

Parameters For A Islamic Mosque In India Within Minimalism

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Abstract:

Minimalism is one post modern style movement which emerged in the 50s of the twentieth century, but it was rapidly growing in the years 60s, 70s. *Minimalism is defined as the concept of minimizing distractions from what's truly valuable or essential . On the same grounds , works of minimalist offers a direct view at and raises questions about the true nature of the subject or object inviting the viewer to consider it for it for the real shape, a thought, a movement reminding us to focus on what's really important .* The Architecture of Minimalism is characterized by an economy with materials , focusing on building quality with considerations for 'essences' as light, form, detail of material, texture, space and scale, place and human conditions .

The research of this paper is mainly into the basis of designing a Minimalistic mosque in India while analysing the parameters for the design from the the Matching characteristics of islamic architecture (i.e) in specific to a mosque and the Minimalism . Therefore, the paper is about the mosque architecture and minimalism and of their underlying principles , matching characteristics and design goals .

Keywords : Islamic Mosque in india , Minimalistic Mosque , Parameters for mosque design .

1.1Background:

“Mosque is defined by “It must be a silent place facing toward Mecca. It needs to be spacious so that the heart may feel at ease, and high so that prayers may breath. [Le Corbusier, Journey to the east, 1987:100]”

The term mosque comes from the Arabic word “Masjid and literally means “a place for prostration”. A mosque usually serves as a place for worship five times a day and is considered as a sacred space and the most important building among the other Islamic buildings. (Mosque in Nordaic Context by Mahtab Aslam).

Mosques / Masjids are places of worship , the land in one which the mosque is raised is afforded by the community and the construction of it is also funded by the same.



Fig 1: a& b) Prophet's mosque , Medina , 622 BC c) Great Mosque of Damascus 715 d) Great mosque of Kufa medina 670 AD

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.Fig 2 :a) Dome of the Rock , Jerusalem b) Al nawabi mosque , Medina c)Great mosque of Isfaan , Iran .The Evolution of the earlier mosques is based on the true principles of Islam which can be traced back to the earliest example of true Islamic architecture we have today is the Kaaba in the sacred Masjid-Al Haram in Mecca, Saudi Arabia, the building by Prophet Muhammad. Buildings, typically Mosques built shortly after the reign of Prophet Muhammad and his Caliphate can be termed those adhering to true Islamic architectural principles where as after about 150 years after the death of the Prophet Muhammad, innovation began to occur within the Islamic architectural discipline, coinciding with the rapid increase in the wealth and power of the Islamic empire. It appeared that the Muslim architects began to forget the eternal wise words of their master Prophet Muhammad who strictly stipulated that buildings should be simple as possible: The barest austere livable; The cheapest and most temporary; The smallest and most undistinguished. This indeed defines true Islamic architecture;Allah (Arabic for Almighty God) states in the divine revelation the Quran; **“Do ye build a landmark on every high place to amuse yourselves?And do ye get for yourselves fine buildings in the hope of living therein (forever)?”**Al-Qur’an, S26:128-129.

1.2 Hypotheses:

To enquire if minimalism and Islamic architecture are compatible with respect to mosque program .If they are found compatible , finding the parameters for the design of the minimalistic mosque in india.

1.3 Scope & Limitations :

- The research limits for Mosque architecture in India , dealing with their spatial quality of the spaces.
- Is not subjected to Climatic considerations in India.

2.Islamic Architecture :



Fig 3 &4 - Abstraction- the prominent symmetric shapes, which are like stars and constellations. 6-, 8-, 10-, 12- pointed star shapes are the ones that occur mostly in ornaments.

2.1 Ideology of Islamic Art & Architecture :

Islam is one Religion whose art forms aids beauty with its longstanding rejections of the human and living creature. Islamic art is based on the abstraction principle which depicts itself in the form of geometries , floral motifs and Calligraphics(inscriptions of Quran).

2.2 Islamic Architecture :

All the architectural production from the age of Prophet Muhammed (pbuh) 7th century to the mean time including all islamic world comes under Islamic Architecture .Based on the Islamic Art the classification of Islamic Architecture in styles ranging from

- The Ummayyad (660-750 CE)
- Abbasids Architecture (750- 1258CE)
- The Fatimid Architecture (909 -1171CE)
- Seljuk Architecture (1038-1194 CE)
- The Age of the Atabegs : Syria , Iraq and Anatolia (1100-1300)
- The Mamluks
- The Muslim West
- The Ilkhanids and Timurds
- The Timiruds
- The Safavids
- The Ottomans

2.3 The mosque & its history :

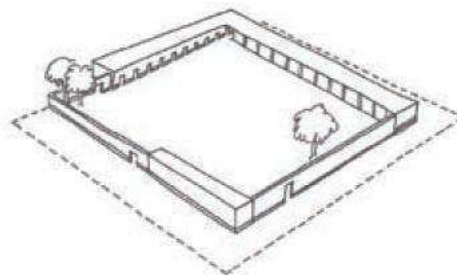


Fig :5 The early development of the mosque in based on The house of the Prophet in Medina.

The term mosque comes from the Arabic word “Masjid “and literally means “a place for prostration”. A mosque usually serves as a place for worship five times a day and is considered as a sacred space and the most important building among the other Islamic buildings. (Mosque in Nordaic Context by Mahtab Aslam).

The mosque history could be dated back to year 622 when the holy Prophet Mohammed emigrated to Yatrib,(a city of western Saudi Arabia north of Mecca) later named Medina. The first example on Muslim architecture appeared during the prophet’s life time where he adapted his residence to the first mosque for worship for the believers of Islam.

2.3.1 Mosque according to Islamic faith:

The right to worship is sufficient, with the base form, the nature of Muslim faith, and the minimalistic literal requirements in Islam.

Only a square marked out by a line drawn in the sand is sufficient for a communal prayer, underlining the only demand that the prayer is facing the direction of Kabba in Mecca.

Still, the mosque plays an important role in the Muslim societies, and functions as place for gathering where prayers are celebrated and public affairs are connected.

Mosque is defined by “It must be a silent place facing toward Mecca. It needs to be spacious so that the heart may feel at ease, and high so that prayers may breath. [Le Corbusier, Journey to the east, 1987:100]”

2.3.2 Mosque Types:

Prayer is established at four levels ,the individual ,the congregation , the total population of a town and the muslim world .For three of these are distinct , lithurgical structures.(Architecture of the Islamic World by George Michell)

1. The mosque , a mosque used for daily prayers by individual or small groups but not for the Friday mosque , it therefore has a mihrab(niche wall) but no minbar (place for the imams to conduct bayans)
2. The jami , the congregational or Friday mosque used for mainly weekly service , it is normally much larger than the masjid and provided with a minbar.
3. Idgah within these lithurgical types a range of architectural variation is possible.(from the Architecture of the Islamic World by George Michell)

2.3.3 Mosque Typologies (in Countries) :

Every mosque ever built before the modern movement in 20th century falls under one of five main categories of mosque types and they are: (Mosque in Nordaic Context by Mahtab Aslam)

1.The **Arab hypostyle mosques** mostly found in Arab heartland, Spain and North Africa recognized with a clear reference to the Prophets mosque .

-The hypostyle halls were constructed with rows of columns supporting a "at roof and a central large space covered with one or more smaller domes. This type of mosque was the dominant type in the early period of Islam. Example on hypostyle mosque is the Umayyad Great Mosque in Damascus (709-15) .

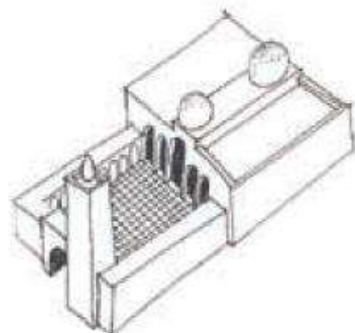


Fig 6 :The Arab hypostyle mosque

2. The bi-axial four iwan Mosque known from Iran and Central Asia, is a basic arrangement derived from four vaulted gates arranged axially around a squared courtyard. Each iwan except the one serving as entrance represents the gate to a prayer hall. The style **of this mosque type was most popular in the medieval period and remained dominated** in Iran.

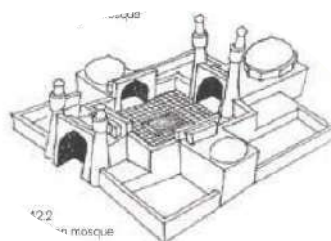


Fig 7 : Four iwan mosque

3. Central Dome Mosque was introduced by the Ottoman Empire in the 15th century. This Mosque was arranged with prayer hall based on the Mosque of the Prophet as a regular hypostyle hall, covered by a central large dome surrounded by smaller and lower semi-domes. Hagia Sophia Church erected in the 6th century was converted to a Mosque in 15th century. Mosques with detached pavilions within a walled garden could be found in China.

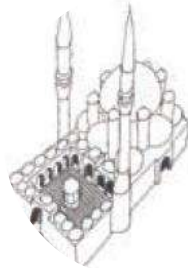


Fig 8 : Central Dome mosque

4. Mosques with detached pavilions within a walled garden could be found in China. Chinese Islamic architecture reflects the local building traditions in its style with small

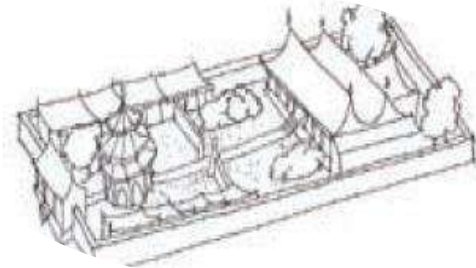


Fig 9 : - Mosque with detached pavillons

influences from western style. Chinese Islamic architecture reflects the local building traditions in its style with small influences from western style.

2.4 Islamic Architecture in India :

Architecture in India made tremendous progress during the Islamic rule with the advent of Indo-Islamic architecture .This style was neither strictly Islamic nor strictly hindu.

Islamic architecture started in india by 712 A D with arab invasion of sind by Muhammad bin kasim; thus becoming a province of the caliphs of baghdad.

Since there was no cultural exchange during this time, the Islamic architecture which went under many experiments prior to India, resulted in the splendid outcome in India .

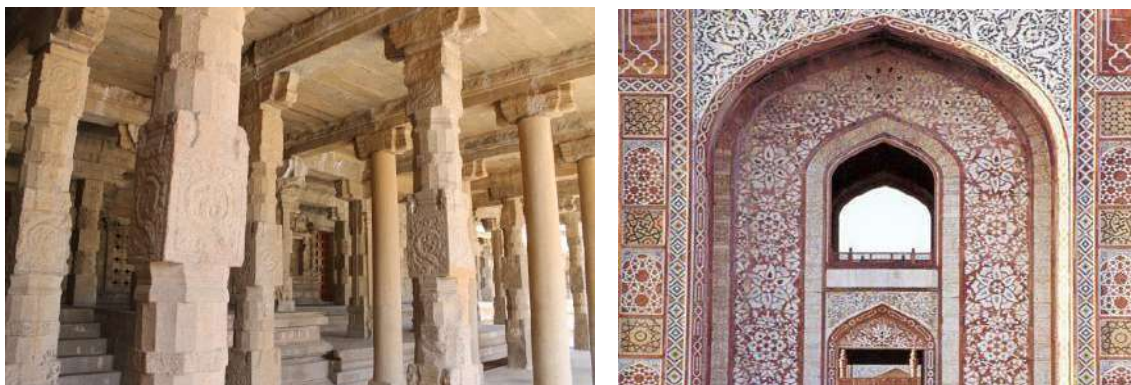


Fig 10 : Trabeate i.e. spaces spanned by beams taking conversion to the method of bridging space by arches

One revolution this era brought out is the change in the Skyline changing from flat or low pointed roofs and spire or shikhara to that of dome .

The shift from trebate spaces spanned by beams to the method of bridging spaces by arches is the key feature of Indo Islamic architecture.

Islamic architecture in India includes Several building types like the tombs /mausoleums , the Palaces , The madarasas / the schools , the masjid or the mosque , the caravanserais / the place for the travellers etc.

2.5 Mosque Typology found in India :

The Indian subcontinent triple dome Mosque is one typical of the Indian Mughal architecture ,which could be connected to Imperialism in the 15th and 16th century. In the

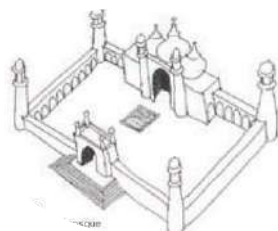


Fig 11 : - Triple Dome Mosque In India

reign of Mughal Empire one of the most important styles of Islamic architecture occurs. A melting of Hindu and Islamic traditions resulted in a mosque type with three domes, and walled with a large courtyard. This Mosque was often of a monumental scale.

2.5.1 Characteristics of Mosques :

- Open to light & air
- Many Doorways Inviting Publicity clear & Visibility .
- Representation of natural forms prohibited.
- Decorative lettering in the form of Sculpted texts were used
- Vivid and colourful by colored pattern of marbles and glazed tiles.

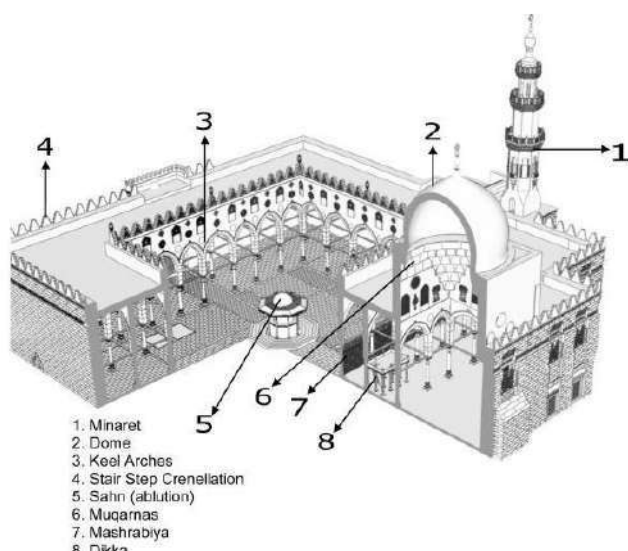


Fig 12 : - Elements of a Indian Mosque

2.6.2 Elements in Mosques & their uses:

- Minarets
- Sahn
- Liwan
- Mihrab

- Mimbar
- Kneel Arches
- Muquaranas
- Mashrabiya
- Stair step Crenellation
- Dikka
- Dome

2.5.2.1 Minaret

A lofty & a slender, tower or turret attached to a mosque, surrounded by or furnished with one or more balconies . Minarets usually provide a visual focal point and are used as a call to prayer tool . Usually the minaret is the Tallest structure in a mosque.

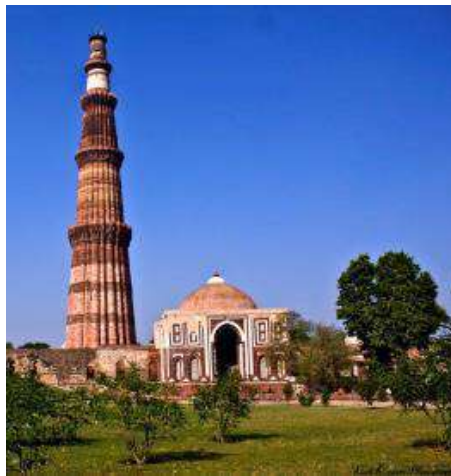


Fig 13 : Minaret of the Jama Masjid, Old town Delhi,

2.5.2.2 Sahn / Courtyard (Ablution)

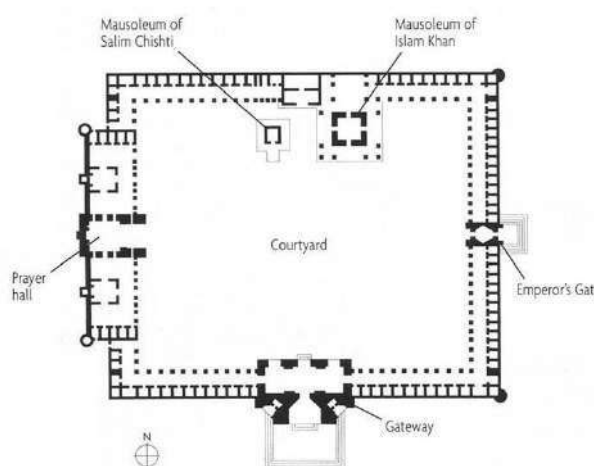


Fig 14 : - Sahn / Courtyard at Salim Chisti Mosque , Agra , Uttar Pradesh

Most traditional mosques have a large central sahn, which is surrounded by a Riwaq or arcade on all sides with a fountain or tank in the center for ablutions.

2.5.2.3 LIWAN:

Liwan refers to a long narrow-fronted hall or vaulted portal that is often open to the outside/courtyard. A cloister (from Latin *claustrum*, "enclosure") is a

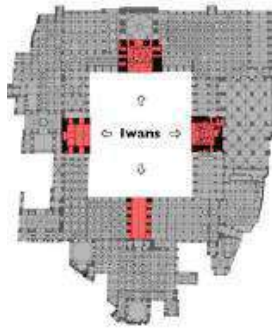


Fig 15 &16 :- Iwans at Mosques acting as covered pathways



Fig 17 : - Liwans at Jami Masjid , New Delhi

covered walk, open gallery, or open arcade running along the walls of buildings and forming a quadrangle or garth.

2.5.2.4 Mihrab :



Fig 18 & 19 :- Mihrabs at Mosques

Mihrab is a semi-circular niche in the wall of a mosque that indicates the qibla; that is, the direction of the Kaaba in Mecca. The wall in which a mihrab appears is the "qibla wall."

2.5.2.5 Mimbar



Fig 20 & 21 : - Mimbar at Indian Mosques

The pulpit, on the right side of mihrab from where prayer leader stands to deliver sermons.

2.5.2.6 Muqarnas

The muqarnas are a form of architectural ornamented vaulting, (Stalactite vaulting) " the geometric subdivision of a squinch, or cupola, or corbel, into a large number of miniature squinches, producing a sort of cellular structure", sometimes also called "honeycomb" vaults.



Fig 22 & 23 : - Muqarnas at Mosques

2.5.2.7 Mashrabiya

Mashrabiya is the term given to a type of projecting oriel window enclosed with carved wood latticework located on the second storey of a building Or higher, often lined with



Fig 24 & 25 : - Mashrabiya at Mosques

stained glass. It is mostly Used on the street side of the building; however, it may also be used internally on sahn side.

2.5.2.8 Dikka

Dikka is a term for a tribune raised upon columns from which the Koran is recited and prayers are uttered.



Fig 26 & 27 : - Dhikka at Mosques

2.5.2.9 Dome

It's the covering over the main prayer hall its also a focal point.



Fig 28 & 29 :- Dome at Mosques & Dome at Jama Masjid Mosque, Delhi, India

2.6 Elements of decoration :

- Geometry
- Arabesque(Floral patterns)
- Calligraphy
- Light

2.6.1 Geometry :



These patterns represent the Islamic interest in repetition, balance, symmetry and continuous generation of pattern. The integration of geometry with such optical effects are as the balancing of positive and negative areas, a skillful use of color and tone values. *Fig 30 – Red Sand stone Jaali-, Delhi, India*

2.6.2 Arabesque: The arabesque is an elaborate application of repeating geometric forms that often echo the forms of plants, shapes and sometimes animals (specifically birds).flowers and trees might be used as the motifs for the decoration of textiles, objects and buildings.areas, a skillful use of color and tone values.

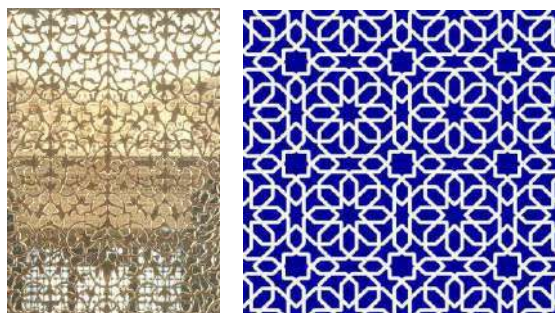


Fig 31 – A Jali screen of relief carved pierced marble, central tomb chamber, Taj Mahal,

2.6.3 Calligraphy:



Fig 32 -Bara Gumbad Mosque, Lodhi Gardens, Delhi, India

The Calligraphy is a visible expression of spiritual concepts. Calligraphy is closely linked to geometry. The proportions of the letters are all governed by mathematics. Inscriptions are most often used as a frame along and around main elements of a building like portals and cornices.

2.6.4 Light :



Islamic building gave importance to natural light. Hence a lot of openings were designed like courtyards etc. Light can add a. And the combination of light and shade creates strong contrasts of planes and gives texture to sculpted stone, as well as stocked or brick surfaces. *Fig 33 -Bara Gumbad Mosque, Lodhi Gardens, Delhi, India*

2.7 Principle of design in a mosque :

2.7.1 Basic Principles of Planning:

The Prophet's mosque in Medinah, in Saudi Arabia, formed the prototype to which subsequent Islamic religious buildings adhered-establishing the division in the mosque as well as the principal of axial planning.

The mosque is usually erected around a single horizontal axis, the qibla, which passes invisibly down the middle of the floor and, issuing from the far wall, terminates eventually in Mecca, in Saudi Arabia.

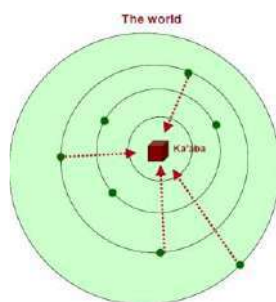


Fig 34 : - Taking a zoom out view of the world we will notice that ,Masjids all over are facing the same direction

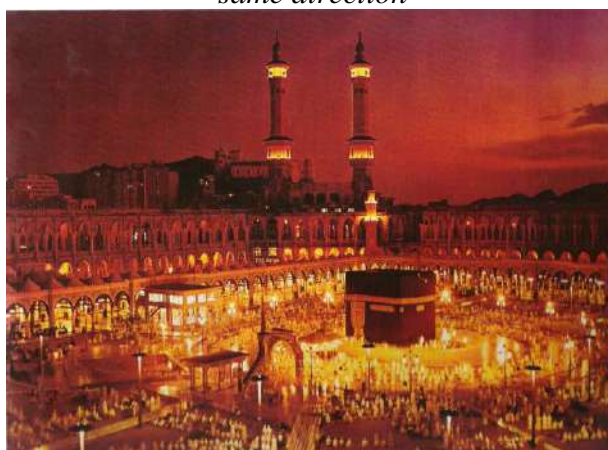


Fig 35:: - Mosque in Arab country facing the direction of Qibla & Kabba the prophets house

Entry & Exits In mosques :

- The entry and exits are planned along the east & west ,where the west is the Qibla and the east is the Entry.
- A Entry& Exit in a mosque is planned such that the prayer is highly undisturbed
- Toilet walls should never intersect with the walls of the mosque as it is considered unclean.
- Toilets should never face the direct of kabba or the west.
- The woman can also accompany in the mosque during special occasions like the during the eid – ul-Fitr & Eid –ul – Adha & are prohibited to pray after men preferably not in the same line as men pray and their entry is prohibited not same as the men.
- Different lines can be brought about where there is no straightline coincidence the ladies and gents Prayer Spaces.

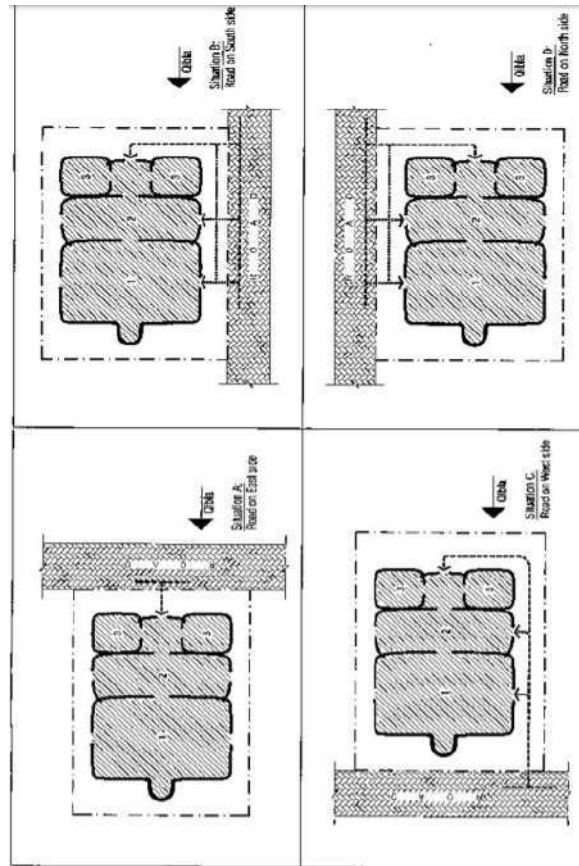


Fig 36 : - schematic diagram showing possible approaches to a mosque from roads to different sides of a site (from *Formulation of Design Criteria and Standards in the Context of Bangladesh*)

Legend : 1 -Main Prayer Hall 2 -Verandah or Sahn 3.Services

—→ Primary Approach
 ·····→ Secondary Approach

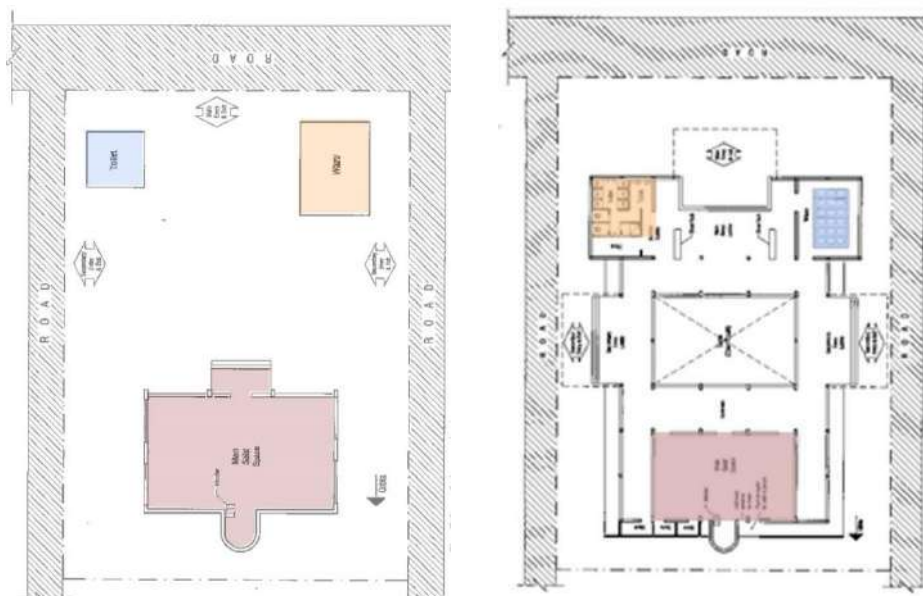


Fig 37 : - schematic diagram scheme a & b showing the floor plan of traditional type .



Fig 38 : - schematic diagram scheme c showing the ground & first floor plan

2.7.1.1 case study of mosque planning:

Case study -1 - Jami masjid gujarat ,Ahmedabad :Traditional mosque type

- location : ahmedabad, Gujarat
- built in : 1424 AD
- built by : sultan ahmed shah
- building type : mosque



Fig 39 : - Jami Masjid , Gujarat

Plan and its features :

- Rectangular in plan .
- The mosque complex is centred on a large rectangular courtyard 75 m long and 66 m wide.
- Courtyard is lined with a colonnade on three sides .



Fig 40 : - Rectangular basin for ablution (Left) and minarets seen at the Jami masjid mosque Ahmedabad (Right) with the plan of the jami masjid in the centre of both.

- Center of the courtyard is a rectangular basin for ablutions
- The main entrance is getting framed by two columns .
- Pierced stone screens (the 'Jalis') are placed between the two pillars of the central openings.
- Two main minarets in front of the main entrance.

2.7.1.2 Functional requirements of a mosque :

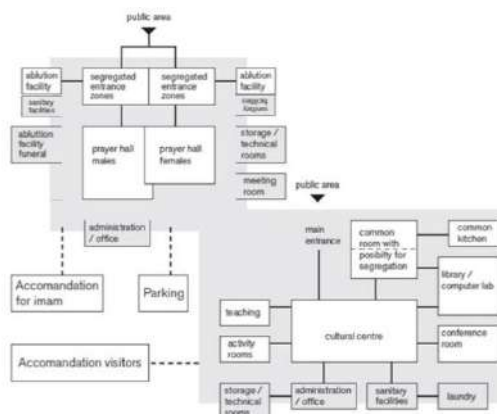


Fig 41 : - Functional requirements of a mosque design (incase of mosque cum community centre)

Prayer Space :

Prayer halls :

- Two separate prayer halls , a male and female prayer hall provided with different sizes of each with separated entrances but of the same architectural spatial quality .
- The main prayer hall of the male will be considered the main one with the mihrab and kursi where as the female prayer hall should clearly demarcate the direction of qibla alone with a not additional mihrab and kursi as seen in the main prayer hall.

Ablution

The segregated prayer halls must be provided with separate ablutions for each of the gender. Additional ablution space in connection with funerals must be established.

Entrance :

Common segregated entrance spaces with wardrobe facilities. Both entrance areas will have the same spatial quality leading to the different prayer halls.

Administration :

Office spaces for administration and meeting rooms must be planned. The spaces must be centrally placed giving access for both male and female users.

Additional spaces:

- Separate sanitary facilities, storage space and technical room must be arranged.
- The exact numbers of rooms and sizes is presented in more detail in the room program.

2.7.2 Principle of Centrality :

The best example of it is the 'House of Prayer' in Mecca. All the mosques were designed to face this house because the prayers should face this house when they are praying. When you want to emphasize something, you will put it in the centre. In most of the mosque yards you will see a pool in the centre. In Islamic architecture, water has a symbolic meaning of cleanliness, and before you start praying you must make Vozou (washing the face and the hands). Therefore, the pool in the centre of yard should be designed in a way to emphasize the symbolic meaning of water (cleanliness) and its function.

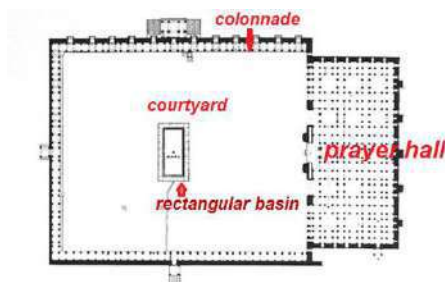


Fig 42 : Principle of centrality , seen in mosque design at jami masjid , Ahmedabad

2.7.3 Principle of Symmetry :

Manifestation of this principle with Mosque yards Facing mecca. In general in a holy place Mekka the architectural forms should help to tranquillize you for better Praying . The symmetry helps you to add to this to Prayer. Therby noticing Symmetry in all the facades Islamic Constructions.



Fig 43 : Principle of Symmetry at jami masjid , Delhi

2.7.4 Principle of Equilibrium :

This principle concerns the visual balance of an architectural form. In this case, it is not necessary to have a symmetrical form but it is necessary to have the balance between the right and left sides. Symmetry will always involve equilibrium, but equilibrium will not always involve symmetry.

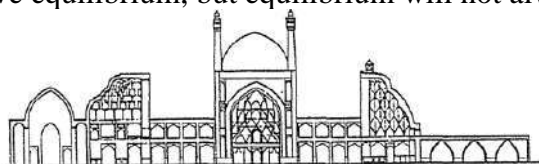


Fig 44: - Mosque in Arab country facing the direction of Quibla & Kabba the prophets house

Gamie' mosque in Isfahan, section and facade, repetition on the facade, symmetry both on the facade and plan, equilibrium of sections and order on the ornaments and façade.

2.7.5 Principle of Contrast:

As The nature of human will not like uniformity in general.. The human nature likes and needs contrast and variety. In Islamic architecture a series of rhythmic elements will always be followed by a higher or bigger element in size (contrast) which provides a nicer form in construction.



Fig 45 : Principle of Contrast , Mariam Al-Batool Mosque ,Malta

2.7.6 Principle of Scale :

Concerns with the comparison of the size of Monuments & the surrounding residential Buildings. Different scales different meanings have meanings. The feeling of a big or small entrance is really different . In Islamic architecture ,the public buildings and especially the holy places and the mosques with their high minarets are the landmarks of the biggest height on a city skyline.

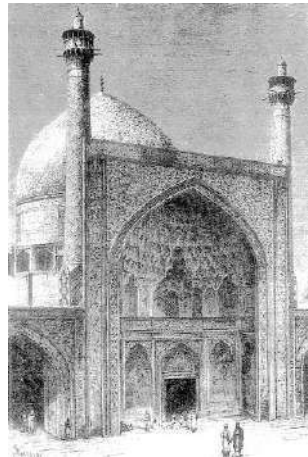


Fig 46: - Principle of Scale

2.7.7 Principle of Repetition / Frequency :

- Used on the façade and the plan of the most historical monuments.
- The repetition of the columns , windows , arches is frequently applied in Islamic architecture.
- should be more than twice in Islamic Buildings.

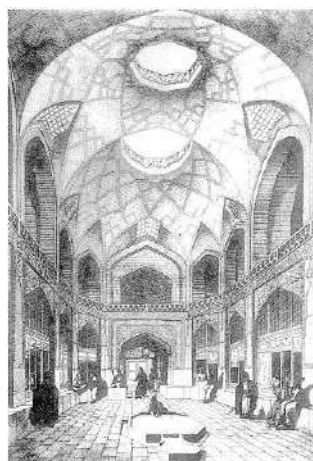


Fig 47 : Principle of Repetition

2.7.8 Principle of Harmony : This principle concerns harmony of architectural elements in a mosque .On a facade, perhaps you may use different proportions and different forms but they should be in harmony.

- To take an architectural example, the capital of big and small columns should not necessarily have the same shape, but they should be in harmony.
- Harmony with nature which expresses another meaning of this word has been produced in Islamic architecture, too.
- The harmony of the public buildings.

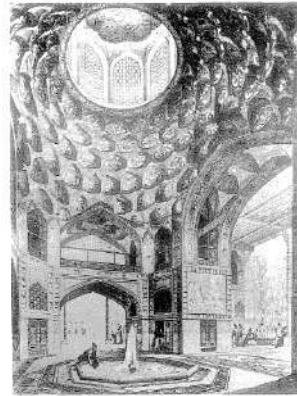


Fig 48 : Principle of Harmony

2.7.9 Principle of Similarity :

- This principle has the same meaning as harmony with the difference that in the case of similarity, we cannot compare different elements.
- For instance, similarity can be detected between all circles but you can never find any similarity in the composition of a circle and a rectangle because they are dissimilar.
- To take an architectural example, in case you have a small and a big arch, according to this principle they should be similar in the technique of drawing.
- In Islamic architecture, sometimes you can experience the principle of harmony and sometimes the principle of similarity.



Fig 49 : Principle of Similarity between the arches as seen in the jami masjid mosque , New Delhi

2.7.10 Principle of Movement & Tranquility :

This Principle is useful when you want to arrive at an important space , for instance at a courtyard .Before entering the you usually move to a dark corridor when there is nothing interesting, You have no motive to stay , so you move on .Suddenly you arrive at an wide space where everything is beautiful to see. The first Architectural space gives you the feeling of movement , the second Architectural spaces gives you the feeling of Tranquility.



Fig 50: Principle of movement and tranquillity as seen in the al warqa mosque , dubai

2.7.11 Principle of Order :

- The human nature has always liked the order. In the nature when you encounter any kind of order, surely you can trace back to the activity of a human. In general, the mind of a human will create some kind of order in the things.
- In Islamic architecture, this principle comes out clearly on the plan, facade, ornament and structure.
- On plan, modules are used to obtain a general order in the whole design, on the facade this principle is used for dividing it into small parts and finding the best proportion for entrance, windows, doors and so on. On ornament, it will be applied to the tile-work, painting the walls and domes and so on. In structure it will be revealed in the better and easier implementation and so on.
- As another good example of it the Islamic gardens (parks) can be mentioned, where you can see the realization of this principle with a strong geometry in it.



Fig 51 : - Mosque in Arab country facing the direction of Qibla & Kabba the prophets house

2.7.12 Principle of Culmination :

This principle concerns an attractive point on the or plan which is in the centre of the courtyard, is a culmination for the courtyard. The fountain is also a culmination for it. On the facade, any attractive point situated not on the top of the is called a culmination.



Fig 52 : . Courtyard as culmination

2.7.13 Principle of Proportion :

This principle concerns the size of different elements of a historical building both on the. plan and facade. It relates to the width and length of rooms, yard, pool, . . . and the width and height of entrance, corridors, columns, windows, doors, the height of the major and minor spaces and so on.

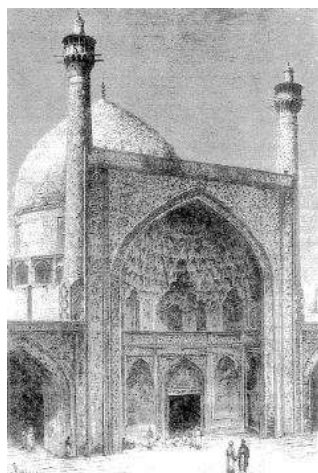


Fig 53:. Principle of Proportion

2.8 Modern Art Movement ; [1880-1940]

Modern art includes artistic work produced during the period

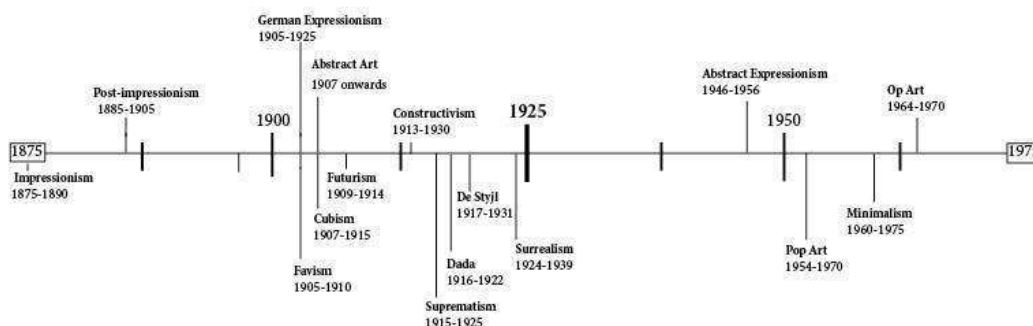


Fig 54 : Timeline for Modern Art Movement

extending roughly from the 1860s to the 1970s, and denotes the styles and philosophy of the art produced during that era.

- The characteristic for the traditional arts was a tendency to narrate, where as the modern art is towards abstraction which is characteristic of much modern art.
- More recent artistic production is often called contemporary art or postmodern art.
- Modernism rose as a result of revolt against the conservative values, in exchange was interested in it what is unusual and unknown. **This often led to experimentation with form, highlight the processes and materials being used and it showed tendencies to the Abstraction.**

2.8.1 Minimal art :

Minimal art is a school of abstraction painting and sculpture where any kind of personal expression is kept to a minimum, in order to give the work *a completely literal presence*. **The minimalist artists wanted to allow the viewer an immediate, purely visual response and let him experience all the more strongly the pure qualities of colour, form, space and materials .**

The goal was to eliminate any kind of reference to the outside world in order to create works that referred only to themselves.(Donald Judd, 1975). Based on goal of minimal art the two key words define works of minimalism in general **Presence & Impersonality .**

-The **presence means** the state or fact of existing, occurring, or being present.

-The **impersonality in minimalism means** absence of human character or of the traits(any genetically determined characteristics) associated with the human character.



Fig 55 : Art work of Frank stella

Based on the two parameters above where any kind of personal expression is kept minimum , in order to give the work the complete literal presence also not giving any personal touch and stop being narrative through impersonality.

2.8.2 Characteristics of minimalistic art :

Minimalism or minimalist art can be seen as extending the abstract idea that art should have its own reality and not be an imitation of some other thing. We usually think of art as representing an aspect of the real world (a landscape, a person, or even a tin of soup) or reflecting an experience such as an emotion or feeling. With minimalism, no attempt is made to represent an outside reality, the artist wants the viewer to respond only to what is in front of them. The medium, (or material) from which it is made, and the form of the work is the reality. Minimalist painter Frank Stella famously said about his paintings '*What you see is what you see*'

2.9 Minimalism :

- 1900 - appeared as a movement & continued through the sixties & Seventies.
- 1960s Minimalism grew up as an abstract movement in art rejecting the idea of relational, and subjective painting ,which contradicted the complexity of Abstract expressionist surfaces.

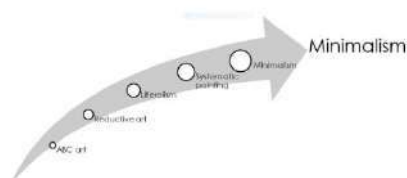


Fig 56 : Other forms of minimalism

- As a result of minimal art , the goal of eliminating any reference made to the outside world or impersonality through Minimalism ended up on simplicity in both content and form where the appeal of minimalism comes from other qualities, such as incredible focus, bare nakedness, and visual comfort through uniform geometric shapes and raw materials.
- Minimalists believe that we can achieve the actual quality of color, form, space and materials by elimination of seductive presence of composition and use of simple cases and sometimes industrial that is placed in form of simple geometric shapes.
- The minimalism is used to describe a trend in design and architecture in which the subject is reduced to its necessary elements or the bare essentials.
- In minimalist architecture, design elements convey the message of simplicity.
- The basic geometric forms, elements without decoration, simple materials and repetitions of structures represent a sense of order and essential quality.
- The movement of natural light in buildings reveals simple and clean spaces.
- With minimalism, no attempt is made to represent an outside reality, the artist wants the viewer to respond only to what is in front of them. (**Donald Judd, 1975**).which is highly **Recommendable**

in the case of design of any religious spaces as in the case of a mosque to address god centredness through incredible focus .



Fig 57 : flow chart for addressing minimalism to create mosque design

2.10 Principles of Minimalism:

2.10.1 Simplicity in Minimalism :

Simplicity can be defined as clarity in every field of design. As a theory, simplicity brings simple rhythm with geometric forms. Simplification attitude brings understandable results in to the art, in addition to visual clearness, simplicity theory stimulate thinking in art.(SOZMER - An Interpretation of Simplicity in the Frame of Minimalist Approach on Traditional, Modern and Contemporary Housing).

Simplicity can be achieved in :

- Form
- Space
- Materiality
- Detail
- Color

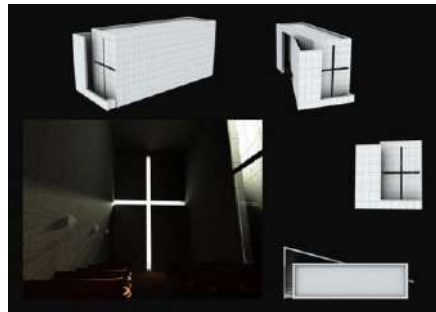


Fig 58 : tadao ando church of light exterior-Addressing simplicity

2.10.2 Divine Proportion in Minimalism:

DIVINE PROPORTION is a scientific concept based on the Golden Section Ratio which is bound to exist everywhere in the whole universe. Including things like nature, space, and physics. It can guide the minimalistic design majorily on Proportions.

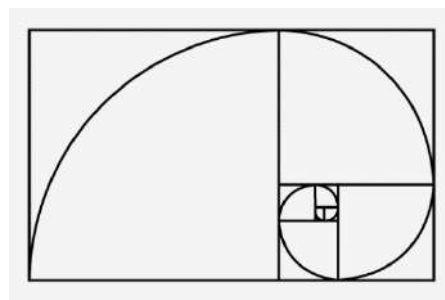


Fig 59 : Golden section Ratio

2.10.3 Balance in Minimalism:

RADICAL	Radiate out from a center point .
SYMMETRICAL/FORMAL	A mirror image.
ASYMMETRICAL/INFORMAL	Without symmetry.
HORIZONTAL	To the left and right of a centre line.
VERTICAL	Above and below a centre line.
CRYSTALLOGRAPHIC	Repeating elements of equal weight everywhere. There is no distinct focal point.

Table 8 :balance in minimalism - Principles in Minimalism

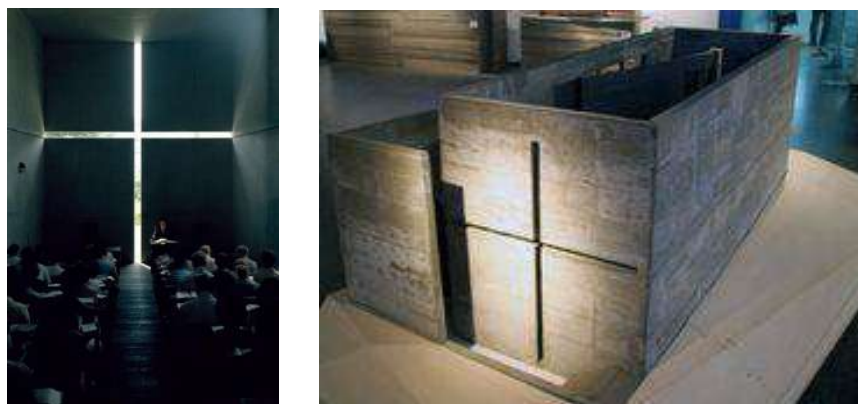


Fig 60 : Balance in Minimalism ,Tado Ando Church through symmetry

2.10.4 White Space in Minimalism :

As per the **Color Psychology/Psychology theory** ,

- The color white is the color which is at its most complete and pure, the color of perfection.
- The psychological meaning of white is purity, innocence, wholeness and completion.
- In color psychology white is the color of new beginnings, of wiping the slate clean, so to speak.

2.10.5 Timelessness in Minimalism :

Minimalism is not about the opposite of following trends, it is about timelessness. Any Good minimalistic design doesn't require changes according to time ,it is so simple & Holistic in its approach emsembling timelessness in its approach. Flexibility in all times is what minimalism is trying to project from its philosophy.

2.10.6 Refinement in Minimalism :

A design which is Needless to say that getting everything pixel perfect is essential in design, and especially in Minimalist Design because you make things hide behind ornament and decoration. Getting the perfect essence of simplicity is brought through by cutting down the excessive ornamentation and delivering to the essential.

2.10.7 Less is More in Minimalism :

- "LESS IS MORE" is a phrase coined by Mies Van De rohe in the 1947 , The phrase is often associated with the architect and furniture designer Ludwig Mies Van Der Rohe (1886-1969), one of the founders of modern architecture and a proponent of simplicity of style.or "Less is Better" is probably the most well-known catch phrase of the Minimalist movement.

- Keeping good readability and usability by ditching all excessiveness.
- Minimalist design is about cutting the extra decorations and using fewest elements as possible.

2.10.8 Typography in Minimalism :

- “*Big and bold typography is a hallmark of minimalist design.*”
- The style and appearance of printed matter is called typography .

Minimalism emphasizes Typography in its bold and Big shape , which is one hallamark of minimalistic design to tell the story of the design both textually & Visually.



Fig 61: Big and bold typography is a hallmark of minimalist design of Abu Dhabi Beach Mosque.

2.10.9 Grids in Minimalism :

GRIDS in Minimalism is for aligning elements which offers an easy and effective way to aid readability.

Grid Design can give a clear presentation of content, because our eyes are really used to seeing repeated patterns.

Grids can also be helpful when creating Responsive Design.



Fig 62: Grids in minimalist design helping in clear presentation of the content to aid spirituality

2.11 Minimalistic Mosque :

Minimalism is an spirit /essence of purity brought through simplicity addressing the spirituality through its emptiness and the divine proportion addresses God centredness which is also based on the true meaning of Islam . And the instances for it are the earlier mosques which first occurred emphasized simplicity based on the life of Prophet addressing devotion to god Based on Simplicity.



Fig 63 - minimalistic mosque- Sankalar mosque ,Turkey & Bait Ur mosque , Bangladesh

2.11.1 Advantages of minimalistic mosque based on user Perception:

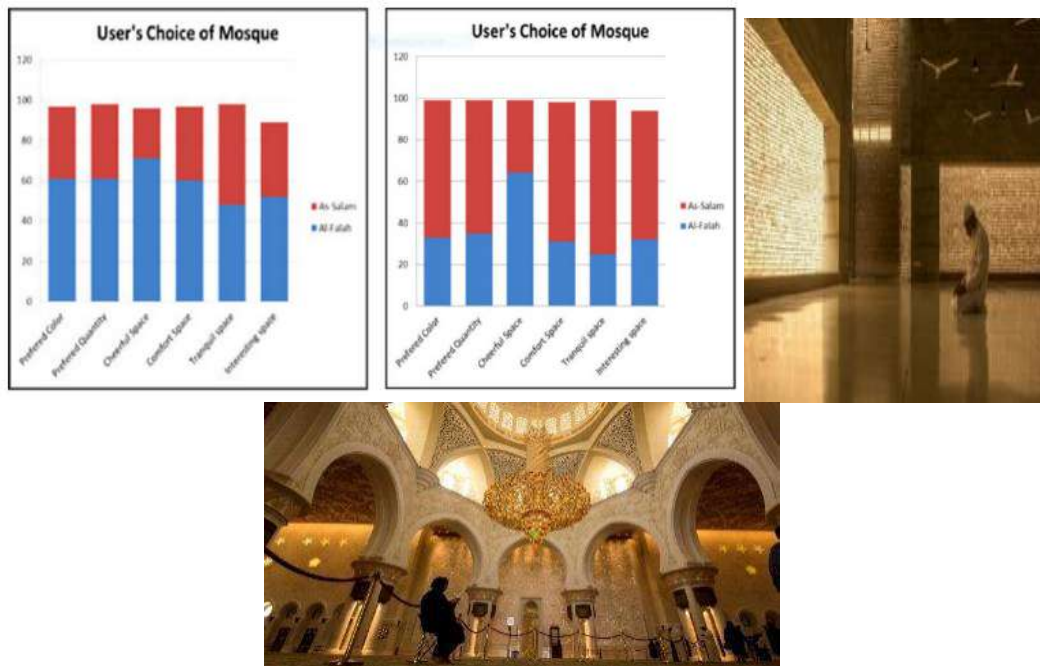


Fig 74 - Image (right) a difference between excessive ornated mosque & minimalistic mosque in shaikh zayed mosque & Bait Ur mosque Bangladesh . Al -Salam -excessive ornated mosque & Al-Farah – Minimalistic Mosque , Fig 75 chart left based on results between excessive ornated & Minimalistic mosque

(With reference to Users’ Perception on Application of Ornamentation Motif Between Excessive and Minimal Decorated Praying Hall of Community Mosque)Based on the user choice of excessive ornated mosque & minimalistic mosque

The bar chart above shows that users from both mosque majorities preferred the light and minimal color praying hall are much better at creating the serenity and tranquility feeling. Even though the users are familiar with Al-Falah mosque, they are still preferred As-Salam mosque better space compared to As-Falah mosque in term of color that can create the calmness feeling. However, when comes to the cheerful space both respondent are agreed that Al-Falah mosque color can create the cheerful space.

2.12 Matching Characteristics of Minimalism & Mosque Architecture:

2.12.1 Characteristics of Mosque Architecture :

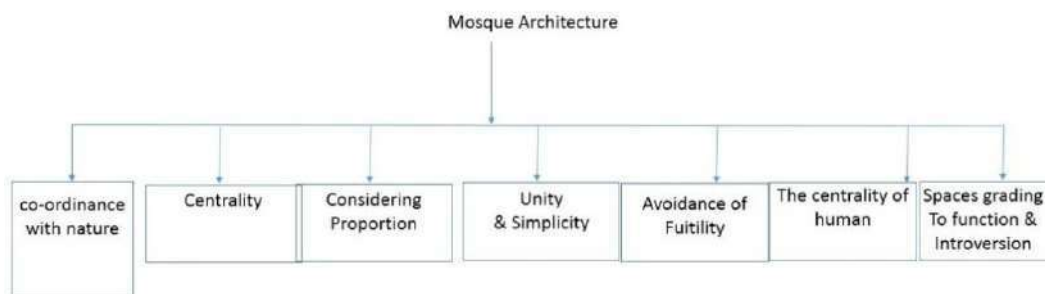


Fig 75: Characteristics of the Mosque Architecture

2.12.1 .1Co-ordination with nature :

Designed based on the environment and the climate.

2.12.1.2 Centrality :

In the internal yard, the central point is the waterfront that is the waviest and at the same times the most transparent element on earth.(ablution space).

2.12.1.3 Considering Proportion :

To mark the feeling of being powerful

2.12.1.4 Unity & Simplicity :

The first impression upon entering a masjid is how plain the building is. This is an attempt to imitate divine Simplicity. The interior of Faisal Mosque in Islamabad, Pakistan is an excellent example. Islam holds that God is absolutely simple, containing no element of form or matter .

2.12.1.4 Unity : Masjid seek to capture this by projecting the principles of tawḥīd—God’s Oneness, aḥadiyya—his divine Unity, and waḥdat al-wujūd—the unity of all creation, into their architectural designs and decoration.

2.12.1.5 The centrality of human:

To make stay focused to the divine and the soul.

2.12.1.6 Avoidance of futility :

- They construct the buildings with most savings.
From inappropriate, abnormal and unnecessary decorations that are considered as worldly and materialistic one are not used but they are symbol of rich & wealth.
- prevent constructing useless things in architecture of Mosque and at the same time he is trying to fulfill the spiritual and material needs of human.

2.12.1.7 Spaces grading to function & introversion :

- The place must be constructed such that to be away from any dirt.
- Toilets must be constructed out of the main building.
- The watersheds must be placed at the corner of the yards, such a way that by walking from them, the shoes become clean.
- In order to create the possibility of praying in all places, the adaption of main axis of the buildings with Qibla is the most fundamental needs of the main axis of the buildings; such that itsignificantly affects the plan of the buildings.
- Mosques should be planned introvert not extrovert like public buildings.

2.12.1.8 Characteristics of Minimalism:

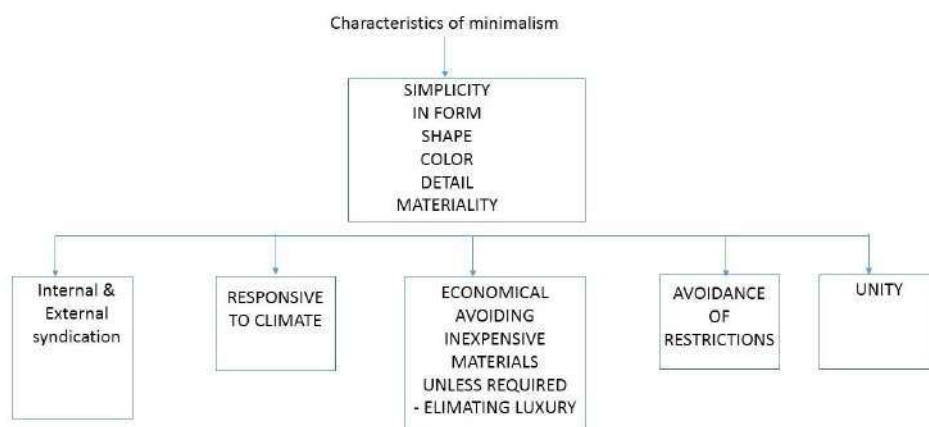


Fig 76 : Characteristics of the Minimalism

Internal & External Syndication : The space making a connection to address the essence of simplicity between the human and the soul of the space.

Responsive to Climate : Aids harmony with nature.

Eliminating Luxury : Avoidance of inexpensive materials or wastage .

Avoidance of Restrictions : tends to form a Open space.

Unity : Appears a Unified Whole through the composition of the spaces.

2.12.3 Matching Characteristics of Minimalism & Mosque Architecture :

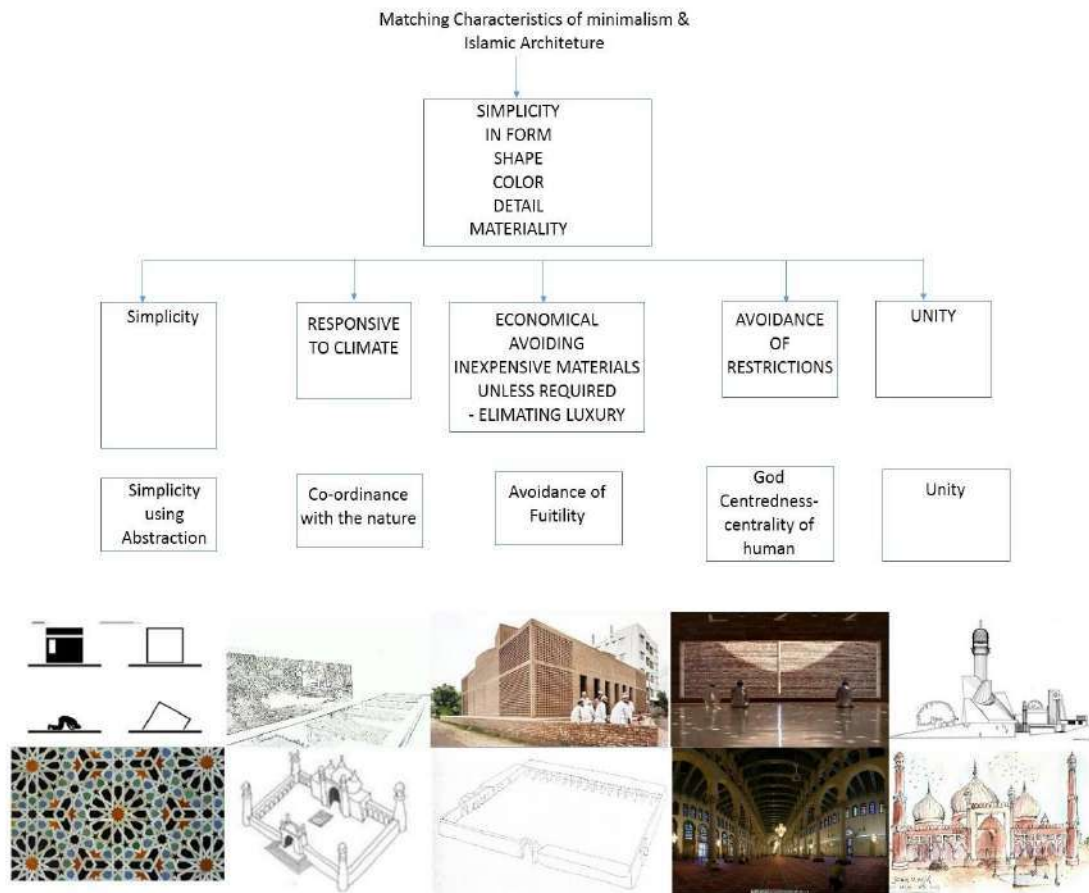


Fig 77 : Matching Characteristics of the Minimalism & Mosque Architecture

CHAPTER-3

CONCLUSION

3.1 Conclusion:

1. The research found the matching characteristics between Minimalism and Islamic Mosque Architecture in India, which are :

- *Unity/ Composition – scale ,proportion , symmetry , balance.*
- *Harmony with nature – In accordance with the site Conditions,light*
- *Simplicity using basic geometric forms Based on Abstraction*
- *Divine proportion – Addressing God Centredness*
- *Materials – Eliminating Luxury*

3.2. ADVANTAGES OF MINIMALISM OVER ISLAMIC ARCHITECTURE :

1. The Spatial **presence** of minimalism is highly efficient which engages with the place which it occupies Also the Arrangement is carefully done to emphasize and reveal the architecture of the place benefiting over the more dramatic architectural conversation ,finally making **dominant visual** appeal, unlike getting caught in too many visuals trap.

2. Going back to the roots of minimalism , the usage of lines and rectangles gives a harmonious and organised feel through its grid nature , giving the Islamic architecture an order and establishing clear way of understanding its structure.

3. The **wholeness and scale** which the minimalist artist Bernatt Newman pretained to achieve Totalarism , Jackson Pollack's **decompostition** & Andy Warhol's **Material** are highly significant over islamic architecture achieving the direct simplified structure through decomposition of its complicate forms and shapes through the materials which reveal its structure finally achieving the wholeness in the structure through the scale of it.

3.3 Recommendations :

As based on the above conclusion as the design of a mosque draws minimization strategies it can be employed by the Architects and constructors to achieve a sacred place for the community

- In the First Place , Mosque which is based on the true notions of the Religion, thereby enhancing sacredness improving the essence of the space.
- In the second place , helps in economic design which is one of the major criteria in mosque design .
- Promote environmental and sustainable/climate responsive approaches in the design thereby minimizing the use of resources available (minimizing the claimed comfort factor not by artificial means but by natural means).

3.4 Findings & Scope for future Research :

As per the theory of Minimalism, the spatial quality of the structure /the space can be enhanced as a experiential space based on the following major sub divisions :

A. Structure and Geometry :

- Using basic shapes (simple and clear geometrical shapes).
- Reducing the surplus quantity of material used for decorating a mosque .(the structure)

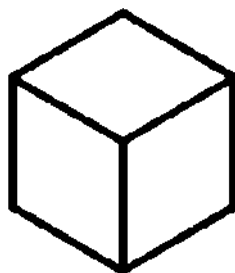


Fig 138: simple geometric shapes

B. Material Economy and Construction

Architects should pay more attention to materials which are highly economical , easily available or available in the near context thereby saving the cost of construction using the natural availability of the materials etc.



Fig 139: illustration for material economy

C. Environment and Sustainability

As the design of the economical structures is more reliant upon the environment and sustainability , the design of the mosque can be designed with major considerations of the site in the



Fig 140 : illustration for environment & sustainability

climate , wind directions thereby achieving a energy efficient structure where the research tends to a take a wider direction in the design of a minimalistic mosque based on the environmental and sustainable criteria.

D. Material Expression

To be more aware of the expression the material we use is going to produce like the brutalistic feel works well with minimalistic structures can be any material given in the essence of rawness denotes the truthness of the material which goes well in the design of sacred space.(color , texture)etc.



Fig 141:: illustration for material expression

E. Light

Light is any criteria is a major factor to be studied , in any case the natural diffuse light is always recommended to achieve a human comfortable lighted space , where in the case of any design minimalistic mosque in India . The criteria of light can be brought about in many cases for example in the case of openings , in the case of roof can be brought about through the skylight or through roof slits .

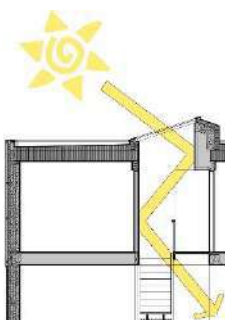


Fig 142 : illustration for lighting

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