ibid., p. 95). If seen in the light of Thiis-Evensen's description of the broad stair, both the mosques' stairways are generous and inviting. Thus, for both mosques, the floor at the top of the stair can be interpreted as that which the buildings extend and offer to the outside.

One also notices that the floors of the two mosques are elevated. Both are approached by the broad ascending staircases. But the similarity ends here, since the climbing experiences are different. In the case of Badshahi mosque, as is illustrated in figure 5.2, the rising of the floor through the three-sided pyramidal stairs has a strong directional tendency. The steps on each side of the pyramid rise and propel us to one major goal--the richly decorated portal. One can sense one's eyes riveted to the decorated beauty of this entrance. A certain magnetism seems to emanate from the portal's richly carved designs. One feels unconsciously drawn towards this entry gate. At the top, a certain urgency seems to creep into the ascent. In this sense, the stairs achieve a strong directional quality. A well defined impulse of motion replaces the initial feeling of support from the stone fabric of the steps.

In contrast, the overwhelming undulating character of the landscape immediately around the Faisal Mosque lends a strong sense of balance and support to one's climbing experience, up the ceremonial stairs of the rising floor. As one becomes gradually aware of the ups and down of the surrounding landscape, one unconsciously takes each step more carefully. At the same time, however, the strength and solidity of the marble steps reassure our movement to the top, and one feels a renewed sense of balance and support. As shown in figure 5.3, the portal at the top is very plain and simple as compared to the richly decorated portal of the Badshahi Mosque, hence the climb to the top is not explicitly goal-oriented, with the result that the directional quality of the floor is weakened.

The tactile quality of the two mosque's floors manifests itself in various ways. First, as one

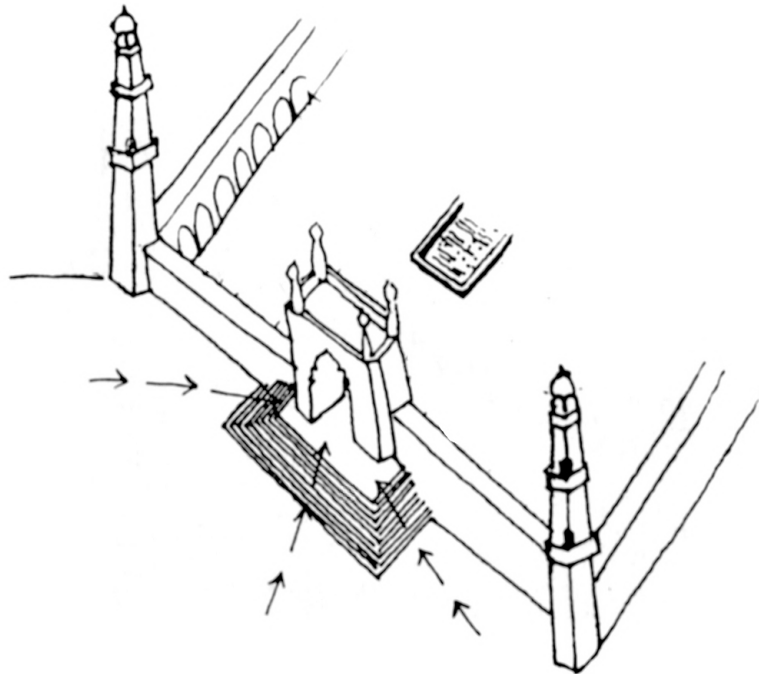


FIGURE 5.2 : The Badshahi Mosque's monumental, pyramidal-shaped staircase has a public, welcoming appearance. The result is a strong 'directional' quality of the rising floor(from photograph of the mosque).

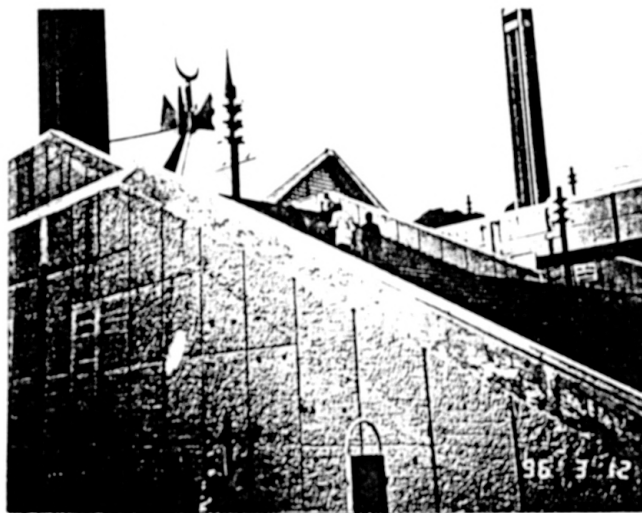
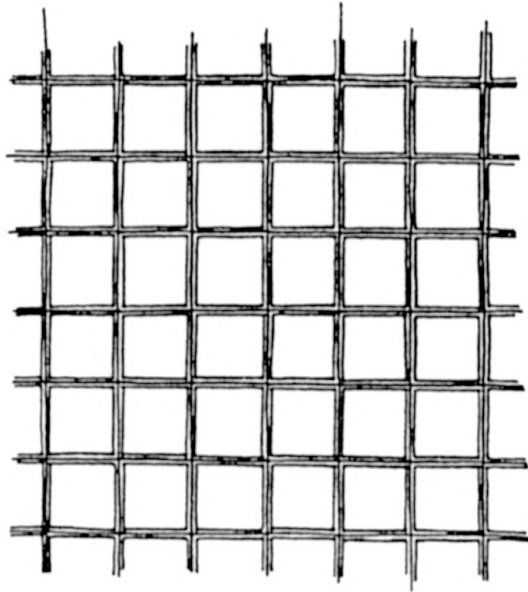
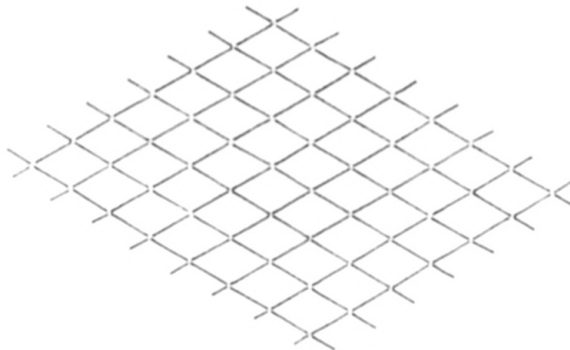


FIGURE 5.3 : The floor of the Faisal Mosque's ceremonial staircase has a stronger 'supporting' role than its 'directional' quality (from photograph of the mosque).

enters through the portal of each mosque, one remove his shoes. The marble floors of both mosques feel cool and comforting to the touch, especially in the shade of the arcade. This initial entry feeling of humility takes on a more relaxing dimension and one feels at ease. In the case of the Badshahi Mosque, as one steps down to the open courtyard, one's perception of the tactile quality of the floor abruptly changes. The initial smooth, shiny quality of the veranda floor is now replaced by a slightly coarse, hot, dusty floor of the courtyard. The material used here is sandstone and the supporting theme of the floor manifest itself through the strength of this hard, coarse material. The sandstone creates a reaction which hovers between heaviness and power. In addition, the composition of the courtyard's floor into rows and rows of closely knit sandstone tiles, as well as their non-reflective quality, creates a feeling of closeness and delimitation, as illustrated in figure 5.4. The sense of discomfort that the roughness of the floor generates, however, is short lived. As one proceeds towards the prayer sanctuary, one's immediate attention is taken up with the comforting sight of the shimmering water of the ablution pool. After washing one's feet there, one walks towards the prayer sanctuary in comfort. In contrast, the floor of the Faisal Mosque's courtyard is of marble, which immediately has a cooling, comfortable feeling. As figure 5.5 indicates, the supporting nature of the mosque's floor is emphasized by the hard, smooth marble, which further manifests itself when one walks around the opening in the center of the courtyard to the lower floor of the ablution pool, whose sunken floor creates a sense of depth when viewed from above. In this context, the courtyard's floor assumes the quality of reassurance and renewed support to one's feet.



PLAN



VIEW

FIGURE 5.4 : In case of the Badshahi Mosque's courtyard floor the close arrangement of sandstone tiles and their non-reflective nature creates a sense of closure and 'support' (from photograph of the mosque).

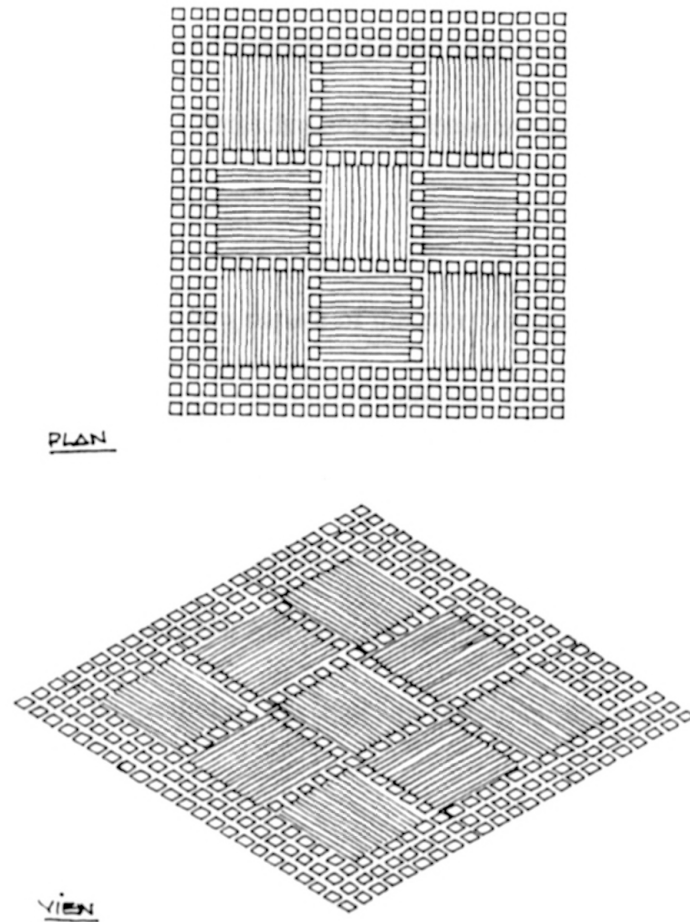


FIGURE 5.5 : The Faisal Mosque's floor pattern which lies outside the ceremonial staircase. The pattern has two layers, the first of which is the 'upper' layer--square paved stones which form a 'footpath' and enhance the 'directional' quality of the floor. The vertical and horizontal grooved stone tiles mark a 'lower' layer.

We now come to the mosques' prayer sanctuaries, where one experiences different tactile sensations as he enters. In both cases, the sanctuary's entire floor is covered by carpets, which are warm and comforting. The carpeted floor is enclosed all around by the walls of the prayer sanctuary and, in this sense, the carpeted floor generates a contained atmosphere that supports prayer and meditation. Thiis-Evensen states that the very texture of a carpet has a tendency to gather people together. "Intimacy and coziness are always connected with nearness" (ibid., p. 61).

In contrast to the attached and supporting nature of the courtyard's floor, one finds the motif of *detached floor* in the mosques' prayer sanctuary interior. Thiis-Evensen argues that, experientially, a detached floor fosters a sense of separation from the surface below: "one finds oneself on a level divorced from the ground...." (ibid., p. 57). Thiis-Evensen indicates two essential ways in which a floor might manifest the qualities of detached floor--either the floor rises physically above the ground or the floor lies lightly on the ground, as in the case of the carpet.

In this sense, the carpets of the two mosques assume the role of a plane in contact with the floor. As one enters the prayer sanctuary, one's immediate reaction to the carpeted floor is that of a separate detached layer, which covers another floor beneath. In addition, the carpets are soft and removable, whereas the "floor remains" (ibid., p. 59). The carpet yields beneath our feet and is compliant when we perform prayer and meditation. The soft surface is friendly and sheltering because it both gives and receives.

DIRECTIONAL THEME AND THE FLOORS OF THE TWO MOSQUES

Thiis-Evensen argues that certain floor elements are especially designed for the sole purpose of leading us forward. He mentions three elements in this connection: path, bridge and stairs (ibid., p. 87). Here, I will consider, using Thiis-Evensen's guidelines to show how various floors of the two mosques generate a strong sense of directionality. First, let us return to the entrance of the Badshahi Mosque, with its monumental staircase of twenty-two steps rising to form a three-sided pyramid. Assuming a strong directional character, these steps are the connecting link between below and above. As Thiis-Evensen states, a flight of stairs leading upwards may guide us to a place of importance: "The goal at the top acquires an elevated and 'sacred' quality" (ibid., p. 89).

While climbing these steps, one feels expectation and tension mounting with every step. This ascending experience culminates with the powerful impact of the grandeur and beauty of the portal, which comes into full view while climbing the last step. As Thiis-Evensen writes, "throughout architectural history, broad stairs have been used to accentuate facades, especially those of public buildings" (ibid., p. 97). In this regard, the stairs have a well defined directional theme. As indicated in figure 5.3, starting from the ground below, the stair leads us to the goal, which here is the exquisitely decorated entrance portal. Thus, this directional emphasis of the floor, through the steps, helps in enhancing the spiritual essence of the mosque.

In contrast, the Faisal Mosque's stairs have a more supporting role. Two reasons stand out which contribute to the supporting quality of the steps. First, the fact that the steps are

ceremonial gives us more pause and time to absorb the rising and falling nature of the landscape around. Thus the steps assume a supporting role, which gives reassurance to our ascending motion. A second factor which greatly weakens the directional quality of the steps is the very plain and simple decoration of the portal. The strong magnetic quality of the Badshahi Mosque's richly decorated portal which propels our movement upwards and enhances the directional quality is missing in the Faisal Mosque's stairs.

As shown in figure 5.5, it is the floor which lies outside right below the Faisal Mosque's ceremonial staircase which has a strong directional quality. In fact, this floor is an artistic depiction of coarse and fine textures on stone. From Thiis-Evensen's perspective, the particular pattern of the floor corresponds to the *textured* quality of the layered floor. As figure 5.5 illustrates, this floor is composed of two layers, of which the deepest is composed of simultaneous horizontal and vertical grooves cut on the stone tiles and is seen as smooth, geometric and delicate. The layer above consists of a 'footpath' composed of small, square paving stones that are coarse and rough. Grey in color and symmetrically combined, they seem to 'float' over the lighter pale background of the square stone tiles beneath. This footpath of stones acts like a bridge over the lower layer of grooved stone tiles. The arrangement of these small paved stones not only provides support for the tiles in the form of a strong 'foothold' but also creates a well-defined directional theme which leads towards the broad ceremonial staircase.

We next need to consider the two floors of the mosques' portals in terms of the directional theme. In the case of the Badshahi Mosque, the nature and pattern of the veranda floor

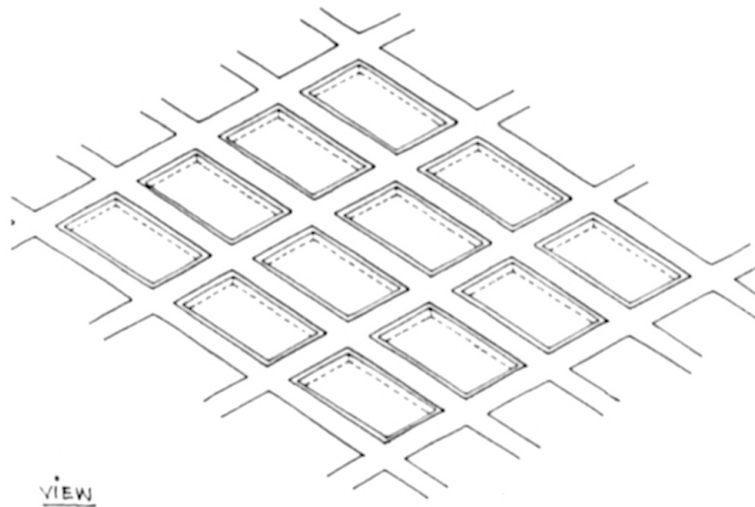
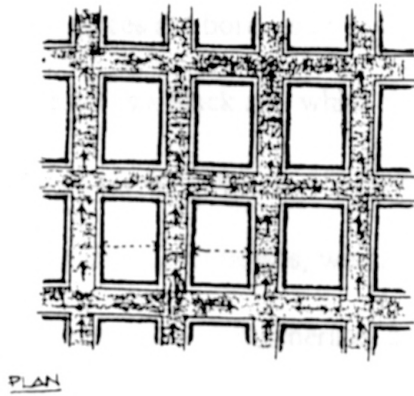


FIGURE 5.6 : The Badshahi Mosque's veranda floor pattern creates a contrast between dark, light and between reflective and non-reflective areas. The pattern highlights and enhances the inter-play between the 'directional' and 'delimiting' qualities of the floor.

immediately inside the portal entrance has a well defined *layered* effect. As Thiis-Evensen states, "a layered floor is a floor plane in which the form, material and pattern convey a stratified effect, layer upon layer" (ibid., p. 69). The reflective marble floor of this area is broken horizontally into a rectangular grid of 2' x 4'--the dimension of a typical prayer rug. These white reflective rectangular pieces are bordered by black, non-reflective marble stripes. As figure 5.6 shows, the result is a black and white checkerboard effect which has what Thiis-Evensen calls a *skeletal* character (ibid., p. 69). In other words, the grid in black is the 'upper level' and seems to be made up of beams, which convey a sense of security. In contrast are the openings of a 'lower level' which generates a sense of depth and feels like openings to the ground below. This pattern results in the floor surface's generating a sense of depth and, subsequently, the sense of support of the floor is somewhat weakened. One is encouraged to move forward a bit more quickly.

Now we interpret the courtyard's floor of the Faisal Mosque, which lies immediately inside the portal entry way. This floor is comprised of pale colored, rectangular, highly-reflective marble, which is bordered all around by wide bands of white, non-reflective marble. Quite similar to the veranda floor of the Badshahi Mosque, this floor can also be interpreted as a floor in layers. As figure 5.7 indicates, the 'lower' layer is the reflective, light colored, central rectangles, while the 'upper' layer is the non-transparent grid of the surrounding marble bands. This transparent characteristic of the central marble rectangle has a reflective quality whereby the veranda columns, as indicated in figure 5.7, are optically detached and freed from the floor on which they stand. Because of the floor's mirror-like quality, one does not appear to stand

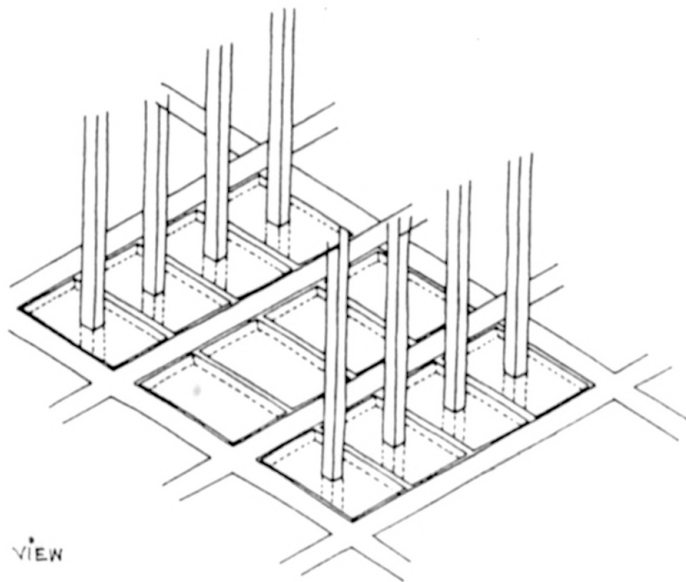
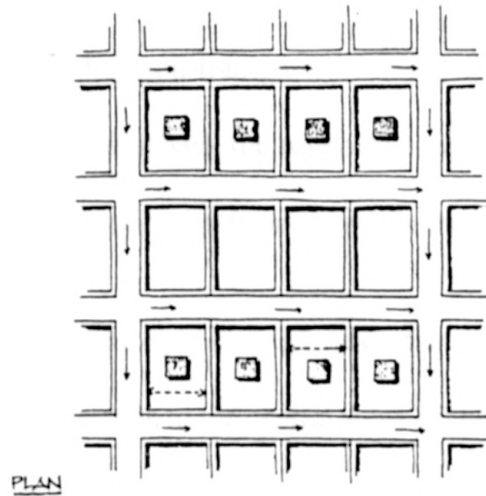


FIGURE 5.7 : Faisal Mosque's courtyard floor pattern has a play of contrast between light and shade and between reflective and non-reflective areas. The arrangement of columns in the center of the central reflective marble surface creates an optical illusion of depth, thereby enhancing the 'delimiting' character of the floor. The surrounding non-transparent, white band of marble creates a 'footpath' which conveys the 'directional' quality of the floor.

on a ground equally substantial or stronger than oneself. Thus the floor seems to be non-supporting and thereby increases the detached air of all objects on it, including worshippers. In such a situation the surrounding non-transparent white grid of marble takes on a form of a 'footpath'. This grid seems to bring back the supportive quality of the floor and assumes a strong directional characteristic which leads one towards the prayer sanctuary.

During the hot summer months of April through August, a six-foot-wide area of the floor, running from the center of the veranda to the central steps of the prayer chamber, is covered by mats of date palm leaves, as shown in figure 5.8, this particular arrangement allows worshippers to walk to the sanctuary without touching the hot surface of the courtyard. This strip of mat also acts in conveying a strong sense of directionality to the courtyard's floor.

When we compare the reflective floor surface quality of the Faisal Mosque's courtyard with the non-reflective floor surface quality of the Badshahi Mosque's courtyard, we detect a contrasting masculine and feminine feelings. The smoothness of the former's floor surface along with the polished and bright quality creates a feeling which is more gentle and soft in nature. On the other hand, the latter's floor surface quality and material have a feeling which borders on strength and roughness.

THE DELIMITING THEME AND THE FLOORS OF THE TWO MOSQUES

According to Thiis-Evensen, the delimiting floor "indicates the way in which the floor may create a stationary situation by keeping us in a centralized position or containing us within a boundary" (ibid., p. 47). In this section, my intention is to explore the delimiting role as

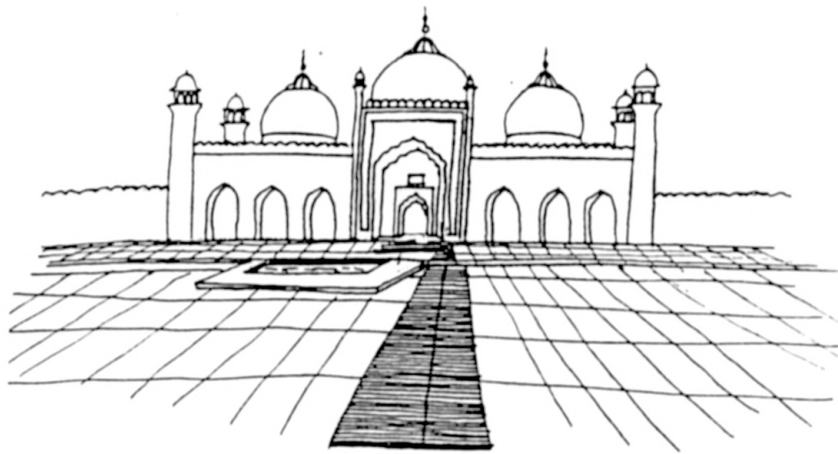


FIGURE 5.8 : During summer time a six-feet wide strip of mat covers the floor from the center of the veranda through the courtyard to the central steps of the prayer sanctuary, lending a strong 'directional' quality to the floor.

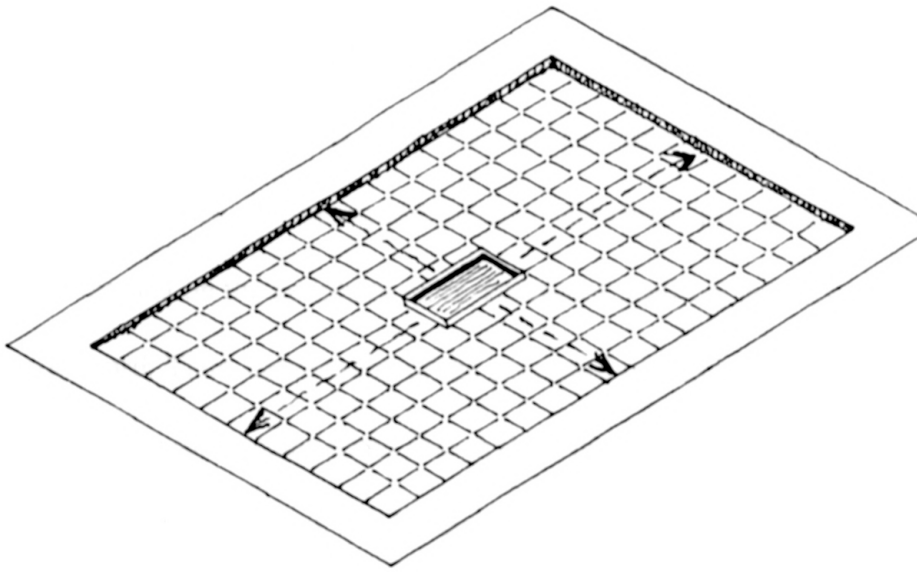


FIGURE 5.9a : The Badshahi Mosque and the courtyard's 'delimiting' character.

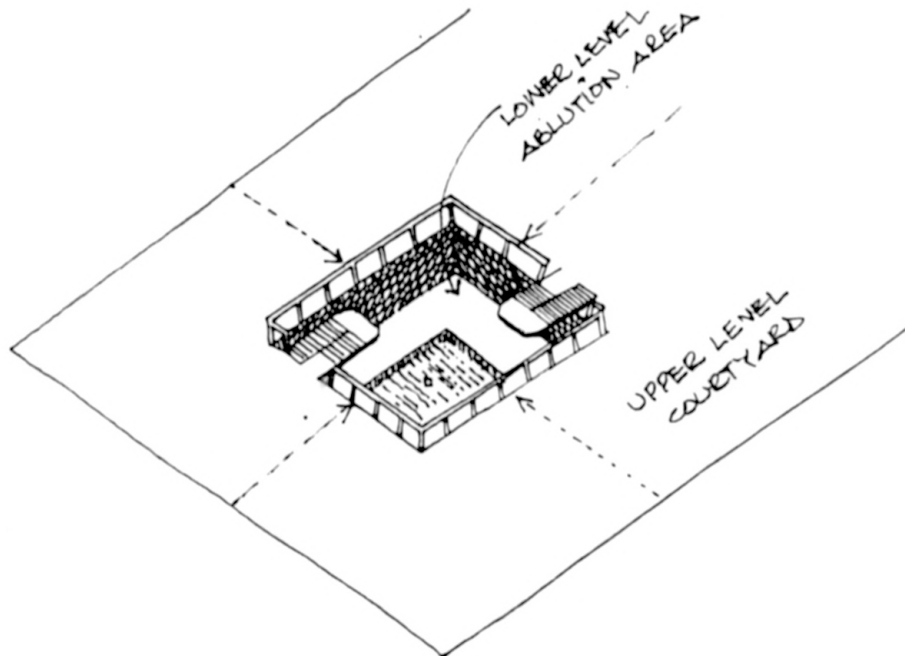


FIGURE 5.9b : The Faisal Mosque and the courtyard's 'delimiting' character.

expressed by the floors of the two mosques.

An exploration of the Badshahi Mosque's courtyard floor reveals strong delimiting qualities in the way the surface 'fall' below the ground and thus delimiting the interaction between the interior veranda space and the exterior open-to-sky courtyard. As illustrated in figure 5.9a, the raised veranda on the periphery of the courtyard precisely delimits and defines the edge of the courtyard. Thus, delimitation of the courtyard occurs by "sinking the floor into the ground so that the surrounding edges form a three dimensional border" (ibid., p. 47). As one steps down into the courtyard, one becomes instinctly aware of its delimiting nature, which is a central characteristic of the sunken floor. Thiis-Evensen argues that in such a situation, one's motion of stepping down is a physical reality (ibid., p. 75). In other words, forward and downward motions are one and the same. One ventures into the lower floor level of the courtyard from a higher floor level of the surrounding veranda.

Let us now interpret how the Faisal Mosque's floors exhibit the delimiting quality. As figure 5.9b illustrates, the courtyard floor abruptly sinks to a lower level, halfway, on the way to the prayer sanctuary. This lower level, which contains the ablution facilities, including the central ablution pool, is surrounded by walls all around. This creates a closed and delimiting feeling. As Thiis-Evensen argues that delimitation of the floor results when the "floor is *connected to* the surrounding walls in such a way that the volume is totally enclosed and cut off from its surroundings" (ibid., p. 47). As indicated in figure 5.9b, this enclosed and delimiting nature of the floor is more obvious when viewed from the upper courtyard level. Furthermore, the

central ablution pool within this sunken floor creates yet another aspect of the floor's delimiting character. As shown in figure 5.10b, the short parapet wall which surround the ablution pool helps in enhancing the closed, delimiting nature of the pool.

In both of the mosques' courtyards, the impulsive motion quality of the sunken/stepped down floor is governed by one's sense of motion, which in turn is governed by gravity. As one steps down from the Badshahi Mosque's shaded veranda to the open courtyard, one feels a spontaneous sensation of accelerating speed. A similar feeling of heightened downward motion is experienced when one ventures down from the Faisal Mosque's upper courtyard area to the lower ablution area. In contrast to the rising floor which slows one's speed, the downward motion to a lower level involves an additional pull from the ground, which is the natural force of gravity.

Similar to the Faisal Mosque's ablution water pool, the Badshahi Mosque's sunken floor of the courtyard contains within itself a smaller sunken floor, which is the ablution water pool in the center of the courtyard, as indicated in figure 5.10a. This-Evensen states that as in nature itself the lowest existential level is the water surface: "beneath it are the depths, the nether regions" (*ibid.*, p. 79).

In this sense, the ablution pools of both mosques become more than just pools. Because they are sunk into the ground, they become primarily openings to something 'primitive' and 'elemental'. The vast openness of the sky above, the closed delimiting quality of the water pool and the closed nature of the courtyard floor itself results in a strong contrast. This conflict



FIGURE 5.10a : The Badshahi Mosque's sunken abluion pool has a strong 'delimiting' character.

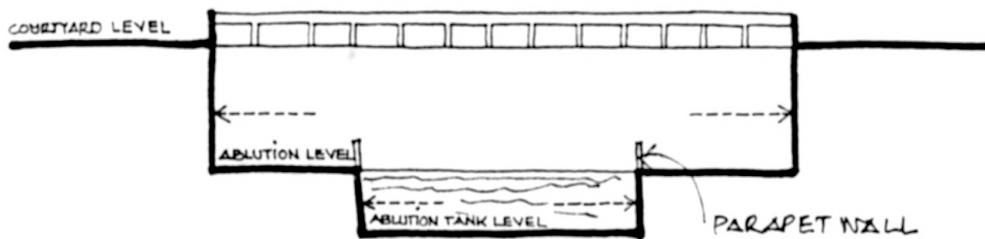


FIGURE 5.10b : The Faisal Mosque's sunken water pool which is surrounded by a short parapet wall has a 'delimiting' character.

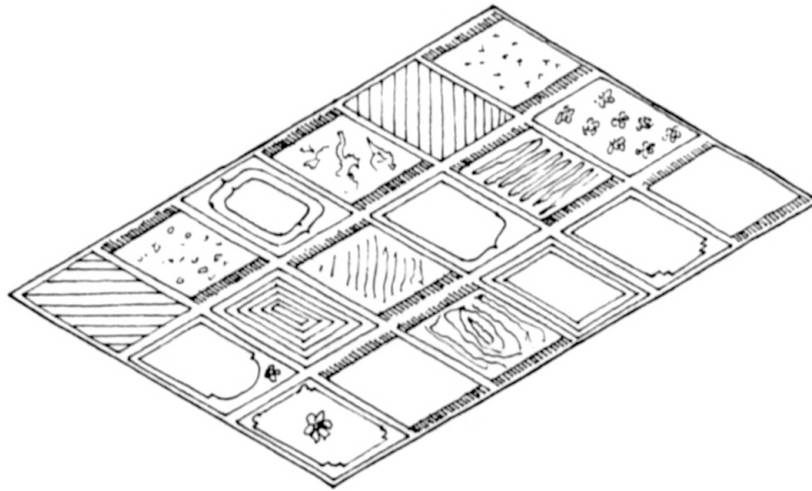


FIGURE 5.11a : The unique and differently designed, colored and textured individual prayer rugs inside the Badshahi Mosque's prayer sanctuary creates a 'delimiting' quality to the floor.

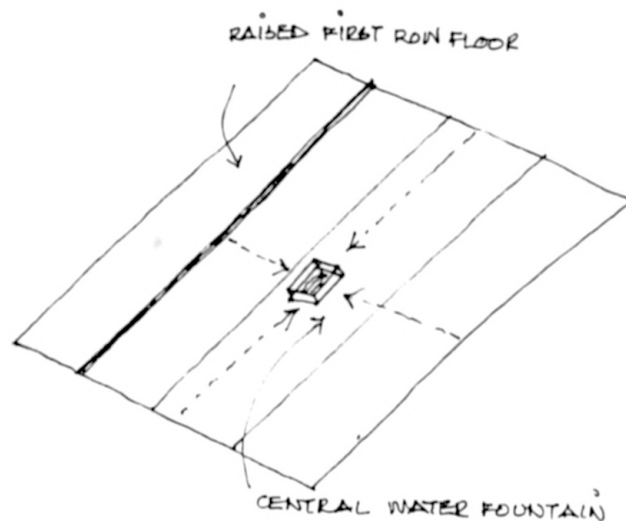


FIGURE 5.11b : The central water fountain in the interior of the Faisal Mosque, as well as the raised first row floor gives a strong indication of its 'delimiting' quality.

between openness and closeness, between the brightness of the courtyard and the darkness of the depth of the water pool, all assemble to make the ablution ritual a powerful experience.

As one moves to the interior of the Badshahi Mosque, the enclosed wall-to-wall carpeted floor heightens the delimiting character of the space of the prayer sanctuary. The entire space's delimiting floor as a whole is further broken into small, individual delimiting floors. This happens when each worshipper uses his own piece of 3' x 4' prayer rug. By separating themselves from the surrounding carpeted floor, as indicated in figure 5.11a, each prayer rug, through the strength of individual colors, textures and designs, creates a delimiting space.

In contrast, inside the Faisal Mosque's prayer sanctuary where individual prayer rugs are not allowed, the feeling of delimitation exists for the entire floor. Because it is the state mosque, management has provided an expensive, wall-to-wall carpet that is thick, soft and of plain light grey color. This lack of design and texture helps in enhancing a more enclosed, contained and supporting role of the floor. In addition, as indicated in figure 5.11b, the central water fountain with short parapet walls, delimits itself from the surrounding carpeted floor.

Similarly, the sacred nature and the spiritual significance of the first prayer row parallel to the *qibla* wall is architecturally emphasized by raising the entire first prayer row floor by six inches. Thus the delimitation of the first row's floor occurs "by raising it to a higher level as a separating platform" (ibid., p. 47).

This concludes the chapter on the interpretation of the two mosques' floors on the basis of Thiis-Evensen's discussion of the archetypal floor. The next three Chapters (VI-VIII) explores

a Thiiis-Evensen's exploration of the walls of the two mosques.

CHAPTER VI

THIIS-EVENSEN BREADTH AND HEIGHT THEMES

AND THE WALLS OF THE TWO MOSQUES

This chapter asks how the walls of the two mosques can be interpreted using Thiis-Evensen's explication of wall archetypes as the conceptual basis. The focal interest of this chapter's interpretation is the specific inside/outside dialectics sustained by the walls of the two mosques and the underlying existential qualities of motion, weight and substance. Specifically, the interpretation aims to understand the varying degrees of sacredness which the walls express through the relationship of insiderness and outsiderness. The interpretation uses Thiis-Evensen's three wall themes of breadth, height and depth to order the following sections.

Similar to Thiis-Evensen's interpretation, the discussion of the breadth and height themes here will be limited in comparison to the depth theme, which he claims is much more comprehensive and encompasses the other two. In fact, I have divided the discussion of the wall themes of the two mosques into two chapters. This chapter explores the breadth and height themes as discussed by Thiis-Evensen, whereas the next two chapters deal exclusively with the depth theme. The interpretation of the breadth and the height themes of the walls of the two mosques helps to understand their formal aspects. The underlying effect of the construction and material itself is revealed in more detail through explicating the walls of the two mosques with regard to the depth theme.

As discussed in Chapter V, there are two walls which are important in understanding the specific strength of the inside/outside relationship of the two mosques. First is the outer public east wall, where the main gateway or portal is situated. This wall is important because it links the outside and inside spaces. Specifically, this portal wall acts as the transition between an outside profane space and an inside sacred space. The second important element is the east wall of the prayer sanctuary--the most sacred place of the entire mosque complex and containing the only entrance.

THE BREADTH THEME AND THE TWO MOSQUES' PUBLIC WALLS

In this section, my intention is to interpret various motifs of the breadth theme expressed by the walls of the two mosques. I begin with the public walls of each mosque. First, let us see how the public wall of the Badshahi mosque expresses the motifs of the breadth theme. The Badshahi mosque's public face is made eminent by the majestic appearance of the richly decorated grand portal, which is approached by an equally impressive three-sided pyramidal staircase. The culmination of the broad stairs and the beginning of the monumental scale of the portal along with the two tall, powerful corner minarets mark the public wall of the mosque. The sheer magnitude of the scale announces the power and the authority of the Being for Whose worship the building was made. One feels small and humble in the presence of such a powerful impact of the monumental scale of the structure.

As shown in figure 6.1a, the Badshahi Mosque is typically approached from the east side through the three-sided pyramidal staircase, which finally leads to the gigantic and elaborately designed main entrance portal. Thus, this eastern wall can be seen to represent the 'public face



FIGURE 6.1a : The 'active' expression of the public wall of the Badshahi Mosque.

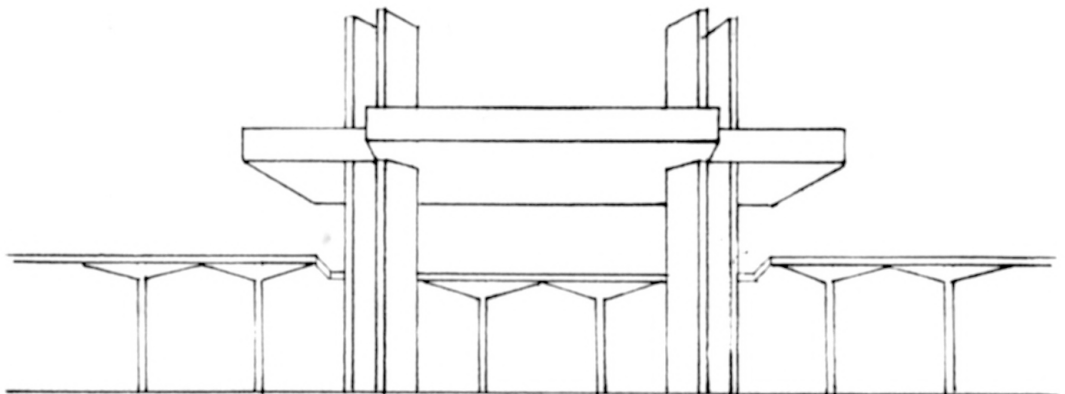


FIGURE 6.1b : The 'passive' expression of the public wall of the Faisal Mosque.

of the mosque', which creates the first impression. In contrast, the public face of the Faisal Mosque's public wall, as shown in figure 6.1b, is quite passive due to its plain and simple wall treatment.

The eastern public face of the mosque can be interpreted as one wall, even though it is made up of many wall planes that constantly step in and out, across the entire length of the mosque. As illustrated in figure 6.2a, from a distance and seen entirely, the eastern face of the Badshahi mosque manifests what Thiis-Evensen calls the *breadth motif*. Here the middle section of the wall dominates. There are a number of reasons for this public wall to display the breadth motif. First, the fact that the central part of the wall dominates on the strength of its monumentality and elaborate decoration make it speak louder than the two flanking walls. One can observe that the central main portal, which is elaborately decorated and which rises well above the two flanking walls, successfully resists any pressure from the long flanking side walls. In fact, it appears that a struggle is taking place between the weak pressing quality of the side walls and the center wall's dominant expression of defiance, which results through the tall, open middle section.

Second, although the flanking side walls, which form two side sections of the wall, are much longer than the central section, their plain and closed nature creates a passive expression. So instead of the corners dominating the middle section, it is the middle section which strongly dominates the sides by pushing them to the corners. With its powerful monumental form, the central section stands proudly and establishes its authority over the side walls. Thus the public

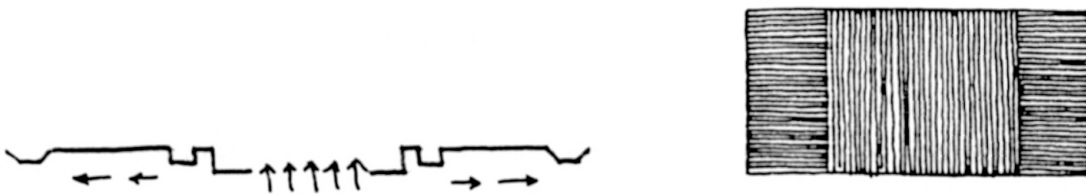
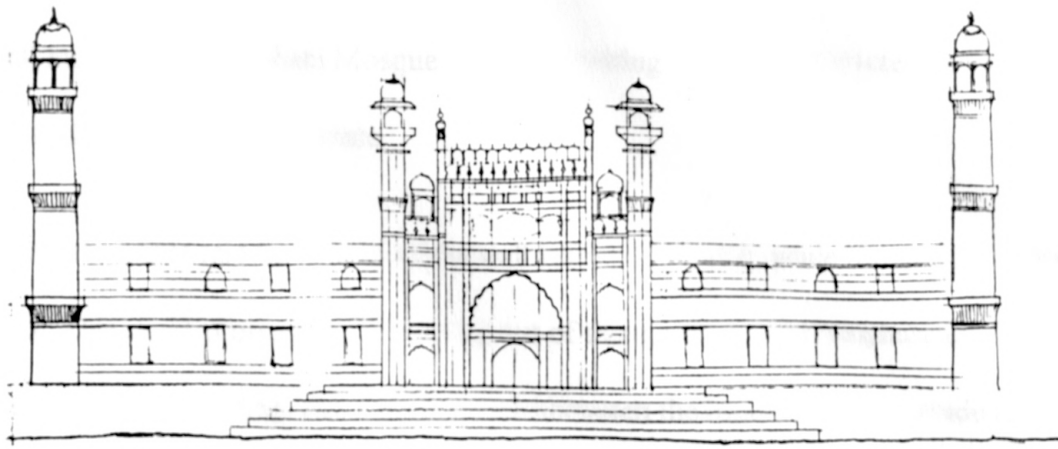


FIGURE 6.2a : The expression of the 'breadth motif' of the public wall of the Badshahi Mosque.

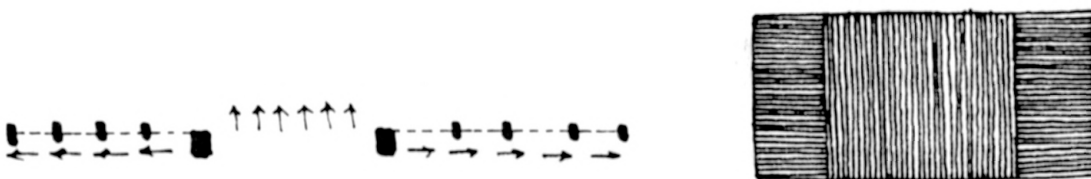
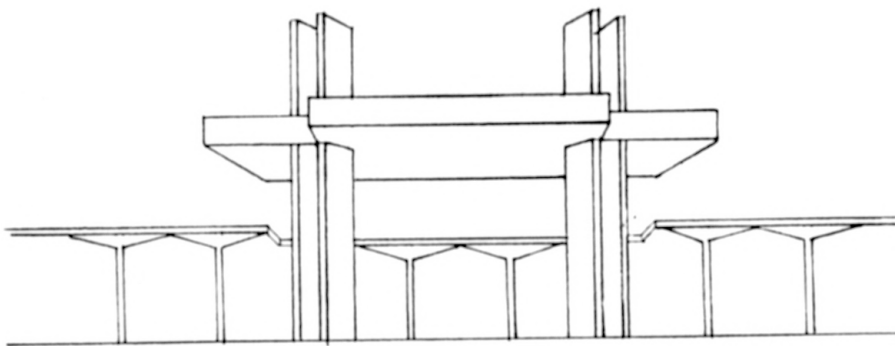


FIGURE 6.2b : The expression of the 'breadth motif' of the public wall of the Faisal Mosque.

wall motif of the Badshahi Mosque yields an inviting and open character, through allowing the middle section to dominate.

Third, the entire middle section of the wall is thrust forward, while the side walls are held back. This slight protrusion or stepping out of the middle section emphasizes the public character of the building. The communication between the inside and the outside is increased. This results in an expression which is generous and receptive. The entire middle section gently expands outward by 'pushing' the corners to the sides.

In contrast to the open, inviting and public middle section, the two side sections of the Badshahi Mosque's wall creates a sense of closure, privacy and heaviness. As indicated in figure 6.2a, these side walls have a continuous solid construction of sandstone masonry, which is punctuated here and there by narrow vertical openings. This particular closed arrangement of the side walls' construction system yields a well defined sense of closure and enhances the mystery of the interior. In the context of the inside/outside relationship, the inside seems to struggle to come out.

We now consider the Faisal Mosque's public wall in regard to the breadth theme and note that it also expresses the *breadth motif*, as shown in figure 6.2b. Unlike the strong and vocal quality of the Badshahi Mosque, however, the expression of the breadth motif of the Faisal Mosque is a bit stunted. Two factors contribute to minimizing the expression of the mosque's breadth motif. First is the passive and plain form of the middle section, which is devoid of any decoration. The second factor is the overwhelming sense of openness between the inside

and outside spaces, which is achieved through the extreme permeable nature of the entire wall.

As shown in figure 6.2b, the form of the portal in the middle section of the Faisal Mosque's public wall tries to maintain a certain dignity through its overall height and width, but it does not come close to matching the exploding nature of the Badshahi Mosque's public wall. On one hand, the Badshahi Mosque's public wall accentuates its public character through its splendid decoration of the portal, whereas the Faisal Mosque's portal slightly discourages its public character due to its simple and plain form. On the other hand, the Badshahi Mosque's side walls reflect a closed and heavy feeling due to very few openings, whereas the Faisal Mosque's side walls support a more open and light image due to their extreme permeable nature. This permeability, directed outward from the inside, expresses the interior's outlook over exterior space and thus communicates actively between the inside and the outside. The element which sets the walls of the two mosques apart is this degree of openness and closure expressed respectively by the two public walls.

THE BREADTH THEME AND THE TWO MOSQUES' PORTAL WALLS

Now I explore what motifs of the breadth theme are expressed by the public portal walls of the two mosques, when viewed from close range. If one moves nearer to the Badshahi Mosque, the dynamic horizontal expansion of the side walls loses its intensity. The majestic stairway and the monumental formal entrance weaken the impact of the dominating side walls. The attention is now entirely focused on the middle section of the wall. In this closer position the central portal wall appears as two sections. The middle section distinguishes itself

by projecting in front of the side sections, as illustrated in figure 6.3a. The main reason for this is that the architectural elements like the high pointed arcaded opening and the two slender colonnettes within the middle section generates a sense of width, openness and invitation. This helps in emphasizing and projecting the portal's importance as the only entryway and the focal point of the east wall.

As shown in figure 6.3a, this central portal wall can be further divided into three sections. The middle section dominates, while the immediate side sections are squeezed. The wall perceived from this close distance manifests the *breadth motif*, which according to Thiis-Evensen yields a welcoming character, through allowing the middle to dominate. The qualities of the breadth motif are brought forth by the protruding middle portion. within which is located the recessed entrance leading inside.

The middle section of the portal wall incorporates a wide pointed arched entry. The arch steps sharply to a peak and its point generates a gradual rising motion that draws the outside in, resulting in a strong welcoming gesture. On the other hand, a sense of security and peace is achieved through the two slender, vertical side minarets, which appear to soar toward the sky. Their form and placement give the impression of two silent guards, one on each side that absorbs the horizontal thrust of the side walls and transfer the pressure upwards through their vertical form.

Quite similar to the Badshahi Mosque's, the portal wall of the Faisal Mosque also expresses a strong *breadth motif*. As shown in figure 6.3b, the space between the corner columns of the

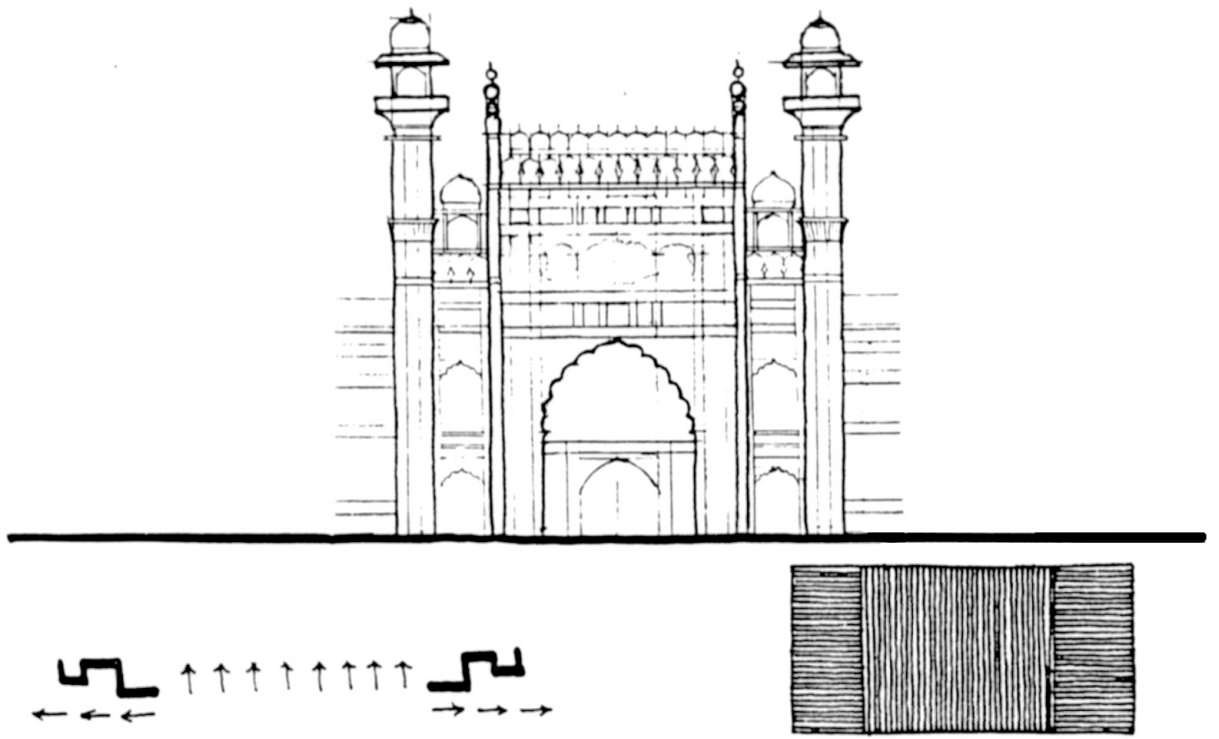


FIGURE 6.3a : The expression of the 'breadth motif' of the portal wall of the Badshahi Mosque.

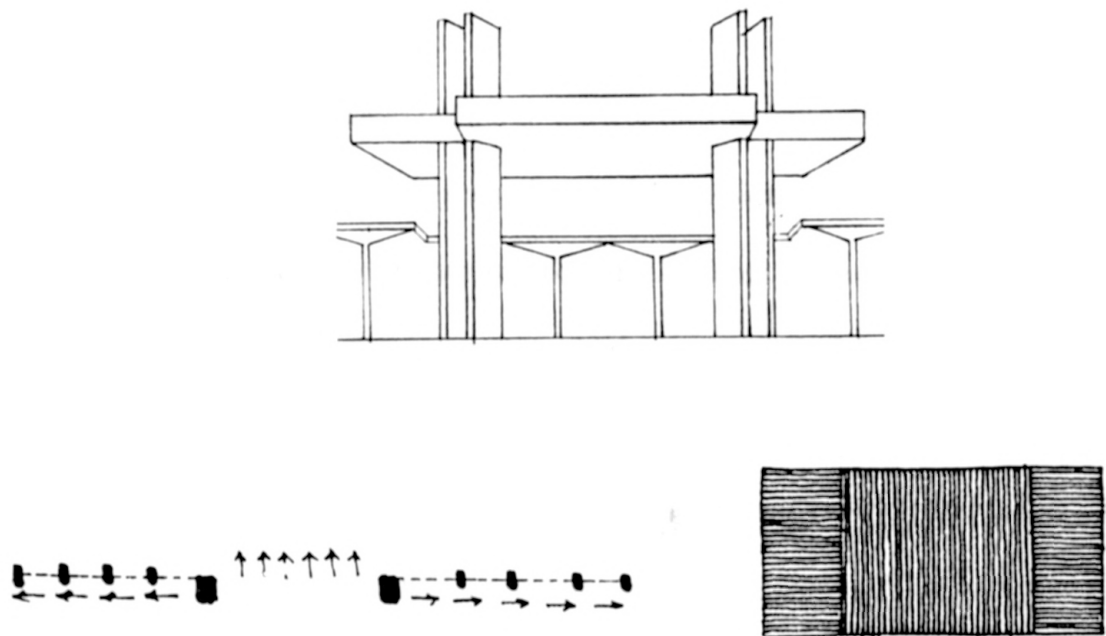


FIGURE 6.3b : The expression of the 'breadth motif' of the portal wall of the Faisal Mosque.

portal wall is wide and expansive. This expansion is further accentuated this expansion by 'pushing' the corners to the sides--a gesture that opens up horizontally for our penetration at the ground level. This results in a friendly and welcoming effect. The wide expansion of the middle portion increases the communication between the interior and the exterior spaces. The motif results in a generous and receptive feeling.

In the case of the Badshahi mosque, due to the beauty and the craft of the portal wall, one feels a sudden pull to go inside. One is almost invariably drawn in. In contrast, the Faisal Mosque's portal wall and its plain architecture generates a reaction which is not so spontaneous. Unlike with the Badshahi mosque, it is not the form of the portal wall which invites us in, for the Faisal Mosque. In fact, it is the extreme exotic form of the prayer sanctuary, situated well behind the portal wall, clearly visible through its high and wide opening, which arrests our attention and compel us to go in.

Another factor which differentiates the portal walls of the two mosques with respect to their speaking power, is their respective degrees of vertical expression. In the case of the Badshahi Mosque, certain architectural elements like the central pointed arch entry with a stepped up rising form, the two tall immediate collonettes, and the strong vertical form of the two corner slender columns all contribute to generating a gentle rising motion. In contrast, in the Faisal Mosque's portal wall, one realizes a certain calmness in the overall rising quality of its form. The corner columns, which rise well beyond the roof of the portal wall, tends to give a further impetus to the rising impression. However, this rising quality in no way reflects the overpowering sense of verticality which one immediately notices about the Badshahi

Mosque's portal wall.

THE BREADTH THEME AND THE TWO MOSQUES' PRAYER SANCTUARY WALLS

Next, I present a Thiis-Evensen's interpretation of the east walls of the two mosques' prayer sanctuary. As shown in figures 6.2a and 6.4a, a comparison of the overall form of the Badshahi Mosque's prayer sanctuary wall with its outer public wall indicates a similar architectural arrangement. The central location of the portal and two plain flanking walls which terminate towards the tall, massive forms of the two corner minarets are two of the architectural elements which makes the two walls similar. In fact, the prayer sanctuary wall appears as a smaller version of the outer public wall.

Significantly, however, the similarity ends here. In contrast to the monumental scale of the public wall, the prayer sanctuary wall's expression is more towards the human scale. More specifically, a first contrast is that the central portal wall's decorative treatment on the public wall is more elaborate, than on the prayer sanctuary wall. Second, the portal wall of the public wall has three well defined sections whereas, in the case of the prayer sanctuary wall, the difference between the three sections is minimal. Finally, the side walls of the public wall, due to the scarcity of openings, have a closed and heavy feeling, whereas in the prayer sanctuary wall a series of five arched openings on both side at the ground level, draws the outside in very strongly, thereby increasing the interaction between the inside and the outside.

As indicated in figure 6.4a, an interpretation of the Badshahi Mosque's prayer sanctuary wall

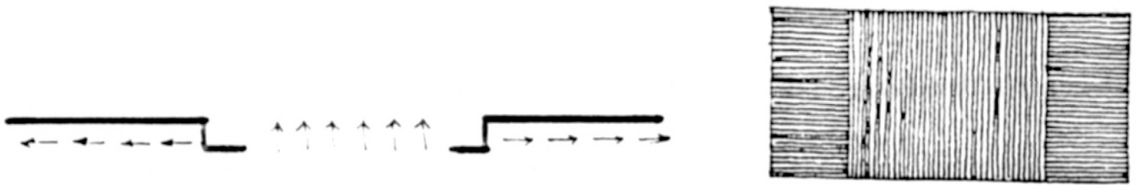
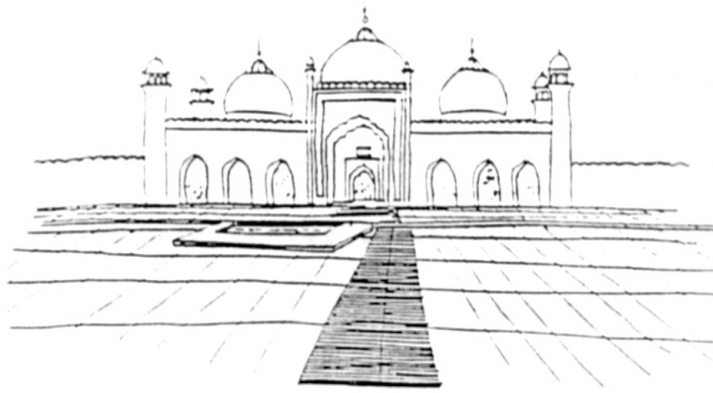


FIGURE 6.4a : The expression of the 'breadth motif' of the prayer sanctuary wall of the Badshahi Mosque.

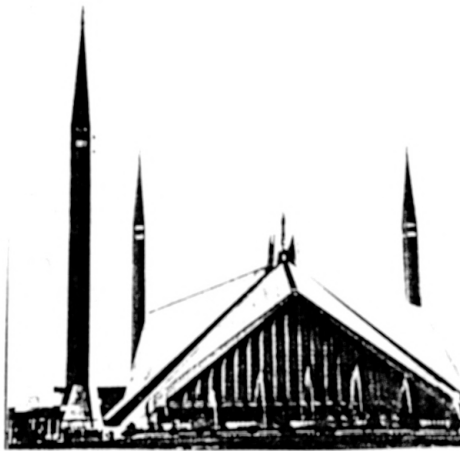


FIGURE 6.4b : The expression of the 'breadth motif' of the prayer sanctuary wall of the Faisal Mosque.

reveals the dominance of the central section over the two side sections. In addition, due to the permeability of the side walls at the lower level, the horizontal movement towards the center is not strong, resulting in a strong *breadth motif*. The wide and high arched entryway with recessed entrance seems to rise as well as push the sides to the corners. This gesture enhances the friendly and inviting character of the prayer sanctuary.

In contrast, the interpretation of the Faisal Mosque's prayer sanctuary wall is more difficult and complicated. This complexity occurs due to the unusual triangular form of the facade wall. As illustrated in figure 6.4b, at first glance, the wall seems to be squeezed by the heavy downward pitch of the roof. In fact, the wall appears to be part of the roof. When one studies the wall more carefully, however, one realizes that the triangular form of the wall itself is so expressive that it appears independent of the roof. The immediate focus of attention is the strong conflict between the sinking expression of the roof and the rising feeling of the triangular wall.

The long protrusion of the cantilevered slab immediately above the entrance adds another dimension to the conflicting nature of the facade. This wide horizontal protrusion not only highlights the entrance but also works to enhance the inviting, public expression of the facade. The form of the cantilevered overhang enhances its protective characteristic against the elements of nature like the sun and rain. But when viewed in the context of the prayer sanctuary, it strongly reflect symbolically the protection, serenity and tranquility, which this house of *Allah* offers as a refuge against people's worldly worries and troubles. Against the predominant overall rising and sinking motion of the prayer sanctuary wall, the cantilevered

overhang spreads motion horizontally and almost steps out of the shadows to 'embrace' us. The existential expression of shelter and security, beneath the overhang is enhanced by its particular horizontal form. Immediately below this cantilevered slab, the entire wall section is broken into large reflective glass panels. This strongly brings the inside out, as against the expression of drawing the outside in, thus enhancing its public image.

As illustrated in figure 6.4b, therefore, when viewed in the context of the *breadth theme*, the Faisal Mosque's prayer sanctuary facade with its wide opening and the dramatic triangular form of the thin wall membrane, seems to push the corners hard against the sides. The well-defined feeling of openness which strongly manifests itself on the outer public wall persist in the prayer sanctuary's wall too. Through its wide openings, the outer public wall expresses its potential both for visual and physical permeability whereas the prayer sanctuary wall offers a strong visual permeability, especially at the lower level. The large triangular expanse of the thin wall membrane and the protruding horizontal movement of the cantilevered overhang combines to create a well definedwelcoming effect.

THE HEIGHT THEME AND THE TWO MOSQUES' PUBLIC WALLS

The key question this section explores is how the walls of the two mosques express the height theme as indicated by Thiis-Evensen. Similar to the breadth theme, the interpretation of the height theme begin by examining the public walls, followed by the portal walls, and, finally the prayer sanctuary walls of the two mosques.

The intricate architecture of the Badshahi Mosque projects an overall sense of a rising

balance. As figure 6.5a illustrates, the overall form of its public wall indicates a strong *opening motif*. The middle field is broadened and made more dominating in relation to the narrow fields above and below. The result is a wall that seem to expand in the middle by rising and pressing the upper field further upward, while at the same time pushing the lower field further downward. The expression is both rising and proud, but also opening and accessible for our entering at the ground level. However, due to the overall closed and heavy expression of the flanking walls, the rising effect of the opening motif is not entirely spontaneous. The major reason is the nature of the material used and a few narrow openings, which all combine in generating a certain heaviness, thereby giving a slight sluggishness to their overall sense of rising motion.

We now examine the flanking walls of the Faisal Mosque, which also reflect the triumph of a middle field that has overcome the pressures of the upper and lower fields, as shown in figure 6.5b. The sense of openness, lightness and rising is more dominant in the case of the Faisal Mosque's side walls, however, due to their extremely permeable nature. As the figure illustrates, these flanking walls are, in fact, a combination of beams supported on widely spaced columns. The space between the beams and the columns is all open. Due to the extreme narrowness of the upper and lower fields, the middle field imposes itself in a powerful display of height, width and complete openness. The friendly and welcoming gesture of the middle field is thus expressed by its extreme permeability. The motions of the outside going in and the inside coming out balance each other.

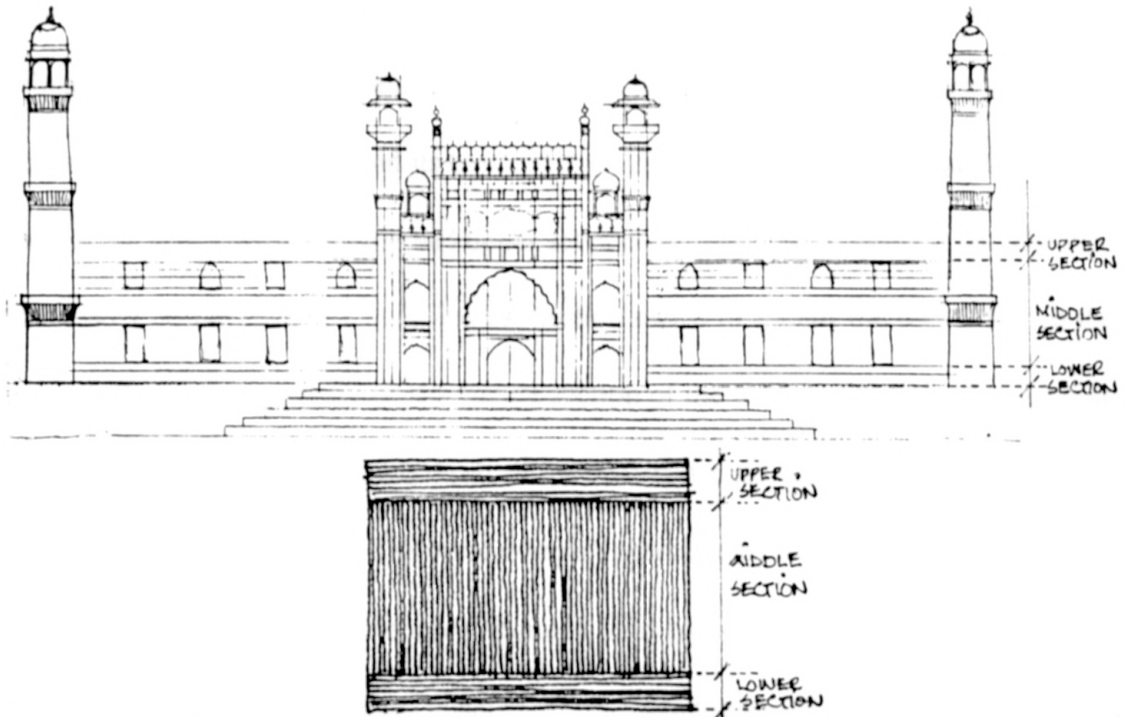


FIGURE 6.5a : The expression of the 'opening motif' of the public wall of the Badshahi Mosque.

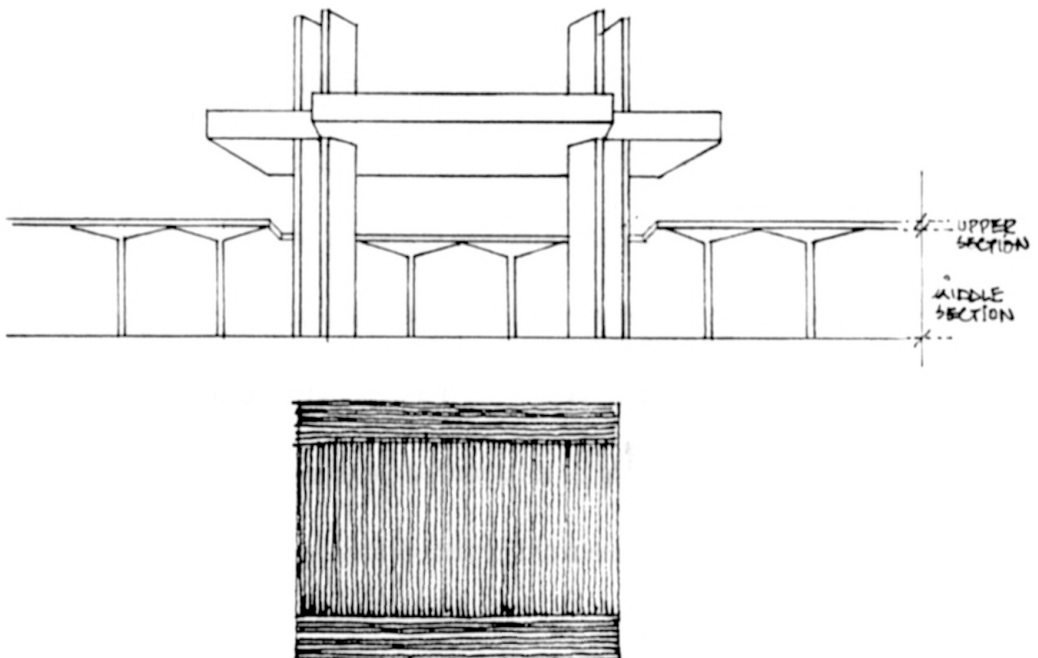


FIGURE 6.5b : The expression of the 'opening motif' of the public wall of the Faisal Mosque.

THE HEIGHT THEME AND THE TWO MOSQUES' PORTAL WALLS

When interpreting the Badshahi Mosque's portal wall, one can see a clear relationship between the opening motif and its overall height expression. A strong rising motion can be seen in the wall's lower, middle and upper sections as indicated in figure 6.6a. The base of the slender corner minarets at the lowest section seems to anchor the wall firmly to the ground. If one concentrates on the middle section of the wall, one notices that the rising character of the middle field is the result of the central-arched entrance wall, which rises well above the flanking side walls. The vertical impact generated by the pointed form of the central arch heightens the effect of the opening motif. This form of the arch steps up sharply and culminates in a peak. This pointed quality also enhances the portal wall's gentle rising motion, which is further accentuated by the tall, pointed nature of the slender corner minarets. Similarly, the pair of two tall, slender colonnades on both sides of the arched entry creates a feeling of lightness and a strong vertical motion.

When we turn to an interpretation of the portal wall of the Faisal Mosque, we also notice a strong desire for upward expansion and opening vertically. As illustrated in figure 6.6b, quite similar to the portal wall of the Badshahi Mosque, the Faisal Mosque's portal wall expresses an *opening motif*. The extreme narrowness of both the upper and lower fields, reveals the expansion and broadening of the middle field. The continuation of the corner columns of the portal wall, well above the overhang, further adds to an overall rising and uplifting image--as if an additional thrust has been introduced to the already existing rising motion.

However, in spite of the opening motif expressed by the Faisal Mosque's portal wall, its form

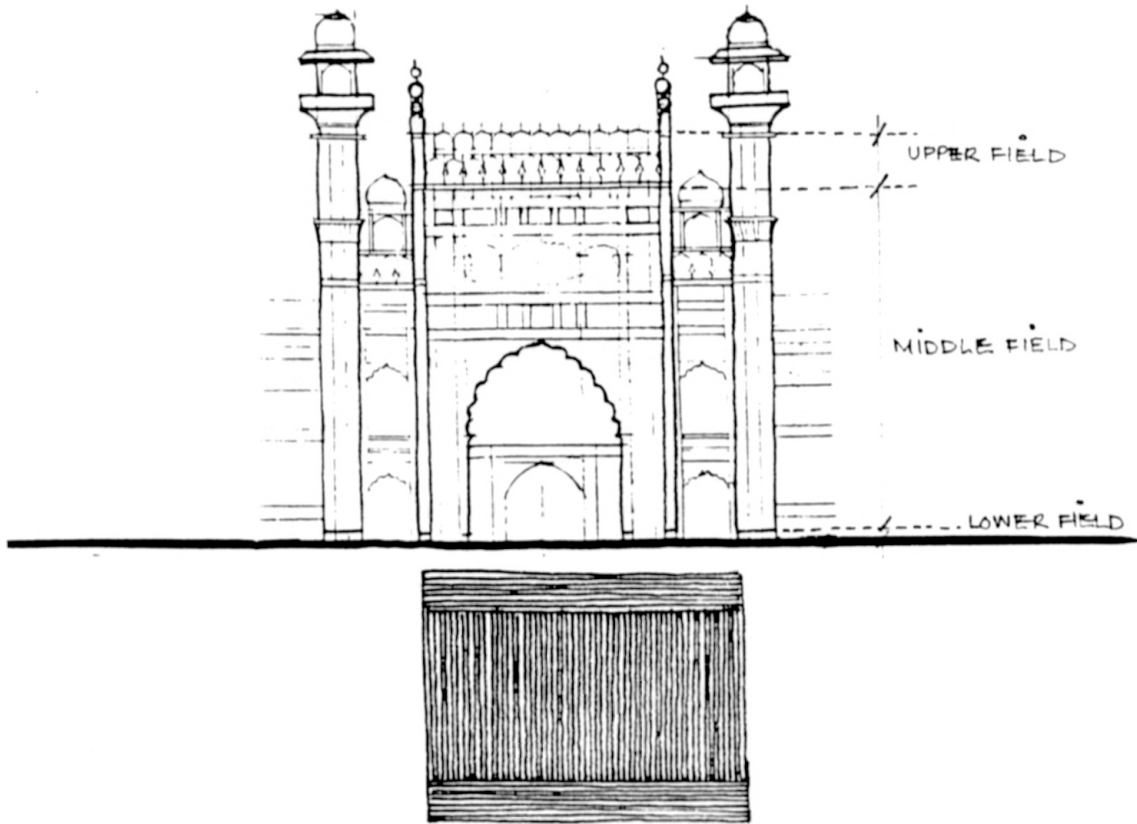


FIGURE 6.6a : The expression of the 'opening motif' of the portal wall of the Badshahi Mosque.

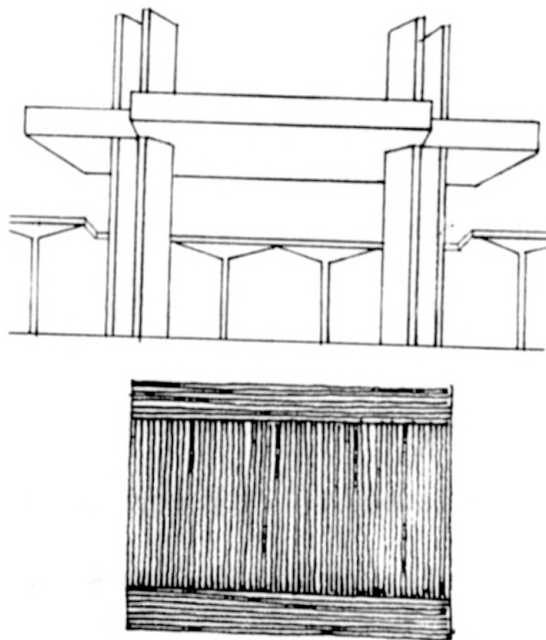


FIGURE 6.6b : The expression of the 'opening motif' of the portal wall of the Faisal Mosque.

and nature lends a slight heaviness to the overall rising motion. As shown in figure 6.7b, the form and thickness of the portal wall's beam slightly hampers our natural impulse of going in. The reason is that a straight beam accentuate a horizontal motion crosswise to the penetrative motion (ibid., p. 235). Thus, both the Faisal Mosque's side and portal walls, due to the straight form of their beams expresses a rising motion, but it is a bit forced. In contrast, as shown in figure 6.7a, due to the pointed arched form of The Badshahi Mosque portal wall's beam, a spontaneous rising motion can be immediately noticed. Here the form of the beam points "upwards and away from us" (ibid., p. 235).

THE HEIGHT THEME AND THE TWO MOSQUES' PRAYER SANCTUARY WALLS

Next, we examine the east walls of the two mosque's prayer sanctuaries, in terms of the height theme. A strong friendly, welcoming feeling manifests itself in the Badshahi mosque's prayer sanctuary wall. Similar to the experience of the outer public wall, the dominating impression is that of lightness and rising. As illustrated in figure 6.8a, the openness of the middle field is expressed in the front face of the prayer sanctuary, thus marking another *opening motif*. Seen in this way, the wall reflects the success of the middle field in withstanding the pressures from the upper and lower fields. Thus, it opens the sanctuary for one to easily approach and enter.

In contrast, the interpretation of the Faisal Mosque's prayer sanctuary wall reveals a strong contrast between rising and sinking motions. As indicated in figure 6.9, the tension appears to be concentrated between the upper and middle field of the facade. A striking tension results where the two fields meet. The upper field is indicated by the downward tilted form of the

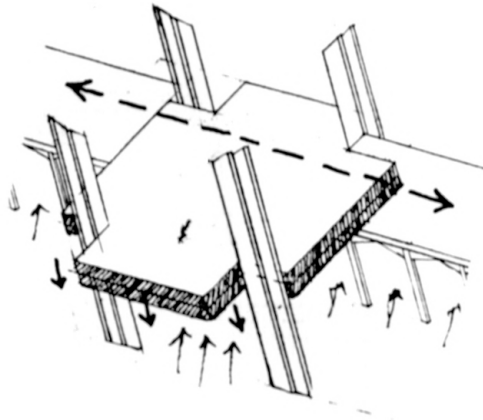


FIGURE 6.7a : The expression of 'lightness' and 'rising' expressed by the portal of the Badshahi Mosque.

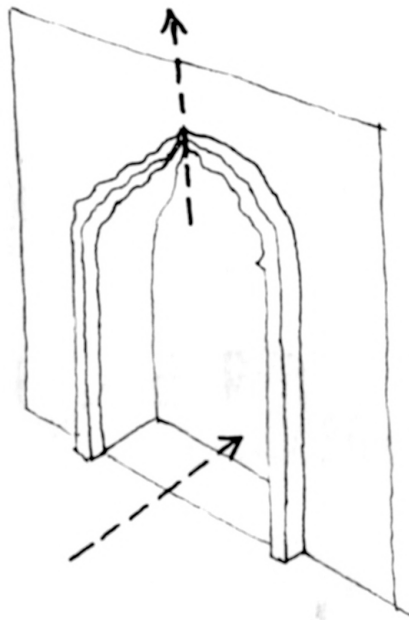


FIGURE 6.7b : The expression of 'weight' and 'heaviness' expressed by the portal of the Faisal Mosque.

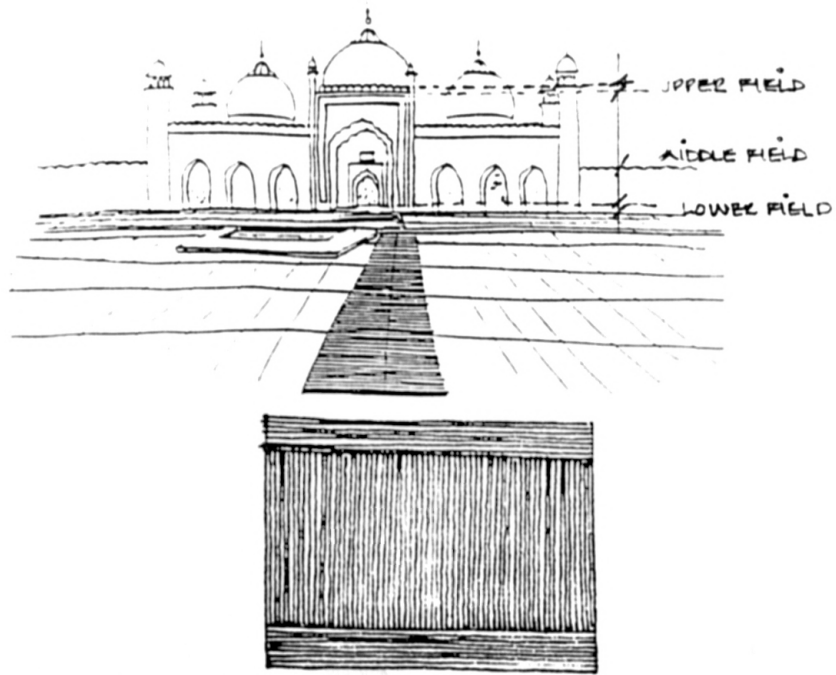


FIGURE 6.8a : The expression of the 'opening motif' of the prayer sanctuary wall of the Badshahi Mosque.

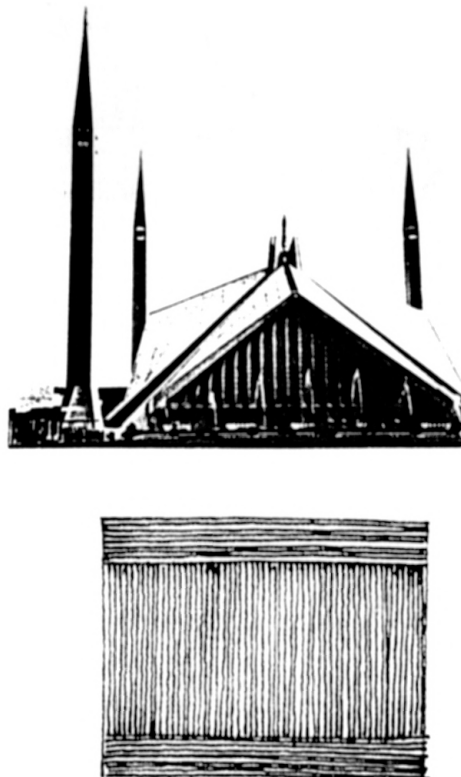


FIGURE 6.8b : The expression of the 'opening motif' of the prayer sanctuary wall of the Faisal Mosque.



FIGURE 6.9 : The expression of contrast between the 'rising' and 'sinking' effect of the Faisal Mosque's prayer sanctuary wall.

roof. The broad triangular form of the wall comprises the middle field. After a period of looking, one realizes that it is the upward thrust and the strong rising motion which finally dominate the conflict between the rising and sinking expression of the wall.

As shown in figure 6.8b, there stands out two architectural elements that support the rising thrust of the wall. First is the large triangular thin membrane of the wall, which creates a dramatic rising effect, especially, the way both sides of the triangle meet, directly below the nose of the roof. The two upper sides of the triangle seem to brace against the downward pitch of the roof. The second architectural element which enhances the overall rising expression of the wall is the breaking up of the triangular section of the wall into a thin membrane of cement plaster, which symbolically represents the draping folds of a tent entrance. The thinness of the wall membrane lightens the wall and subsequently helps in enhancing its rising effect. The sharp pointed arrow like top edge of these wall membranes seem to shove the downward pitch of the roof, upwards from below.

The perception of any threat, however, is totally absent in the sinking effect of the wall. Rather, this sinking feeling generates a strong sense of protection and security. The strong form of the triangle, the vertical positioning of the wall membranes within the triangle, and the four lofty minarets, creates a counter feeling of uplift and reassurance. The immediate feeling of openness and rising which one has encountered at the outer public wall, is now totally replaced by a closed, private and a slightly sinking feeling. This feeling of closure and mystery heightens the spiritual significance of the prayer sanctuary.

This concludes a Thiis-Evensen's interpretation of the breadth and height themes of the walls of the two mosques. The next chapter explores the depth theme as expressed by the walls of the two mosques.

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CHAPTER VII

THIIS-EVENSEN'S DEPTH THEME

AND THE WALLS OF THE MOSQUES

As mentioned earlier, the depth theme, according to Thiis-Evensen (1987, p. 117), is the most critical of the three wall themes, since it is the theme most "directly concerned with the communication between inside and outside." Thiis-Evensen elaborates the depth theme by deriving four levels of interpretation that determine not only the depth qualities of the wall but also the wall's breadth and height expressions. These four levels are : (1) *major form*, (2) *construction system*, (3) the *openings* on its surface and, finally, the (4) *articulation* that is expressed by all these levels together. With the guidance of this framework the next two chapters explicate the characteristics of the walls of the two mosques. Here, again, the public wall and the prayer sanctuary wall will be given the major interpretive emphasis because they are the main walls of approach and entry.

MAJOR FORMS AND THE TWO MOSQUES' PUBLIC WALLS

In terms of *major forms*, an interpretation of the outer public wall of the Badshahi Mosque first involve the *horizontal* and *vertical* forms. These two themes relate to the height and breadth aspect of the wall. When viewed in totality, the outer public wall is a perfect example of horizontal and vertical walls in balanced combination, as indicated in figure 7.1. A horizontal wall rejects and shuts off; the vertical wall, on the other hand, is communicative.

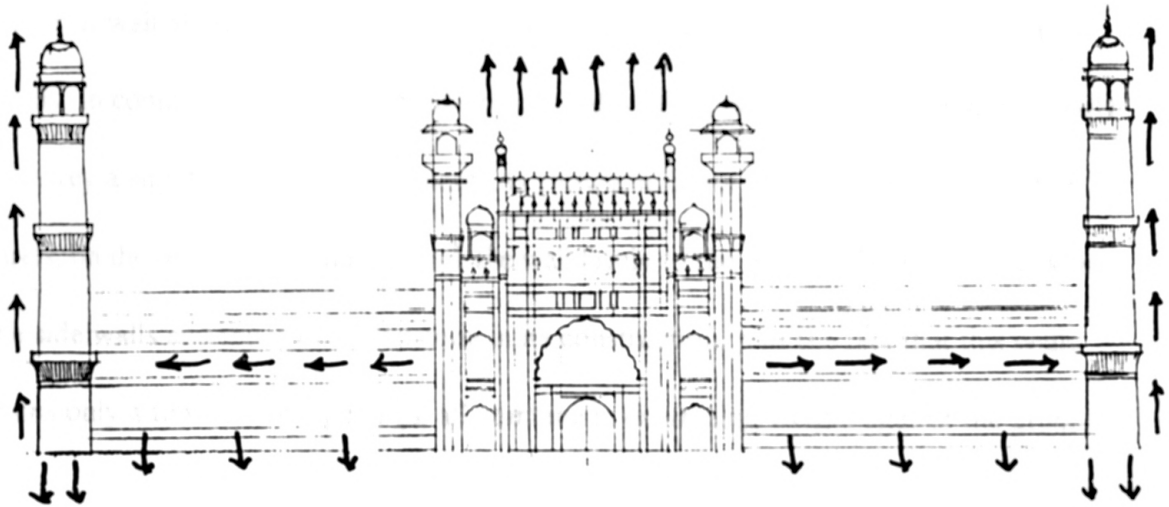


FIGURE 7.1 : The expression of the 'vertical' and 'horizontal' walls of the Badshahi Mosque, in perfect balance. The thickness of the minaret's base and the side walls express weight against the ground.

Thiis-Evensen gives three reasons for this communicative nature of the vertical wall. The first is its weight expression. The second is its motion expression. Finally the vertical wall's communicative content lies in its image of the erect standing figure (ibid., p. 195).

In the case of the Badshahi Mosque, both the portal and the side walls show a very clear weight expression. The central portal wall seem lighter because of its strong rising tendency. The central wall along with the two corner minarets seems to lift itself upward and open vertically. In contrast, the flanking walls on both sides of the portal wall stretch horizontally and convey a slight horizontal movement. As shown in figure 7.1, the heavy base of the minarets, on the other hand, tend to weigh the wall firmly to the ground. Due to the thickness of the side walls and the use of sandstone in its construction, plus the fact that this walls contains only a few narrow openings, all combine in expressing weight against the ground.

Thiis-Evensen argues that the horizontal wall spreads movement, while the vertical wall collects it (ibid., p. 195). In the present case, both the portal wall and the side walls generate horizontal and vertical movements. As indicated in the figure 7.2a, the side walls draw attention and spread movement horizontally towards the corner minarets. This sideways movement is collected by the corner minarets, which direct a horizontal movement vertically through their tall, pointed forms. The formal entrance portal wall expresses the nature of the *vertical wall* more strongly. As a clearly recognizable entry, it gathers the slight horizontal spreading movement to itself and directs it upwards through its overall vertical form. Further, being open and light, the central portal wall promotes a direct communication of

inside/outside spaces.

The center of the portal wall is the area which is the 'open' part. It is the place which communicates with the surroundings. It is here that the main entrance and the most public area of the building are situated. As shown in figure 7.2a, the few infrequent openings of the horizontal side walls suggest no possible entry all along their lengths. In contrast, the vertical portal wall announces the formal entry of the mosque. In this sense, apart from the elevated floor, the verticality of the entrance, which draws motion inwards, also supports the natural motion impulse of the side horizontal walls. In other words, although the horizontal walls of the mosque appears somewhat permeable, one cannot penetrate this permeability. The horizontal walls, rather, 'guide' one to the appropriate place of entry, which is the central tall portal.

In contrast to the well defined harmony between the outer horizontal and vertical walls of the Badshahi Mosque, the outer public wall of the Faisal Mosque projects a different impression of depth. As shown in figures 7.2a and 7.2b, a slight parallel in the overall form can be seen if we compare the vertical and horizontal forms of the outer public walls of the two mosques. In both cases, the vertical form of the central portal and the horizontal form of the side walls lends a similarity between the mosques' major forms. It is the expressive nature of these walls, however, which makes these walls different. As discussed above, a strong sense of vertical and horizontal movement can be detected in the Badshahi Mosque's wall, but this expression is greatly weakened in the case of the Faisal Mosque. As illustrated in figure 7.2b, though the central portal of the Faisal Mosque to some extent indicates a strong desirability of vertical

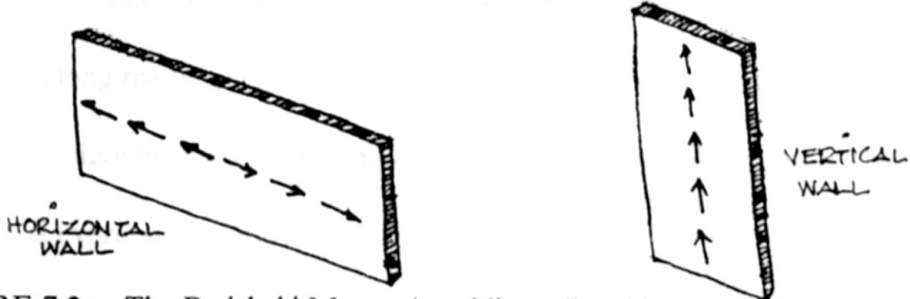
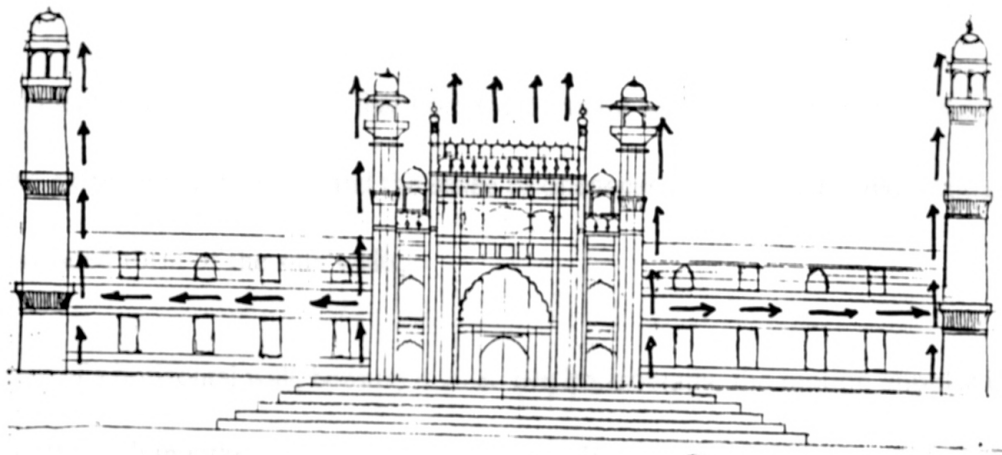


FIGURE 7.2a : The Badshahi Mosque's public wall and its expressions of horizontal and vertical movements.

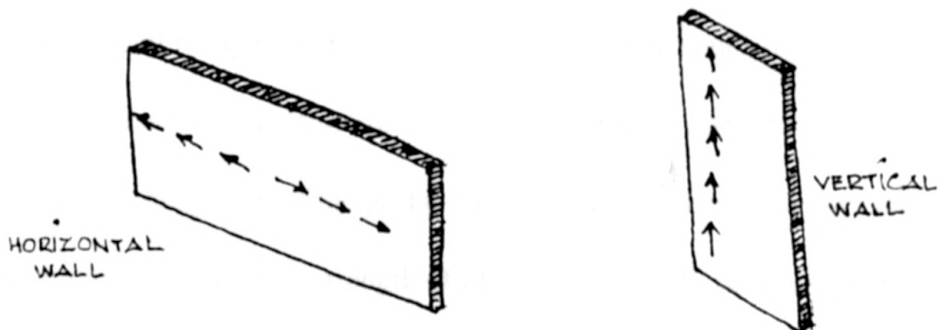
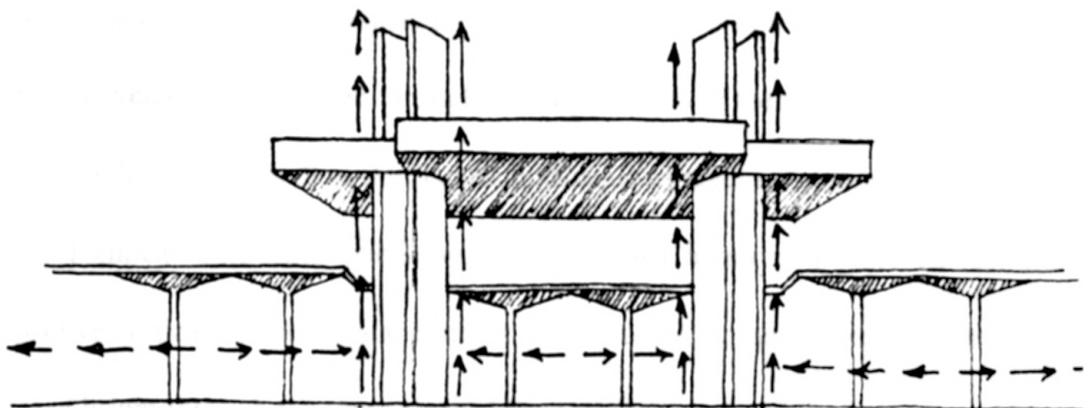


FIGURE 7.2b : The Faisal Mosque's public wall and its expressions of horizontal and vertical movement.

movement, it is the side walls that hold the dormant sense of horizontal movement because of the extreme permeability and the sense of openness, which is achieved through the colonnaded form of the side walls.

In case of a horizontal wall, because it stretches horizontally, the motion impulse is to follow along the wall in either direction (ibid., p. 143). But in the present case, due to the wide openings along the whole horizontal length of the side walls of the Faisal Mosque's public wall, the horizontal motion impulse is broken. This permeability greatly weakens the horizontal expression of the side walls.

MAJOR FORMS AND THE TWO MOSQUES' PRAYER SANCTUARY WALLS

Now we move to the prayer sanctuary of the two mosques and explore how horizontal and vertical movement is expressed through the major forms of their eastern walls. As indicated in figure 7.3a, the east wall of the Badshahi Mosque's prayer sanctuary in its overall form is almost identical to its outer public wall. In both cases, harmony is achieved between the respective vertical and horizontal motions, as expressed by the various wall elements. The sense of height through the sharp vertical form of the portal and the corner minarets gives a strong sense of rising motion. The long horizontal side walls, on the other hand, slightly generate motion sideways towards the center of the wall. The center--made significant by the tall, wide opening form of the portal--seems to absorb these sideways motions and channel them upward on the sheer strength of its vertical form. In contrast to the plain and closed nature of the outer public side walls, the side walls of the prayer sanctuary, through their

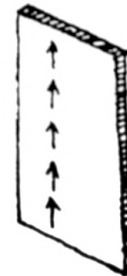
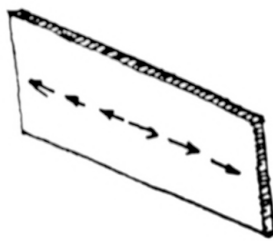
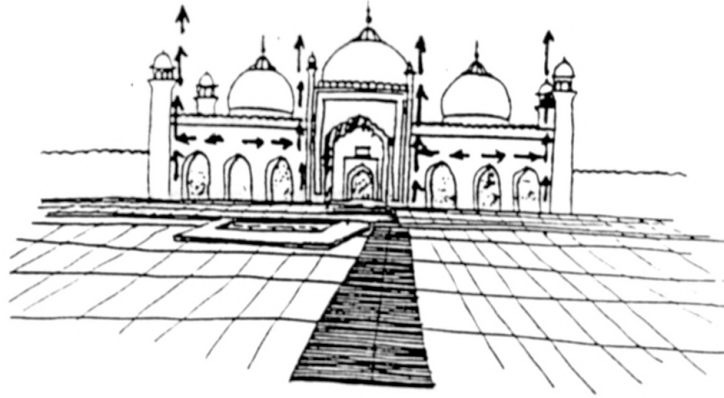


FIGURE 7.3a : Badshahi Mosque's prayer sanctuary wall and its expressions of horizontal and vertical movements

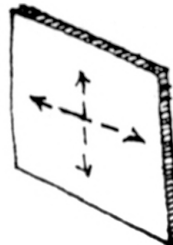
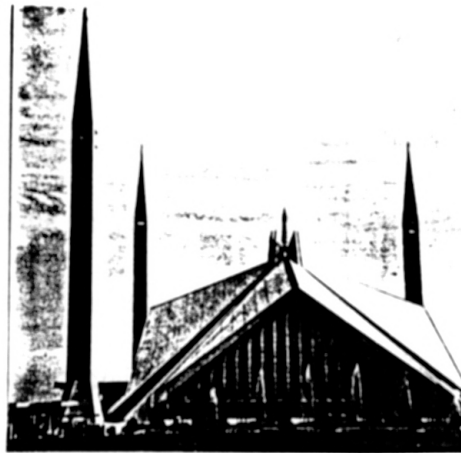


FIGURE 7.3b : Faisal Mosque's prayer sanctuary wall and its expressions of horizontal and vertical movements.

arcaded form, generate an overall sense of openness and friendliness. The multiple arched openings on both sides of the flanking walls lessen the sense of horizontal movement towards the central portal. The arcaded side walls, in combination with the wide open portal, strongly draw the outside in. This expression supports the prayer sanctuary's role as a welcoming sacred place.

In contrast, the eastern wall of the Faisal Mosque's prayer sanctuary reflects an expression of extreme closure. As illustrated in figure 7.3b, the sinking quality of the roof and the rising quality of the triangular form of the wall, in conjunction with their respective vertical and horizontal expressions seem to balance each other. A certain neutrality ensues, and the wall acts very much like a *flat wall*, which "tells us nothing about the inside/outside relationship. It merely closes off" (ibid., p. 145).

The prayer sanctuary's wall is greatly dependent on the treatment of its surface and the placement of openings. The stress of the downward pitch of the roof and the counter-stress of the wall's vertical membrane results in a balance. The overall closed nature of the wall, however, does seem to have the tendency to wet one's inherent appetite for exploration and curiosity. An element of mystery and mysticism ensue from its overall form.

MAJOR FORMS AND THE MINARETS OF THE TWO MOSQUES

Minarets and domes are two major architectural elements of Islamic religious architecture, and always express themselves as major focal points. The slender tower-like form of the minaret is used to announce the mosque to the larger city. Thiis-Evensen compares the

minaret's tall tower-like form to the *vertical wall*. He argues that the vertical wall's communicative content lies in its vertical form because it resembles the image of an erect, standing figure (ibid., p. 145). An interpretation of the minarets of the two mosques reveal that they speak differently in their respective expressions. Similarly the expressions of motion, weight and substance also differ.

As illustrated in figure 7.4, the Badshahi Mosque's minarets express a gentle rising motion. A number of factors contribute in this expression of gentle motion. First, the thickness and width of the minaret's shaft tends to attach and weigh it firmly to the ground. Second, the breaking up of the vertical form of the minaret into three projecting balconies, breaks the momentum of the upward rising motion. One can almost detect a slight hesitancy in the upward motion. In fact, the rising motion appears to be in stages as if it hesitates briefly at every balcony. Finally, the crowning of the top-most balcony with a small dome-like canopy conveys a sense of calmness and containment to the overall rising motion.

In contrast, the Faisal Mosque's minarets reflects a strong, accelerated upward motion. As shown in figure 7.5, the sleek, straight, pointed form makes the minaret appear like a rocket ready to blast off. One can sense a great deal of urgency in its vertical expression. Unlike the Badshahi Mosque's division of the minaret form into three parts, here there is one complete fluid motion that does not slow. The comparative narrowness of the shaft makes it appear light and thus enhances its expression of accelerated upward motion more strongly. Finally, the absence of any cap-like roof structure to arrest the seemingly unchecked vertical speeding motion further accentuates the force of its upward motion.

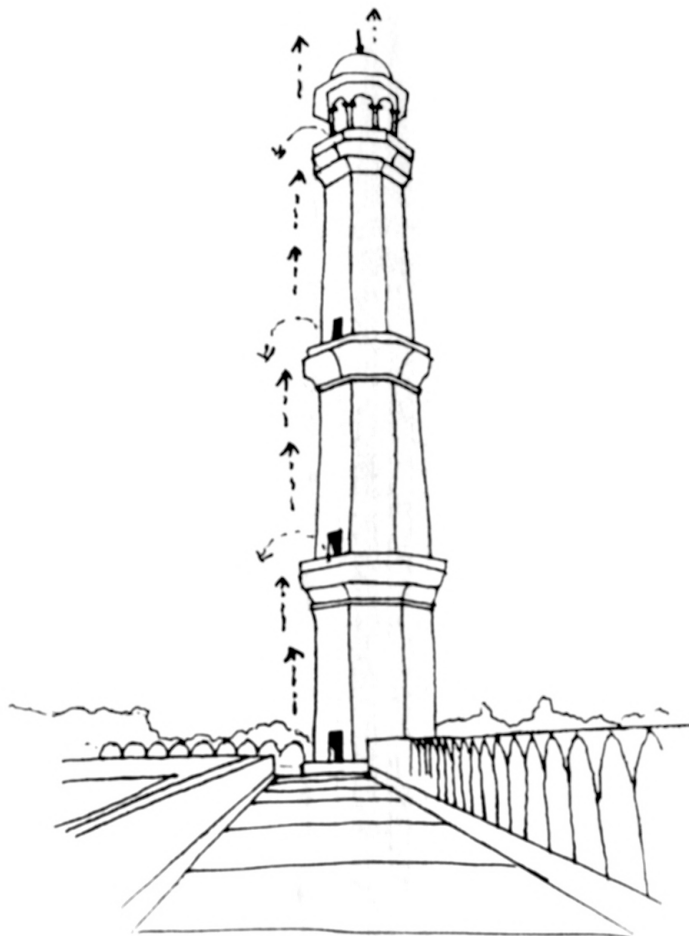


FIGURE 7.4 : The Badshahi Mosque's minaret and the expression of gentle rising motion of its vertical wall form.

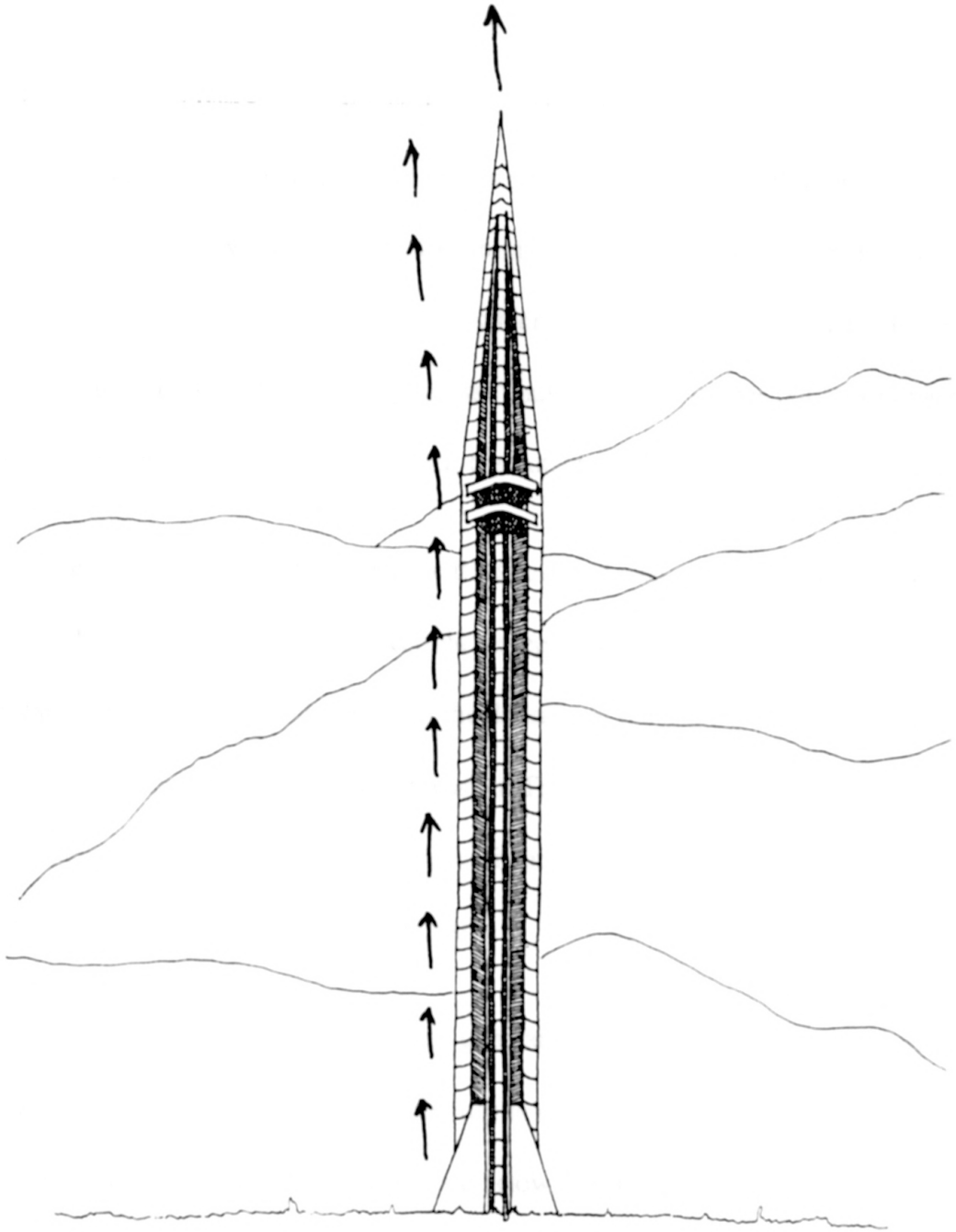


FIGURE 7.5 : The Faisal Mosque's minaret and its expression of accelerated upward motion of its vertical wall form.

In the context of the inside/outside relationship, the Badshahi Mosque's minaret creates a sense of closure. This closed expression results due to the dominant solid form of the structure. There are very few openings. In contrast, the Faisal Mosque's minaret surface is broken into vertical shafts of transparent glass, which creates a permeability that supports the overall form's lightness and sense of openness. Thus, the inside comes out more openly, whereas, in the Badshahi Mosque's minaret, the outside is held outside.

Through the strength of the material and the thickness and weight expression of its shaft, the Badshahi Mosque's minaret reflects a certain masculinity and power. However, the milky whiteness of the cupola's round dome and the division of the shaft into curves of balconies, greatly soften the minaret's rocket-like expression. The Faisal Mosque's minaret generates an even greater strength and authority, on the basis of its material and the overall straight and vertical form, unchecked in its upward thrust.

When considering the degree of sacredness generated by the minarets of the two mosques, one again observes differences. In the realm of the sacred, the vertical axis of the minaret is a link between the heavens above and the world below. The gentle rising form of the Badshahi Mosque's minaret creates the impression that it is in silent conversation with the heavens above. One senses a gentle rising of one's spirit--an expression of the more compassionate side of *Allah*. In contrast, the fluid, pointed form of the Faisal Mosque's minaret appears to gently prick the heavens. The strength and firmness of *Allah* is thus reflected by the minaret's straight and authoritative form.

CONSTRUCTION SYSTEMS AND THE TWO MOSQUES' PUBLIC WALL

Thiis-Evensen argues that the wall's main form is also affected by its particular building system. The term 'building system' relates to the way the wall is built (ibid., p. 153). In this section, I consider the existential expressions of the various walls of the two mosques with respect to Thiis-Evensen's discussion of the different components of the construction system.

A close examination of the Badshahi Mosque's outer public wall indicates that, in fact, it is a combination of two walls. As illustrated in figure 7.6, the slightly protruding central portal wall and the immediate slender, corner minarets form one wall, while the flanking walls on both its sides form another wall. In other words, the walls are two planes, one behind other. The active front portal wall with its emphasis on large, wide openings and an overall vertical form creates a *plane*, while the inner side walls which are passive due to their plain, closed appearance, forms a *plane* too. Rather, these two walls (*plane on plane*) are combined in such a way that they delimit the space between them.

Thus, the outer massive plane is the large portal wall with a wide entry way, surmounted by an enormous pointed arch as the only major recognizable opening on its face. Behind this wall is the flanking sidewalls with irregular narrow openings, which form the next layer of this planer wall. These two planer walls are separated to allow for a walkway between them. The frontal facade with its high, wide opening is meant to relate to the outside, the more distant environment, which is the profane world. The walkway which forms an intermediate layer between the two planes, symbolizes the transition between the outside secular and the inside

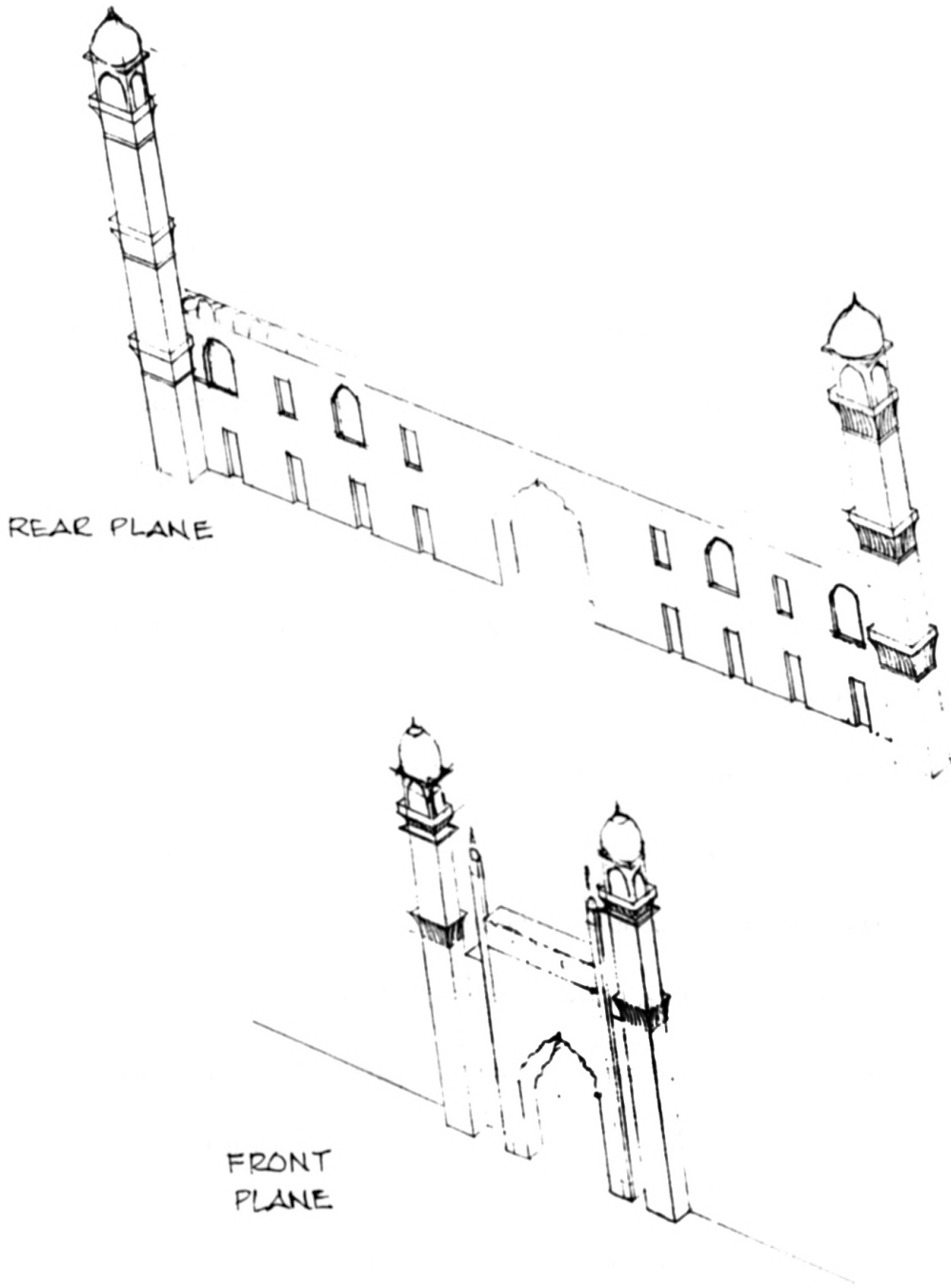


FIGURE 7.6 : The Badshahi Mosque's public wall and its construction system's expression of 'plane' innt of a 'plane'.

sacred spaces. The rear planer wall with few narrow openings represents the interior's outlook to the exterior space.

As indicated in figure 7.6, more specifically, the Badshahi Mosque's portal wall, placed in front of the side walls is, in terms of the building system, is a plane wall. This particular arrangement of the walls results in a contrasting feeling between an open, public frontal wall and a closed, private rear wall. In the context of the inside/outside relationship, the outer massive plane wall is more 'public' in nature, specifically through its expression of invitation reflected through its monumental stairs and high, wide entry at the ground level. This wall relates more to the outside, which is the exterior and the profane. This outer skeleton wall steps out from the shadows of the inner plane and welcome us in. In short, there is a spontaneous feeling of the outside being drawn in. In contrast, the inner planer wall gives the impression of being aloof and held back. The tentative, reluctant nature of its openings results in a more closed off and private image. This secluded expression, however, enhances the sacred nature of the interior. A closed inner world is for the Divine, which tentatively tries to establish contact with the day-to-day outside world through the fewer openings which adorn the side walls.

An interpretation of the Faisal Mosque's public wall with respect to its construction system reveals that the wall is basically a combination of columns and beams. In Thiis-Evensen's terminology, this particular arrangement of the wall's construction system is called a *skeleton system*. As figure 7.7 indicates, this public wall, in conjunction with the tall and open form

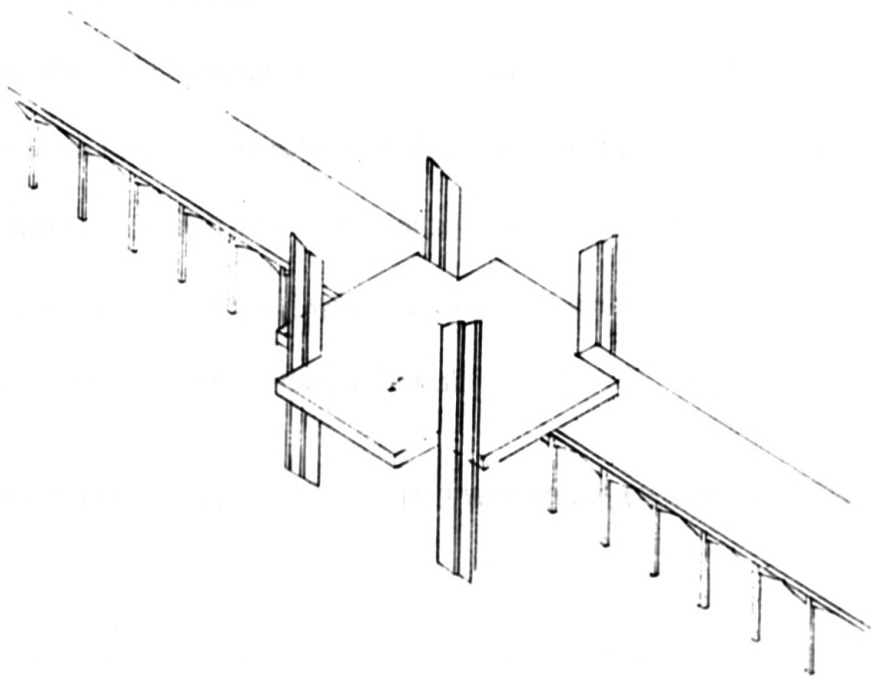


FIGURE 7.7 : The Faisal Mosque's public wall and its construction system's expression of the 'skeletal' system.

of the portal wall, concentrates support in a primary load-bearing system which frees and lightens the spatial boundary and thus *opens* the space. The skeletal system is the very symbol of open space. It has the characteristics of a tree: dynamic, continuous, and ever-growing (ibid., p. 163).

The extreme permeability of the wall, quite in contrast to the more solid and somewhat closed nature of the Badshahi Mosque's public wall, greatly lightens the effect of the wall and strongly enhances the interconnection between inside and outside. The expansive nature of the prayer sanctuary, which is so visible through the permeability of the skeleton system, seems to 'show' its 'spiritual truth' symbolically, to the 'entire world', through the permeable nature of its skeleton system of the public wall.

CONSTRUCTION SYSTEMS AND THE TWO MOSQUES' PRAYER SANCTUARY WALLS

Next, we must consider how the degree of inside and outside is effected by the construction system of the prayer sanctuary walls of the two mosques. The breaking up of the building system of the Badshahi Mosque's prayer sanctuary walls reveals a slightly different impression with respect to the inside/outside relationship. As illustrated in figure 7.8, the wall's building system is a combination of three layers. The outer eastern wall, with wide, large arched openings, has a massive planer form. Opposite to this wall is the *qibla* wall, which with a total absence of any openings, gives a strong planer impression. Juxtaposed between the outer eastern planer wall and the inner *qibla* wall is a series of pointed arches supported on closely-spaced square columns. This particular arrangement forms another plane

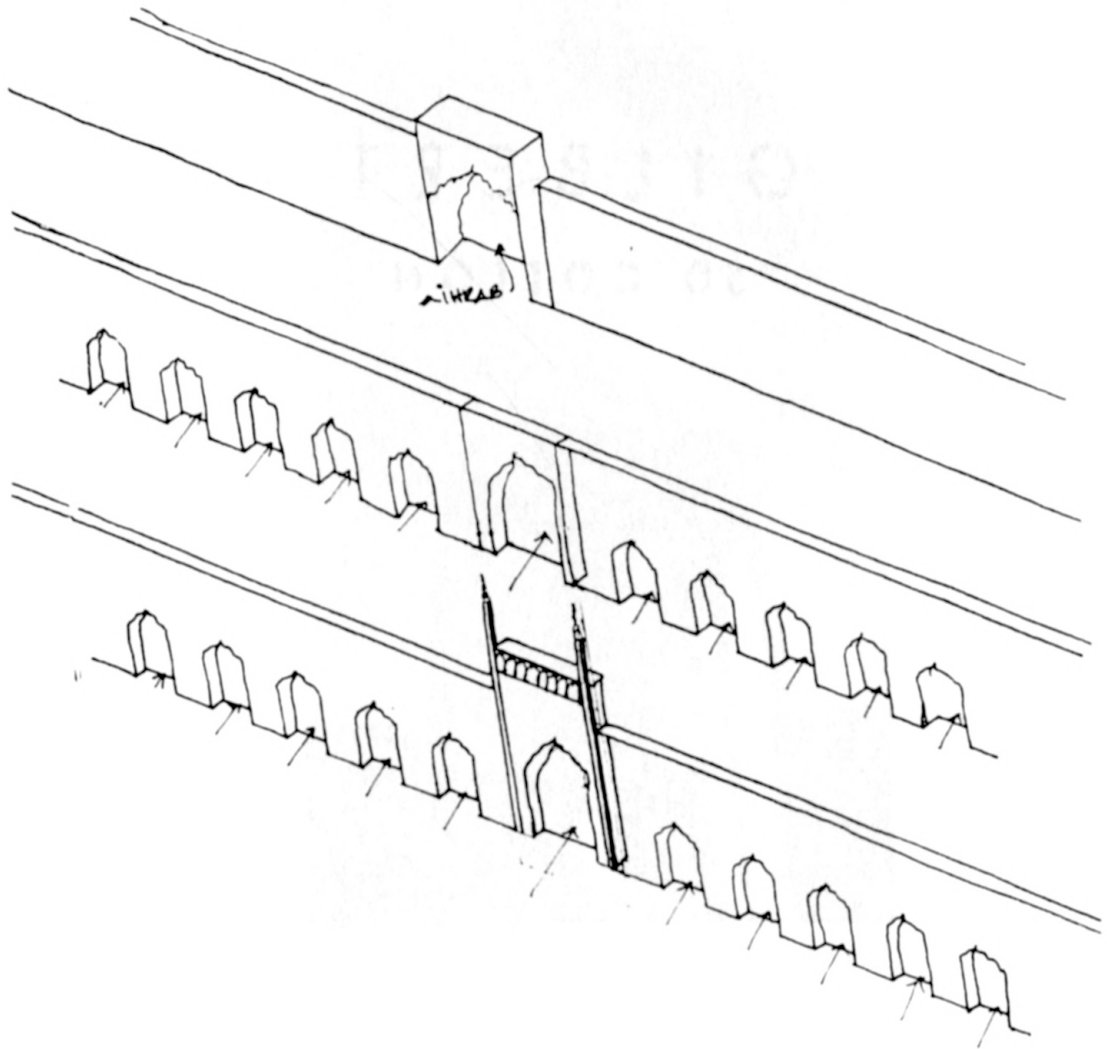


FIGURE 7.8 : The Badshahi Mosque's prayer sanctuary wall and its expression of the three wall 'planes.'

wall. Thus an interpretation of the Badshahi Mosque's prayer sanctuary indicates a plane wall in front of another plane wall, which is again in front of another plane wall, as shown in figure 7.8.

In the first instance when a massive plane wall is in front of another plane wall, one can immediately sense a gradual transition taking place between a slightly sacred place outside (courtyard) and a stronger sacred place--the inside of the prayer sanctuary. In addition, the superimposed planes give a greater perspective depth to the interior space. Thus one can detect an expression of motion in depth as one's eye is led inward in a perspective.

This multi-depth layering--that is, the superimposition of one open wall upon another in the direction of a movement inward--creates a gradual transition from outside to inside--a pattern which is particularly critical in the context of the light open walls of the prayer sanctuary. As shown in figure 7.10, the frame on the outer edge of the veranda is wider and more open, but becomes denser and a bit more closely spaced on the inside until it ultimately ends when reaching the rear-plane *qibla* wall. Here, one can see a parallel to Thiis-Evensen's interpretation of the use of this particular motif in Classical and Gothic architecture as it relates to the public scale on the outside and the private scale on the inside of the prayer sanctuary (ibid., p. 157). In movement inward, it is as though the frames themselves seek to draw closer together, closing the intervening spaces and thus protecting the inside.

A perfect combination of the square columns and the semi-circular arches on the outside and

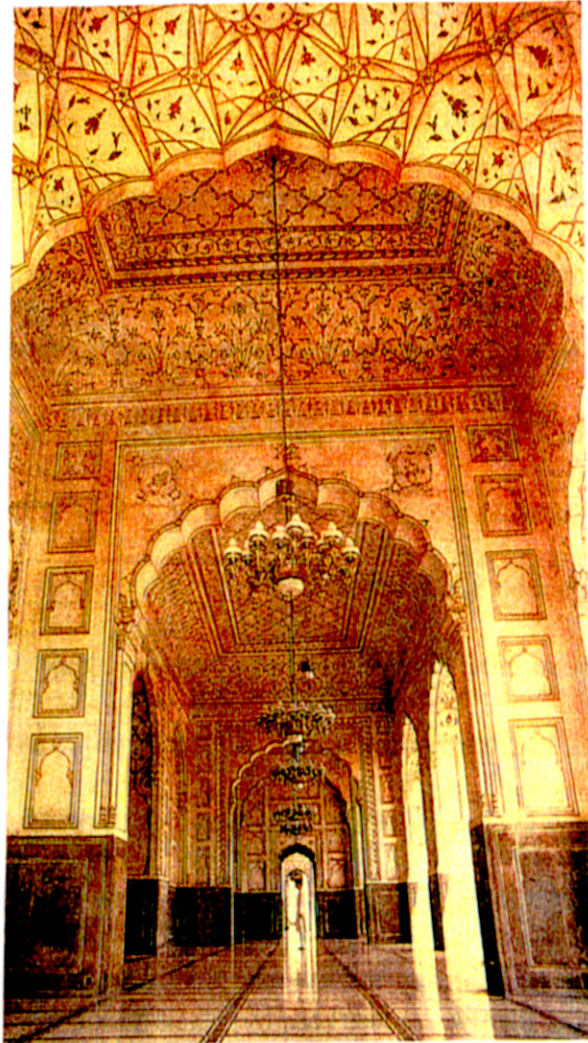


FIGURE 7.10 : The expression of depth indicated by the reducing thickness of the frame of the Badshahi Mosque's prayer sanctuary arcades.

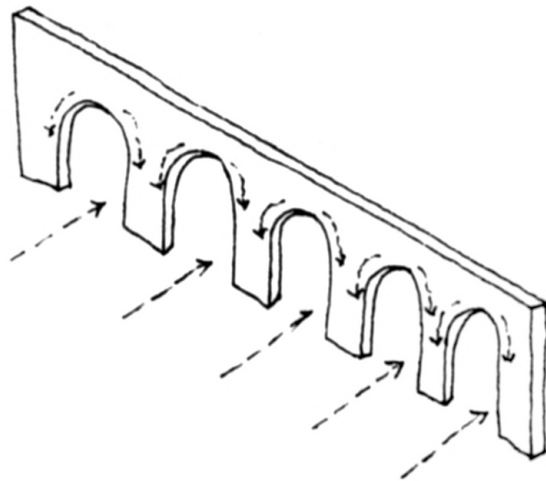


FIGURE 7.11 : The expression of motion and weight expressed by the arcades of the Badshahi Mosque's prayer sanctuary wall.

pointed arches supported on columns in the interior forms an impressive arcade. This combination of the arches and their square columns results in a strong contrast between rising and sinking motions. As indicated in figure 7.11, the particular form of the arch creates a sense of gentle rising motion, while the square columns, which in their form are part of the wall, passively receive the weight of the high arched beam above. The breaking up of the wide plane surface above the columns into panels of beautifully inscribed calligraphy, which depicts various texts of the Holy *Qur'an*, tends to counter the slightly dominating sinking feeling of the arch. In a purely spiritual realm, the interpretation of this contrast between the rising and sinking impression of the wall reflects *Allah's* words, which 'sinks' into the heart of the worshippers and generates an 'uplifting' of one's spirit.

In contrast, the Faisal Mosque's prayer sanctuary construction system reveals a plane wall in front of another plane wall. As illustrated in figure 7.9, the outer plane wall is significant with its horizontally stretched cantilevered overhang, which induces a strong gesture of shelter and invitation. In contrast to the sense of closure of the upper portion of the overhang, the lower portion composed of transparent glazing, creates a strong sense of openness and welcome. The expression of the inside coming out is very strong. The rear planer wall, on the other hand, distinguish itself through the well defined central triangular plane which is joined to its outer edge through transparent glazing. When viewed from inside the prayer sanctuary, it creates a feeling of lightness.

The following chapter searches the expression of openings with regard to the doors and windows of the walls of the two mosques.

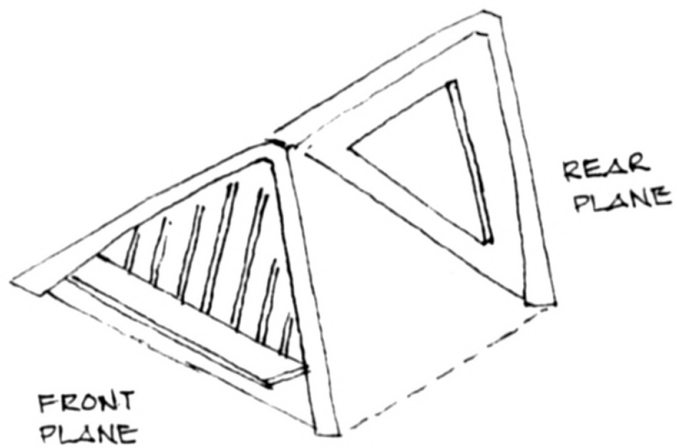


FIGURE 7.9 : The Faisal Mosque's prayer sanctuary wall and its construction system's expression of plane' in front of a 'plane'.

CHAPTER VIII

THIIS-EVENSEN'S DEPTH THEME AND THE EXPRESSION OF THE OPENINGS OF THE WALLS OF THE TWO MOSQUES

In the last chapter we saw how Thiis-Evensen's approach helped us in identifying the inside/outside relationship of the two mosques' walls with respect to their major form and construction systems. In this chapter, my focus is Thiis-Evensen's experiential description of the forms and nature of openings and their applications to the two mosque's walls. The inside/outside relationship as expressed by the various forms of the door and window openings and, subsequently, the various stages of sacredness which ensue through them, form a major part of this chapter.

We need to restate Thiis-Evensen's definition of *opening* here, since the following discussion proceeds from it: "An opening in a wall occurs when the wall's structural system is interrupted either in the form of a hole in a plane wall, or a change of rhythm in a skeletal wall.....the precondition is that the wall acts as the ground, while the openings stand as figures" (ibid., p. 251). In his interpretation of openings, Thiis-Evensen first considers the window and then the door. The interpretation of the mosques' openings here, however, is in the reverse order, with the intention to follow the arrangement of the earlier interpretations, which have moved from the outside to the inside.

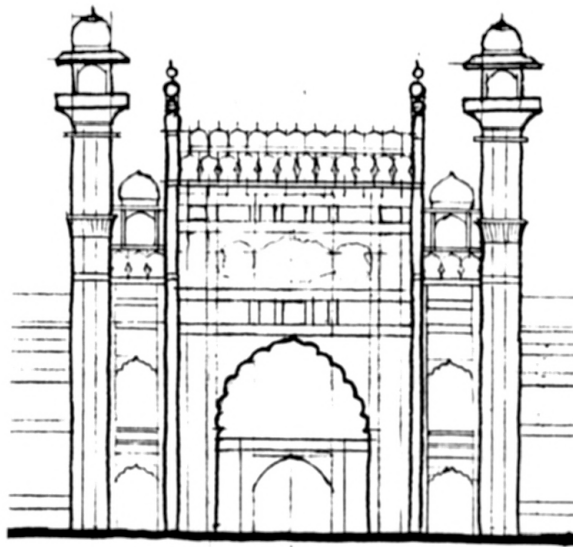


FIGURE 8.1 : Badshahi Mosque's entrance opening, leading to the mosque.

DOOR OPENINGS OF THE TWO MOSQUES' PUBLIC WALLS

As illustrated in figure 8.1, the opening of the public face of the Badshahi Mosque's wall expresses itself distinctly as a door, which marks the formal entrance leading to the mosque. Thiis-Evensen argues that to go in is to experience entering, which highlights the existential description of the *transition* itself between inside and outside (ibid., p. 283). By entering these two places of worship, one encounters and succumbs to the different levels of sacredness, which emanates from each of them. He or she experiences an architecture of the sacred with all its fundamental meanings. In the case of both mosques, the symbolic value of the entrance portal is revealed in the ritual of removing one's shoes before entering. This ritual marks the initial transition from the outside profane to the inside sacred spaces.

In terms of Thiis-Evensen's eight door casing motifs (ibid., p. 293-297), the public wall of the Badshahi Mosque expresses the *frame*, *niche*, *shelter* and *path and stair* motifs as shown in figure 8.2. The *frame* motif is represented by the formal portal entrance, which was seen to express the *vertical wall*, in terms of the major wall forms. This wide, protruding entrance frame seems to pull away from its surroundings by moving towards one who approaches. A *path and stair* motif accentuates the entrance's directionality and the goal-orientation, which is achieved through the broad monumental stairs, which leads to the entrance proper. The outward movement of the entrance, which appears as advancing motion to greet the worshipper, claims and withhold a certain part of the outside space. The door opening at the rear of this advancing entrance invites entry through an expression that contrasts the expression of the framed entrance. Here, instead of the door opening towards us, one is

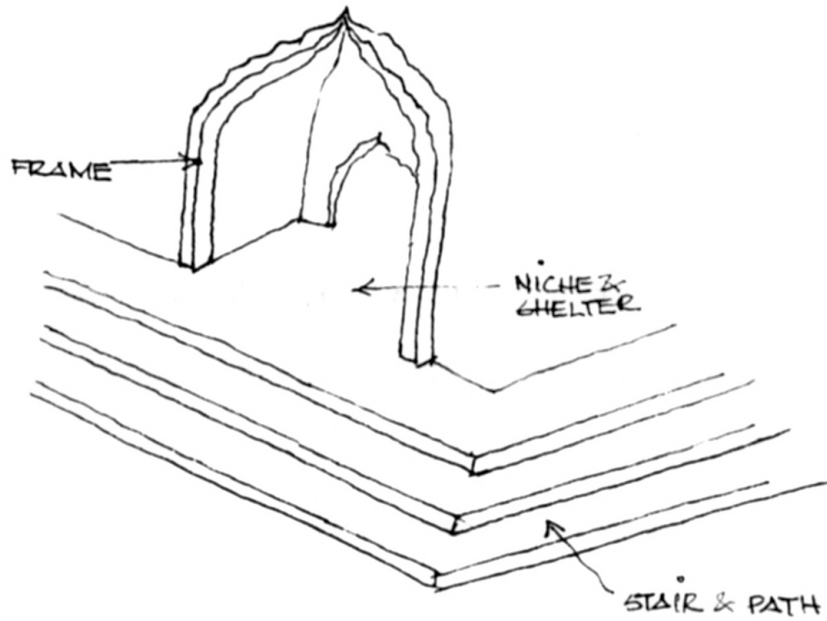
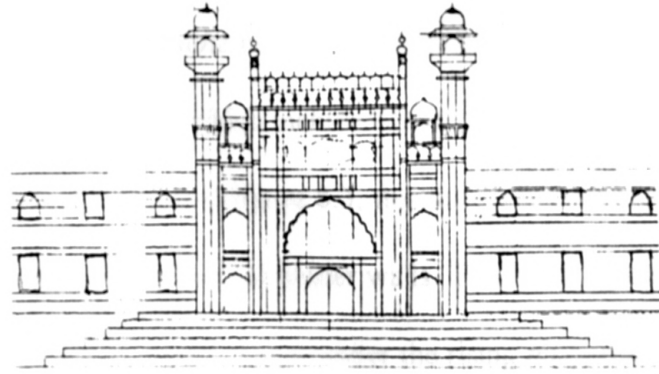


FIGURE 8.2 : Badshahi Mosque's entrance opening indicating frame, niche, shelter, path and stair door motifs.

powerfully drawn in through the external space of the path to penetrate the mosque.

The qualities of the *shelter* and *niche* motifs also manifests themselves if one treats the door opening in its complete context, which includes the surrounding walls and the rising impression of the roof. As shown in figure 8.3, this doorway opening is set deep behind the portal on the inner edge of the flanking planer walls. The resulting depth receives and embraces the external space, which is also under the rising *muqarnna*, or stalactite arched form of the roof, which enhances and completes the offering gesture of the entrance. This sense of shelter results in a "visualization of an anteroom giving a three dimensional preparation to the act of entry" (ibid., p. 295).

The strong gesture of the inside led in, in the case of the public wall of the Badshahi Mosque's formal entrance, is completely missing in the Faisal Mosque's public wall. As shown in figure 8.4, the extreamly permeable nature of the portal entrance, combined with its very plain and ordinary looking form, weakens the inviting expression of the wall. Due to the high, wide nature of the portal entry, the expression of the outside going in and the inside coming out cancel each other out. The thickness of the roof also greatly deters the welcoming, embracing gesture of the entry--a quality which is so powerfully expressed in the Badshahi Mosque.

The Faisal Mosque's entrance casing motifs of the public wall reflects, though not so strongly as the Badshahi Mosque, the *frame* and *path and stair* motifs. The Faisal Mosque's formal portal entrancelends weight, through the thickness of its roof, to an expression of *vertical wall*. In addition, the rising quality of this portal entry, with respect to its surrounding

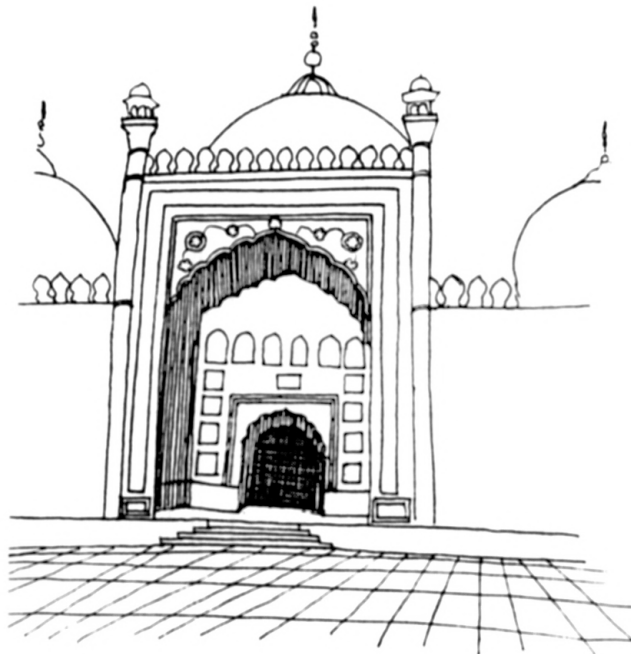


FIGURE 8.3 : The expression of depth indicated by the door opening of the Badshahi Mosque's public wall.

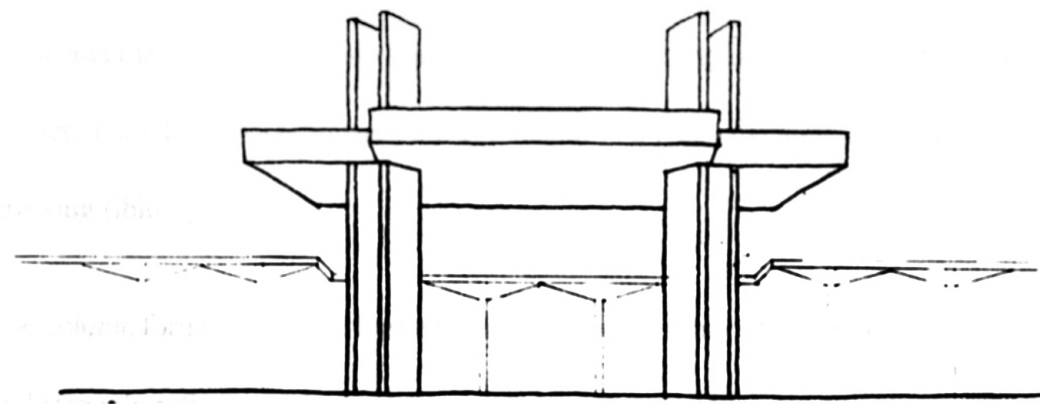


FIGURE 8.4: The extreme permeable nature of the Faisal Mosque's portal entrance.

colonnade, creates a subtle expression of invitation which, when viewed in combination with the *path and stair* motif, adds an element of directionality and goal--the latter especially highlighted by the broad ceremonial form of the entry staircase.

As already mentioned, the interpretation of the public wall of the Faisal Mosque reveals a strong degree of permeability and the extreme communicative gesture of the inside and outside spaces. As indicated in figure 8.5, the colonnaded side walls, when broken into their simplest form, are a continuous combination of columns and beams. This particular arrangement of the openings allows maximum permeability by freeing and lightening the spatial boundary. It thus *opens* the space. Maximum collaboration is achieved between the inside and the outside. The colonnaded form of the opening is the very symbol of open space. In fact, Thiis-Evensen compares the colonnade to a tree : dynamic, continuous and ever-growing (ibid., p. 163).

The column forms the central figure in this open expression of the Faisal mosque's public wall and strongly reflects the 'public' aspect of the mosque. The role of the beam is just as important in conveying the motion aspect of the wall. As Thiis-Evensen states in the case of a colonnade, the beam becomes one continuous horizontal molding which, "accentuates the principal motion that parallels the colonnade" (ibid., p. 237). A close look at figure 8.5 shows that this motion seems to take place behind and within the row of columns themselves. Thus, this particular colonnaded form of the side walls reflects a *lateral* motion. The portal symbolizes the transition between the public and the private, the profane and the sacred. The use of these slender, angular, square columns as major architectural elements in the form of

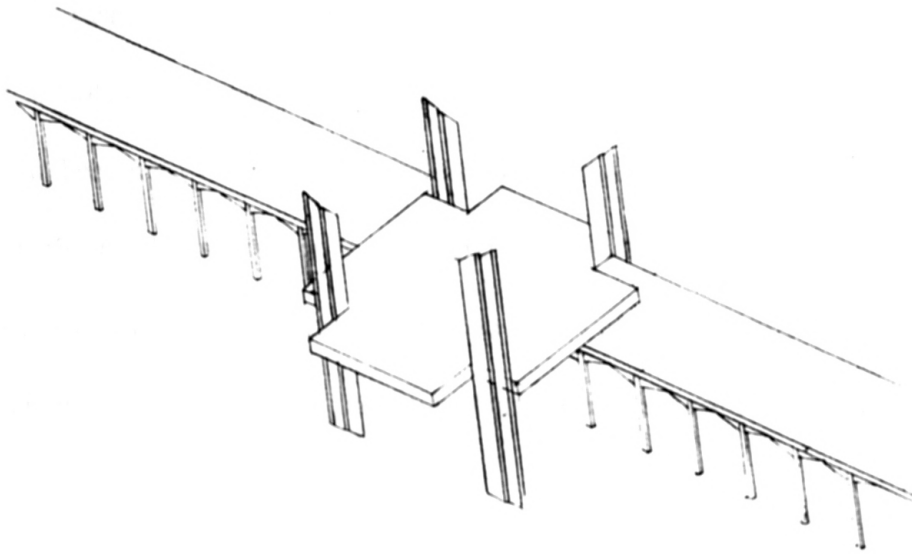


FIGURE 8.5 : The 'skeletal' nature of the Faisal Mosque's public wall openings.

the portal demarcates the spiritual and secular 'face' of the mosque.

DOOR OPENINGS OF THE TWO MOSQUES' PRAYER SANCTUARY WALLS

The Badshahi Mosque's experience of transition takes on a deeper spiritual meaning when one approaches the prayer sanctuary. Perhaps the most striking aspect of the entry is the dramatic change of scale from the monumental public wall to the human scale of the prayer sanctuary wall. The sense of invitation and of being embraced takes on a higher meaning. One becomes instinctly aware of being in the presence of someone Almighty and Powerful. Through entrance motifs that include *frame, niche, shelter* and *path and stair*, the expression of being pulled in becomes even stronger. As illustrated in figure 8.6, the additional framing of the door, with a band of white marble all around gives further impetus to the sacred significance of the prayer sanctuary. The contrast of white marble against the semi-darkness of the interior adds an element of mystery to the inside. One feels an overwhelming urge to enter.

Thus, through a series of layers, a gradual transition from the outside to the more private inside is achieved through the prayer sanctuary walls. This transition helps to demarcate the most sacred space inside from the semi-sacred space of courtyard outside. Once inside, the implicit sense of being connected with the outside, combined with the minimal physical openings, creates a space that is highly suitable for worship. Here, one can focus on one's prayer without being distracted with actual connection with the outside, while still being within a protective, serene and generous space.

An exploration of the side walls of the Badshahi Mosque's prayer sanctuary shows that it is

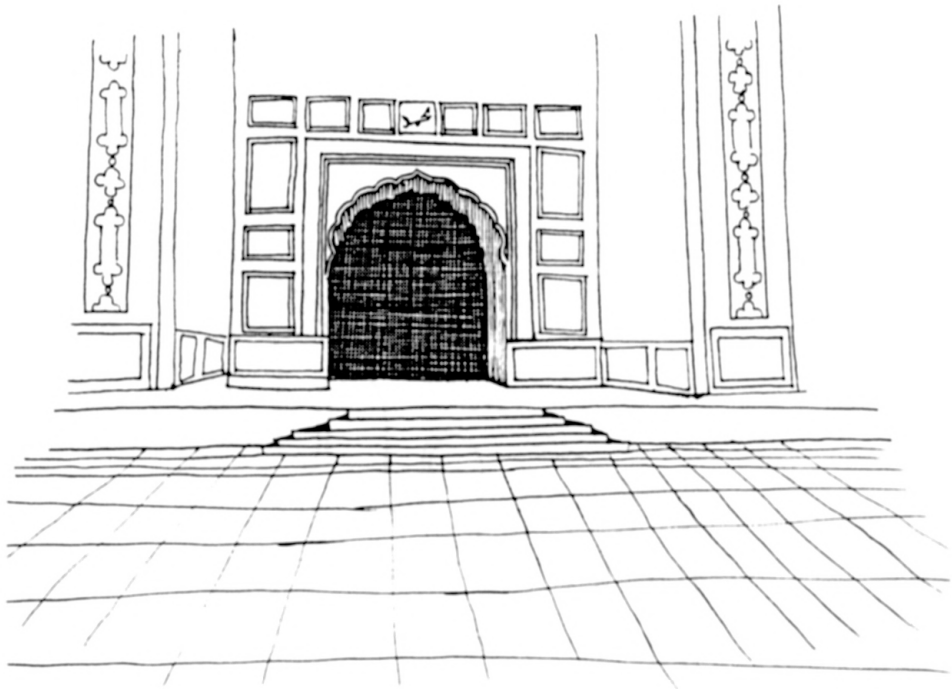


FIGURE 8.6 : Badshahi Mosque's prayer sanctuary door motifs.

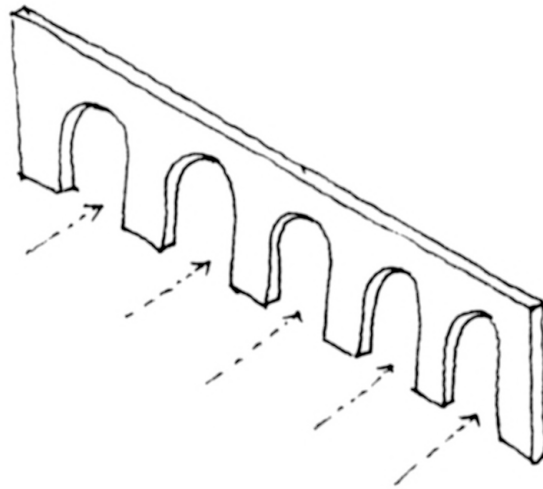


FIGURE 8.7 : The Badshahi Mosque's arcaded wall of the prayer sanctuary side walls.

in which the arches "separate and isolate each opening, which becomes a self contained unit (ibid., p. 237). Despite the dominant horizontal extension of the side arcaded walls, the form of the arched beam generates a sense of motion from outside in. The pointed form of the arches tends to rise and lightens the transition space between the inside and the outside. This particular architectural treatment has the strong quality to propel one's motion from the semi-sacred outside space of the courtyard to the most sacred interior space of the prayer sanctuary. The overall underlying theme of the form lies in its welcoming and embracing quality.

The element of mystery continues when we view the Faisal Mosque's prayer sanctuary wall. As shown in figure 8.8, the section of the wall immediately above the horizontally-projecting cantilevered overhang creates a closed and private effect. The drape like form of the thin wall membrane in front of the window glazing results in shutting off the inside to the outside. The communication aspect between the inside and the outside is thus minimized. The use of this screened wall is the symbolic architectural representation of the entrance drapes of a tent, around which the entire form of the prayer sanctuary is conceived. This particular architectural treatment reduces the overall welcoming expression of the wall. Instead, this screen enhances the sacred, private nature of the structure. Through the closed-off upper wall and the solid wooden panel of the two doors at entrance level, the inside seems a captive and mysterious. This passive nature of the openings of the walls (especially at the upper level) appears to be guarding something sacred and spiritual.

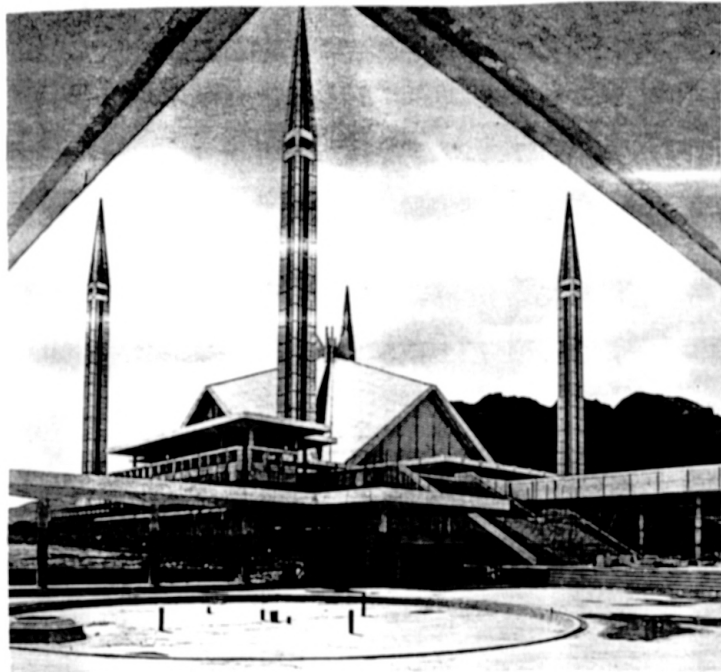


FIGURE 8.8 : The sense of 'closeness' expressed by the Faisal Mosque's prayer sanctuary wall.

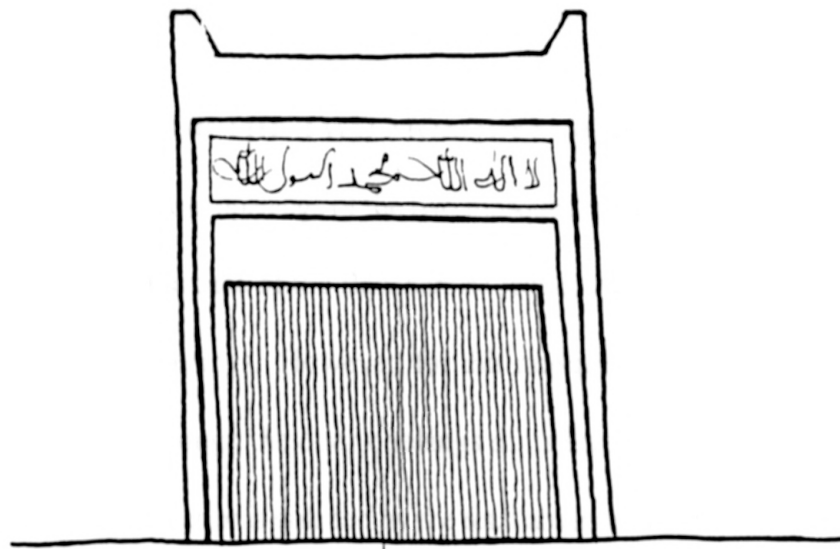


FIGURE 8.9 : The form of the Faisal Mosque's prayer sanctuary doors.

The two far corners of the prayer sanctuary wall are emphasized through two entrances at the lower level. As indicated in figure 8.9, a wooden door is set deep within each of these two openings for which the overall form has a strong relation to Thiis-Evensen's description of the *shelter* motif, which, he writes, "enhances the structure's protective air and conveys an impression of being building's offering gesture to one who enters" (ibid., p. 295). When viewed in combination with the wide horizontal expanse of the overhang immediately above, these wooden doors stimulates a strong feeling of being led in.

WINDOW OPENINGS OF THE TWO MOSQUES' WALLS

This section, explores window openings of the two mosques' walls. However, there is a slight complexity involved. In the case of the Badshahi Mosque, the prayer sanctuary has a total absence of any window openings. However, for this mosque, the expression of the interior is specifically projected through the door openings of its arcaded form. The sacredness and privacy of the sanctuary's interior is guarded by the total absence of any windows. It also must be pointed out that the Faisal Mosque's public wall has no window openings. In contrast to the expression of privacy and mystery (evident from the Badshahi Mosque's public wall and its few narrow, vertical window openings), the Faisal Mosque's public wall expresses a strong tendency toward 'publicness' as expressed through its particular column-and-beam arrangement of its skeletal form. This arrangement practically 'opens' the entire public wall for our view of the sacred prayer sanctuary, which is inside, thus, cancelling the aura of mystery by 'exposing' the sacred inside to the profane outside. Hence, this section on the window openings concentrates only on the public wall of the Badshahi Mosque and the prayer

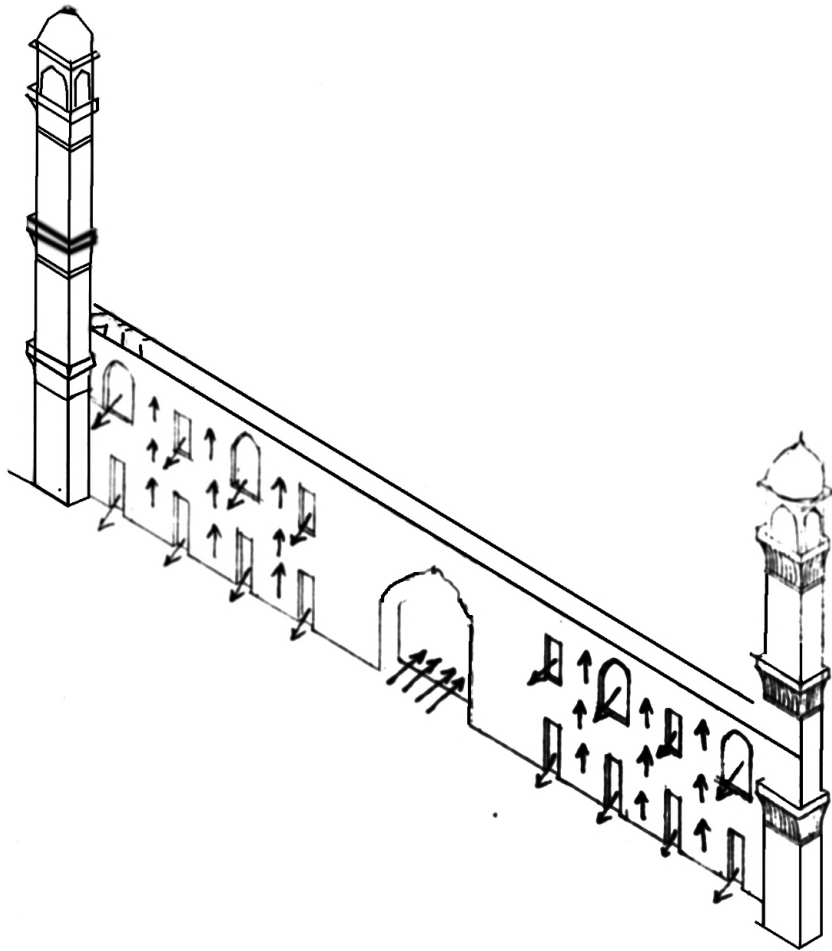


FIGURE 8.10 : The expression of the vertical movement of the Badshahi Mosque's window openings of the side walls.

sanctuary wall of the Faisal Mosque.

As illustrated in figure 8.10, the windows of the Badshahi Mosque's public wall creates a strong vertical movement upward. The outer face of the public side walls has an alternative arrangement of pointed and straight and arches in upright orientation. Thiis-Evensen points out that a vertical window fulfills two important functions. Firstly, due to its width, it offers lesser span to cover. Secondly, it fulfills the desire for the largest possible opening to admit maximum light (ibid., p. 253). In addition, the Badshahi Mosque's particular form of the vertical window helps to bring inside out to the outside. In fact, the vertical form of the window initiates an arresting, inviting movement from inside to the outside. The upright pointed form of the window openings accentuate this motion coming from the inside and thus strengthen contact with exterior space.

As shown in figure 8.11, a closer examination of these window openings indicates two important facts. First, the vertical opening creates an impression of a person standing and looking out. Second, the vertical form tends to invite physical penetration inward and subsequently project itself outward. Thus, in spite of the plain and somewhat formidable look of the outer side walls, the vertical windows can be interpreted as a link between the sacred inside and the secular outside.

In addition, these vertical window openings also have a straight profile, which means that they are cut into the wall at right angles. According to Thiis-Evensen, this emphasizes motion from the outside. But the height aspect--that is, the tall vertical form of these openings--

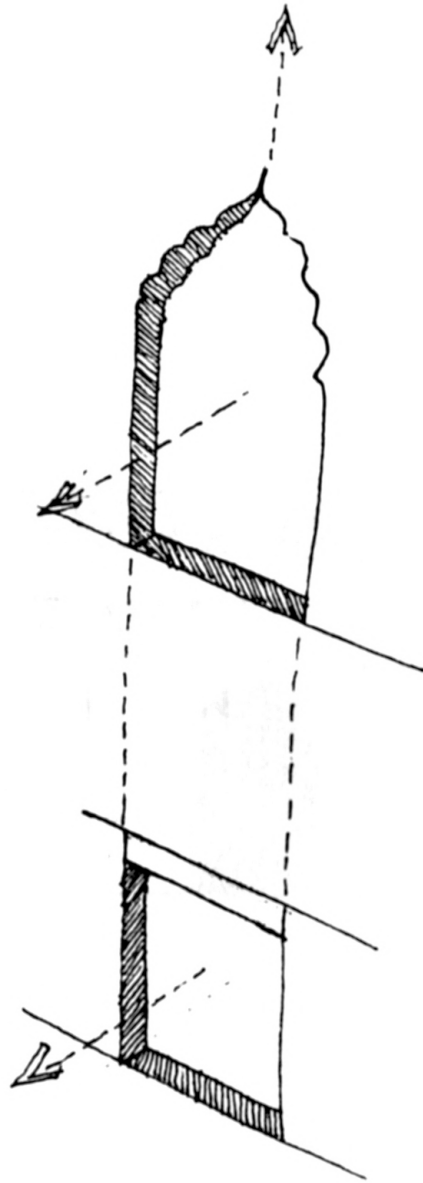


FIGURE 8.11 : The narrow and vertical form of the window openings of the Badshahi Mosque's public wall.

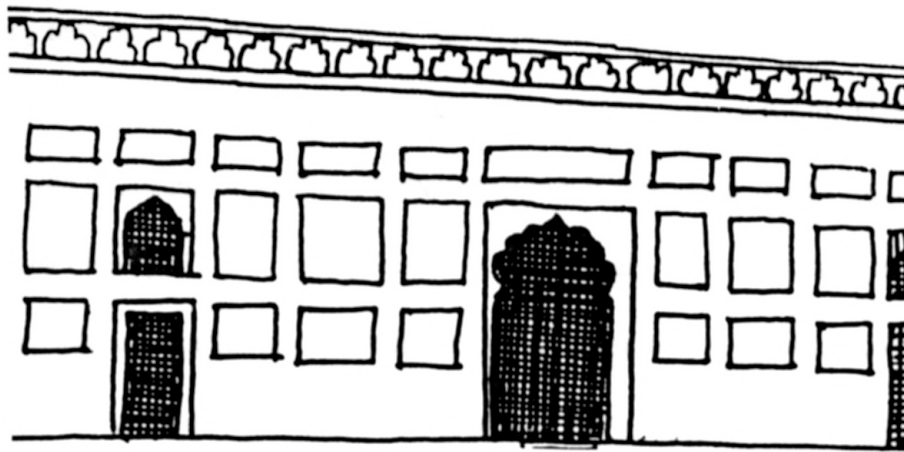


FIGURE 8.12 : The framing of the window openings of the Badshahi Mosque's public wall.

strongly enforces the impression of the motion coming from the inside. Thiis-Evensen further states, with respect to the straight profile that, the entire wall takes on a thin character--a stiff plane with no muscular strength. However, the use of sandstone in the construction of the wall counters this thinness and generates, instead, a feeling of weight, strength and stability.

As indicated in figure 8.12, the division of the wall surface into various panels creates a window frame, which lies *within* the opening. In this sense, the frame is *complete*--that is, lintel, sill and jambs, with no part dominating, thus forming an unbroken contour. One cannot detect any tension in the opening, which lies in peace. A frame surrounds and creates the setting for a window face, just as four walls surround and create a room. This means the frame is used to accentuate and emphasize whatever it surrounds, in relation to its environment (ibid., p. 271). An interpretation of the vertical window openings of the Badshahi Mosque's public wall, in this respect, indicates that the frame surrounding these openings has the tendency to increase the importance of the sacred *inside* space and bringing it *outside*, toward the profane. The window openings of the public wall have complete frames on all openings, an arrangement that give the wall a restfulness. This symbolizes the peace and harmony of the sacred interior, which the wall 'protects', and which can only be 'glimpsed' from the outside through the window openings.

This chapter has interpreted the openings of the two mosques' walls on the basis of Thiis-Evensen's interpretive presentation. From here we now move to the next chapter, which focuses on the roof--Thiis-Evensen's last architectural archetype.

CHAPTER IX

A THIIIS-EVENSEN INTERPRETATION OF THE ROOFS OF THE TWO MOSQUES

The interpretation of the mosques' roofs presented in this chapter are grounded in Thiis-Evensen's explications of the roof's existential qualities. A major question the chapter asks is how the roofs of the two mosques protect the interior spaces from the exterior spaces through being above and around them. In terms of sacredness, the question is how the roof as the basic sheltering form creates a distinct spiritual experience architecturally. Like the previous two interpretations of the floor and wall, this chapter begins with an interpretation of the Badshahi Mosque, followed by an interpretation of the Faisal Mosque.

Thiis-Evensen argues that the roof protects an interior space from an exterior space that is both *over* and *around* it. The space *over* the roof is the vertical dimension of the sky, while the space *around* is the horizontal dimension of the earth: "The sky is perhaps the best symbol of the sacred and the roof can receive the sky, resist it, or balance it with the earth" (Lin, 1991, p. 44). According to Elaide, "the sky by its own mode of being, reveals transcendence, force, eternity. It exist absolutely because it is high, infinite, eternal, powerful" (ibid., p. 119).

THE DOME THEME OF THE BADSHAHI MOSQUE'S ROOF

In this section I explore the dome theme of the Badshahi Mosque with special emphasis on the rising and sheltering aspect of the dome. One of the most striking architectural features of the Badshahi Mosque is its set of large, dominating domes, which rise from the roof of the

prayer sanctuary. As shown in figure 9.1, the central dome is higher and the larger than the other two side domes. The domes are faced with milky-white marble tiles arranged in regular courses. Emerging from the roof of the prayer sanctuary, all three domes seem to float effortlessly towards the sky. The predominant motion expression of the domes is a gentle rising motion.

Thiis-Evensen points out that as an architectural form the dome is considered to be a roof covering, which is based on the principle of an arch in rotation around a vertical axis. As illustrated in figure 9.2, the plan of the prayer sanctuary's dome is circular ; its form is vertical and has a continuously curved surface. *Centrality, continuity* and *rising* are the key words according to Thiis-Evensen, which describes the basic characteristics of a dome (ibid., p. 305).

The rising aspect of the Badshahi Mosque's domes

As one approaches the prayer sanctuary, the three conical domes, seeming to suddenly appear from behind the parapets of the mosque's central portal and the two side walls, convey a strong dramatic effect. Their milky whiteness against the red sandstone background of the prayer sanctuary lends a mystic, magical air to the whole structure. The use of the light white color on the domes also results in a sense of lightness.

Two particular architectural treatments stand out which emphasize the overall rising character of the domes: the conical form of the domes and the insertion of a drum between the dome and the wall. As illustrated in figure 9.3, the form of the dome resembles a pointed arch. The

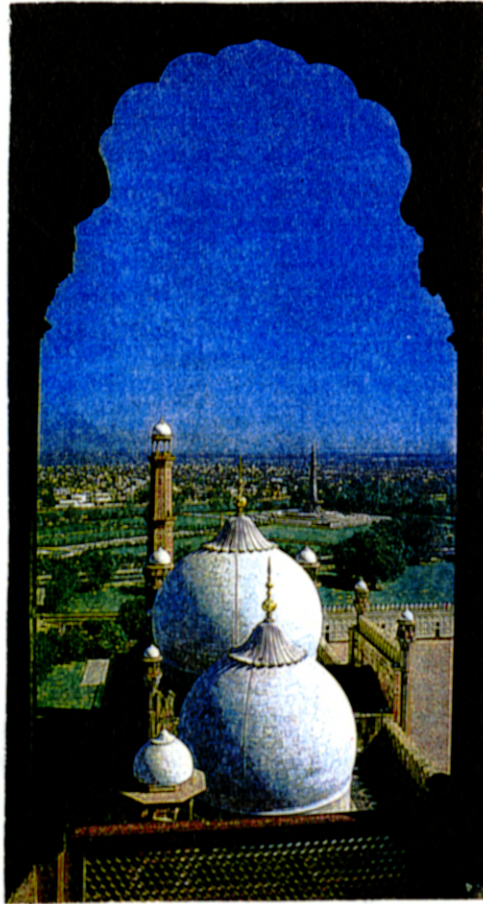


FIGURE 9.1 : The Badshahi Mosque's three domes appear to float effortlessly towards the sky (from Khan, 1991, p.1).

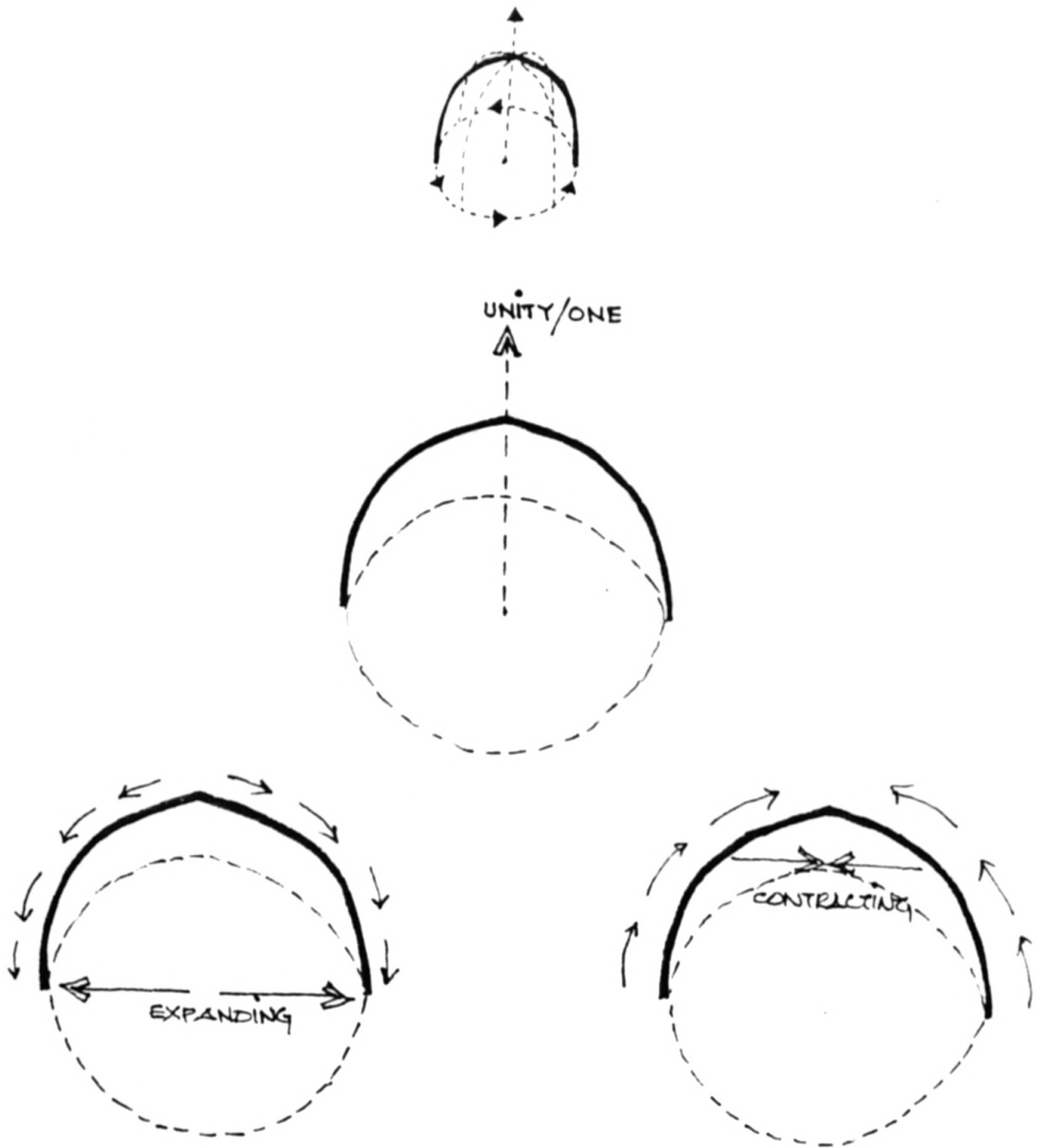


FIGURE 9.2 : The plans of the Badshahi Mosque's domes are circular, their form is vertical and they have a continuously curved surface.

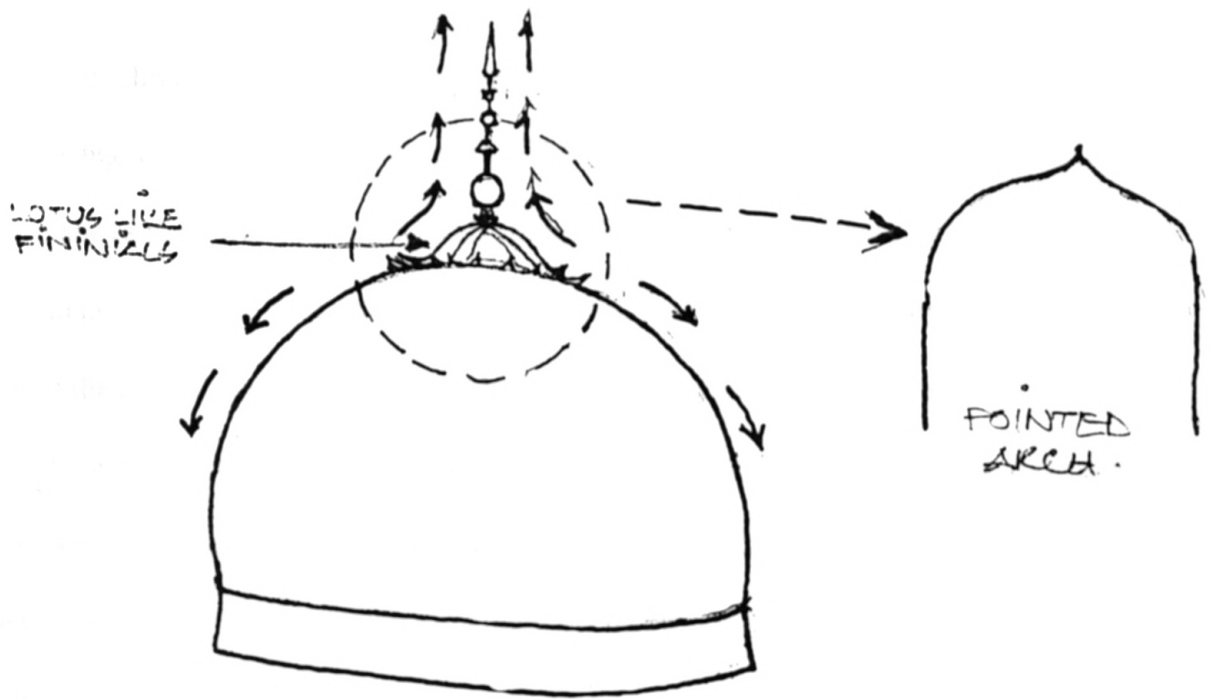


FIGURE 9.3 : The top of the Badshahi Mosque's dome resembles a pointed arch and thus has a conical form.

use of lotus-like finials with gilded pinnacles, results in a well defined rising effect. The pointed form of the pinnacles seems to lift the domes upward. All vertical lines seem to converge at this apex in a point. In addition, the major stress of the dome is led downward, through its own form with minimal horizontal stress. This results in a feeling of lightness.

As indicated in figure 9.4, a cylindrical drum has been inserted between the dome and the pendentive. This use of drum lends a strong rising character to the roof. In fact, as shown in the same figure, the dome is given an extra 'lift' from below, a gesture which pushes the roof up and above the lower wall zones. This rising effect is further increased by the particular articulation of the drum. First, as figure 9.5 illustrates, the rising effect conveyed by the basic form of the conical dome is emphasized in that the drum unites an upper and lower space. Second, the drum is broken into small window openings and in this way, the entire verticality of the dome form is accentuated, given further impetus by the drum window openings. These openings appear to 'free' the dome from the walls below and give it an even greater rising quality.

A parallel can be found when the insertion of the drum between the dome and the wall is viewed with respect to Islamic cosmology. As Al-Asad (1994) states, "in Islamic cosmology the heavens is considered as round, while the world of matter, the earth is square. The relation between the round dome and its square base is based on the notation and the effort of elevating the square (earth) to the form of the sphere (heavens) in the symbolic upward movement from the material world, to the world of the spirit."

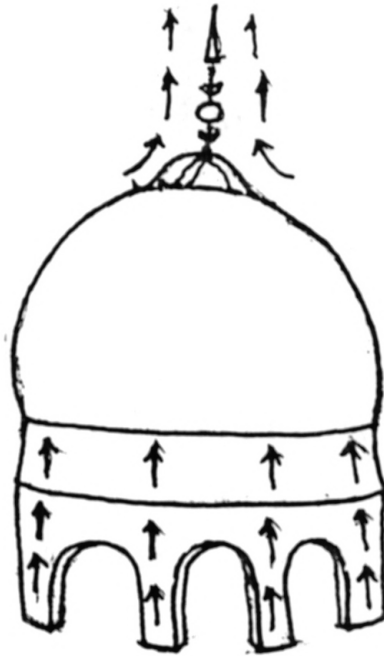


FIGURE 9.4 : The insertion of the drum between the dome and pendentive lends a rising quality to the Badshahi Mosque's roof.

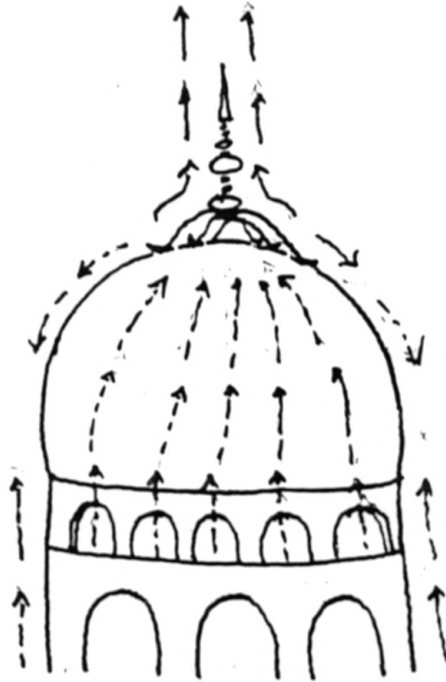


FIGURE 9.5 : The breaking of the drum's surface into arched openings lightens the effect of the dome and subsequently, gives it a gently rising character.

The sheltering aspect of the Badshahi Mosque's domes

Thiis-Evensen argues that the dome is a reminder of the sky and in its very form a replica of the heavenly sphere that we have above and around us (ibid., p. 305). Al-Asad (1994), writes that the dome is, a cosmic symbol in almost every religious tradition. In Islam the dome symbolically represents the vault of Heaven in the same way the garden symbolizes Paradise.

The particular form of the Badshahi Mosque's domes, when viewed from outside, contains within itself the fundamental qualities which are typical of the sky with its elevating character. When viewed from the inside, however, the dome symbolizes a house with its protective associations. As indicated by figure 9.6, the form of the Badshahi Mosque's prayer sanctuary dome, from outside, appears to ascend in a circle around an imaginary vertical line related to the sky. When viewed from the inside, however, the same dome arches above and around us, conveying a feeling of both safety and protection, that again by its very nature is related to the conception of dwelling. Since the mosque is Allah's House, the reflection of safety, protection and shelter takes on a more reverent and blessed air.

Thus, on one hand, the conical domes of the Badshahi Mosque create an enclosed feeling of safety, which corresponds to the effect of an all encompassing and protective universal space. On the other hand, these domes have the potential to create a more centralized feeling where existence is 'calmed'. As figure 9.7 a&b illustrate, the Badshahi Mosque's domes, when viewed from the exterior, are symbolic of the 'cosmic tent', downward and expanding, as if encompassing the whole world. When viewed from inside, they tend to rise upward and contract towards a point of unity. In this sense the apex of the dome symbolizes the 'One'. The

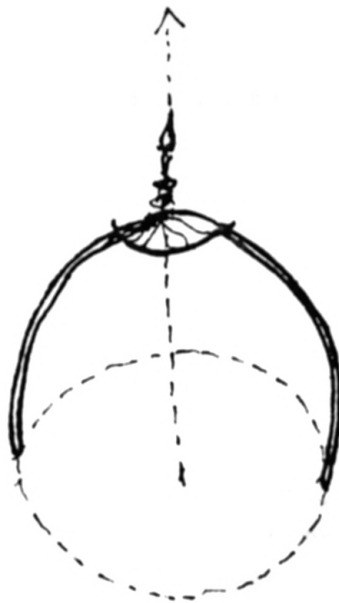


FIGURE 9.6 : From outside, the form of the dome appears to ascend in a circle, an imaginary vertical line.

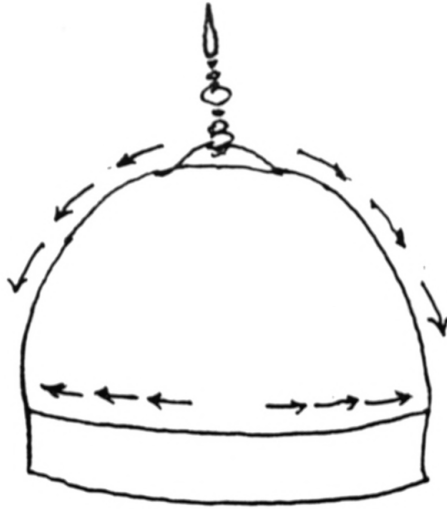


FIGURE 9.7a : When viewed from outside, the domes appear to lead downward and expand.

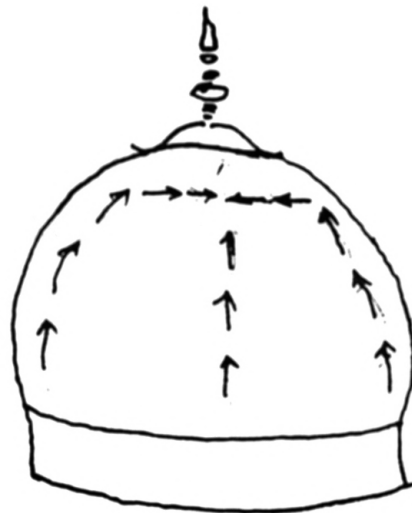


FIGURE 9.7b : When viewed from inside, the domes tend to rise upward and contract.

domes of the Badshahi Mosque, therefore, indicate the very essence of what we mean by being *inside*, which according to Thiis-Evensen, is the prerequisite for all security and life, both at the material and spiritual levels.

THE GABLE ROOF THEME OF THE FAISAL MOSQUE'S ROOF

Now we shift our attention to the Faisal Mosque's gable roof form, which creates an entirely different experiential expression when compared with the Badshahi Mosques domes. As indicated by figure 9.8, the Faisal Mosque's roof has a long sweep generated by its gabled shape. As mentioned earlier, according to the explanation of the mosque's architect, the geometry selected for the mosque has the triangle as its basic element, which merges with the background. Yet it strongly resembles a pyramidal tent whose demarcation between roof and wall is very thin. Initially the Faisal Mosque's wall appears to be a part of the roof. On closer scrutiny, however, the wall seems to be squeezed by the downward pitch of the gable roof. It is toward the longer and potentially open sides that the gable roof sinks and threaten to enclose the interior spaces. The dialectic between the sinking roof and the resisting wall rising vertically gives both the roof and the supportive walls each their dynamic expressiveness. Both the wall and the roof appear to be rising and sinking at the same time, as each is engaged in countering and resisting the 'will' of the other as well as the ascending and descending forces of nature. In other words, the sinking motion of the roof and the desire of the internal spaces to be open through the triangular sides of the roof seem to contradict each other. But when one consider the nature of the skeletal wall and its thin membrane, the importance of protecting and enclosing roof becomes apparent.

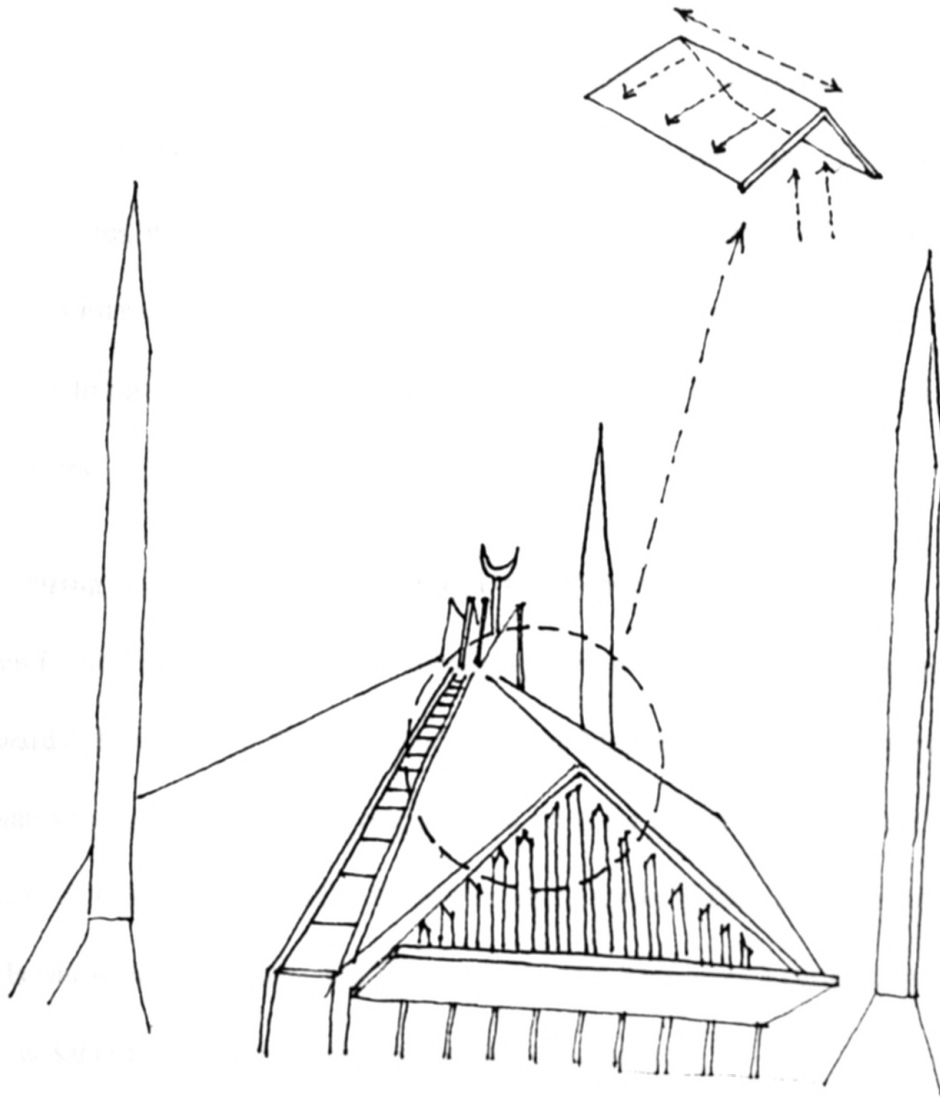


FIGURE 9.8 : Faisal Mosque's roof has a strong gable form.

To interpret the roof of the Faisal Mosque, it is necessary to describe the roof's relationship to the sky above and the horizontal space around. For the gable roof, these relationships are determined by three directional tendencies that Thiis-Evensen contends are natural to any gable roof : rising, sinking and directional aspects. In the case of the Faisal Mosque, as figure 9.8 illustrates, it is the rising and the sinking aspect of the gable roof which is most striking. The upward triangular ridge of the gable, which finally forms the cap of the roof give further impetus to the strong rising motion. Thus the horizontal directional aspect is considerably weakened.

The rising aspect of the Faisal Mosque's gable roof

Thiis-Evensen argues that " the *ascending* quality in the gable roof causes the space to rise upwards"(ibid., p. 333). In the case of the Faisal Mosque, the eye is constantly on the move towards the top, where the four ridges of the gable are joined by the cap of the structure. As figure 9.9 illustrates, the roof of the prayer sanctuary is, in fact, a combination of four gable roofs which are finally bonded by the cap at the top. This gives a certain airy lightness to the prayer sanctuary, both from the interior and the exterior.

The raised roof in the middle, through its steep pitch, conveys an ascending sense. Although traditionally the ridge is articulated to emphasize the directional quality of the roof, a reverse of this occurs in the Faisal Mosque. As figure 9.10 shows, the lower edge of the ridge is articulated by a gentle upward curve made by the triangular form of the wall, which visually 'slows' the roof's directional motion. Instead of stressing the horizontal line of the ridge that

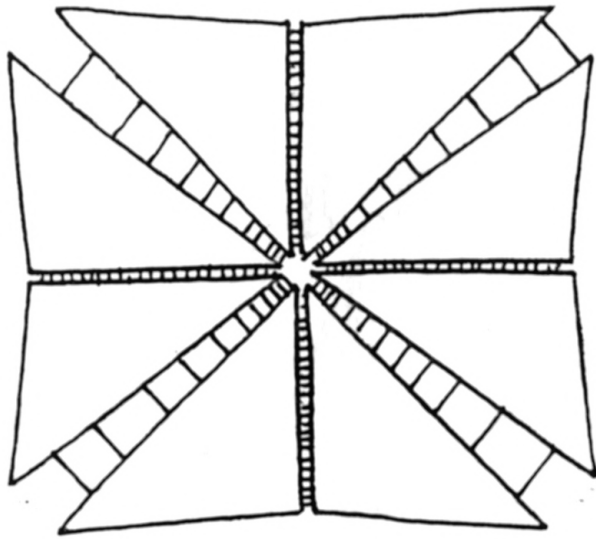


FIGURE 9.9 : The prayer sanctuary's roof slope plan showing the four gables.

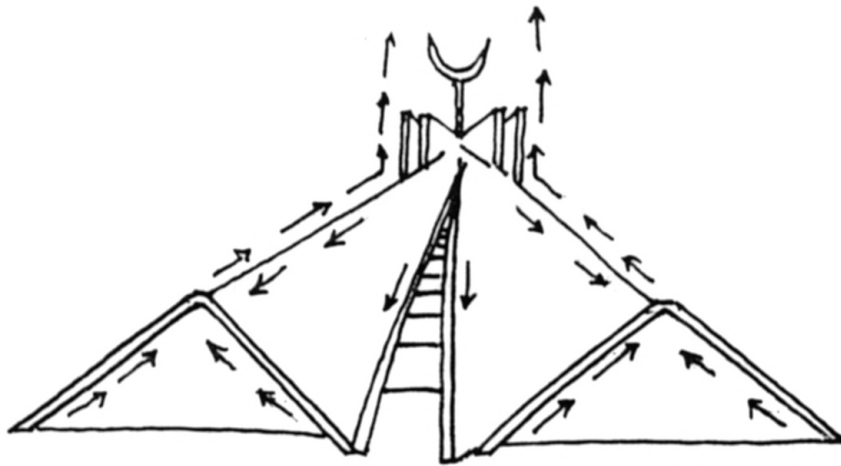


FIGURE 9.10 : The downward pitch of the gable is arrested by the triangular form of the walls, upwards.

would relate to in swift motion along the ground, the articulation here imparts to the ridge further an airy sense of upward motion.

Throughout architectural history the ridge peak has been further emphasized by various ornaments. As indicated in figure 9.11, the vertical form of the roof cap represents the peak of the ridge. Similar to the sharply pointed minarets on the sides of the prayer sanctuary, this vertical expression of the cap symbolically links the heavens with the sacred world inside the prayer sanctuary. Thus, the spiritual connection is symbolically achieved between the worshipper and the Divine.

When experienced from inside the prayer sanctuary, this same roof form creates a strong feeling of lightness and ascendancy. Another aspect which lends weight to the overall rising quality of the interior is the lack of attachment between the triangular wall and the triangular form of the gable roof. As illustrated in figure 9.12, the base of the triangular wall, the two sides of the triangular wall which joins the triangle of the roof, and the point where the two sides of the gable form the ridge, all combine to create an interior, with a powerful uplifting quality. The diffused light coming from the various openings in the roof and wall lends the interior of the prayer sanctuary a sense of detachment, lightness and levity. This arrangement enhances the strong sacred nature of the interior and helps to maintain one's spiritual link with the heavens above.

The sinking aspect of the Faisal Mosque's gable roof

As compared to the rising aspect of the Faisal Mosque's roof, as shown in figure 9.13, the

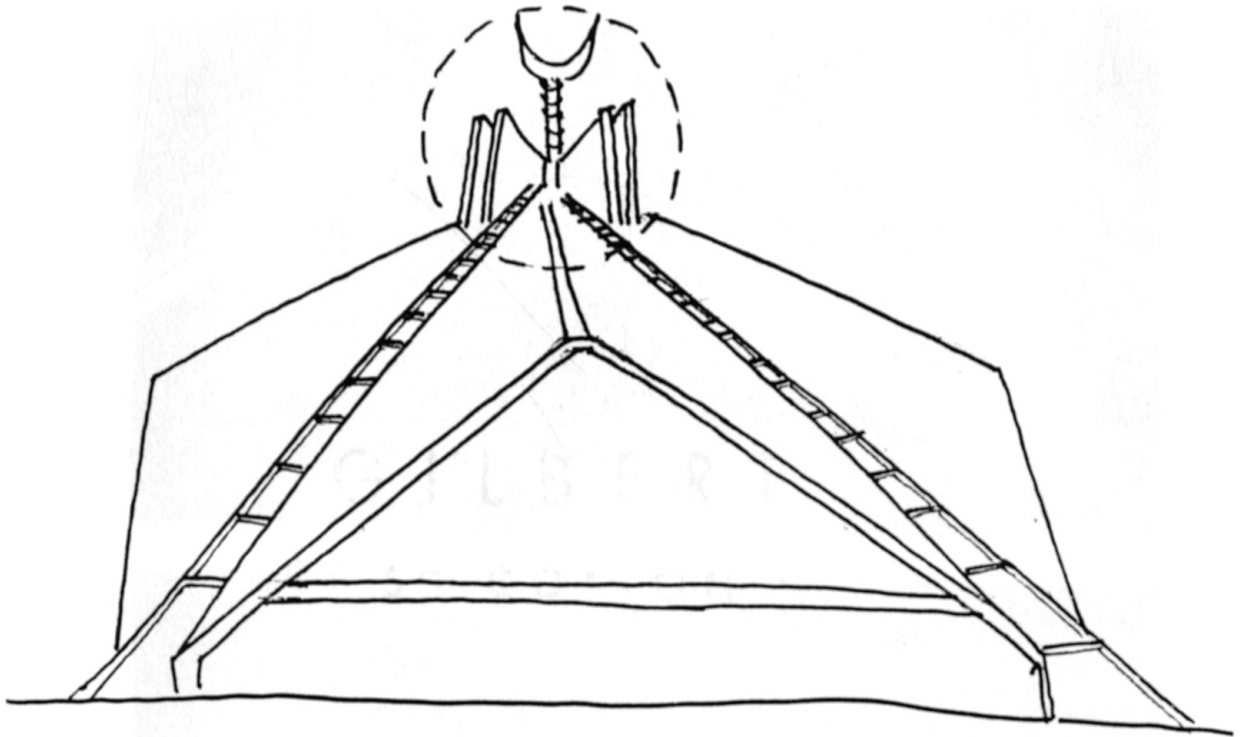


FIGURE 9.11 : The vertical form of the cap represents the ridge peak of the gables. This peak symbolically links the interior to the Heavens above.

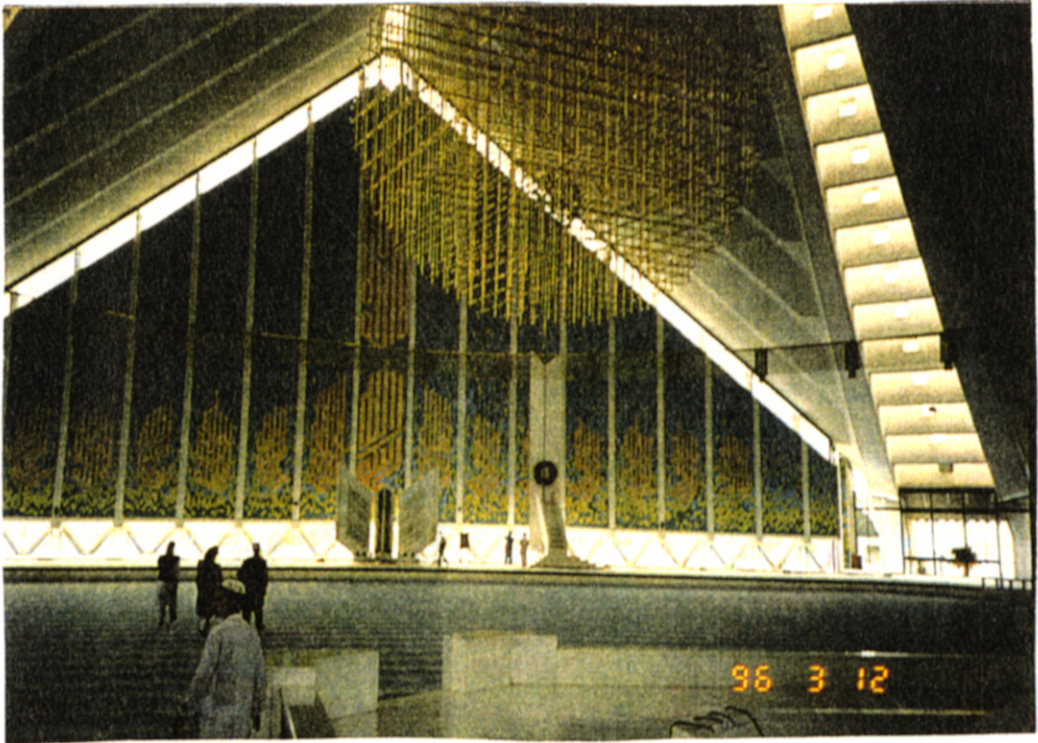


FIGURE 9.12 : View from the interior of the Faisal Mosque's prayer sanctuary. Diffused light from various joints in the roof and wall 'lighten' the impression of the interior.



FIGURE 9.13 : Like an eagle's wings the Faisal Mosque's roof seems to envelop and protect the interior.

sinking aspect is not as strong but still generates a feeling of security and protection. The element of threat normally associated with the gable's sinking aspect is entirely missing. As shown in figure 9.13, the roof seems to enfold and protect the sacredness of the inner sanctuary like an eagle's wings. Psychologically, it is the gable roof and not the flat roof which conveys a strong feeling of protection. In addition, the tent-like form of the gable roof generates a well defined expression of shelter and safety, that are normally associated with the dwelling. In the case of the mosque, which is Allah's house, the reflection of security, protection and shelter takes on a profoundly spiritual significance.

As illustrated in figure 9.14, the four downward angular girders of the roof also have a strong sinking motion. However, here again, the whole downward span of the girder is broken into sections of transparent glazing, which have the tendency to 'soften' the sinking expression. From the interior of the prayer sanctuary, these girders admit diffused light and create an impression of *Allah's* light all around us.

The above interpretation of the roof, marks the end of a Thiis-Evensen interpretation of the two mosques. The next chapter, as conclusion, evaluates Thiis-Evensen interpretation of the two mosques, and considers the value of his experiential approach to architectural meaning.

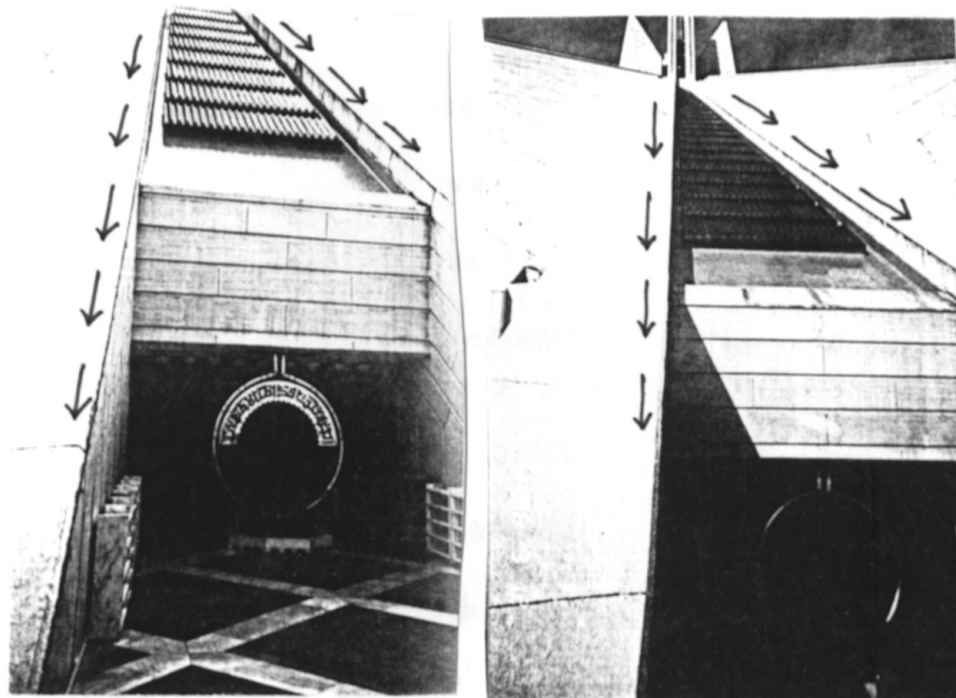


FIGURE 9.14 : The downward angular girders create a sinking effect for the Faisal Mosque's roof form.

CHAPTER X

CONCLUSION:

A COMPARISON OF THE TWO MOSQUES AND THE VALUE OF THIIS-EVENSEN'S ARCHITECTURAL ARCHETYPES

I have divided this chapter into three sections. The first section deals with an analysis of Thiis-Evensen's experiential approach to architectural meaning and involves a comparative analysis of the two mosques. The second section looks at some future research directions this thesis offers, and the final section highlights the value of Thiis-Evensen's architectural archetypes and their importance in understanding the essential meaning of a religious building.

A COMPARATIVE ANALYSIS OF THE TWO MOSQUES

The interpretation of the three archetypal elements of the two mosques sought to examine the interpretive value of Thiis-Evensen's theory as well as to clarify the two mosques' specific sacred expressions. The mosques' explications are linked further by their common focus on the inside/outside relationships sustained spiritually by the various architectural components of each mosque.

Through the preceding interpretations, what can one understand as the essential aspects of Islamic religious architecture? To answer this question, the overall experiential expression of the archetypal floor, wall and roof of the two mosques must be described. In this way, one

identifies the recurring themes that relate the sacred religious expression and the three archetypes together.

From Thiis-Evensen's perspective, one of the most striking differences in the two mosques is the degree of the expressive qualities of their respective entrances. In the case of the Badshahi Mosque, the main focus of attention is the richly decorated ornamental portal, the access to which is achieved through a series of twenty-two broad steps, forming three sides of a pyramid. The major sacred area of the interior is hidden from one's view by the high, plain side walls. This sense of 'concealment,' expressed by the form of the mosque's entrance wall, heightens one's urge to go inside and explore--to discover and experience the 'other' world. The directional and supporting quality of the floor, discussed in Chapter V, manifests itself strongly in understanding the degree and extent of sacredness of the Badshahi Mosque's entrance.

In contrast,

the Faisal Mosque's entrance wall is exposed, permeable and open. At first inspection, the central portal appears to be a caricature of the Badshahi Mosque's portal because it is almost too plain and simple to distinguish itself from the surrounding walls. Even the side walls express the same simplicity of form--a simple beam supported on widely spaced plain columns. Unlike the closed, secretive form of the Badshahi Mosque's side walls, the Faisal Mosque's side walls express a more open and permeable character--both physically and visually. Here the value of Thiis-Evensen's archetypal wall express itself because it helps one in understanding the underlying patterns of meaning of the two walls, which were discussed in Chapters VI - VIII. Overall, it was found that the exposure of

interior is sudden, immediate and spontaneous in the case of the Faisal Mosque, whereas in the Badshahi Mosque, one reaches the most sacred area of the building--the prayer sanctuary--through a series of stages and layers that achieve a strong sense of sacredness through concealment.

The expression of the sense of sacredness as expressed by the two mosque's prayer sanctuary interiors also differ. In the case of the Badshahi Mosque, the interior of the prayer sanctuary appears to be shrouded in mystery. The interior is in semi-darkness as natural light penetrates the inside either through the arcaded form of the outer veranda or through the covered window of the dome's drum. One senses an immediate calming and centering of one's focus. The ritual of prayer and meditation takes on a high level of spirituality and reverence. One can feel the serene and reassuring presence of the Being all around us.

In contrast, the eruption of the Faisal Mosque's prayer sanctuary's interior in a multitude of colors, hues and textures makes one feel the pulsating vitality and the omni-presence of the Being. The belief that *Allah* is the light of Universe takes on a deeper spiritual sense. Allah as the sole Creator expresses His presence through this bewildering array of light and colors, which the mosque's interior expresses so strongly. In a strange way, the titillation of one's senses in the midst of such play of light and colors does not hamper us with respect to praying and meditation. Rather an uplifting of one's spirits ensues and one can sense a new surge in one's concentration.

Another factor for comparison is the way geometry is used in the architectural forms of the

two mosques. The form of the Badshahi Mosque stands out, through the expanding or diminishing quality of each geometrical pattern and its capacity to be symmetrically repeated *ad infinitum*. Each part of the design answers every other part and is capable of extension to infinity because the structure of the design is such that it can go on multiplying itself forever as a metaphor of eternity. Thus, the facades and the wall surfaces are mostly decorated with symmetrical repetitions of units, which in turn are made up of smaller repeated units.

There is, for example, an endless permutation of the *mihrab* motif--the pattern of an arched niche, either deeply recessed or shallow, contained in a rectangular frame. Starting from the entrance portal to the center of the *qibla* wall, it has been used at various scales through out the Badshahi Mosque. Thus, one can see this pattern repeated on the entrance of the prayer sanctuary, on top of the parapet of the side walls, on the exterior and interior of the mosque, and on the vertical openings of the veranda arcades.

In contrast, the Faisal Mosque uses the pyramidal tent for its overall form, thus, the triangle becomes the repeated geometric pattern. A tent is graceful with curves, folds and billows and has an overall soft surface that generates a certain feminine quality. The Faisal Mosque 'tent,' on the other hand, is brittle, rigid and unflowing--a masculine "caricature" of a tent. Still, the building expresses a strong symbolic connotation related to shelter, dwelling and safety.

Another important point is the contrasting effect the geometry of each building generates. The architecture of Faisal Mosque has a sharp and rigid geometry, perhaps because it is the state mosque, and the masculine form connotes power. On the other hand, the Badshahi

Mosque's geometry is subtle and accommodating. Here again, Thiis-Evensen's discussion on the archetypal roof, as explored in Chapter IX, becomes obvious. In the case of the Faisal Mosque, the sharp, pointed minarets, as well as the well defined triangular form of the facade and pyramidal roof, combine in creating a feeling of firmness and strength. As was said above, there is a certain masculinity—a slight "macho" image of the structure. In contrast, the Badshahi Mosque's geometry is more feminine. The architecture includes many curves, circles and arcs, which conveys in overall form an architecture that is much gentler and softer.

A comparison of the minarets of the two mosques illustrates this interplay between the masculine and feminine expressions. The narrow, straight, pointed form of the Faisal Mosque's minarets has a well defined firmness and a sense of masculinity. These minarets stand tall and proud. In contrast, the Badshahi Mosque's minarets, with the use of both straight and curved forms, results in a balanced sense of masculine and feminine expressions. The thickness of the minaret's shaft creates a sense of firmness and strength, whereas the curve and the arch of the cupola reflect a sense of gentleness and softness. Thus, a perfect blend, an ideal balance is struck between these two different expressions of the Badshahi Mosque's overall geometry.

The central courtyard and the ablution fountain of the two mosques are another set of architectural elements which generate quite contrasting experiential expressions. In the Badshahi Mosque, one assumes the role of a spectator. The various architectural elements, like the gently rising minarets on all four corners of the courtyard, the shimmering in the sunlight of the three majestic white marble domes, which rise from behind the parapet wall

of the prayer sanctuary, the interplay between light and shade expressed by the openings in the veranda arcades, and finally the impressive decoration of the prayer sanctuary's exterior--all becomes performers. They dance and pulsate with a life of their own.

The courtyard of the Faisal Mosque, in contrast, is built deep inside the bowels of the earth. As it is constructed below the upper courtyard level, it creates a strong enclosed feeling. The only link with the outside world is through the distant green hills surrounding the mosque.

The sense of extreme openness which is achieved through the open courtyard of the Badshahi Mosque is missing in the Faisal Mosque's courtyard. One feels slightly trapped. In this situation, the part of raw nature in the form of the surrounding green hills come to the rescue. One relates more strongly with nature, which is a part and creation of Allah. In this sense, one feels a part of nature and blends harmoniously with one's surroundings.

Overall, I would argue that the five interpretive chapters on the floor, wall and roof of the two mosques offer a successful example of Thiis-Evensen's theory as a way to see and to analyze architecture. Gaining confidence and practice with Thiis-Evensen's archetypes, I realized that his theory provides a means for people to understand and comprehend architecture more sensitively, accurately and precisely. In this sense, Thiis-Evensen's approach offers a way to clarify and describe the usually ambiguous feelings and unconscious expressions that people have for architectural form. Thiis-Evensen's interpretation distinguishes itself from many conventional architectural descriptions in the way it work to discover the more general, common qualities lying beneath various architectural forms and styles. In a way, Thiis-Evensen's basic aim is to search for a more specific 'global' architectural

meaning.

In terms of the two mosques, I strongly believe that Thiis-Evensen's interpretive approach assisted me in arriving at a more precise and detailed observation of the two mosque's architectural qualities and their respective sacred expressions, to which I had not given much direct attention before. I was better able to identify and verbalize the previous intangible unspoken feelings I had toward the two mosques.

My own personal narrative of the two mosques offered one way to verify and strengthen my Thiis-Evensen interpretation. This narrative sought to describe experientially my own personal experience of the two places of worship. A Thiis-Evensen's interpretation of the same mosques later helped me to a more thorough and precise understanding of their essential meanings. Through such comparison and contrast, one can see more clearly the emphasis and the strength of Thiis-Evensen's archetypes theory in interpreting buildings, especially the sacred meanings and expressions carried by a traditional versus a modern house of worship. My interpretation of the two mosques also indicates another important aspect of Thiis-Evensen's theory--that is, his theory of universal language is versatile enough to accommodate non-Western architecture like the two Islamic mosques.

FUTURE RESEARCH DIRECTIONS

The aim of the present study has been to interpret two examples of Islamic religious architecture using the three archetypes of Thiis-Evensen's as an ordering guide. Regardless of stylistic variations, what *essential* architectural aspects characterize religious architecture ?

Such themes as the expression of 'inside' and 'outside,' the degree of 'openness' and 'closeness' of the building's form, the demarcation between the 'profane' and the 'secular' worlds are all a source of sacred expression as indicated in this study.

The next step in furthering this research would be to interpret additional Islamic mosques, particularly those differentiated by stylistic and regional attributes. In fact, a two-part methodology could be employed to achieve an understanding of the visual language of mosque architecture. First, by analyzing the origins of mosques and studying the transformation of ancient pre-Islamic building types into mosques, it might be possible to detect a distinct set of generic Islamic forms and topologies of spatial organization associated with Islamic architecture. Second, a comparative survey of the major mosques of the Islamic world would make it possible to catalogue the occurrence of these generic forms over the last fourteen-hundred years. The results of such a study might indicate the existence of a definite visual language possessing both a vocabulary and a grammar. The vocabulary might deal with the various architectural parts of the mosques--for example, entrance walls, portals, stairs, prayer sanctuary, surface pattern, color selection and modes of material usage, and so forth. The grammar, on the other hand, would relate to various systems of organizing these parts into a coherent whole, within the framework of Islamic concepts of religious place making.

Another future research topic might be a discussion of the influence of the major religions of the world on their respective architectural expression of sacredness and spirituality. A Thiis-Evensen interpretive study might be combined with theological exploration to make the interpretation more accurate and thorough. In this regard a Thiis-Evensen's interpretation of

mosques, churches and temples might help us realize the essential meanings of sacredness expressed by a particular religious building's architectural forms. Such a study might go a long way toward dispelling the current 'confrontational' trends of the various religions against each other. Through the use of Thiis-Evensen's 'universal language,' such a study could hope for a 'unification' of people of different cultures and religions through studying the commonalities of their respective religious architectural expressions.

TOWARDS AN EXPERIENTIAL APPROACH TO ARCHITECTURAL MEANING

The architectural theorist Christian Norburg-Schulz writes that "After decades of abstract, 'scientific' theory, it is urgent that we return to a qualitative, phenomenological understanding of architecture. It does not help much to solve practical problems as long as this understanding is lacking" (Norburg-Schulz, 1980, p.5). Thiis-Evensen's theory of architectural archetypes is one significant example of this phenomenological approach, which "works to restore the integrity of the thing being interpreted" (Seamon, 1991, p.37).

Through the preceding phenomenological analysis of the two mosques, one sees how Thiis-Evensen's theory of architectural archetypes helps to understand architectural expression in a way which is different from traditional interpretations because it explores and identifies architectural patterns that have typically been taken-for-granted and, thus, ignored. As I used Thiis-Evensen's theory to interpret the two mosques, I became more and more aware of the power of the phenomenological approach in understanding and analyzing architecture. This approach appeals to me because it considers the designed environment in terms of how it contributes to what can sustain and reflect human life. One central aim of a phenomenological

perspective is to explore and to interpret the reciprocal relationship between people and their built world, through examining behavior, experience and meaning in a descriptive, interpretive manner as they happen in their everydayness. This perspective argues that, by considering the experiential meaning of the built environment, the architect can better imagine and design buildings that support both beauty and life, both order and freedom (Seamon, 1991, p. 2). This approach offers a starting point for understanding human experience and architecture and may help lead towards better design.

In broadest terms, a more thorough understanding of human action, behavior and meaning with respect to the built environment might lead to a more effective, humane architecture. Thiis-Evensen's theory of architectural archetypes provides one practical foundation for such understanding and offers clues, for an environment design that is more striking, alive, and meaningful, both existentially and aesthetically.

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